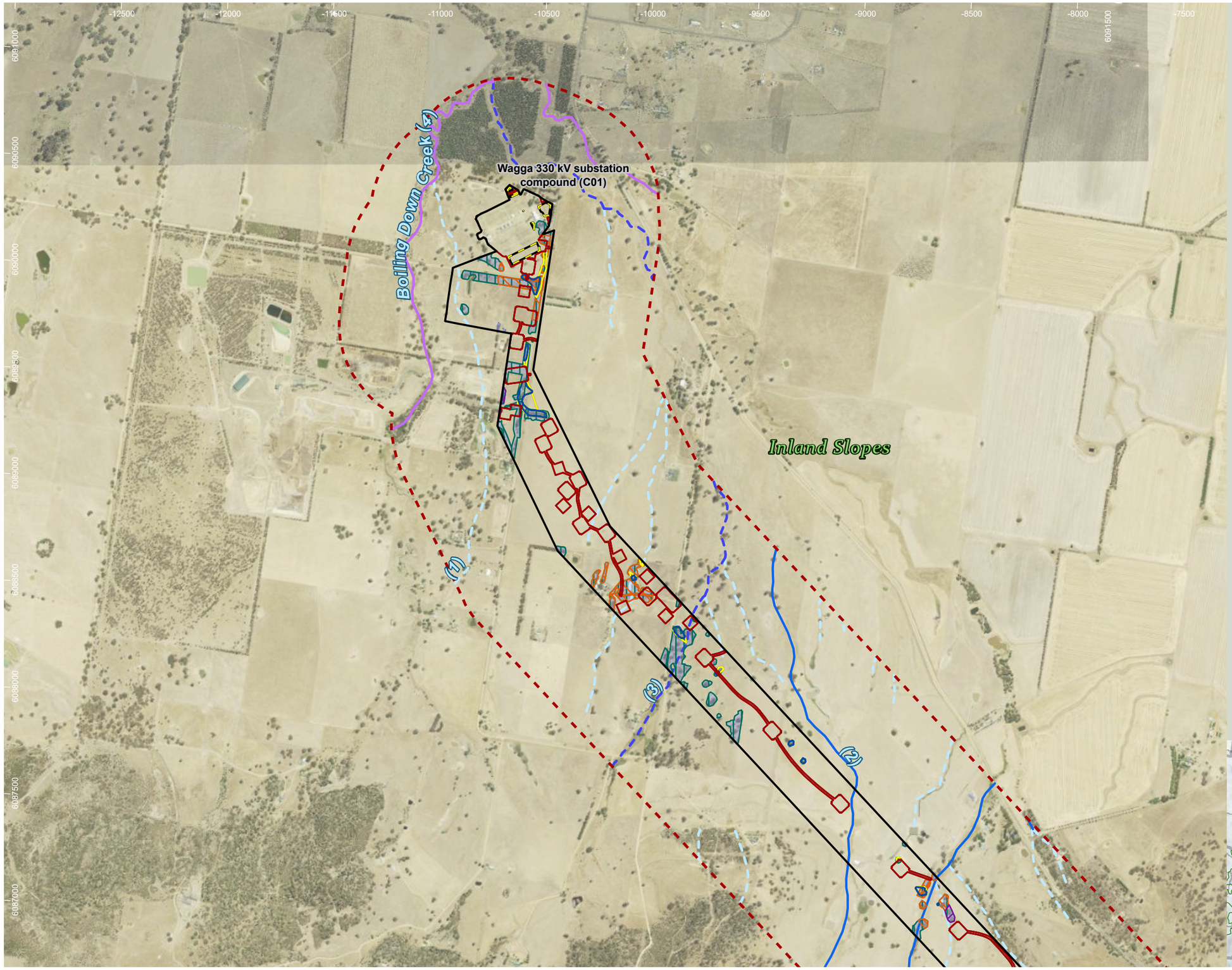


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

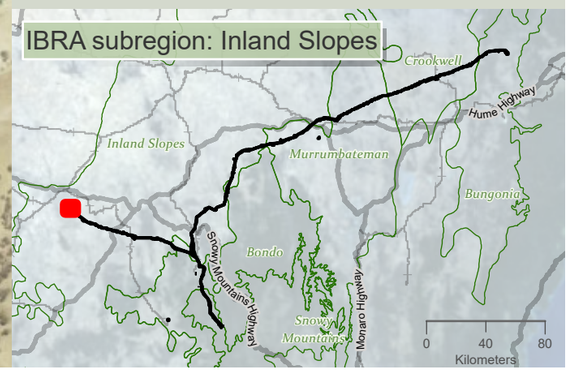
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



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niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

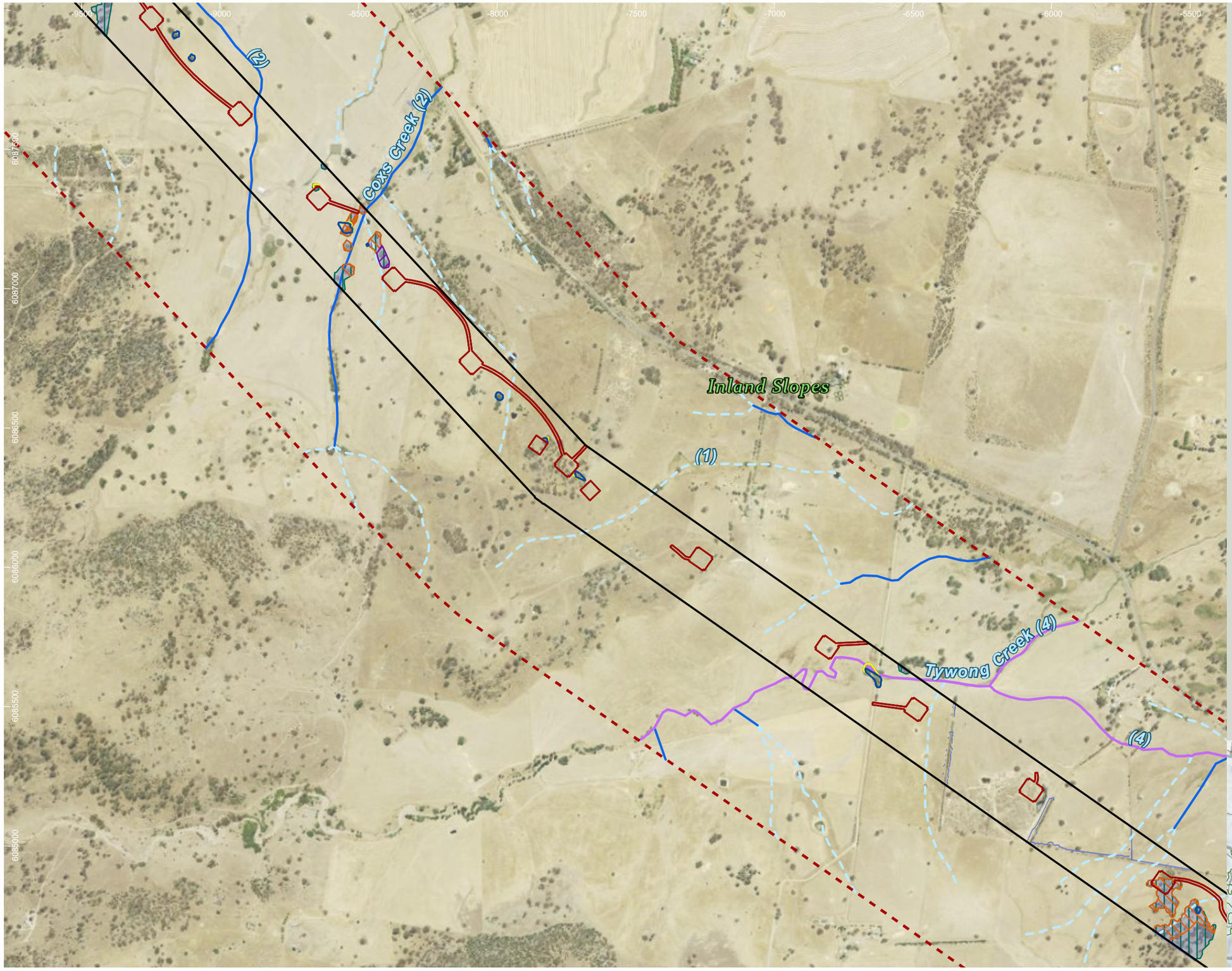
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 1

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

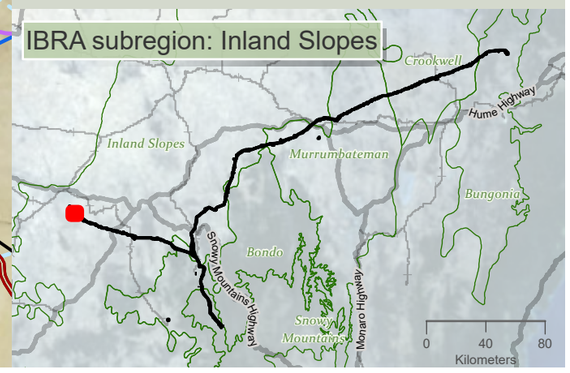
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 2

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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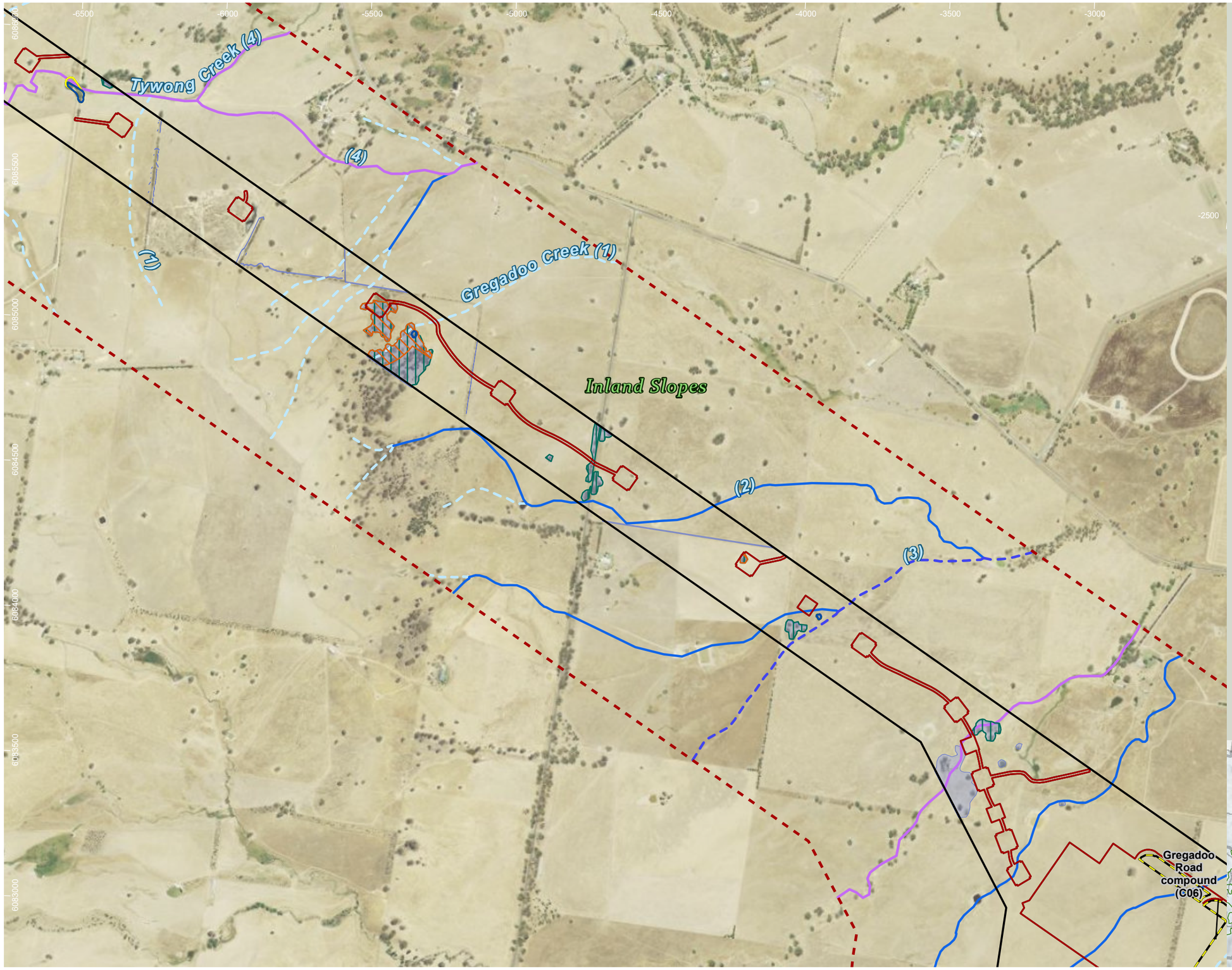


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

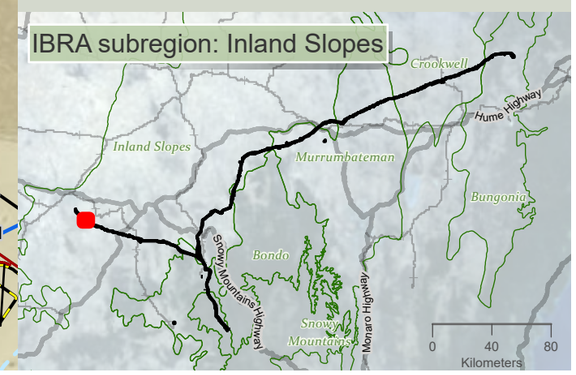
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 3

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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-3500 -3000 -2500 -2000 -1500 -1000 -500 0

6084000 6083500 6083000 6082500 6082000 6081500 6081000

Gregadoo Road compound (C06)

Inland Slopes

(1) (2) (3)

O'briens Creek (6)

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4
- 6

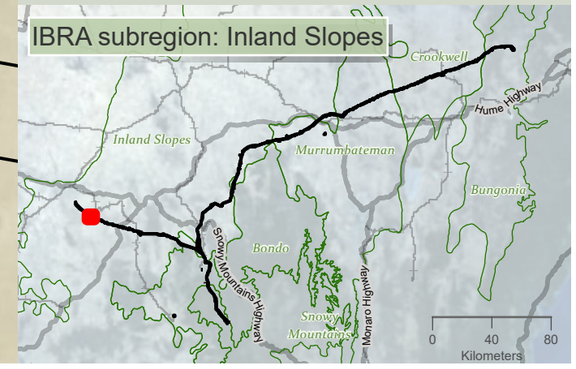
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)

IBRA subregion: Inland Slopes



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 4

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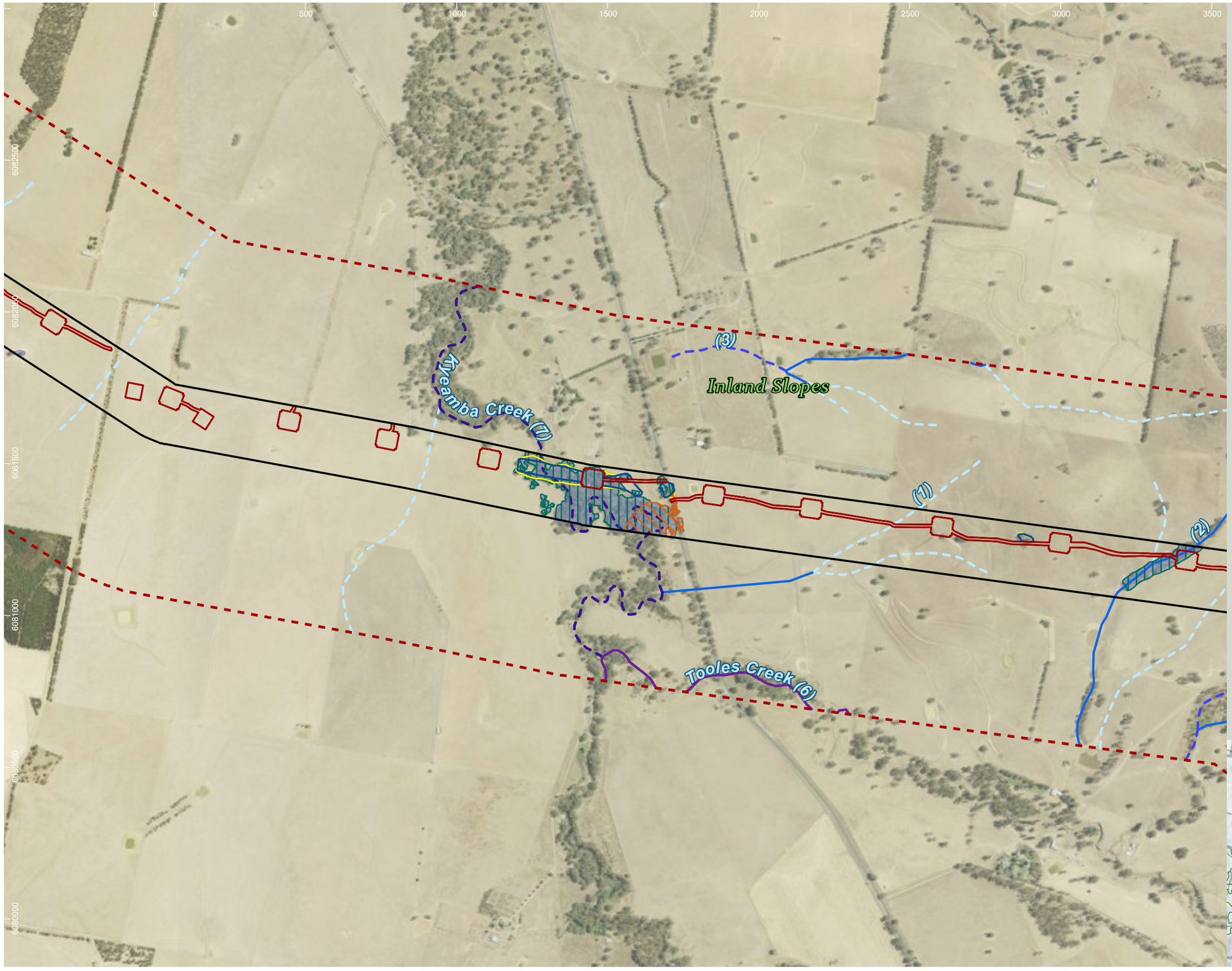


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

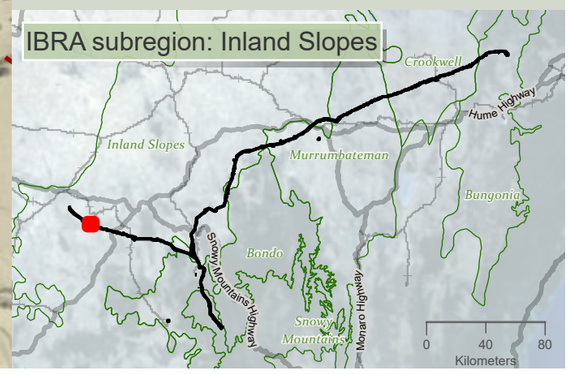
- 1
- 2
- 3
- 6
- 7

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 5

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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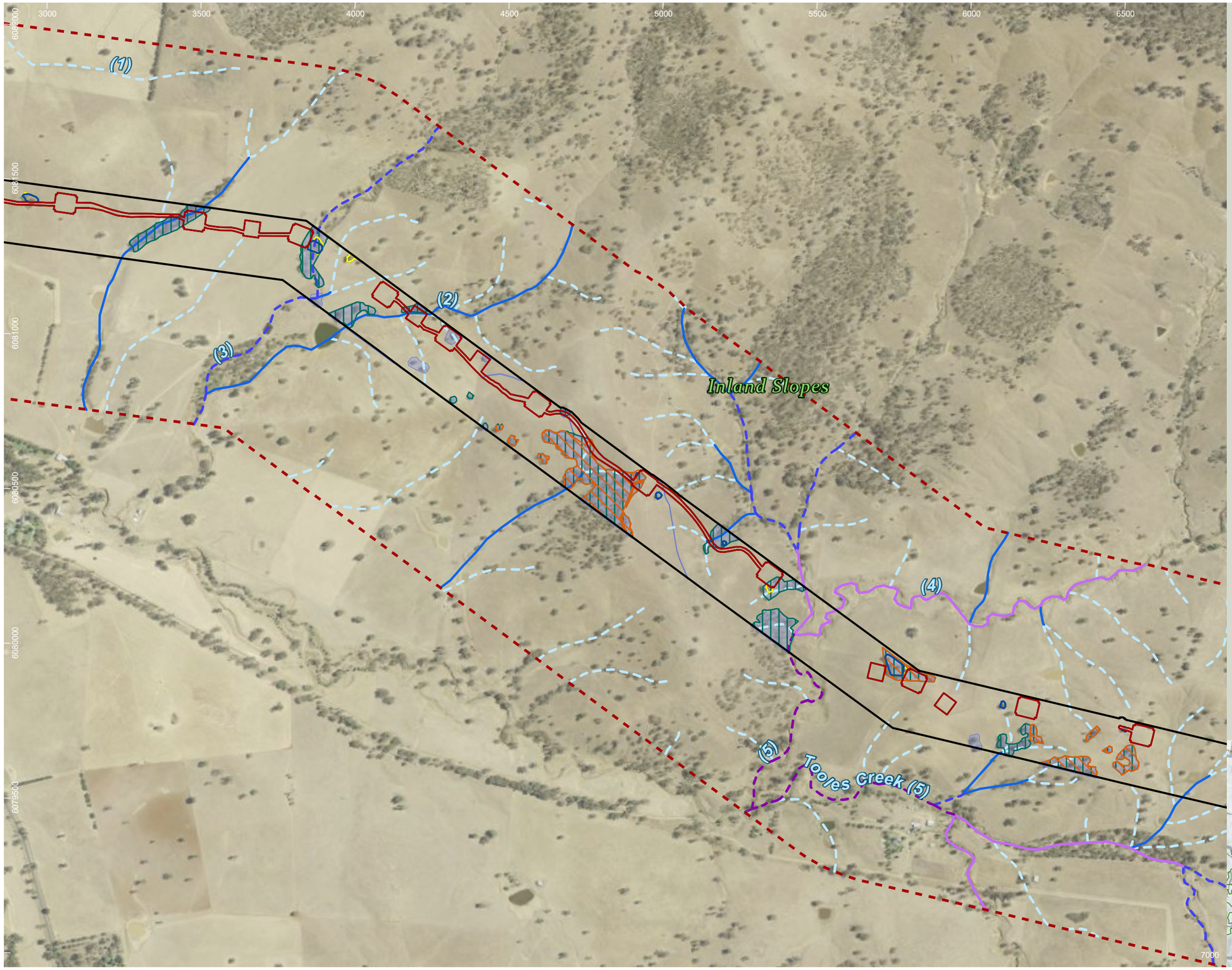


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

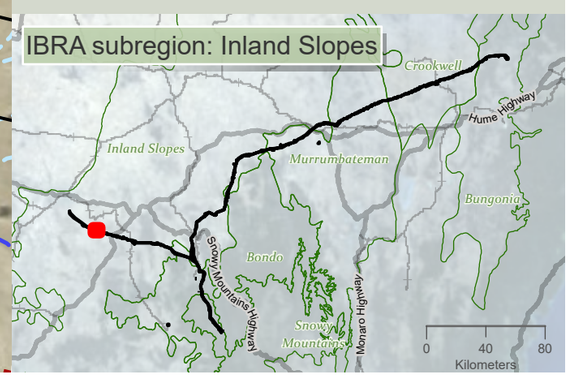
- 1
- 2
- 3
- 4
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 6

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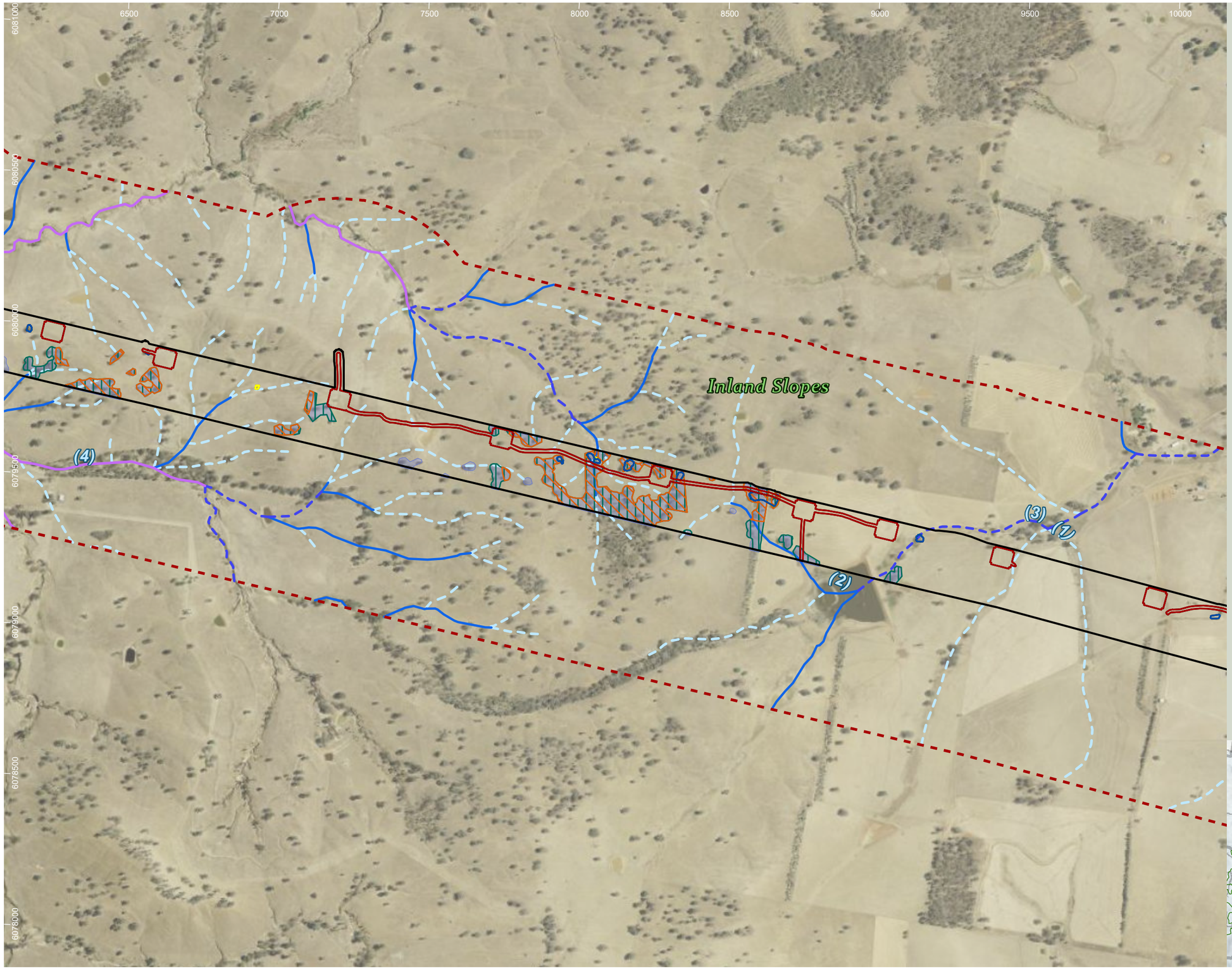


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

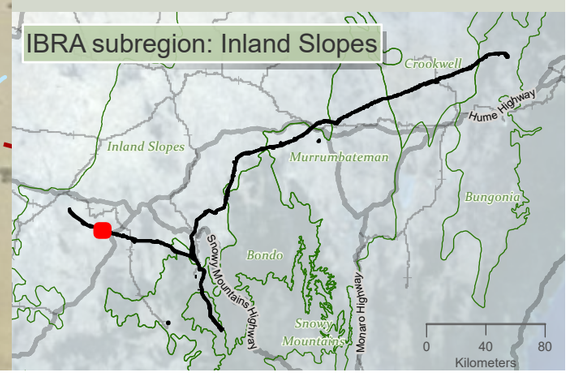
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 7

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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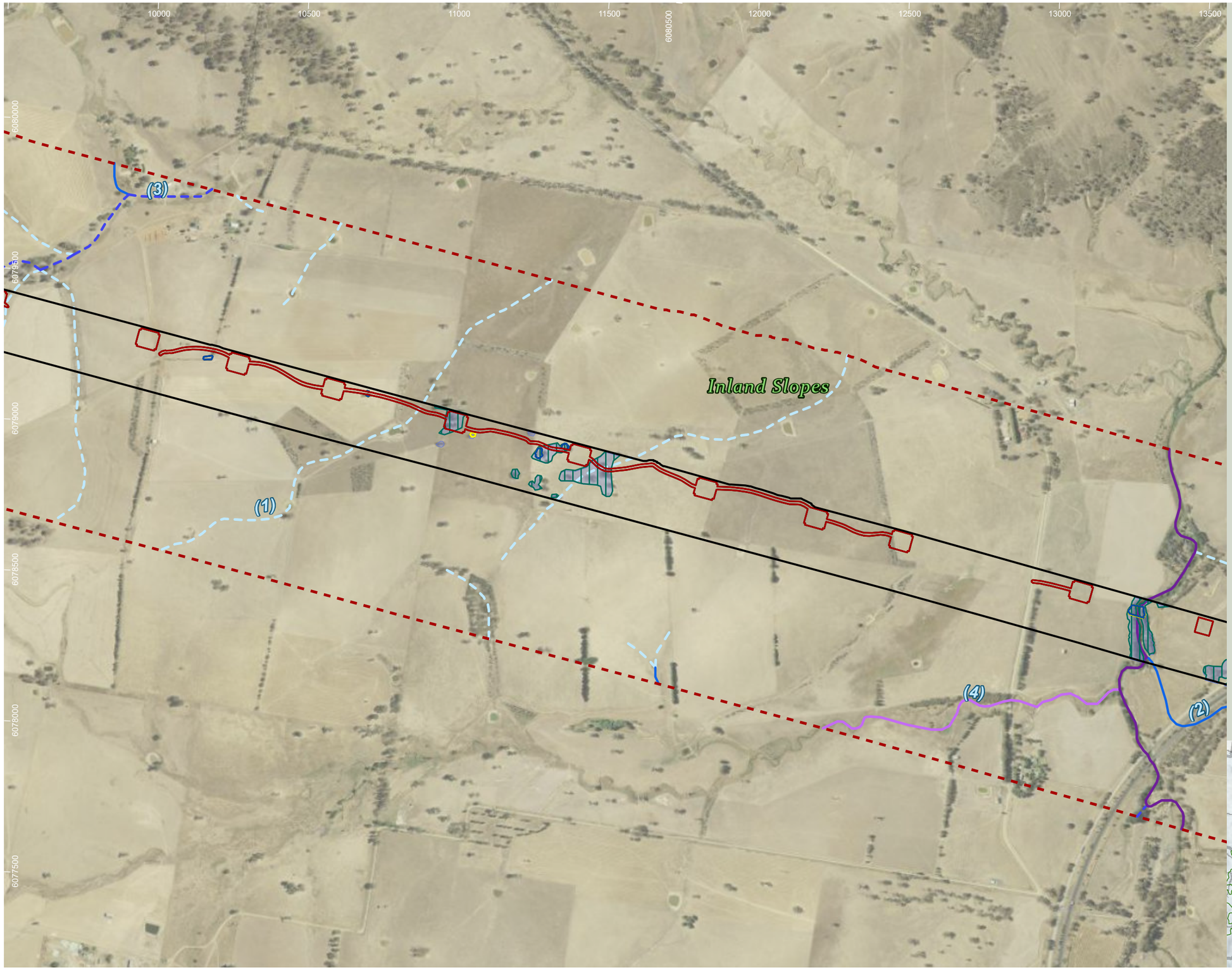


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

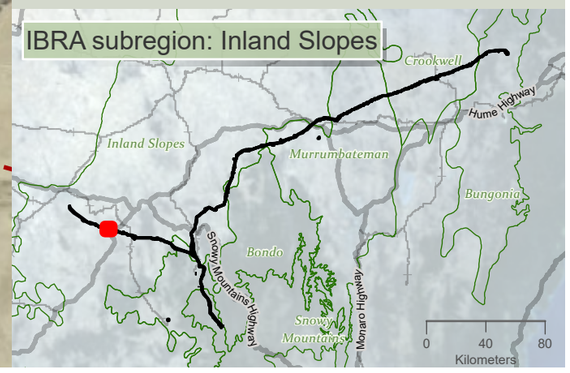
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 8

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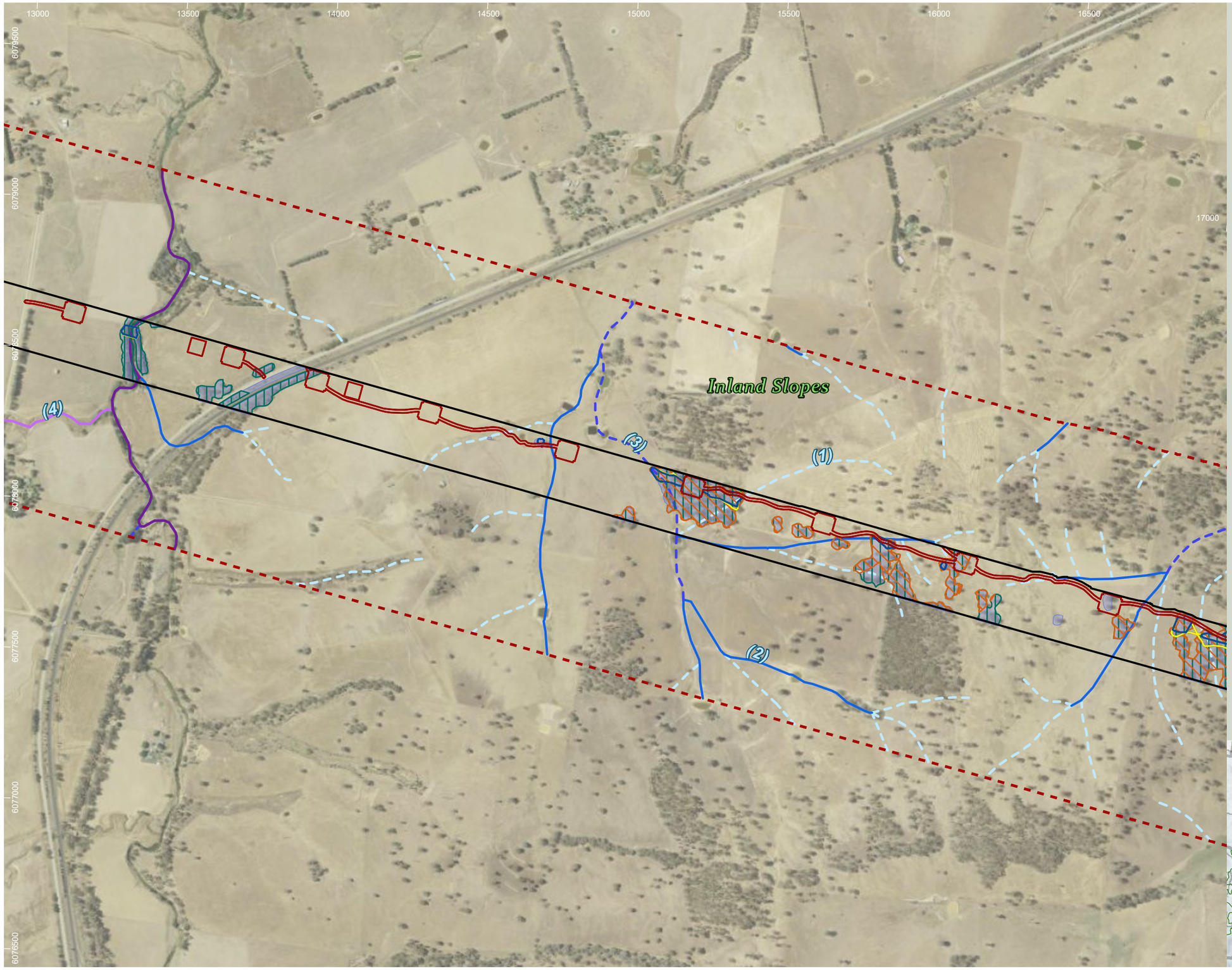


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

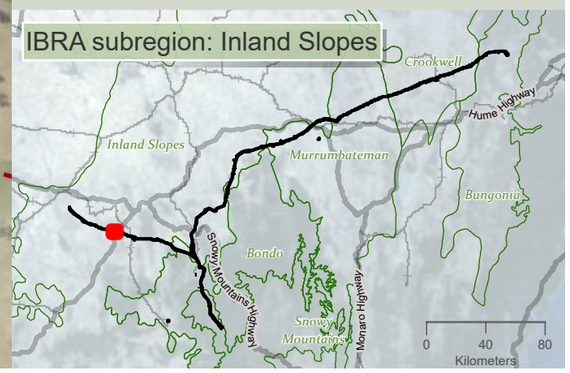
- 0
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 9

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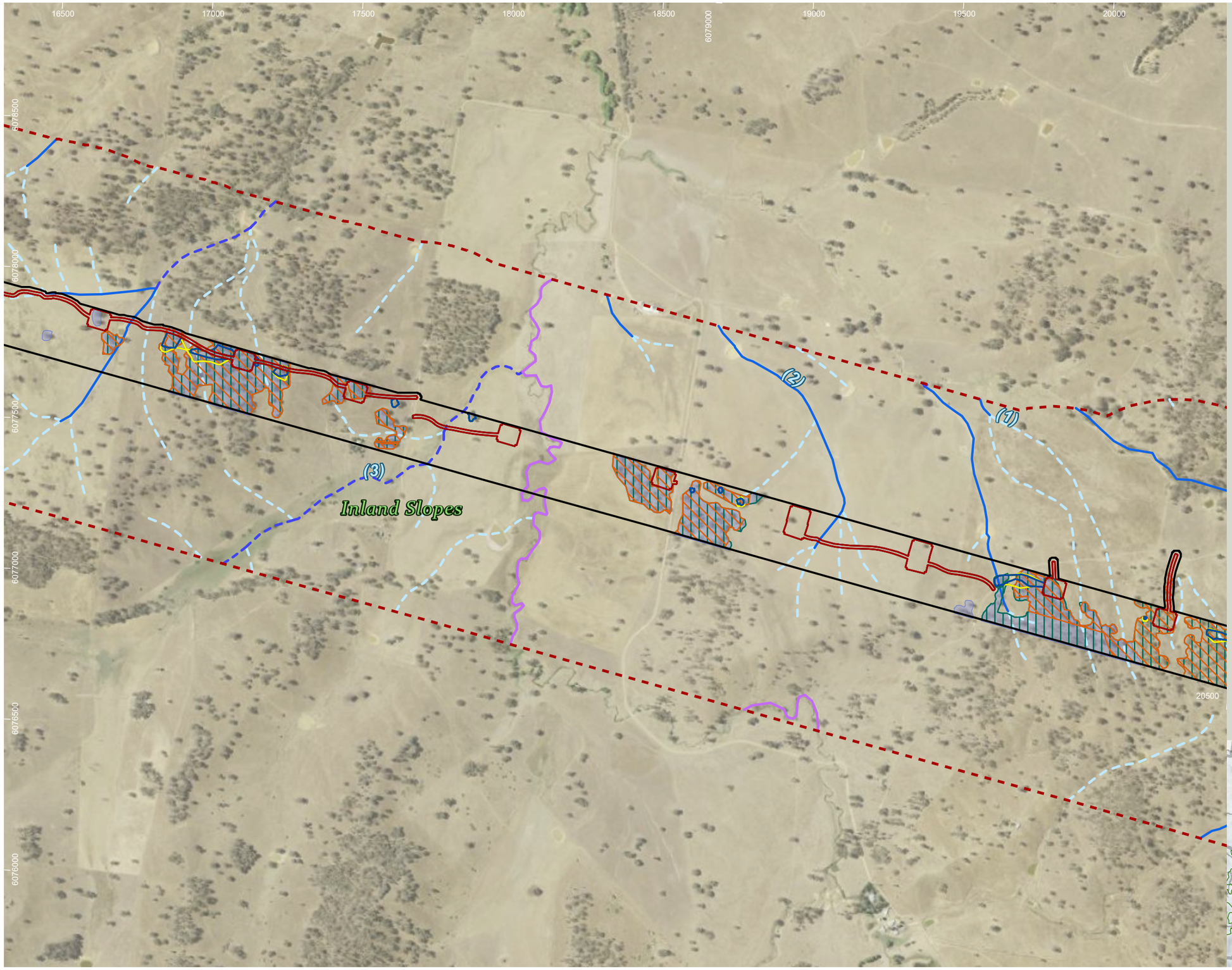


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

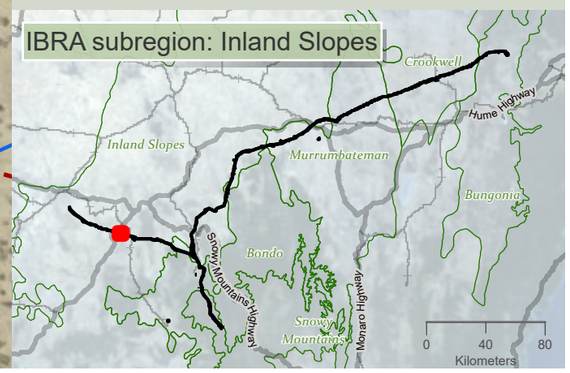
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 10

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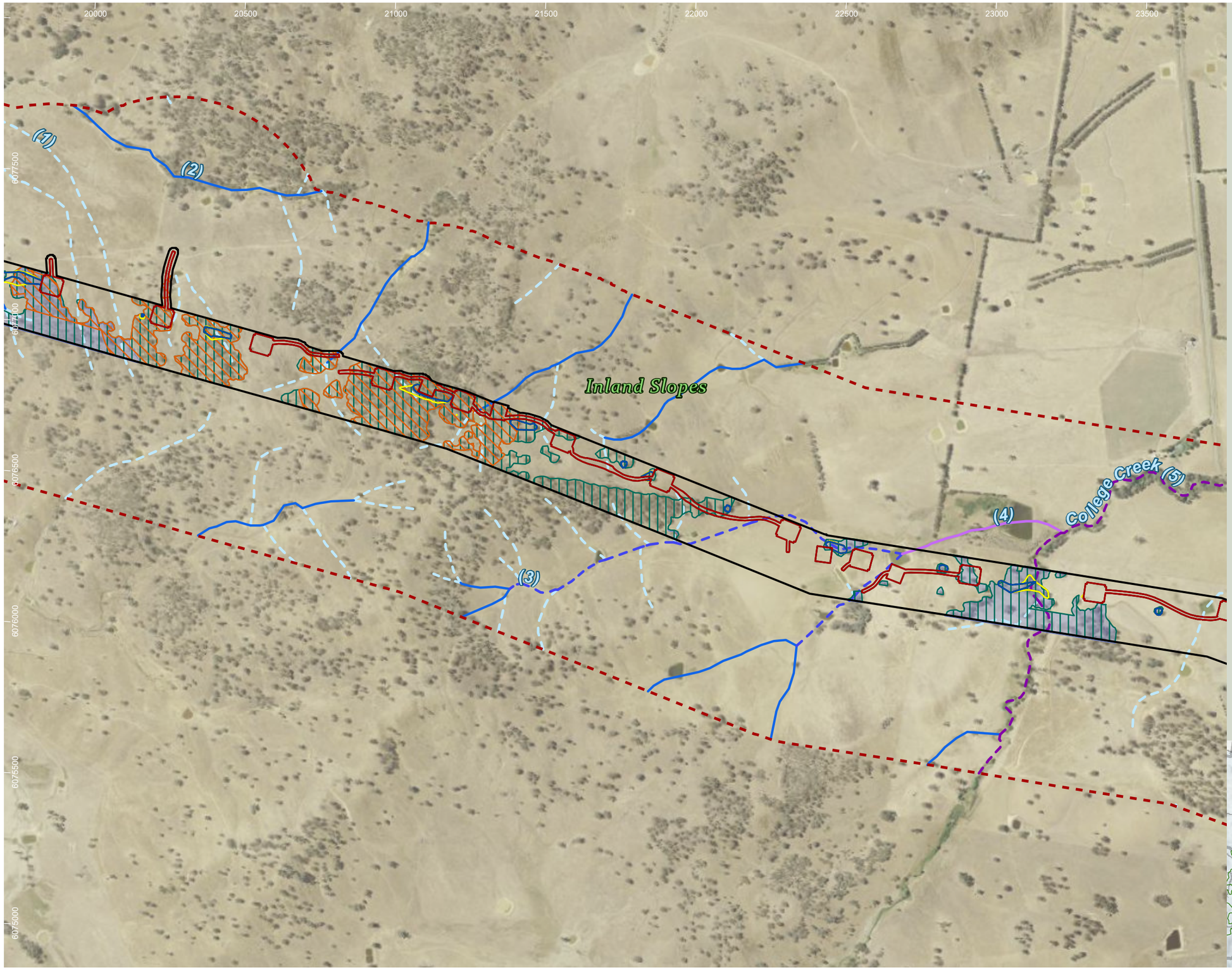


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

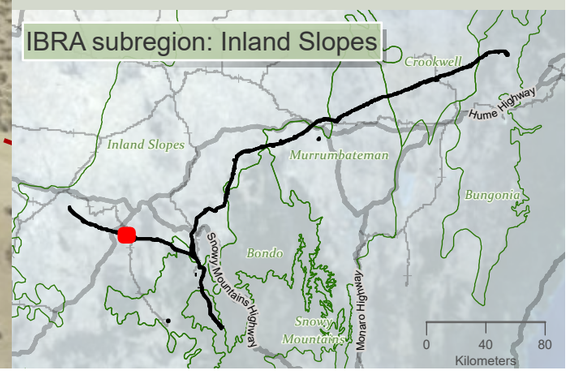
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 11

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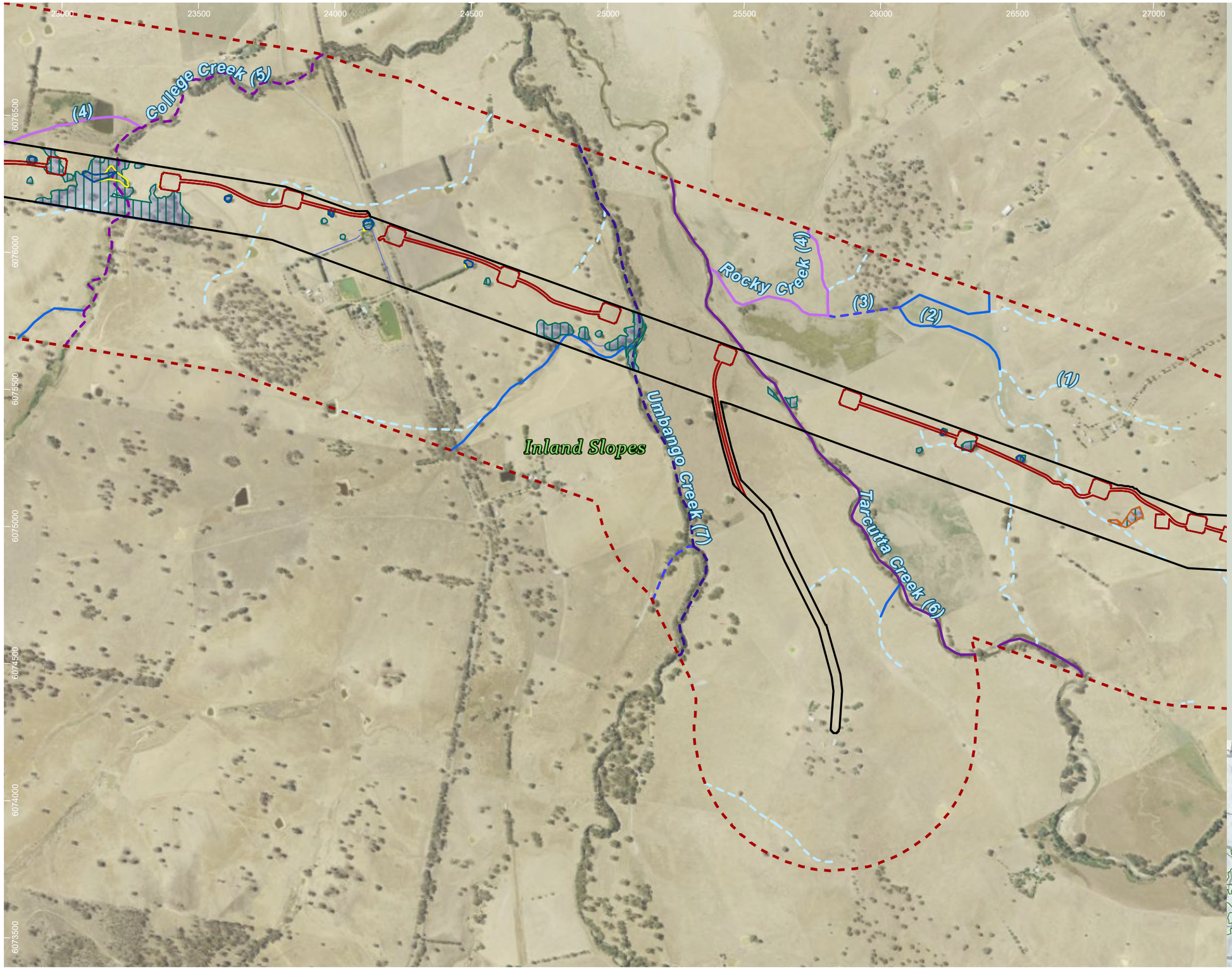


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

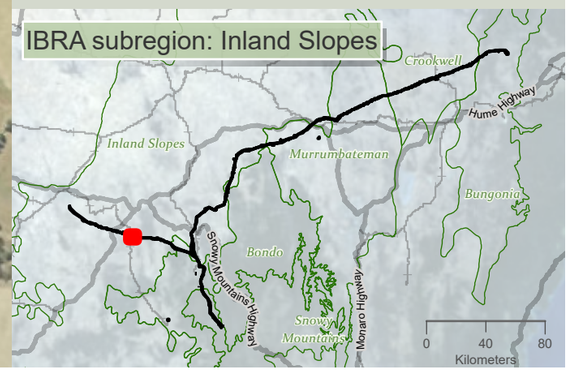
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 12

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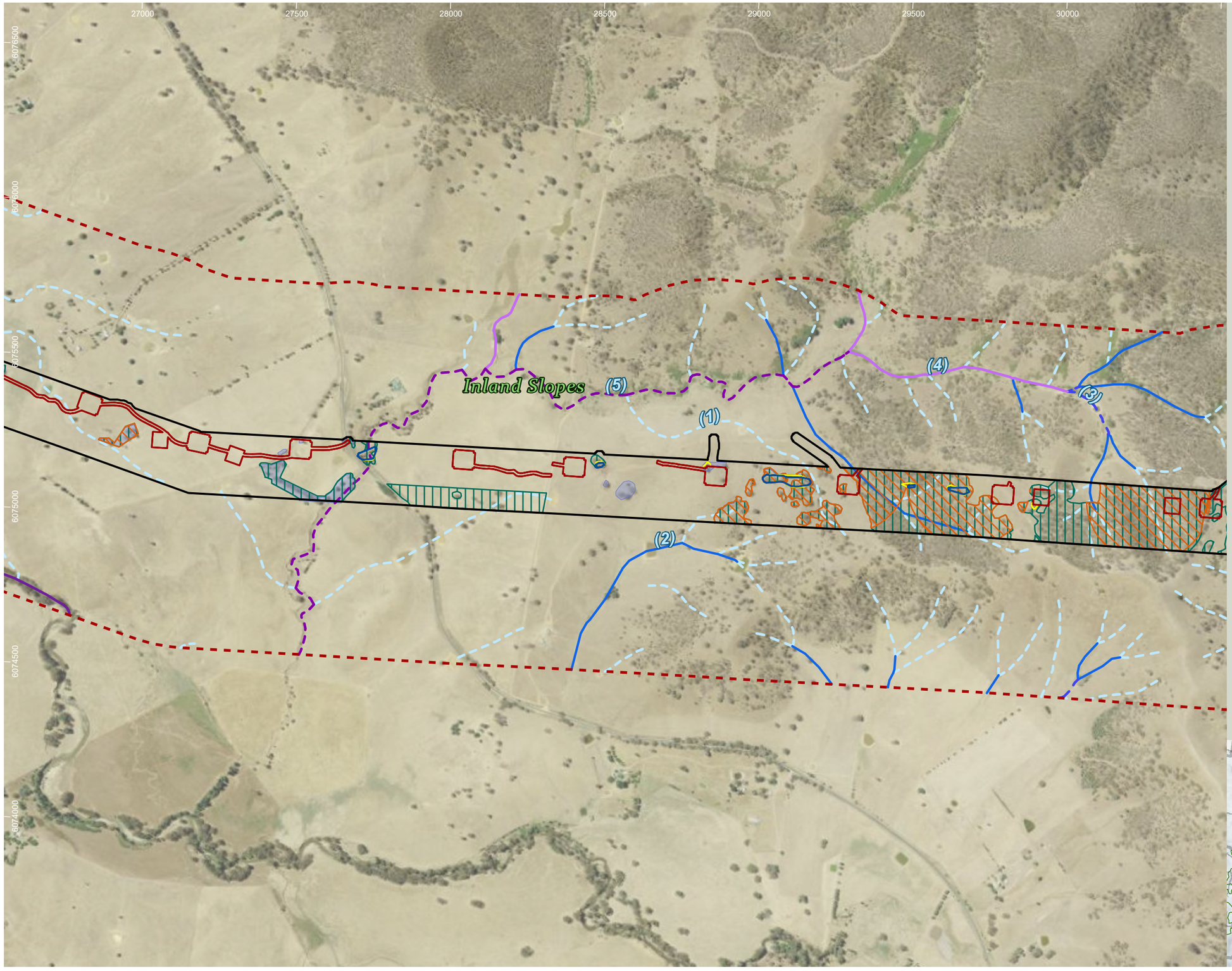


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

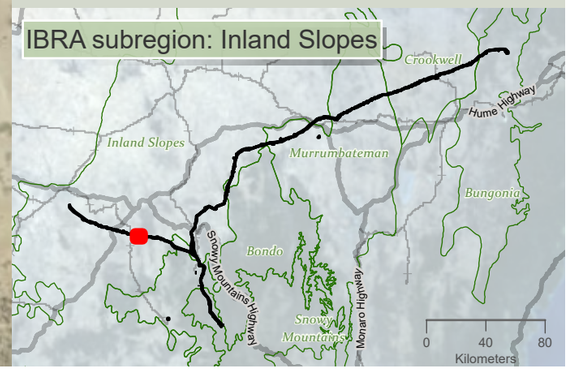
- 1
- 2
- 3
- 4
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus
- Petaurus norfolcensis (endangered population)



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niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 13

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

30500 31000 31500 32000 32500 33000 33500 34000

6076500 6076000 6075500 6075000 6074500 6074000

Inland Slopes

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

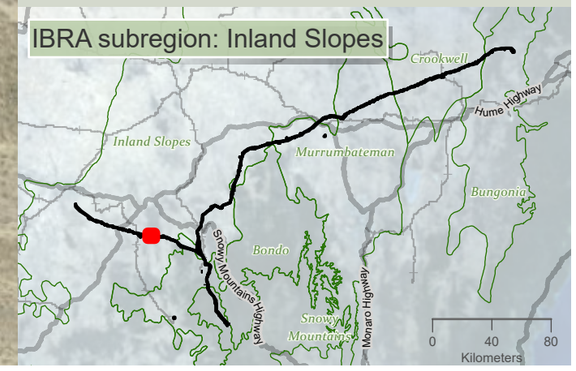
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 14

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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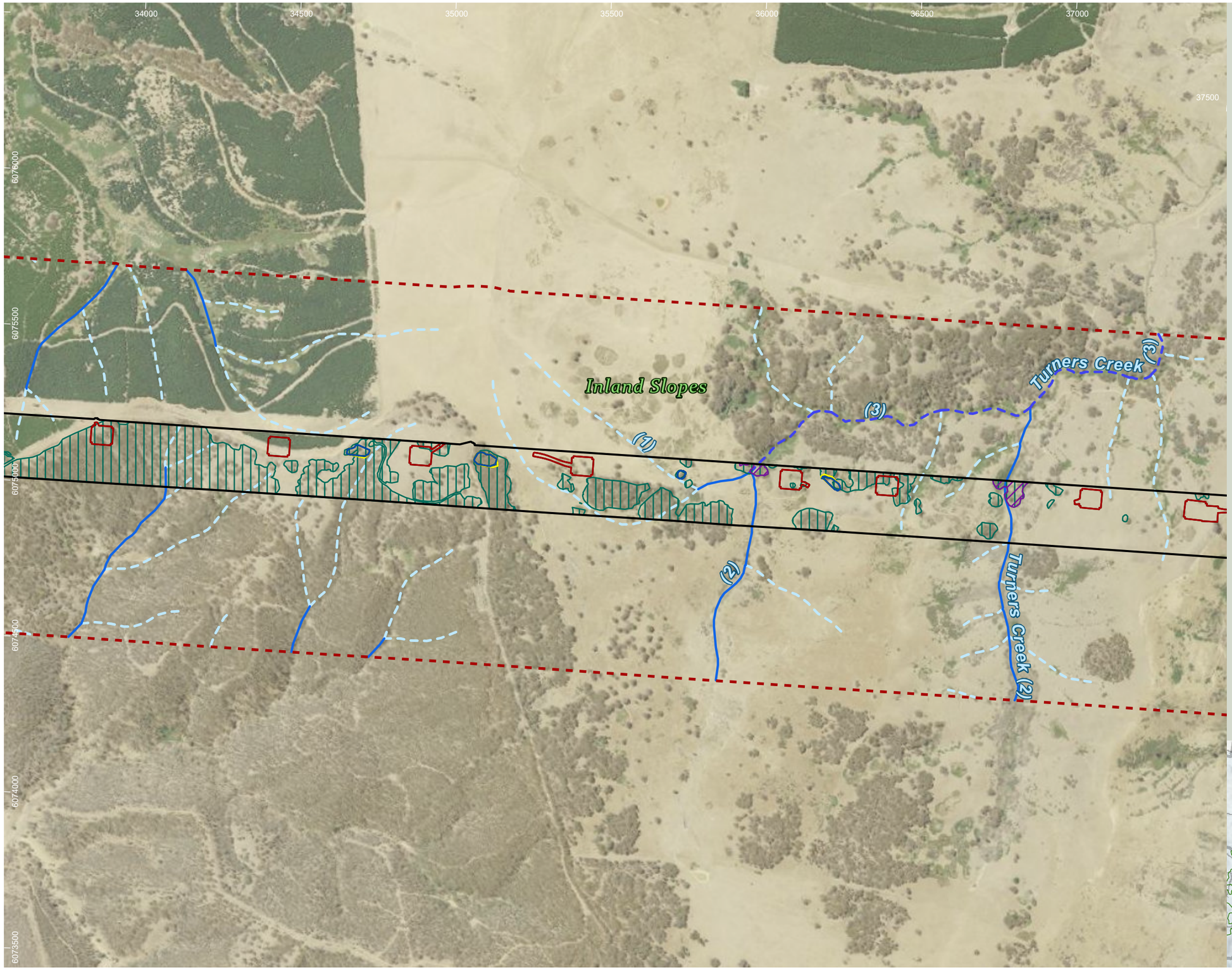


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

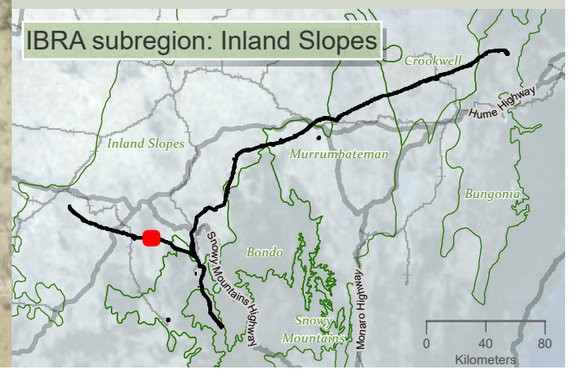
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 15

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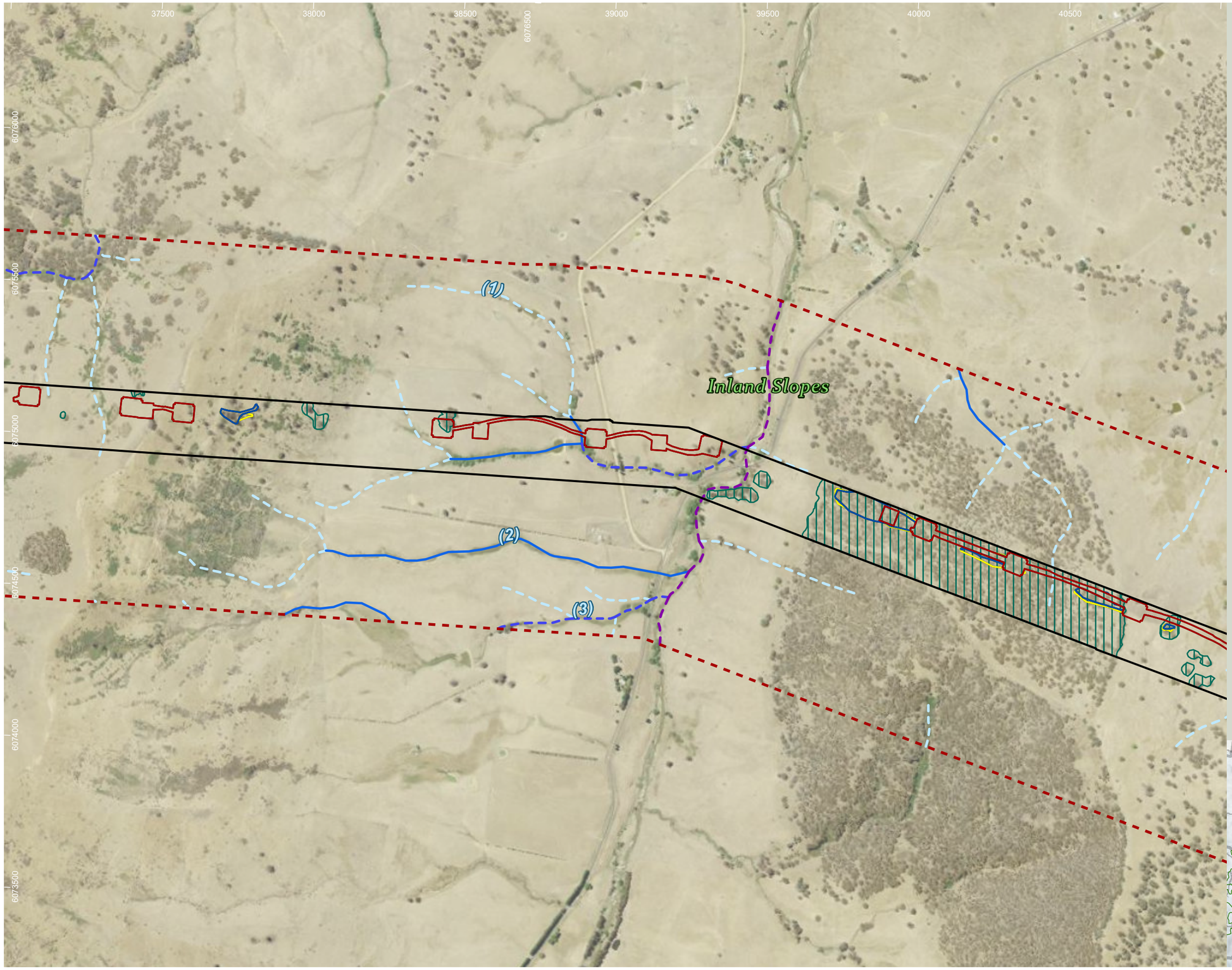


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

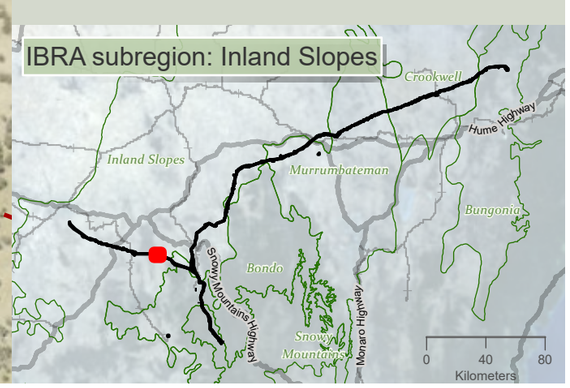
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 16

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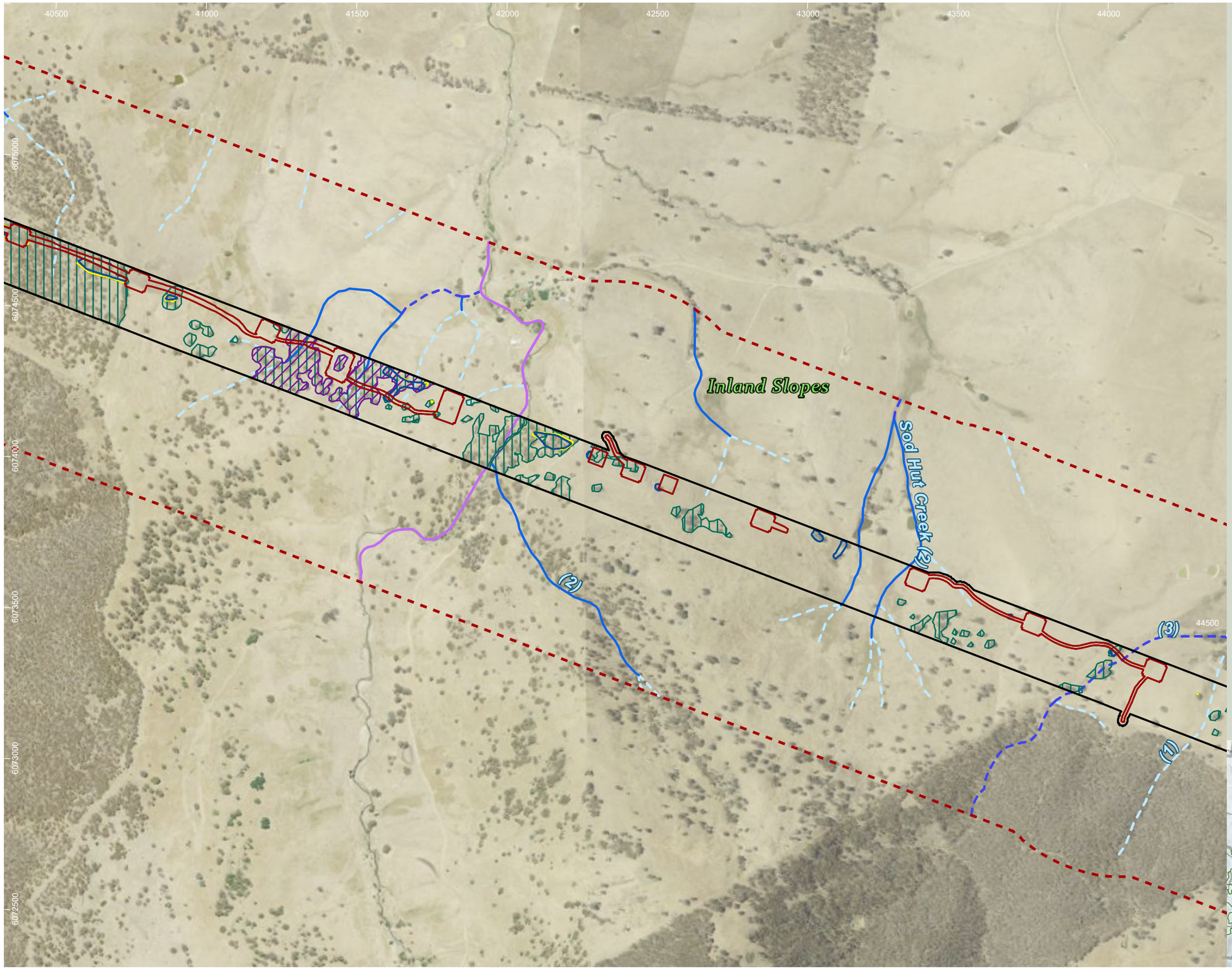


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

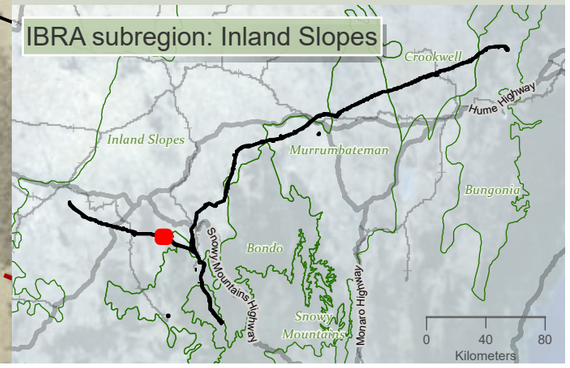
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 17

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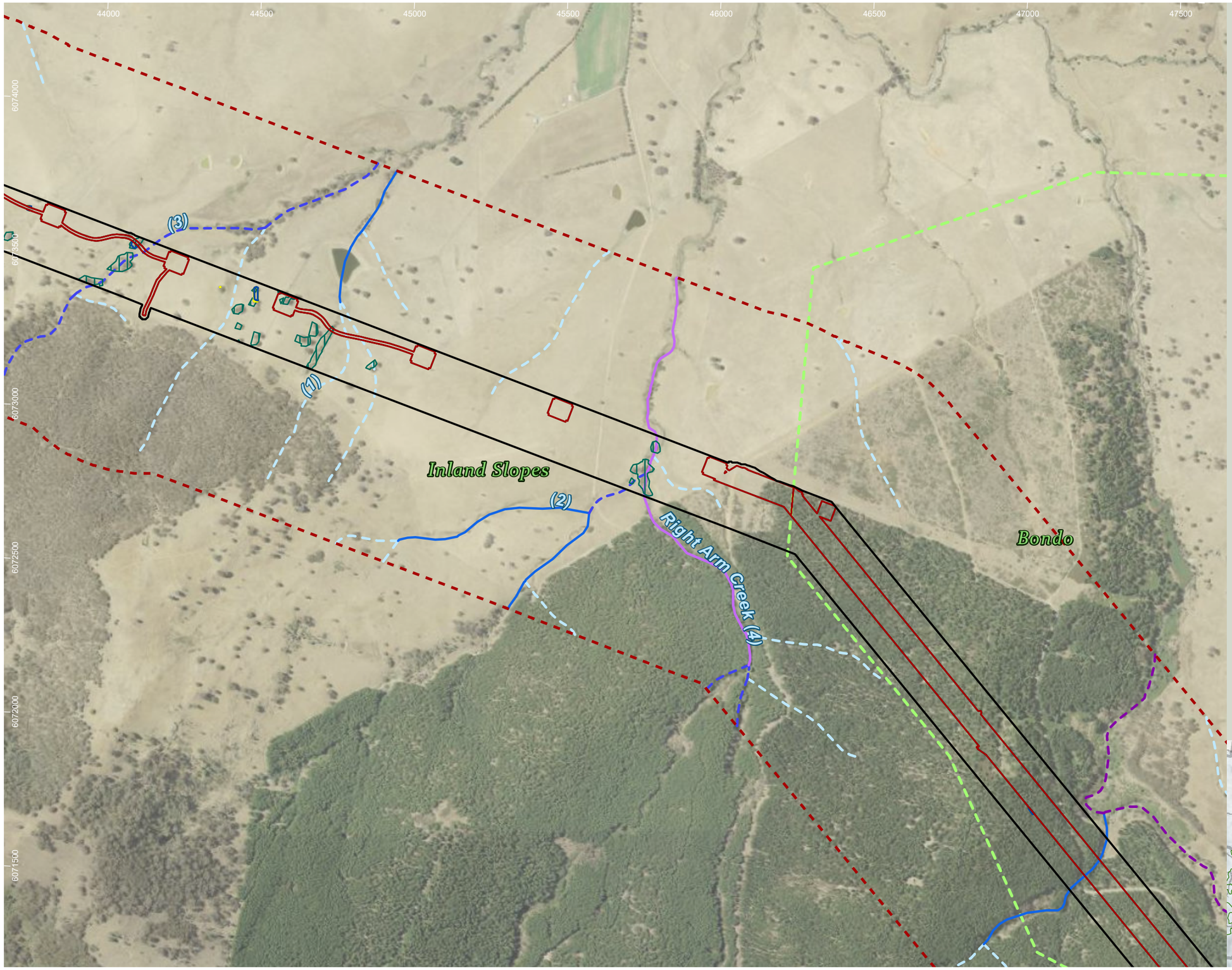


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

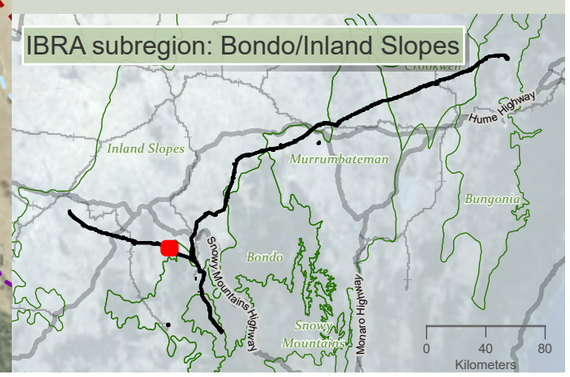
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 18

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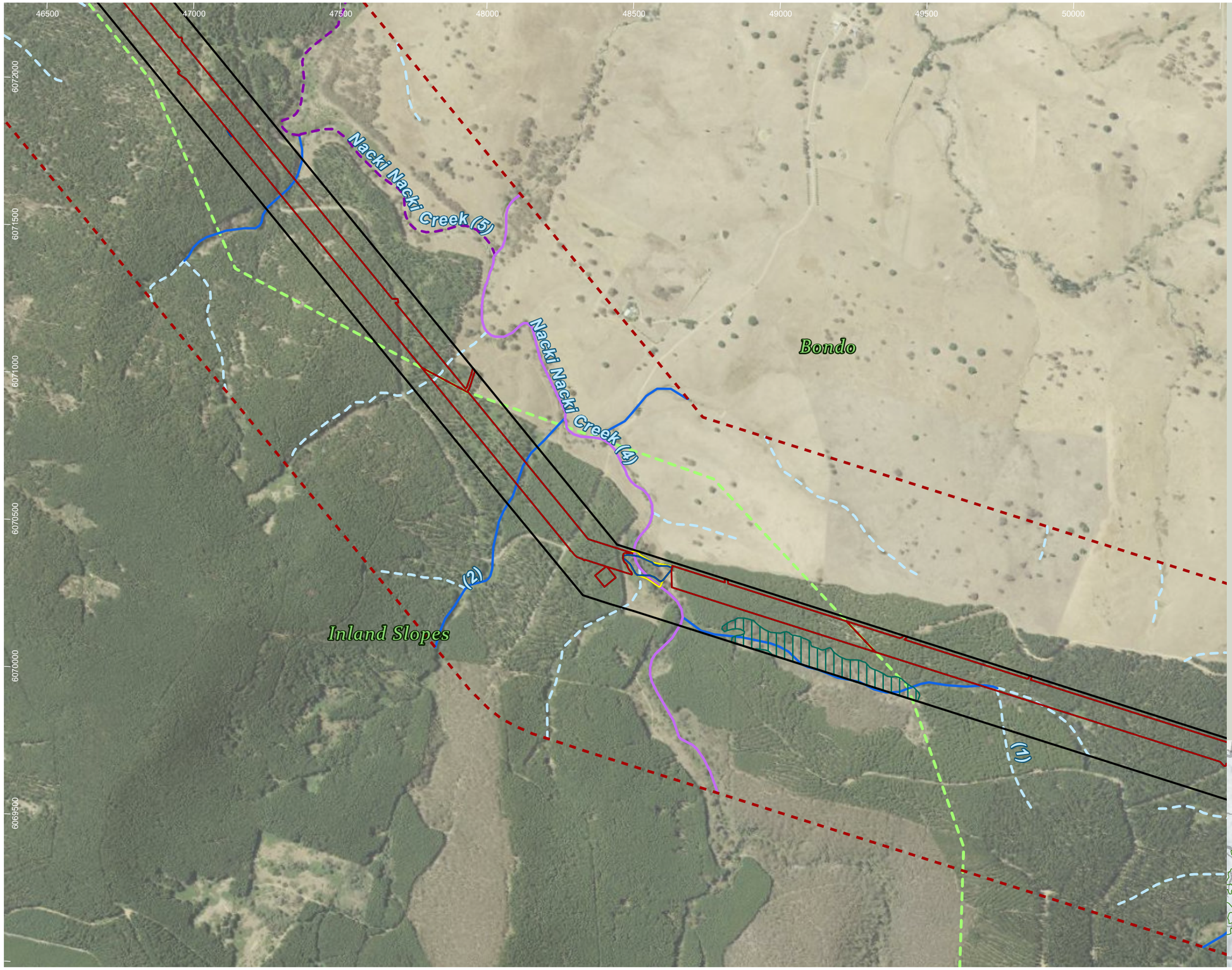


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

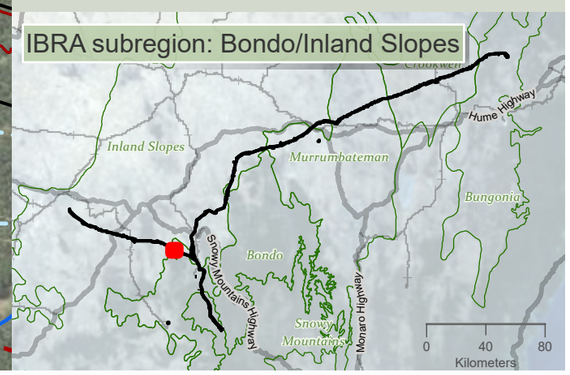
- 1
- 2
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 19

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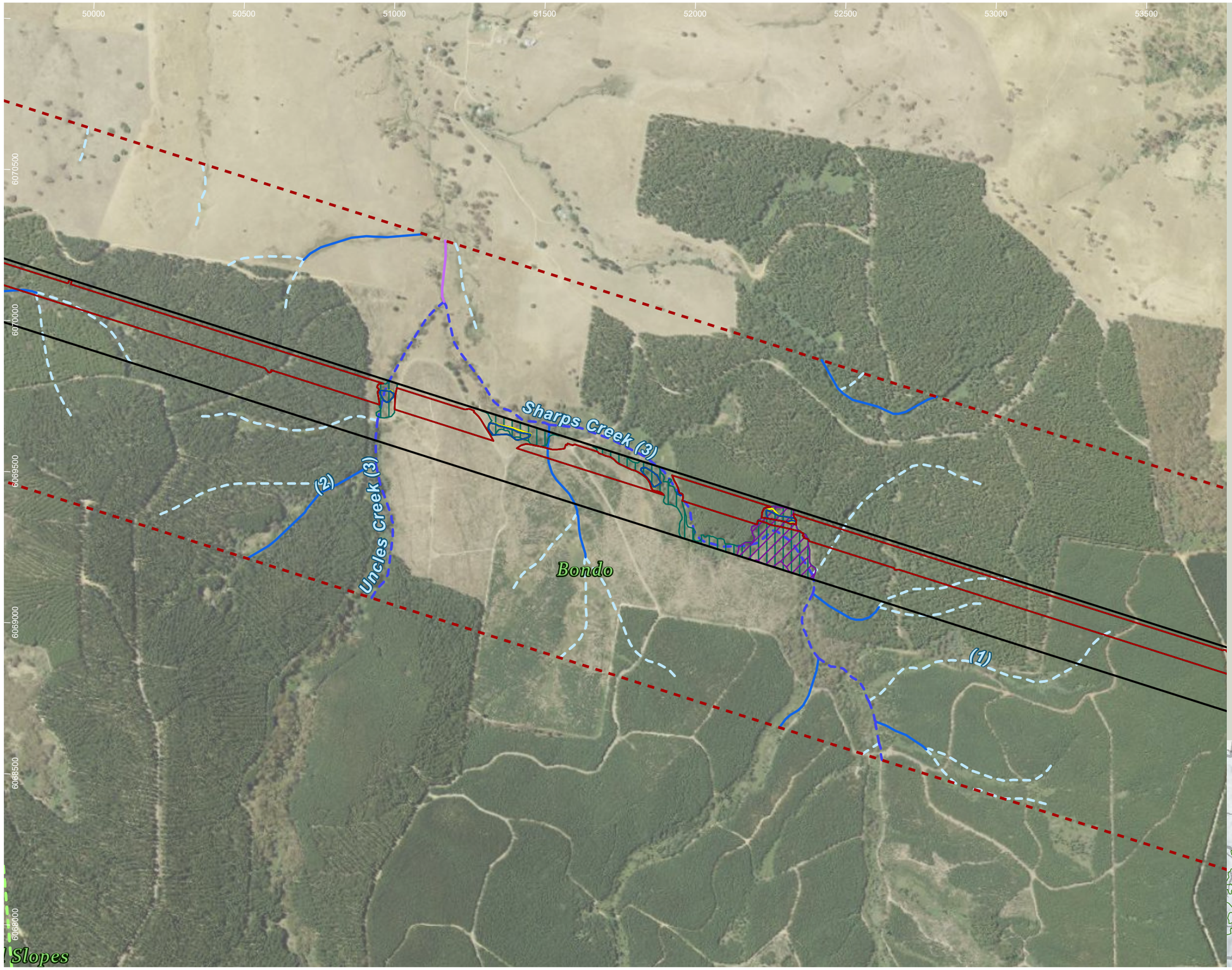


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

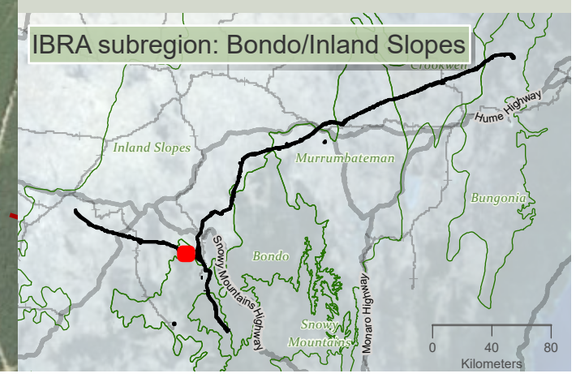
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 20

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53500 54000 54500 55000 55500 56000 56500 57000

6070000 6069500 6069000 6068500 6068000 6067500

Bondo

(1)

(2)

Adelong Creek (5)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

- 0
- 1
- 2
- 4
- 5

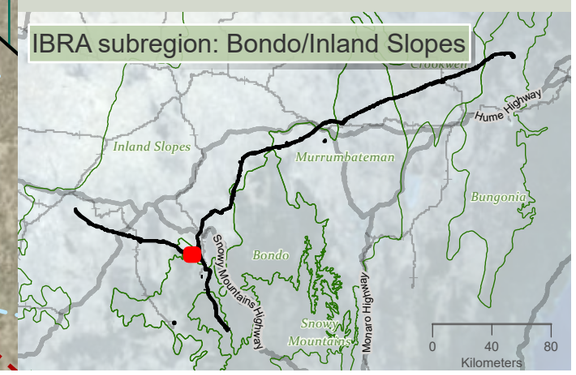
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Phascolarctos cinereus

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 21

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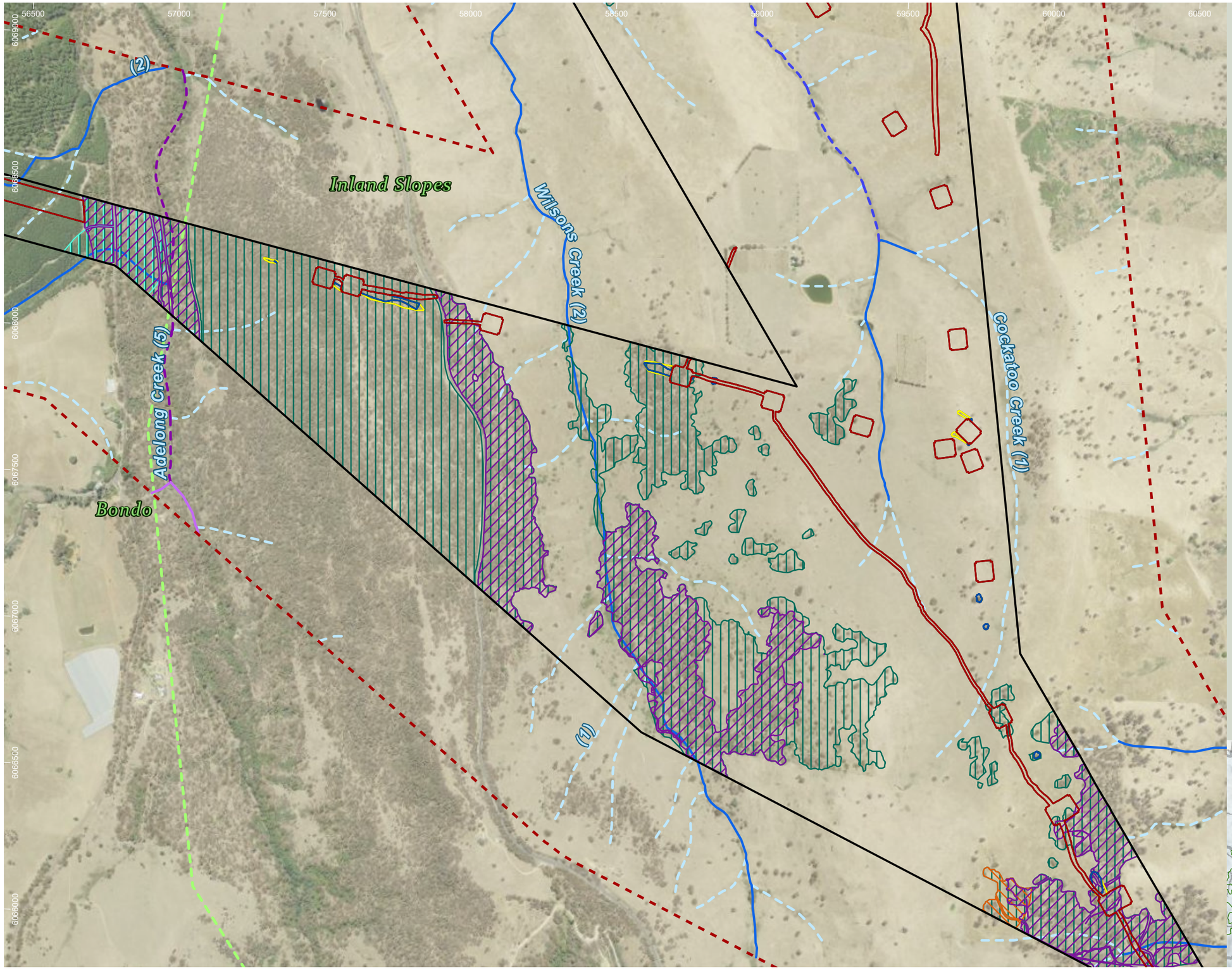


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

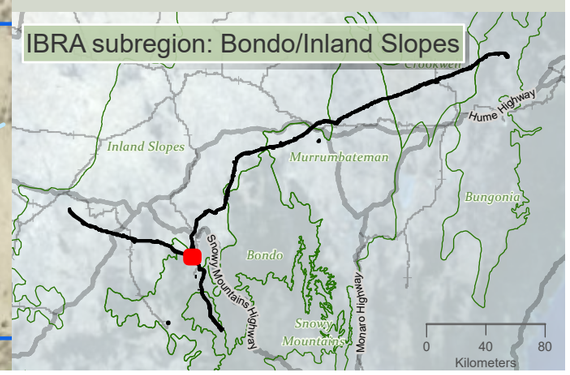
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 22

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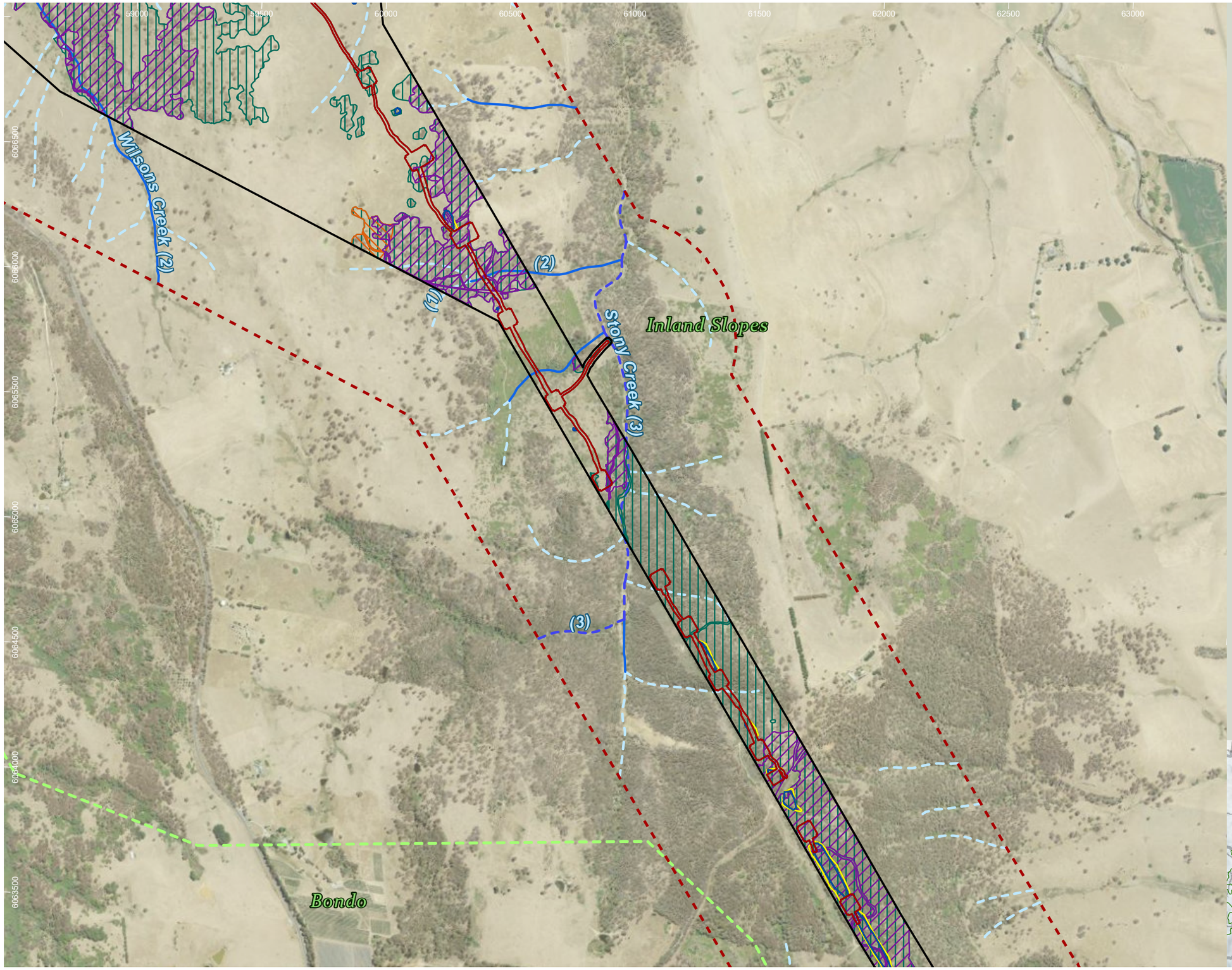


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

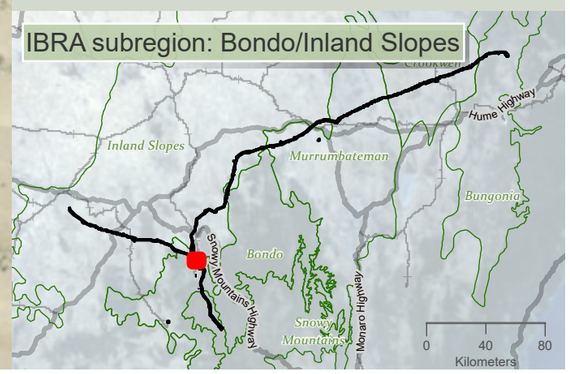
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 23

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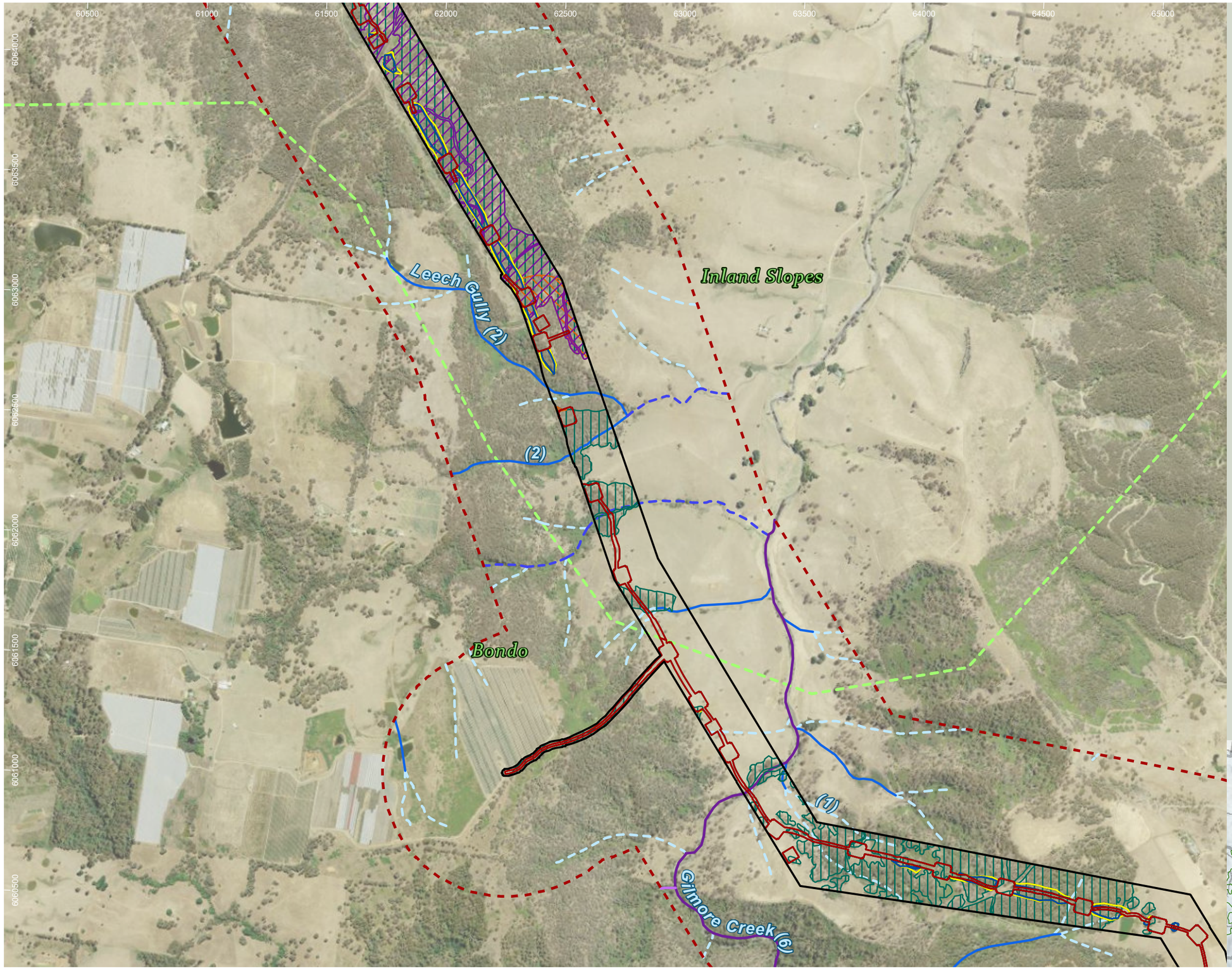


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

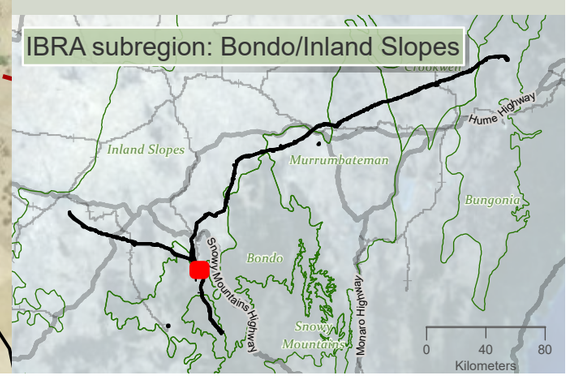
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 24

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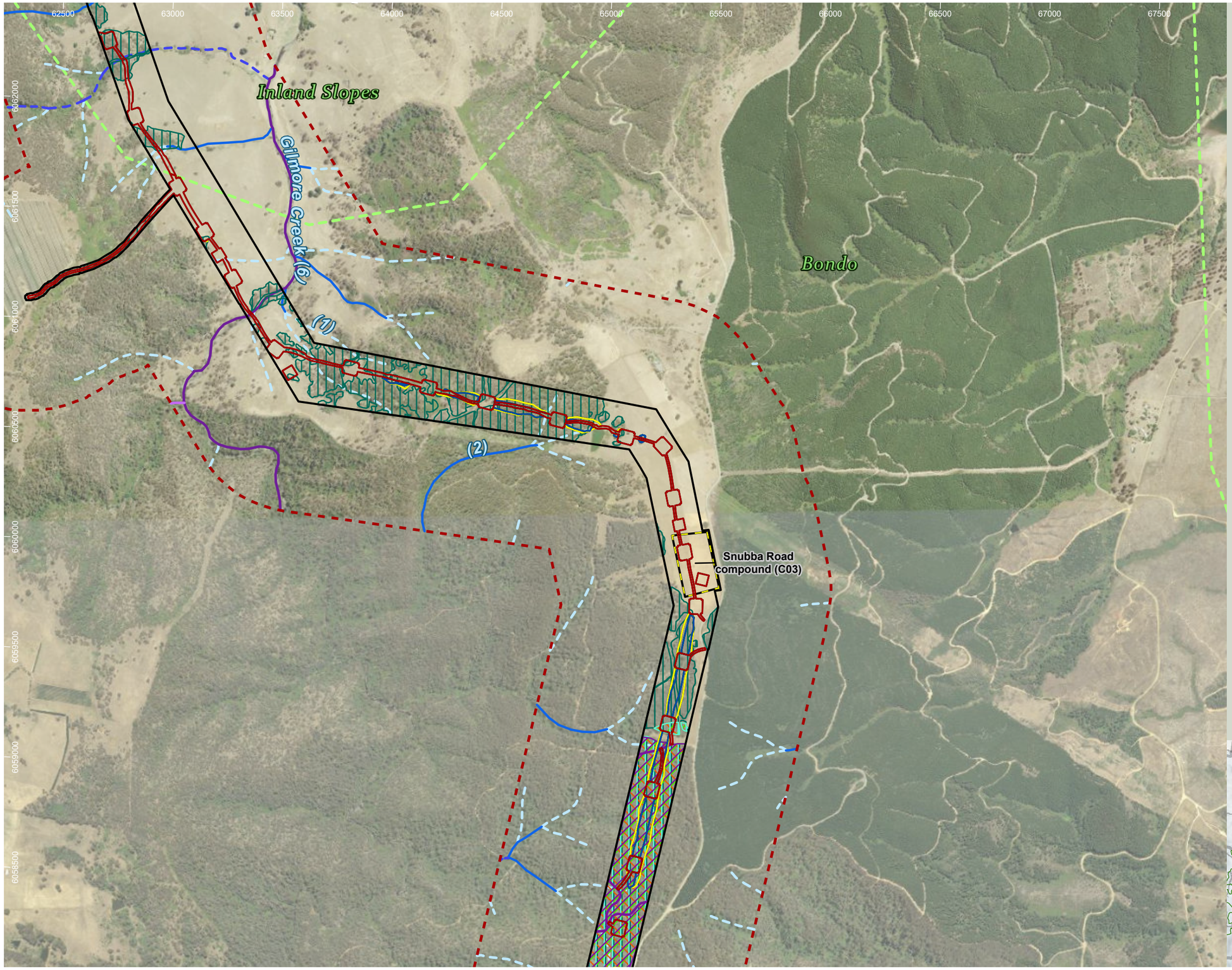


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

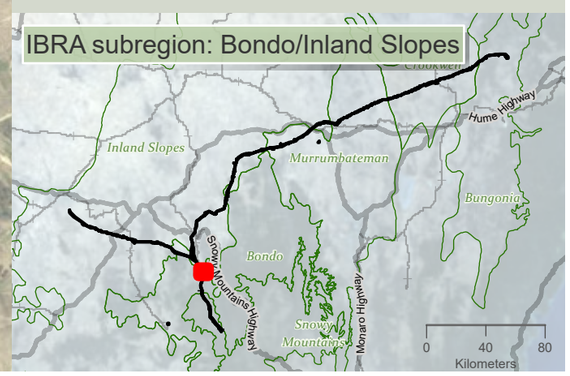
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 25

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HumeLink project areas

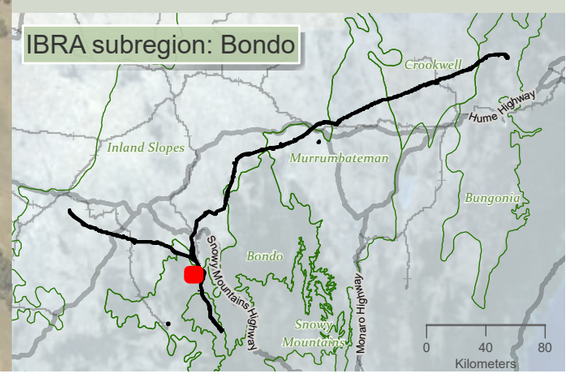
- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 5

Marsupial species habitat

- Petauroides volans
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 26

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

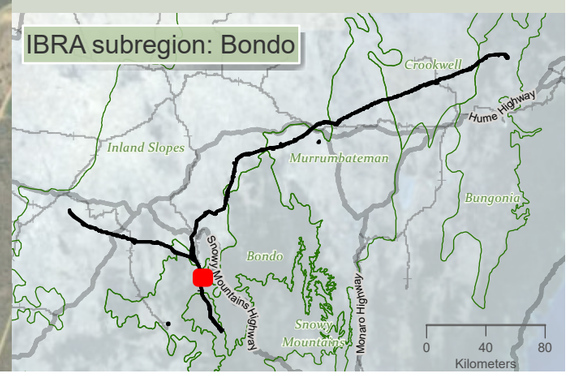
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



Drawn by MatthewZajaczkowski Last updated 16/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

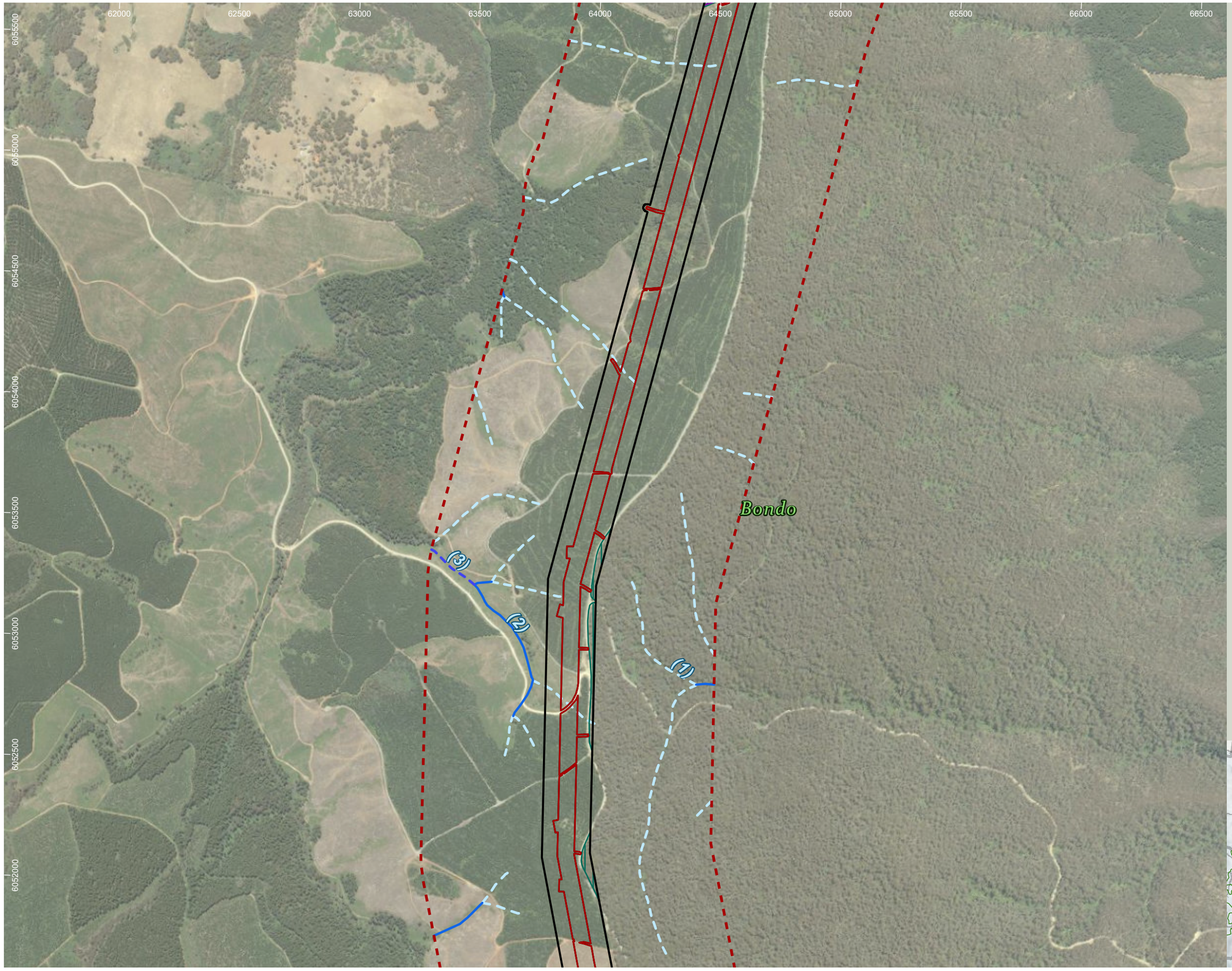
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 28

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

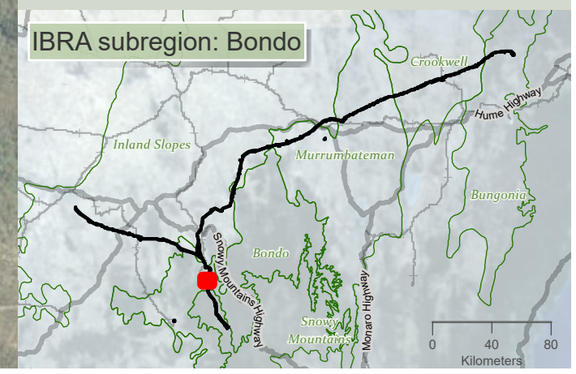
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 29

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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61500 62000 62500 63000 63500 64000 64500 65000 65500 66000

6052000 6051500 6051000 6050500 6050000 6049500 6049000 6048500 6048000

Snubba Creek (4)

Bondo

Ridings Creek (2)

Snubba Road compound (C16)

(1)

(3)

Snubba Creek (3)

Snowy Mountains

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

- 1
- 2
- 3
- 4
- 5

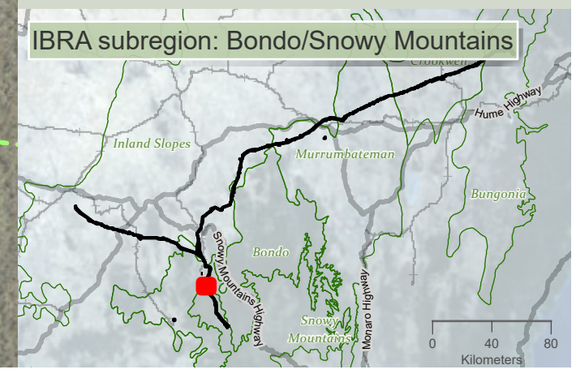
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Phascogale tapoatafa
- Phascolarctos cinereus
- Petaurus australis population on the Bago Plateau

IBRA subregion: Bondo/Snowy Mountains



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0 550 m

WGS 1984 Web Mercator

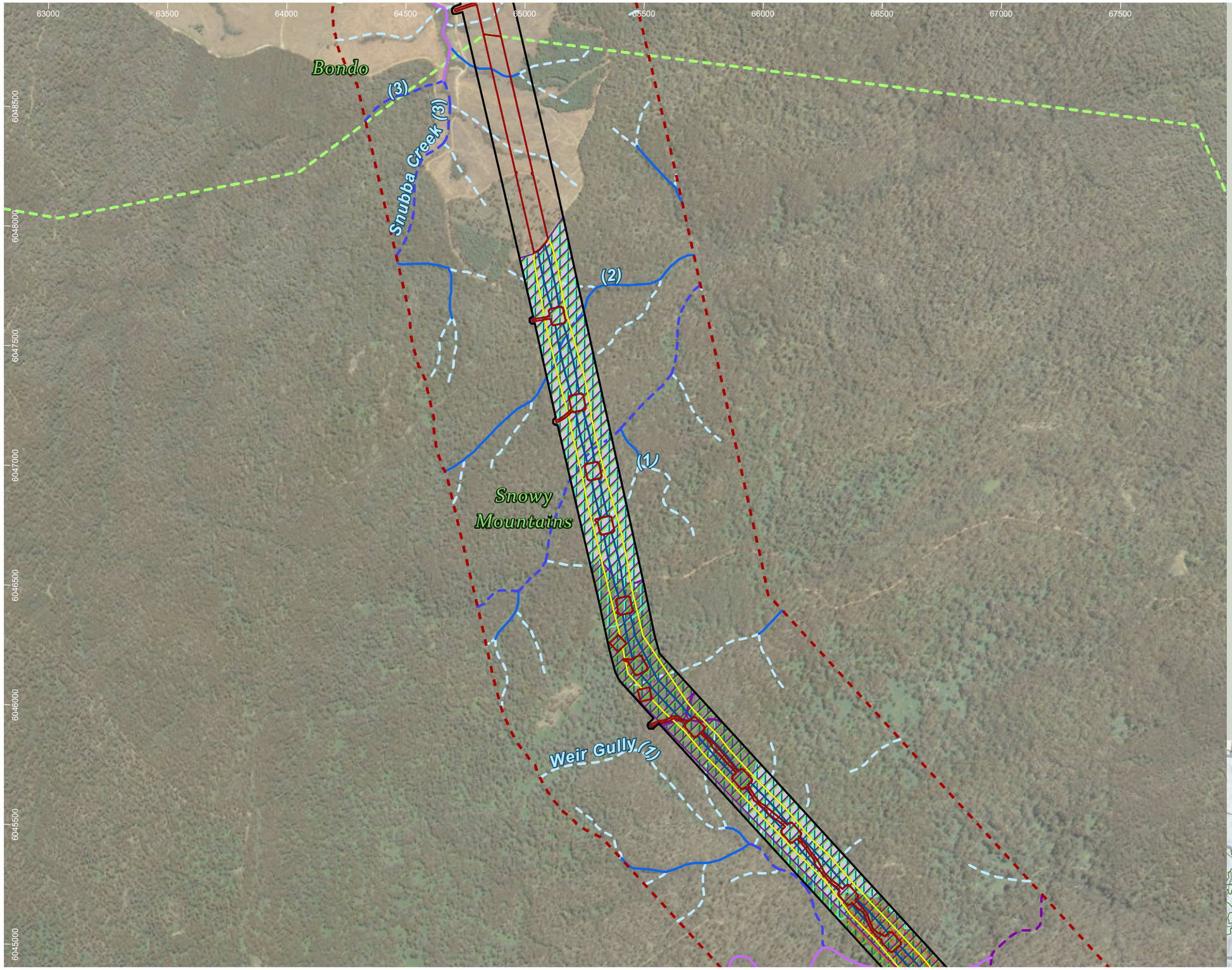
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 30

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

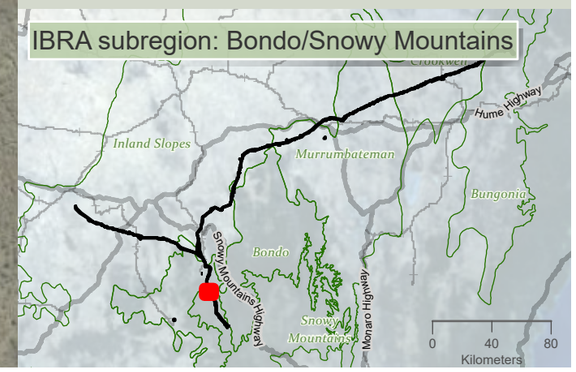
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus
- Petaurus australis population on the Bago Plateau



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 31

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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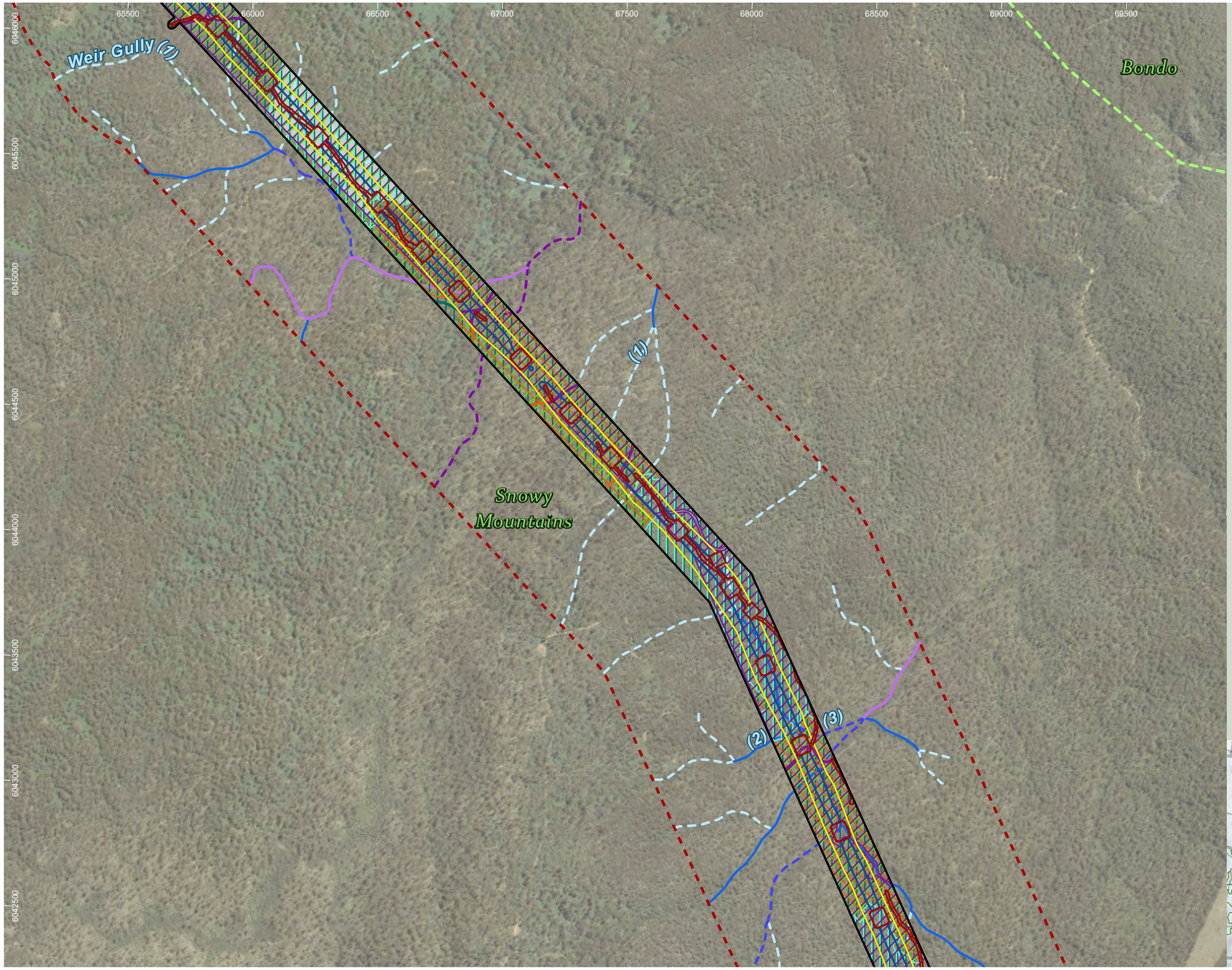


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

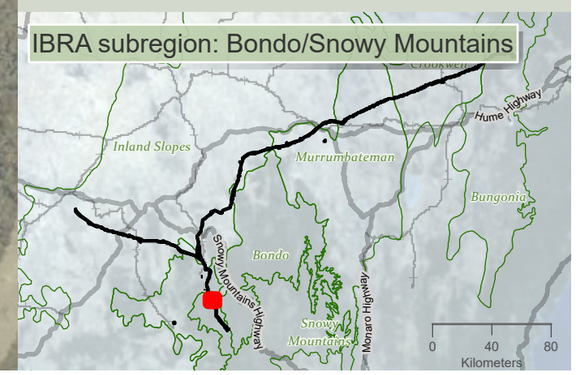
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus
- Petaurus australis population on the Bago Plateau



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 32

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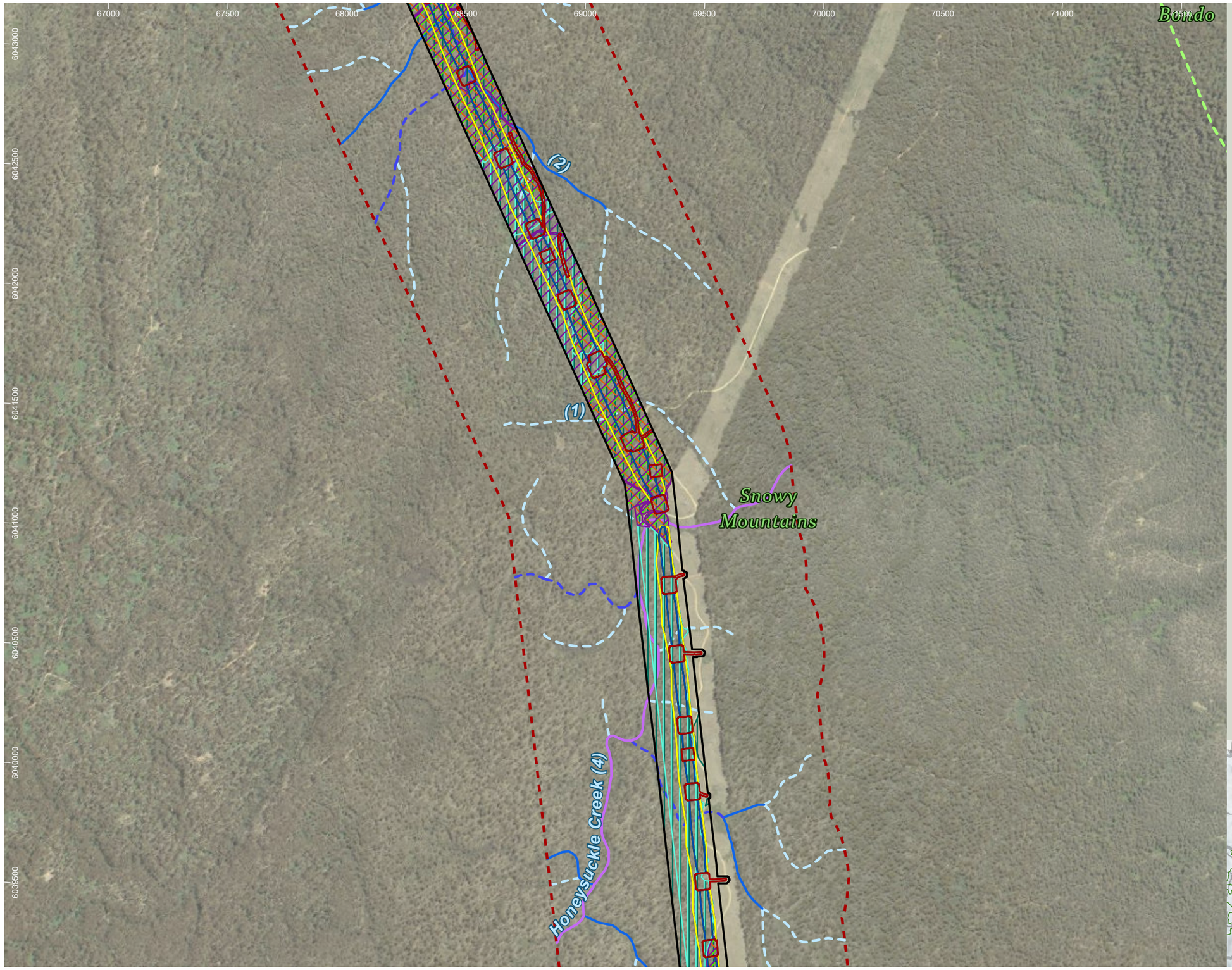


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

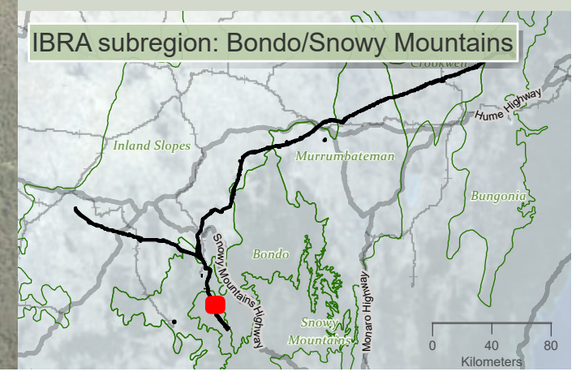
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 33

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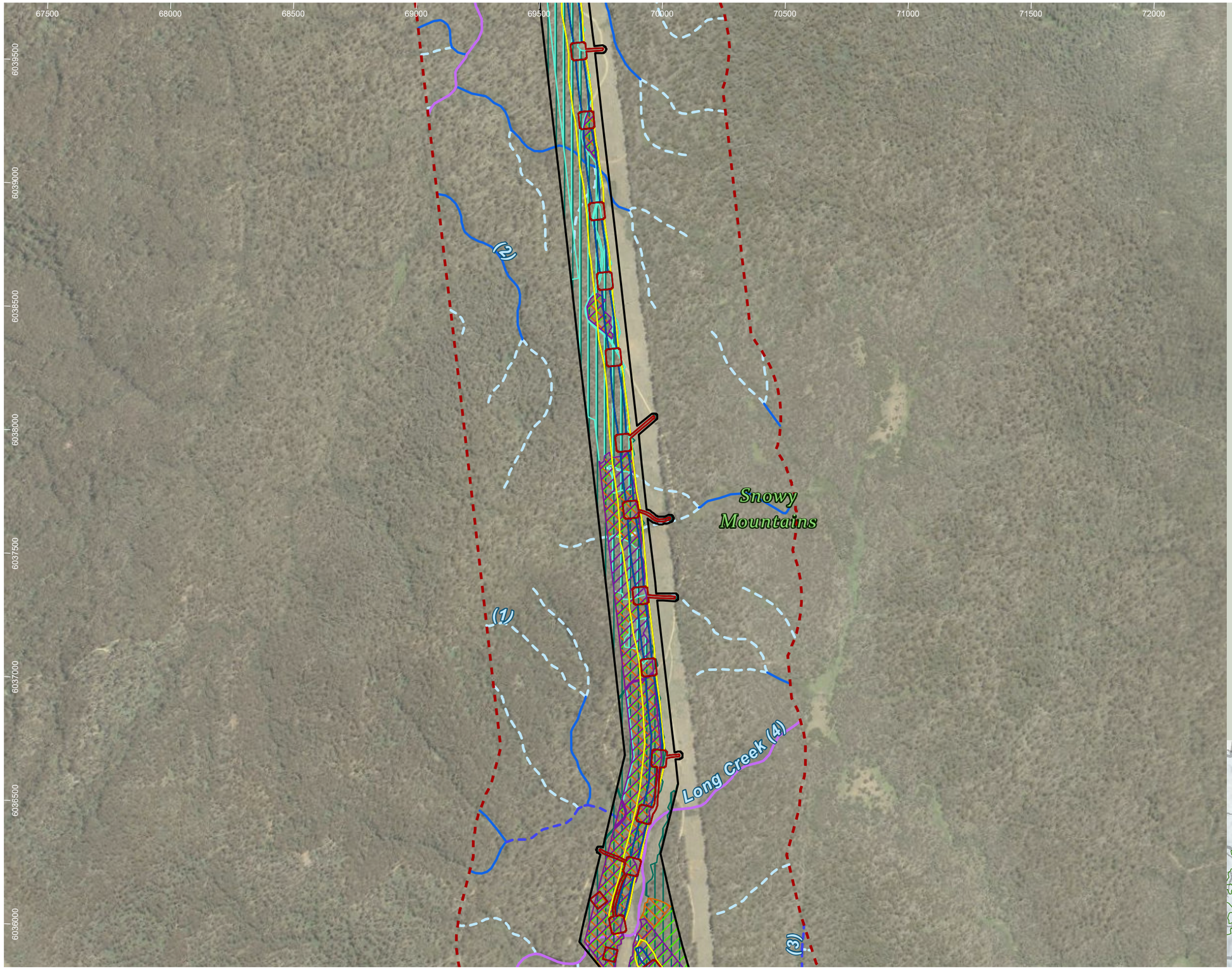


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

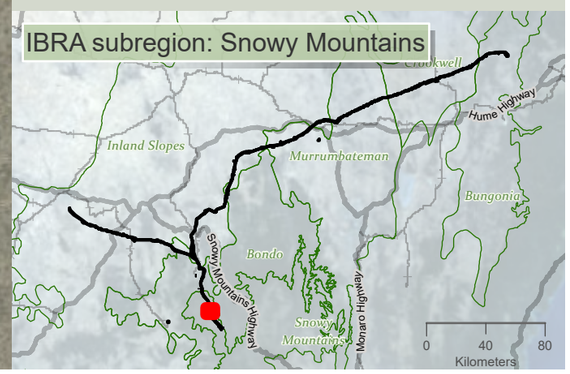
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



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niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 34

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HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

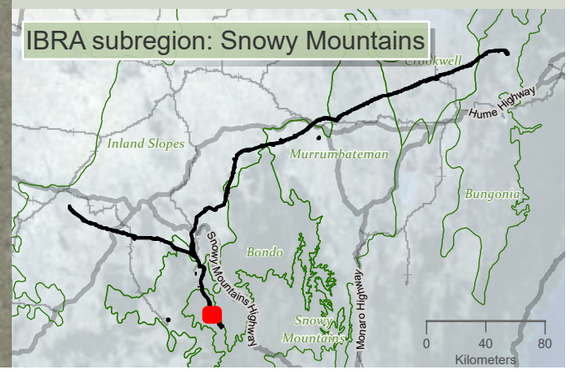
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 36

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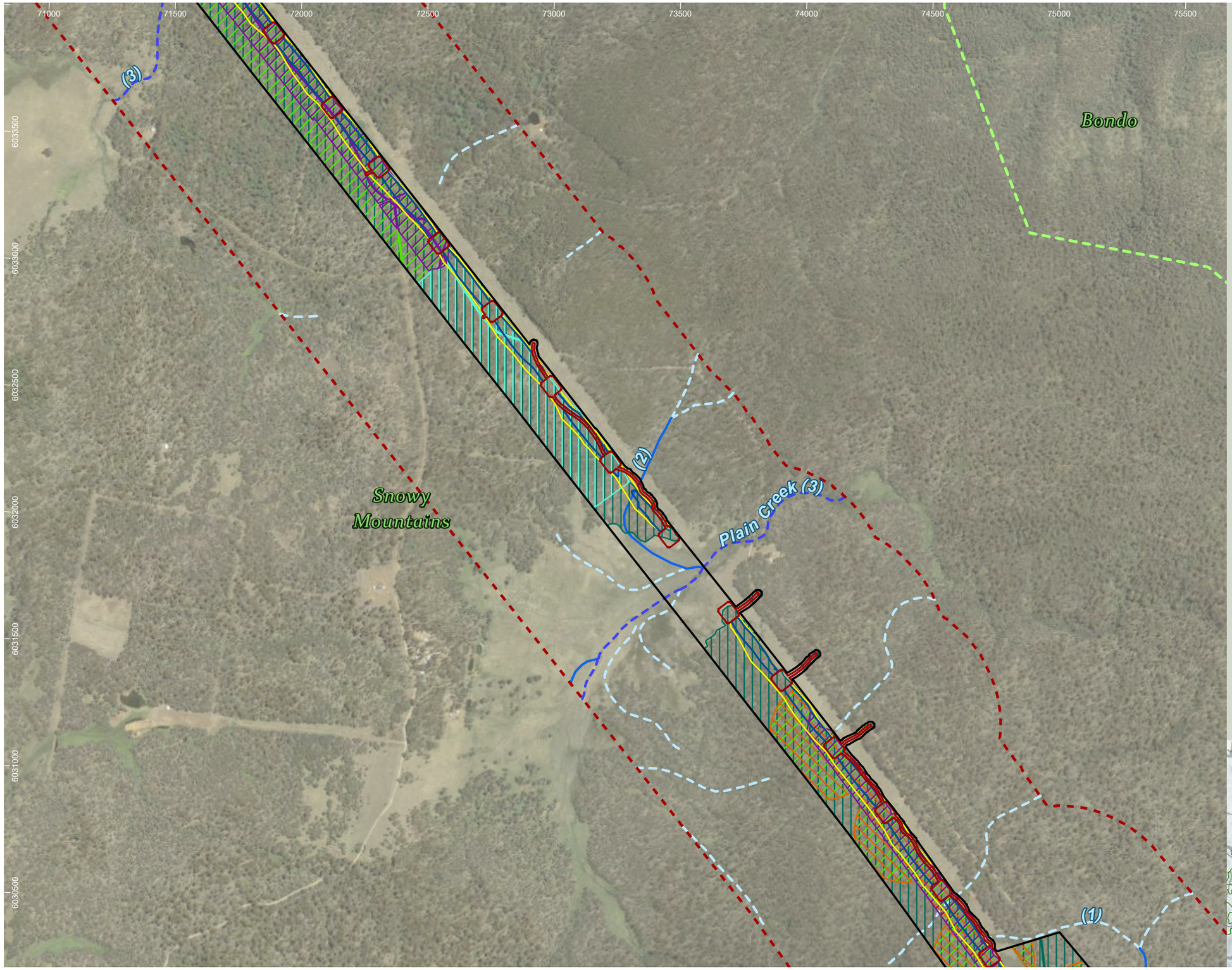


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

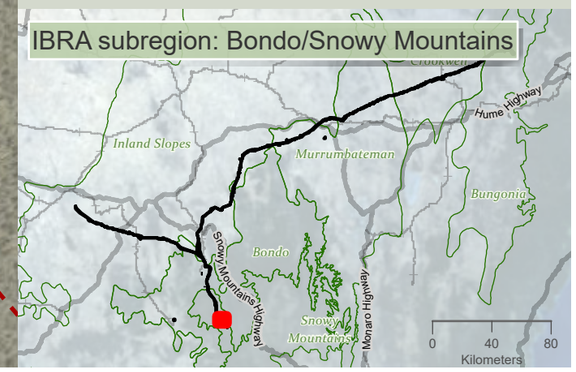
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



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niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 37

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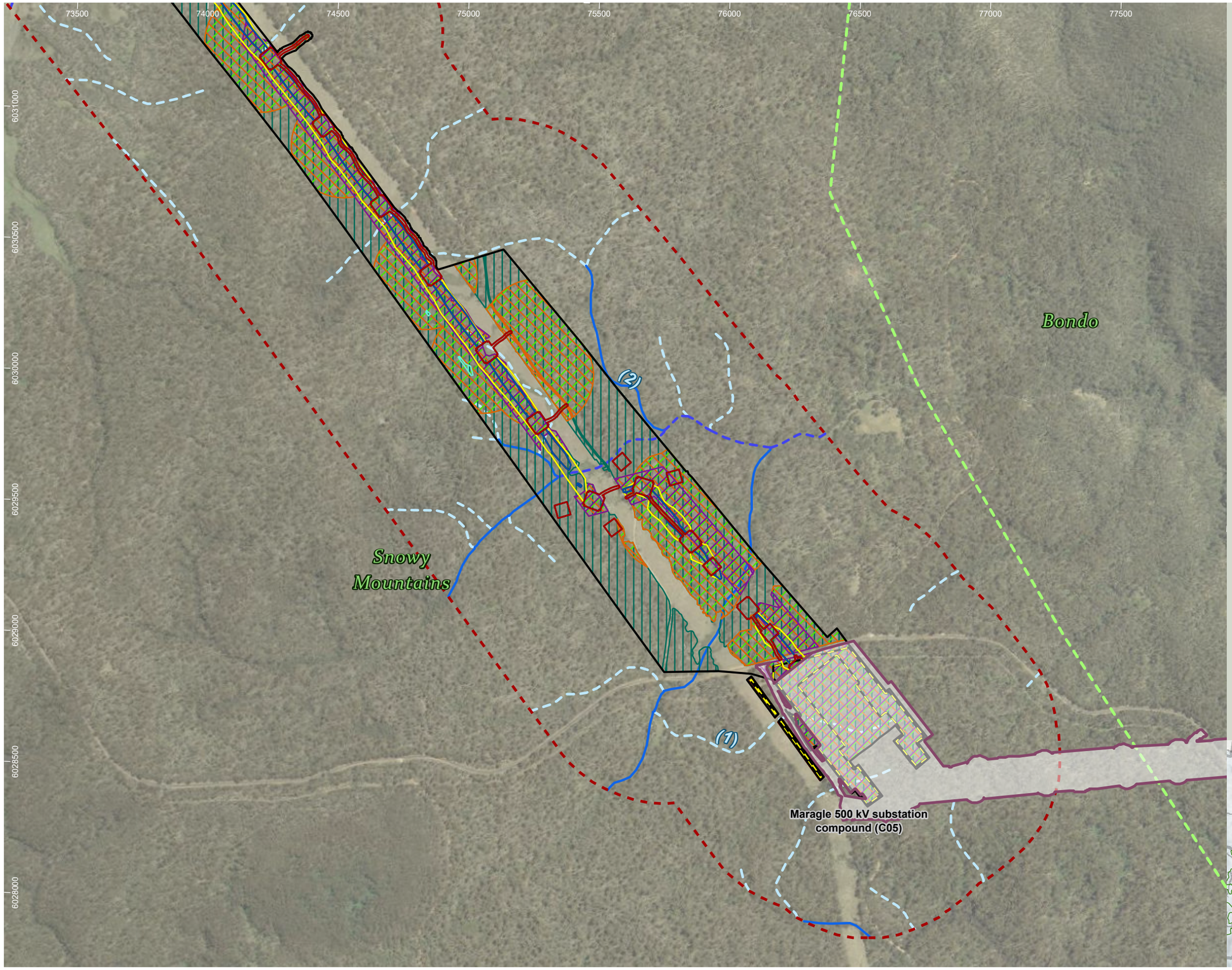


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- IBRA subregion

Strahler stream order

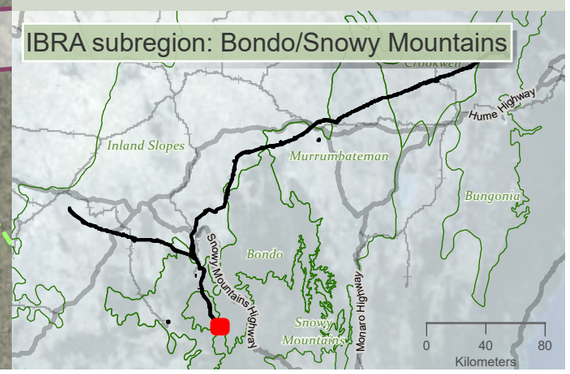
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascogale tapoatafa
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 38

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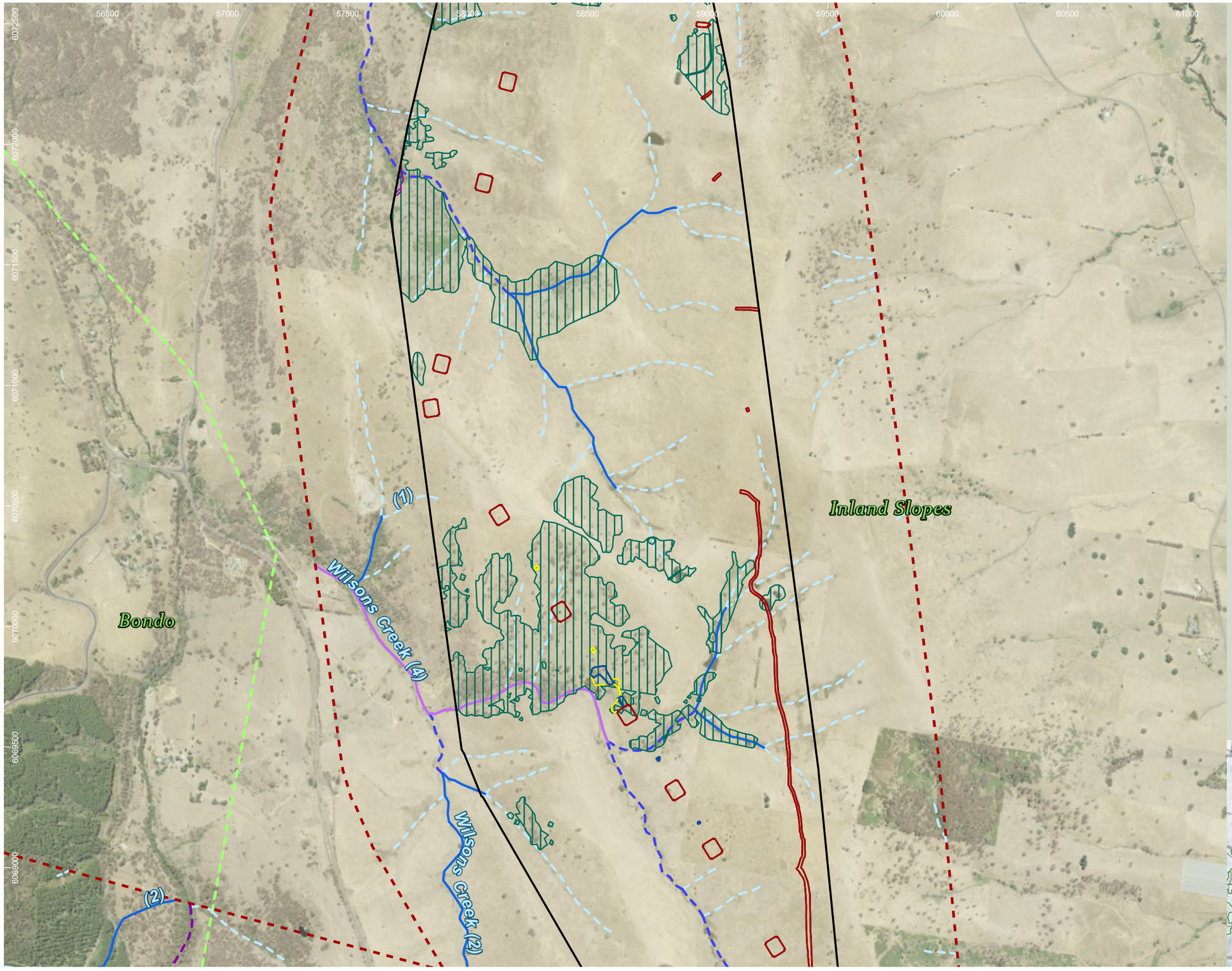
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx - Confidential



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

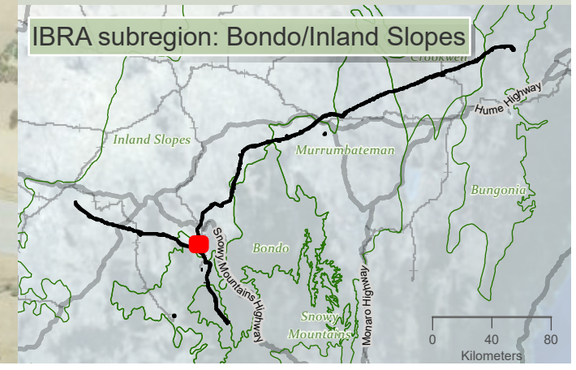
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

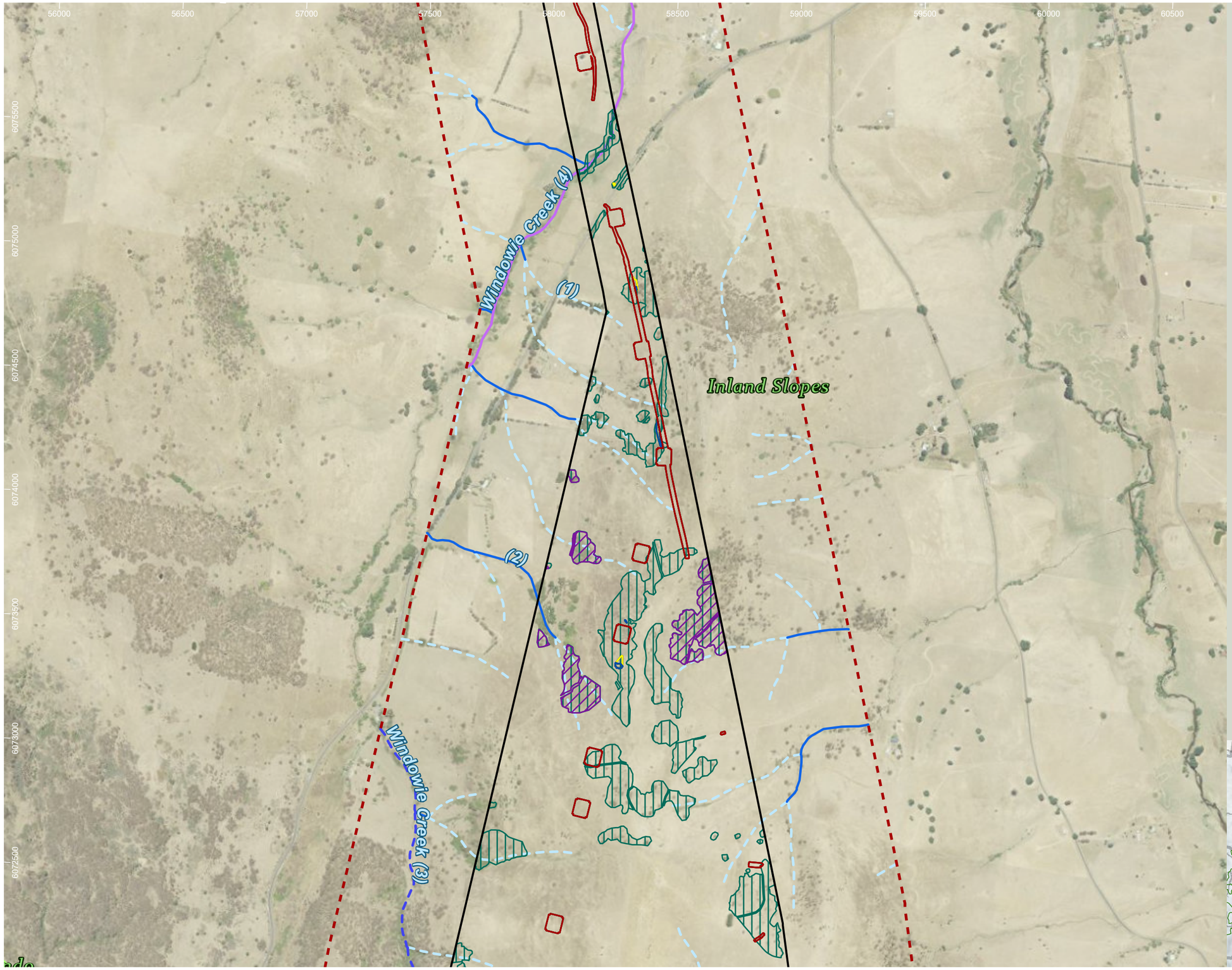
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 39

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

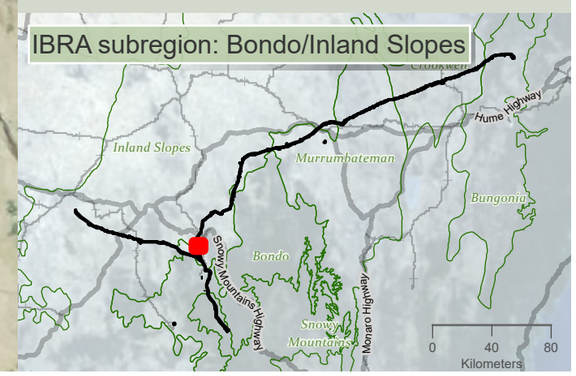
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

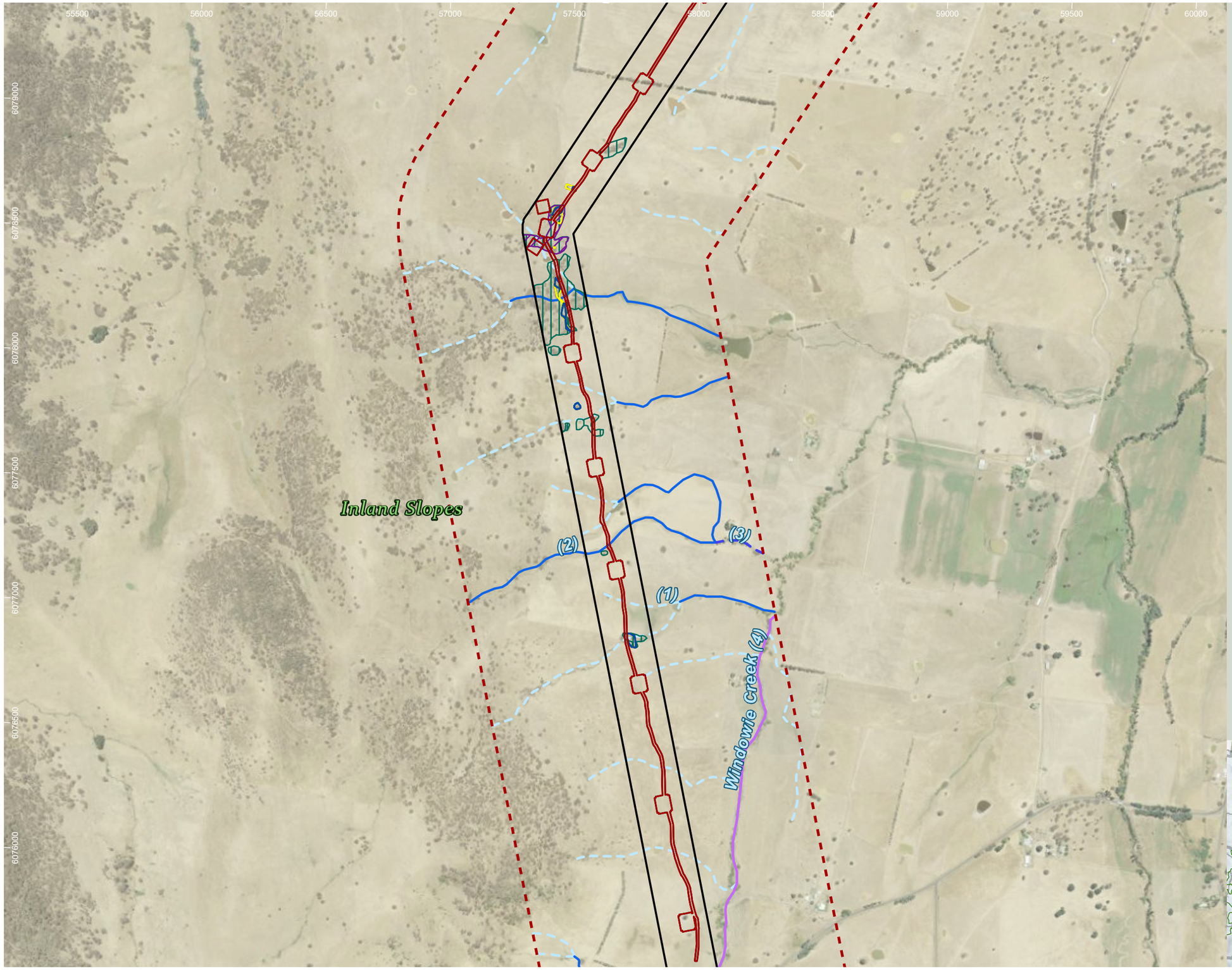
Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 40

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

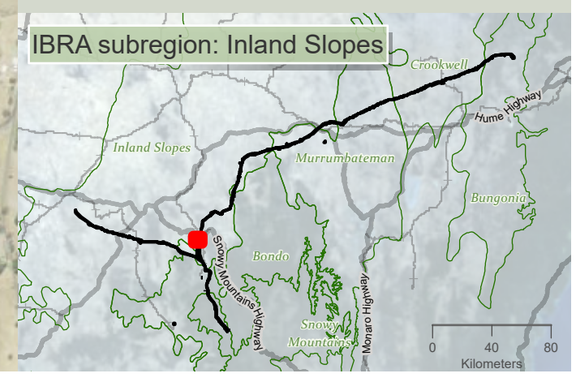
- 0
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

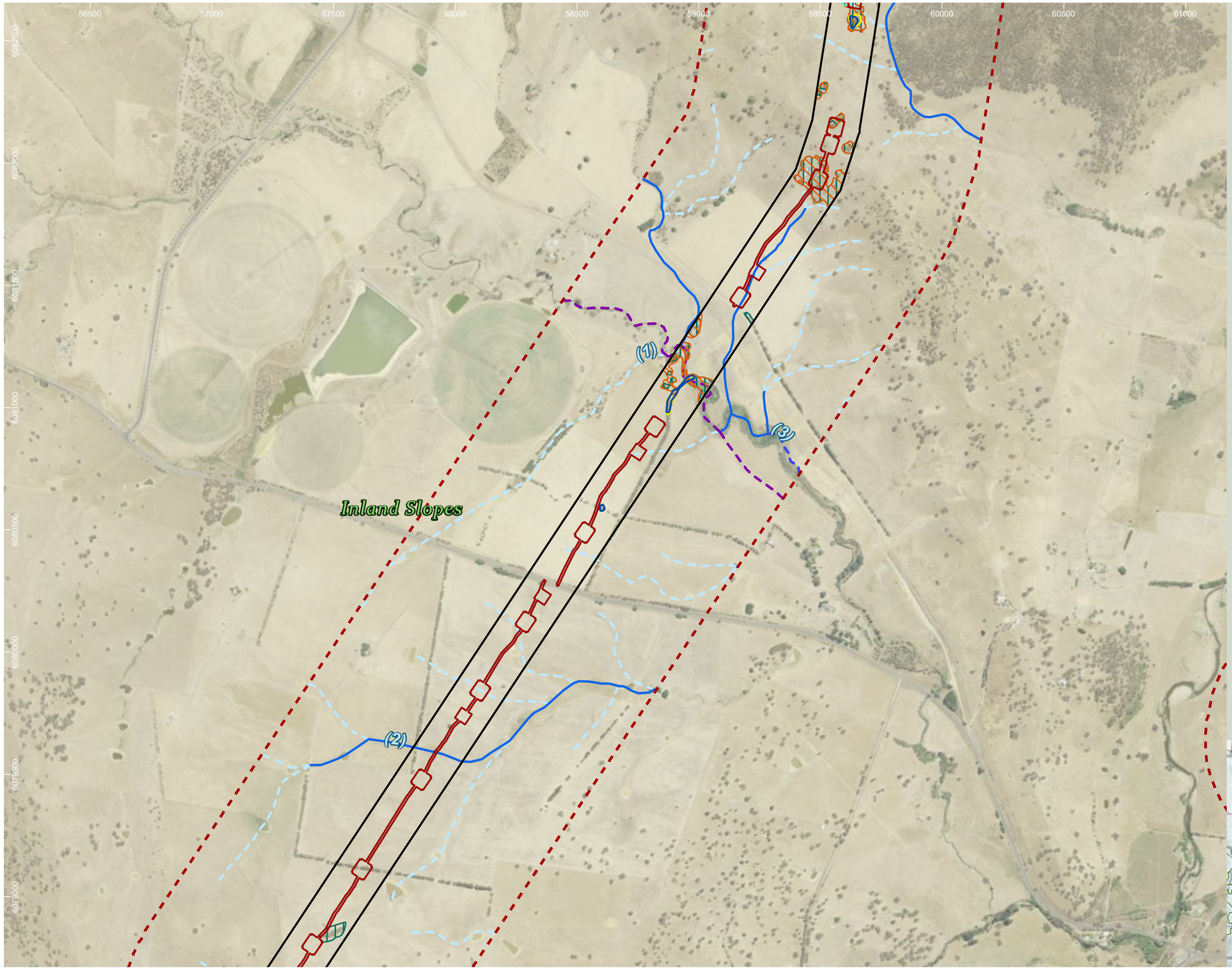
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 41

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

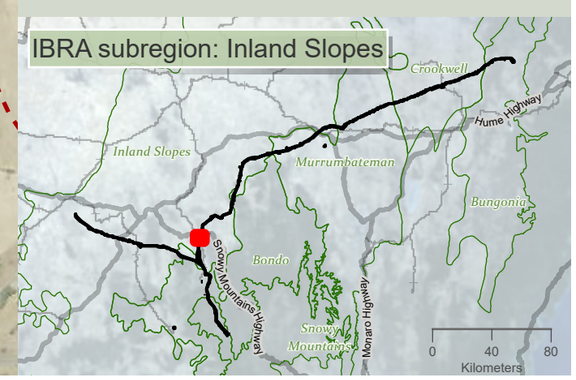
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 42

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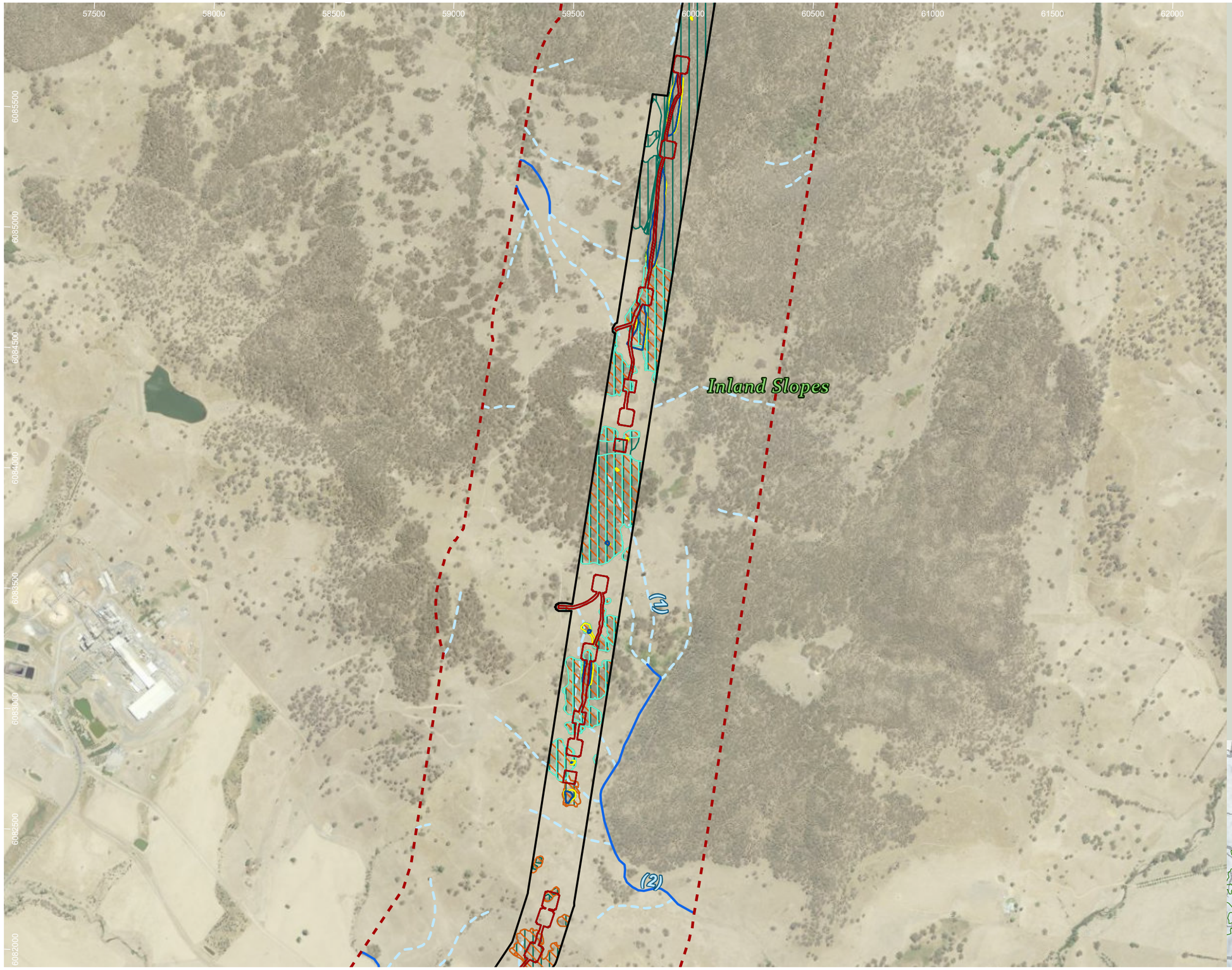
Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

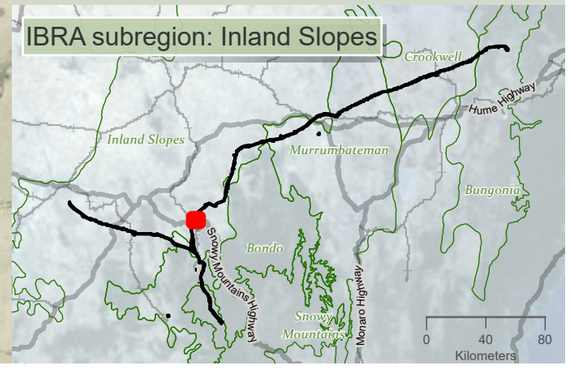
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 44

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58000 58500 59000 59500 60000 60500 61000 61500 62000 62500

6089000 6088500 6088000 6087500 6087000 6086500 6086000 6085500

(1) (2) (3)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

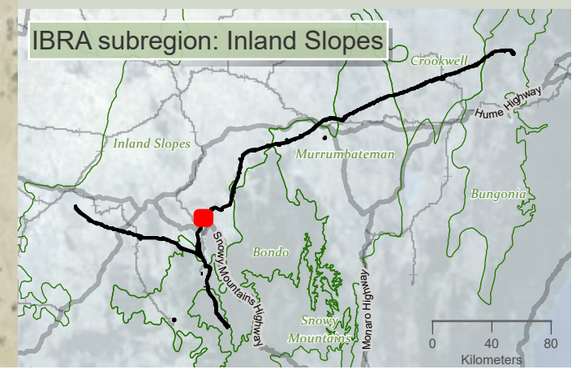
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 500
m
N
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 45

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61000 61500 62000 62500 63000 63500 64000 64500

6009500 6009000 6008500

Gocup Creek (4)

(1)

(3)

(2)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

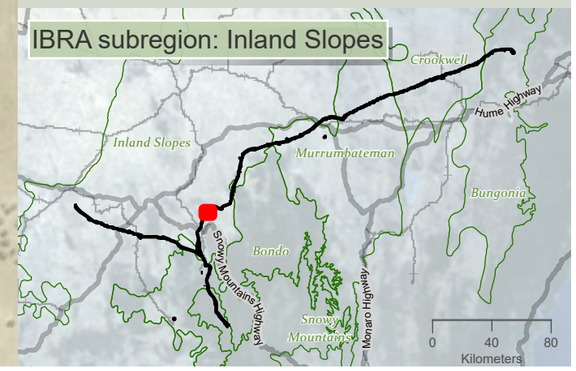
- 1
- 2
- 3
- 4
- 8

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 46

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63500 64000 64500 65000 65500 66000 66500 67000

6094000 6093500 6093000 6092500 6092000 6091500 6091000

(1) (2) (3) (4)

Inland Slopes

Tumut River (8)

Gocup Creek (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

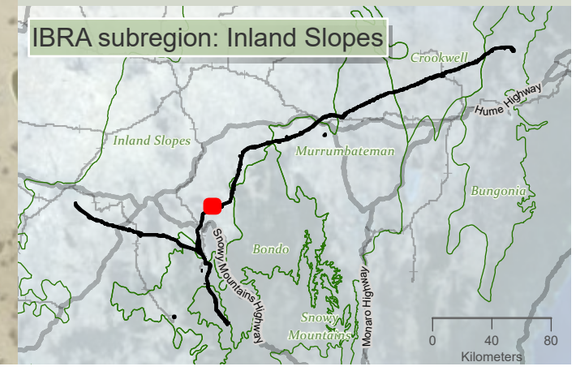
- 1
- 2
- 3
- 4
- 5
- 8

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 47

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66500 67000 67500 68000 68500 69000 69500 70000

6094000 6093500 6093000 6092500 6092000 6091500

(1) (2) (3)

Inland Slopes

Killimicat Creek (5)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

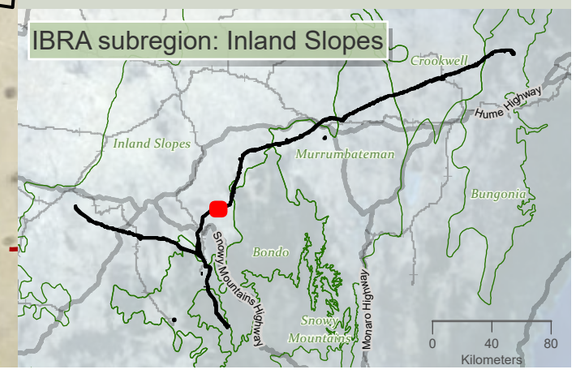
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 48

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70000 70500 71000 71500 72000 72500 73000 73500

6095000 6094500 6094000 6093500 6093000

Inland Slopes

Sawpit Gully (4)

Killimicat Creek (5)

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

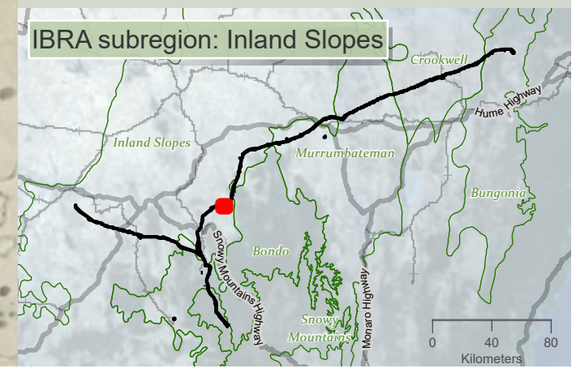
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 49

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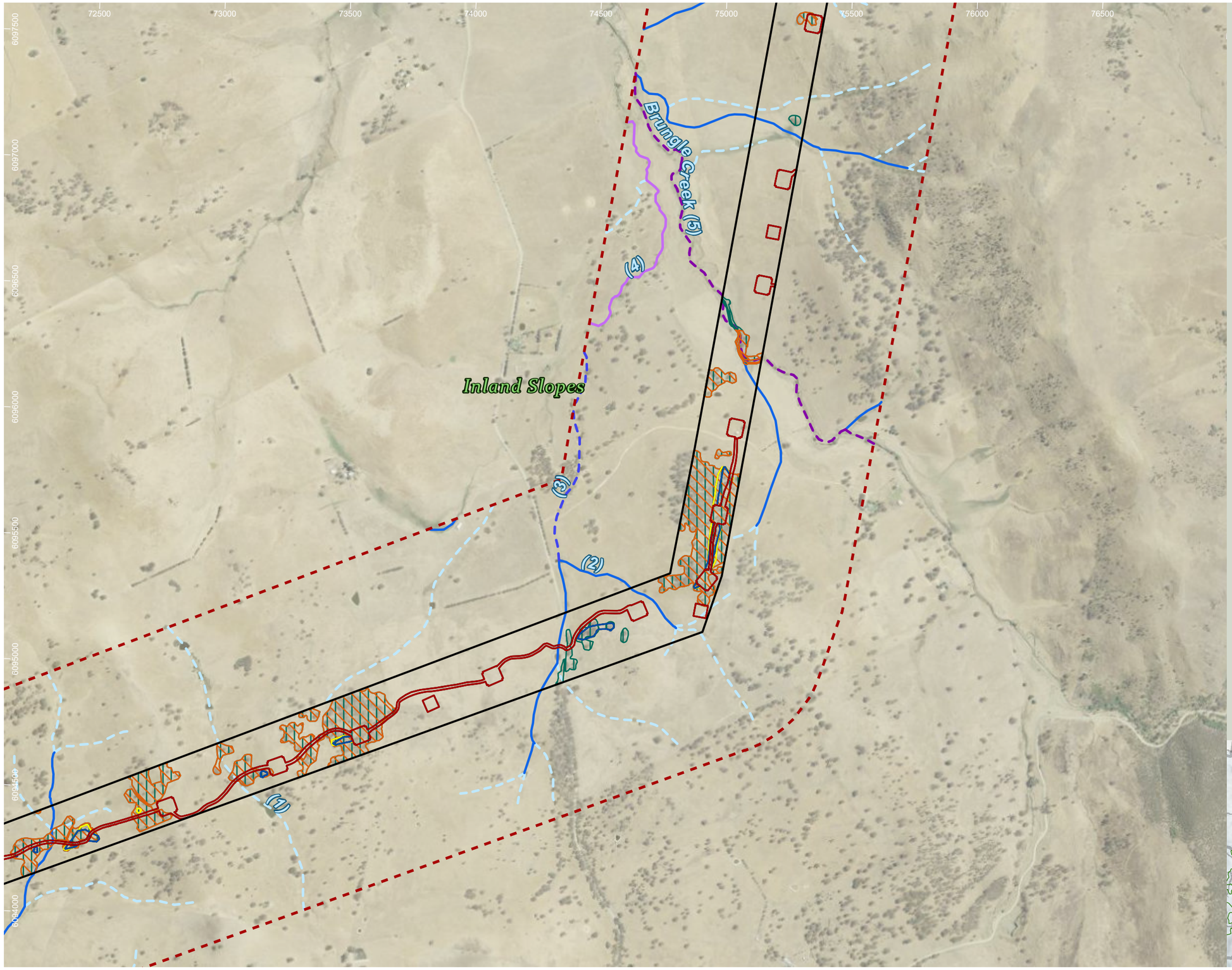


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

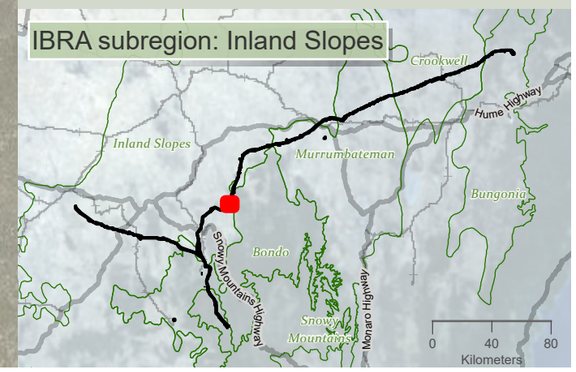
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 50

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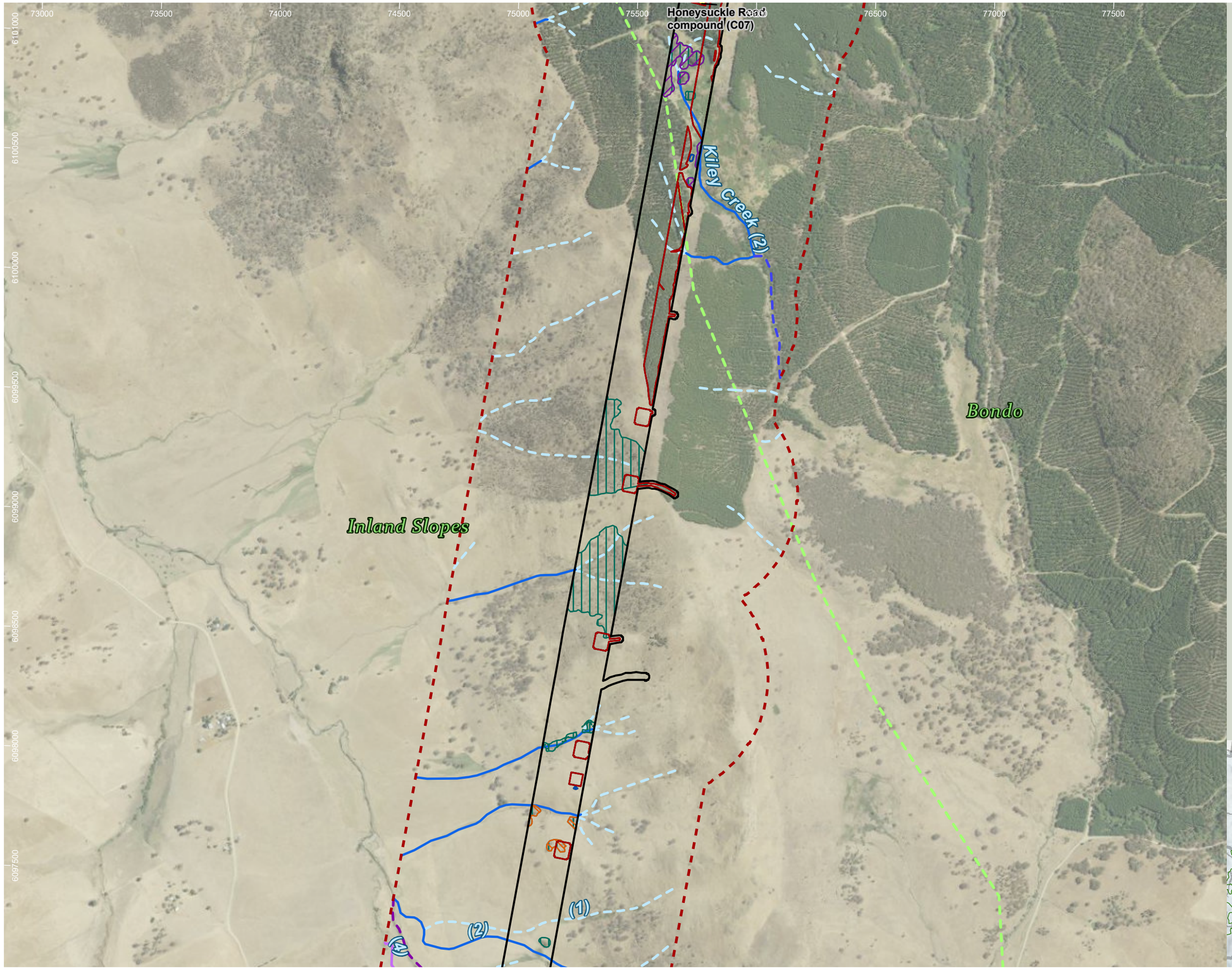


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

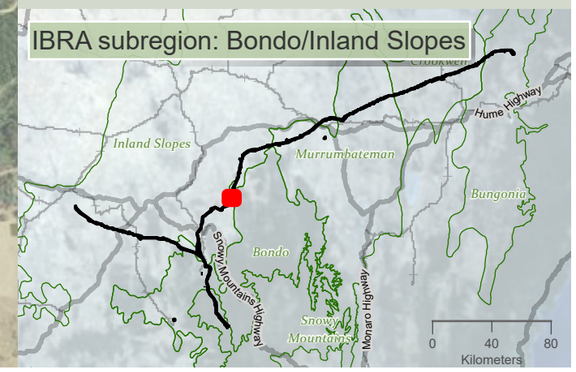
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 51

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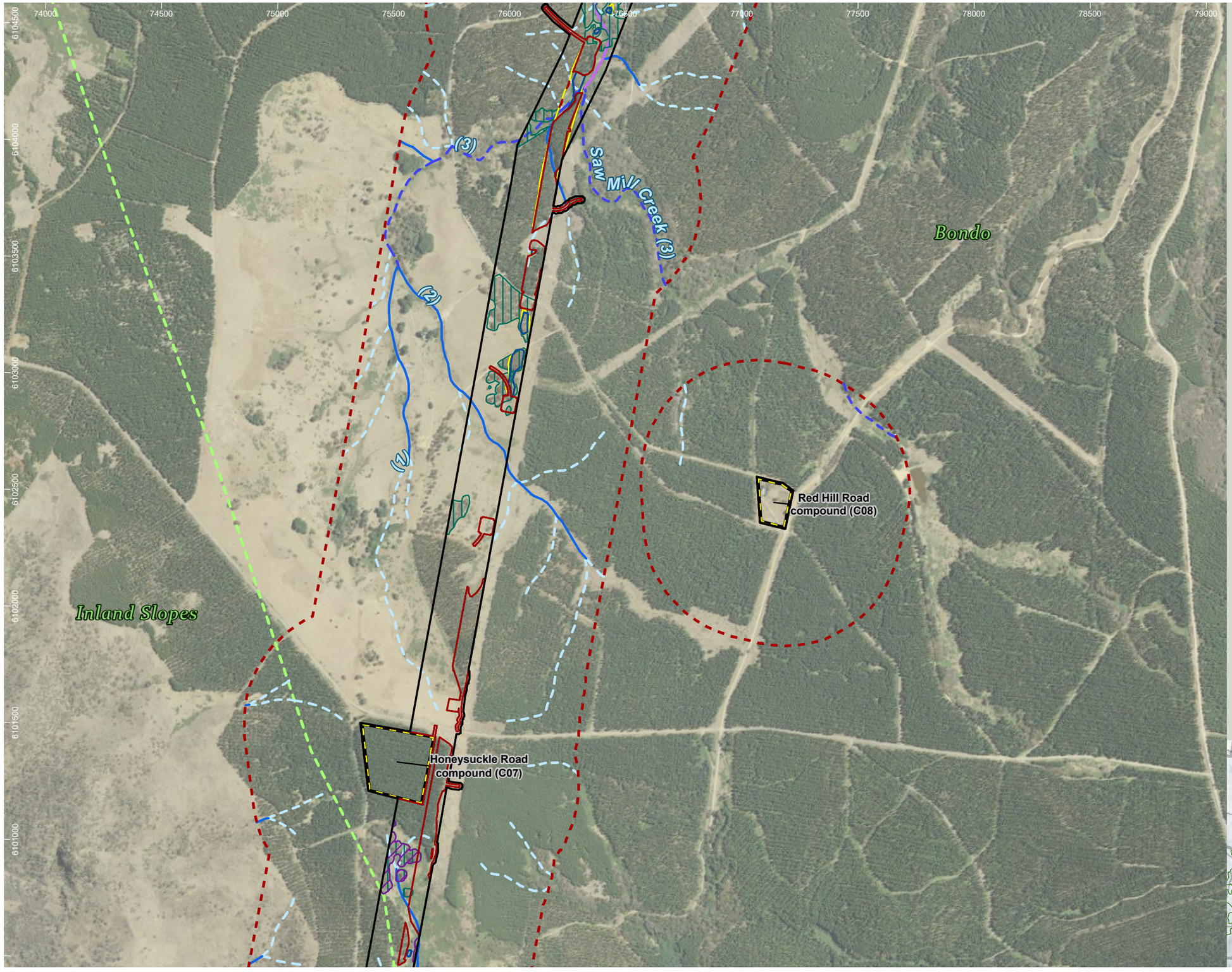


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

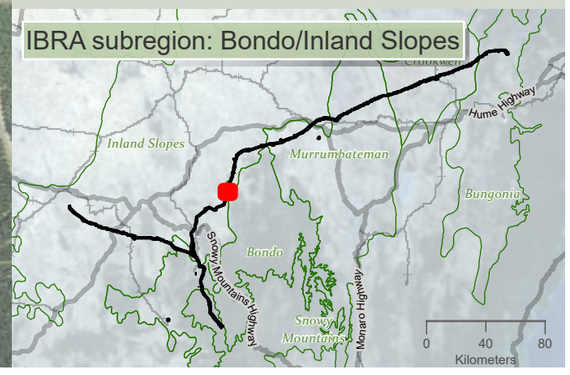
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 52

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

74500 75000 75500 76000 76500 77000 77500 78000 78500 79000

6108000 6107500 6107000 6106500 6106000 6105500 6105000 6104500

(3) (1) (2) (4)

Inland Slopes

Bondo

Saw Mill Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

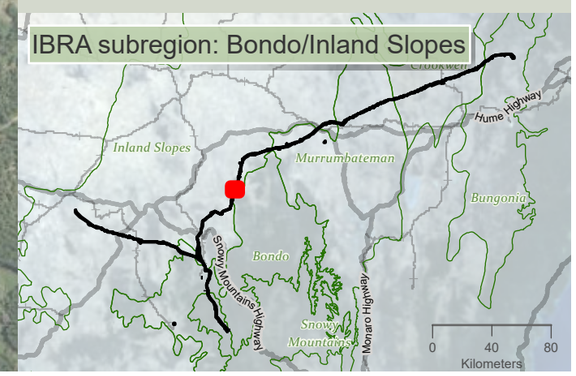
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

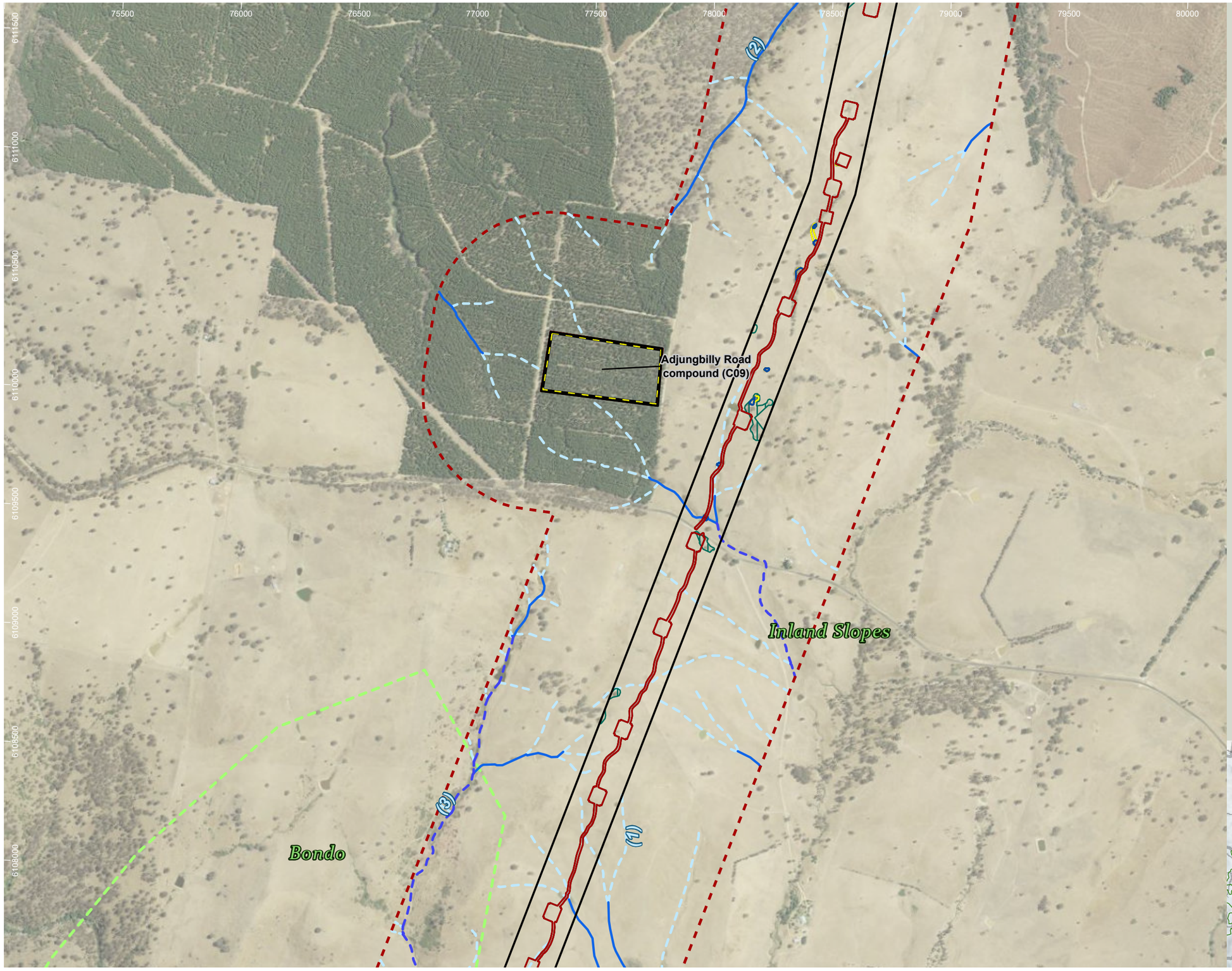
Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 53

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6999 - Confidential impact assessment\SEC-EXT - BDAR_v2\ai6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

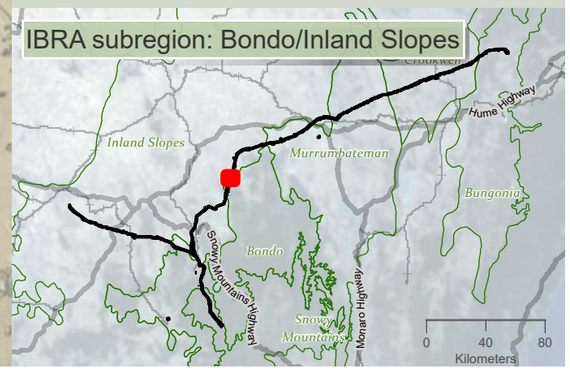
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 54

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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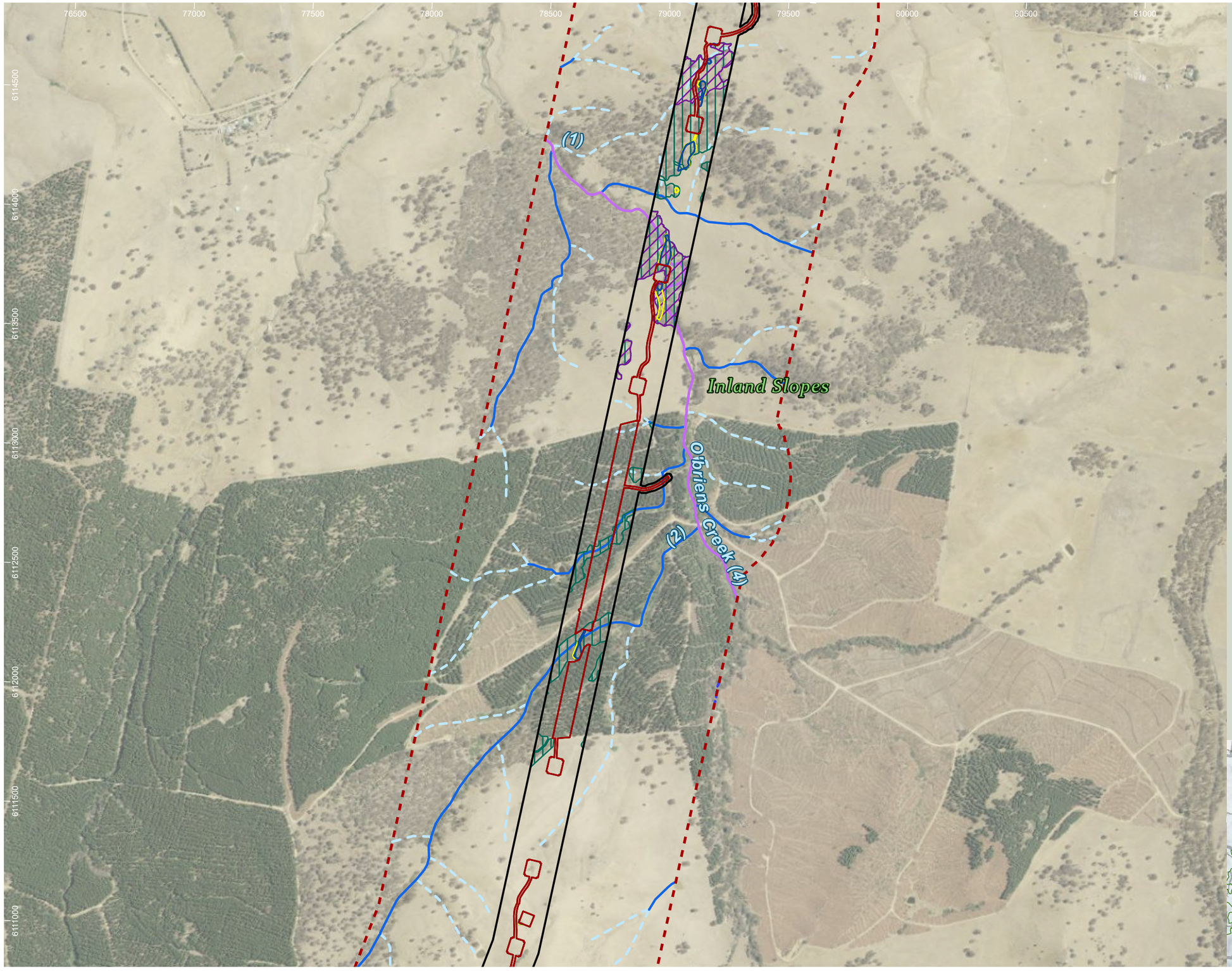


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

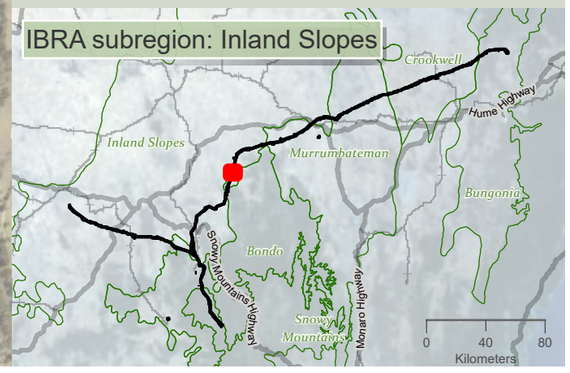
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 55

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

Inland Slopes

Cart Road Creek (3)

(2)

(1)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

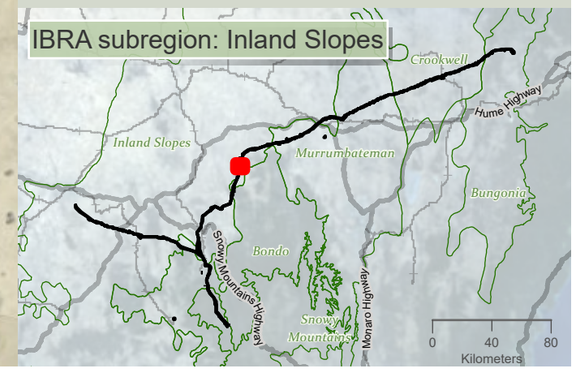
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 56

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

(1)

Oak Creek (5)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

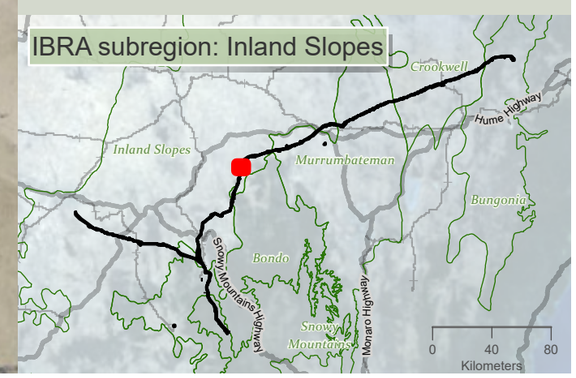
- 1
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

79000 79500 80000 80500 81000 81500 82000 82500 83000

6124500 6124000 6123500 6123000 6122500 6122000 6121500

Inland Slopes

(1)

(2)

Yellow Clay Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

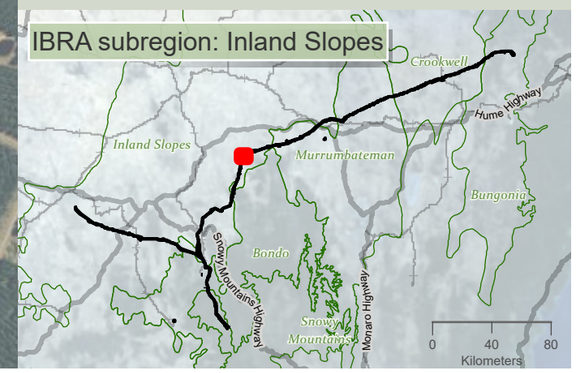
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

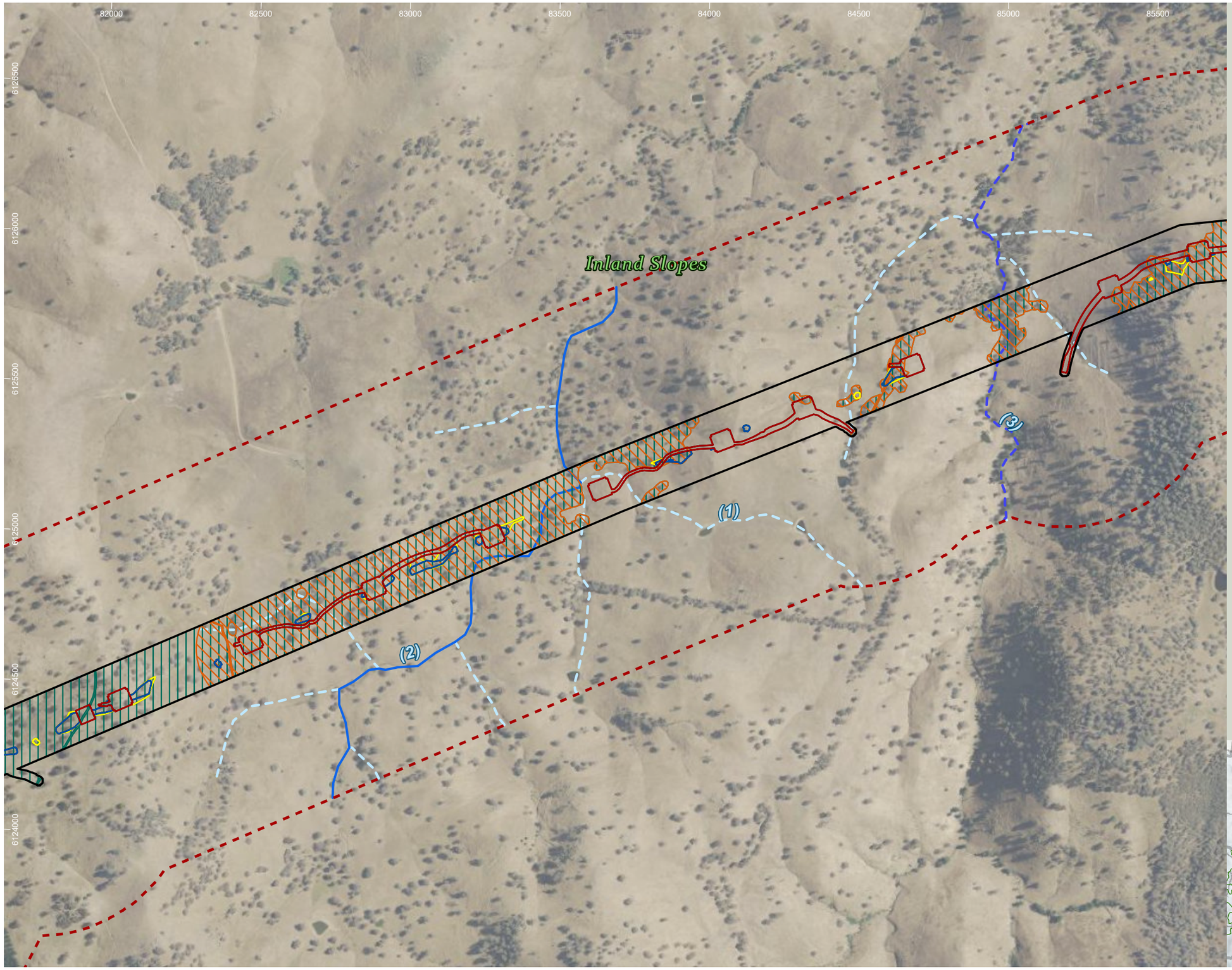
Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 58

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

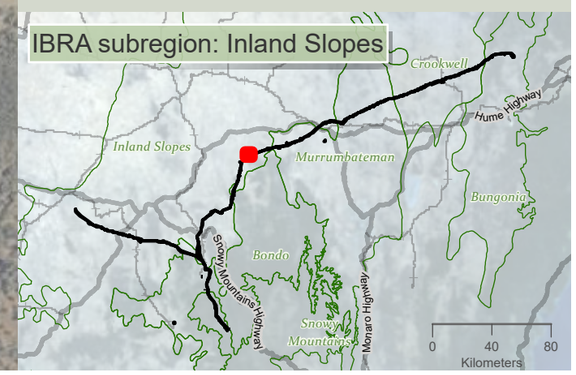
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 59

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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85500 86000 86500 87000 87500 88000 88500

6127500 6127000 6126500 6126000 6125500 6125000

Rocky Creek (2)

Inland Slopes

(1)

(2)

Dicks Gully (2)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

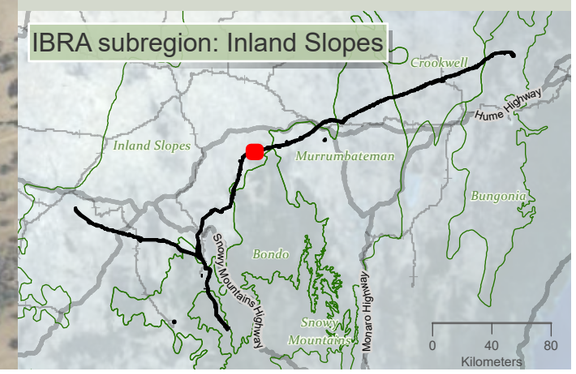
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 60

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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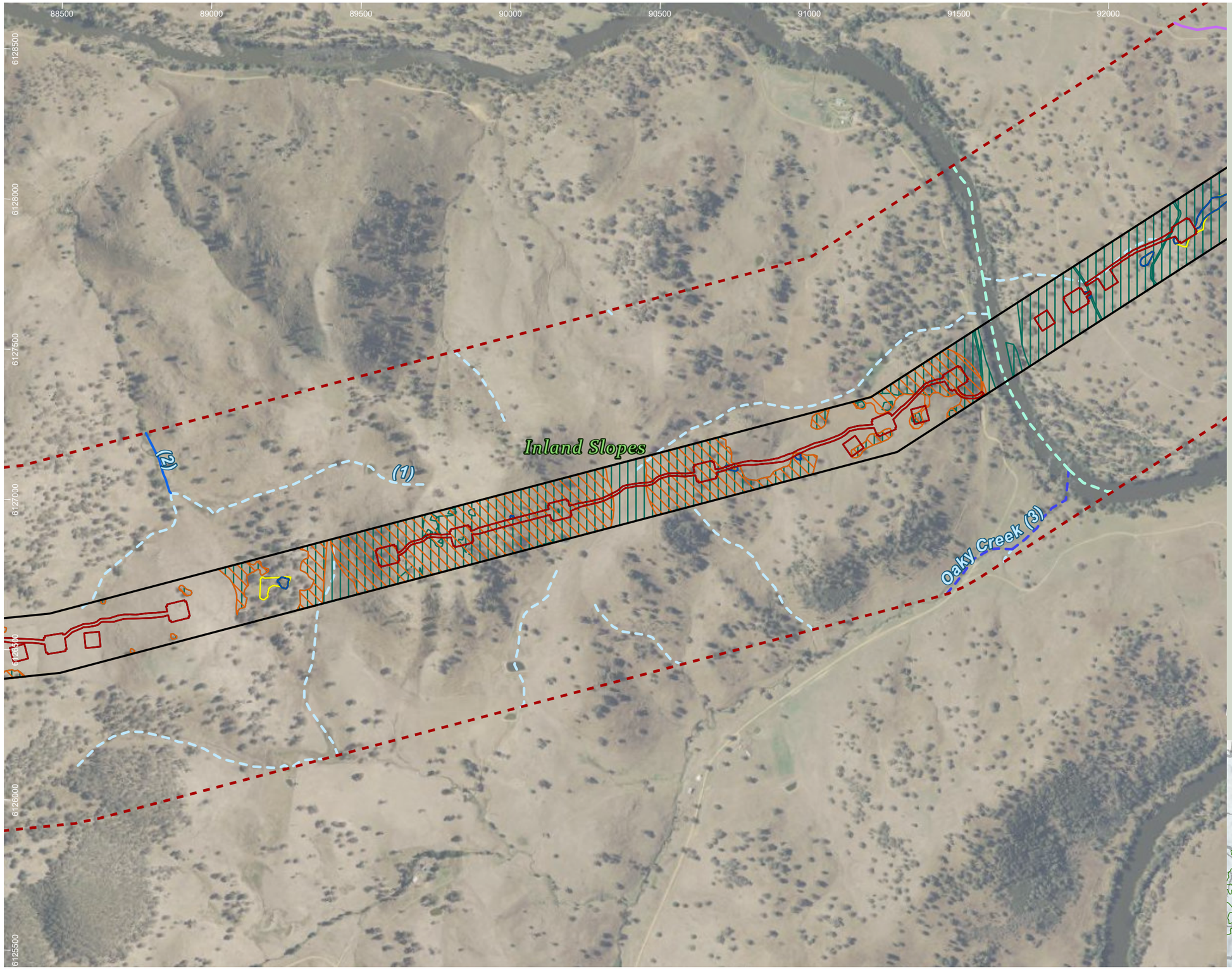


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

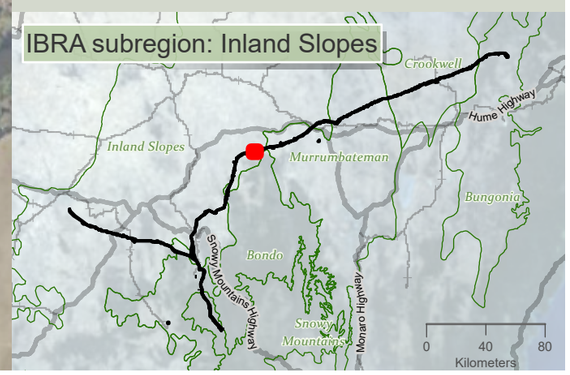
- 1
- 2
- 3
- 4
- 9

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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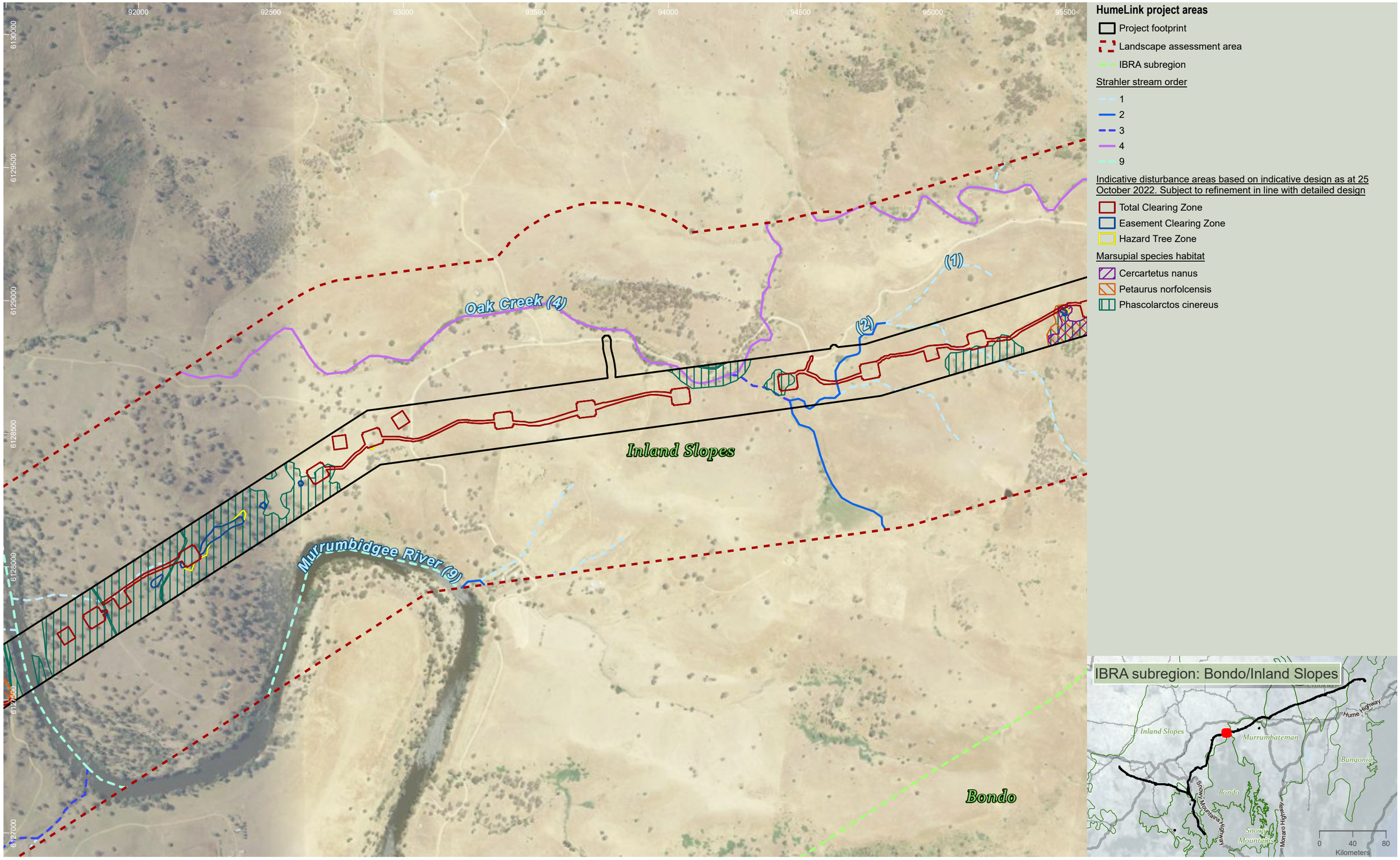


niche Environment and Heritage

0 400
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

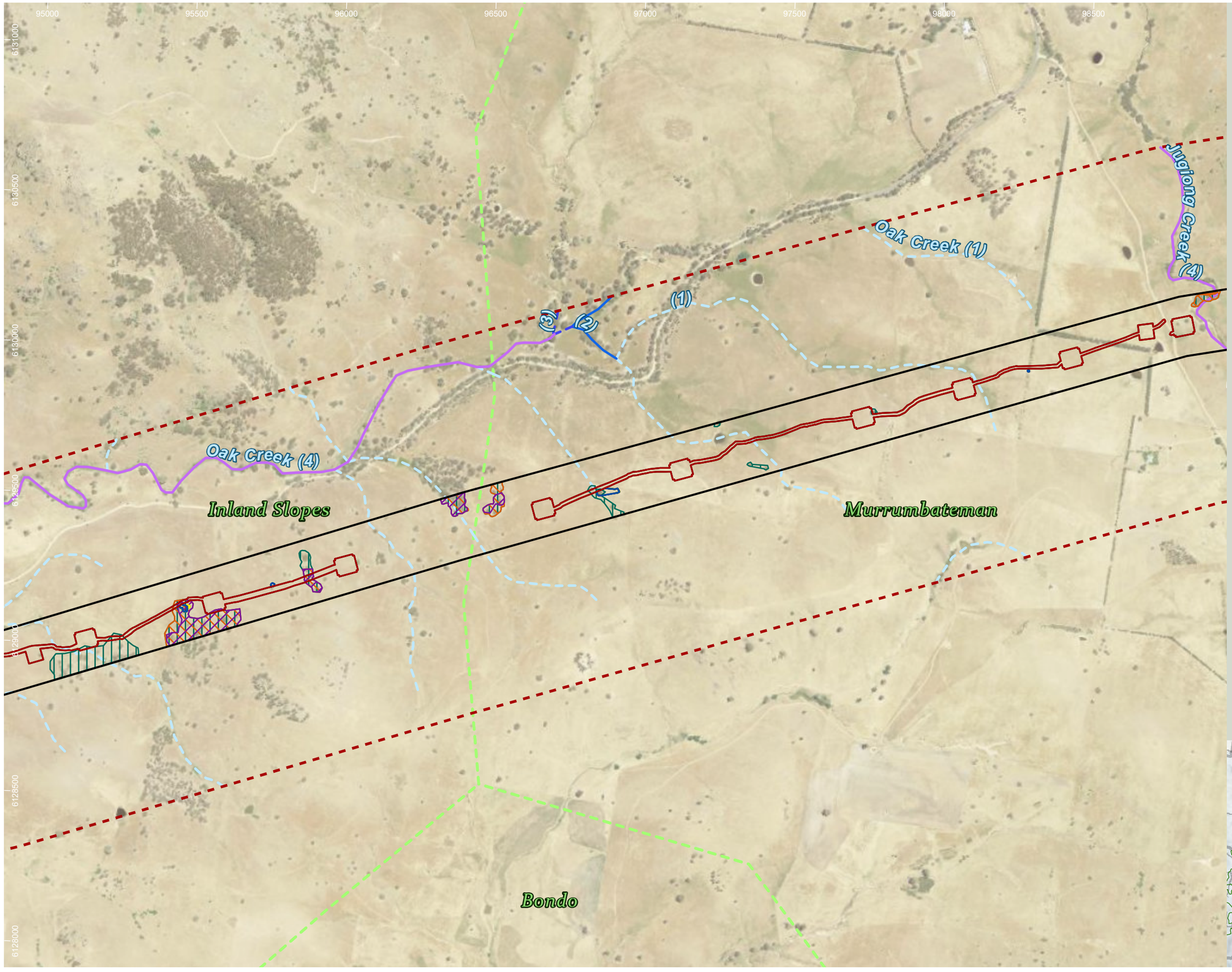
HumeLink BDAR

Figure 13-11 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

v2.0

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

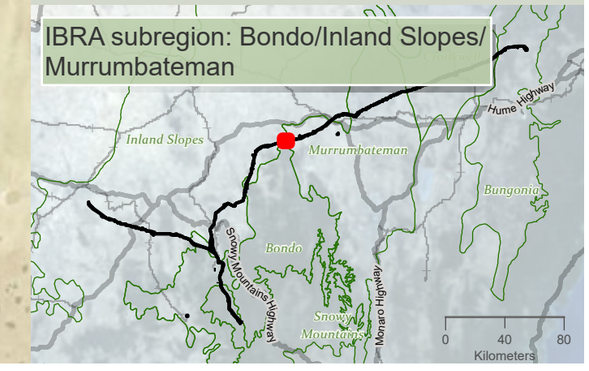
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

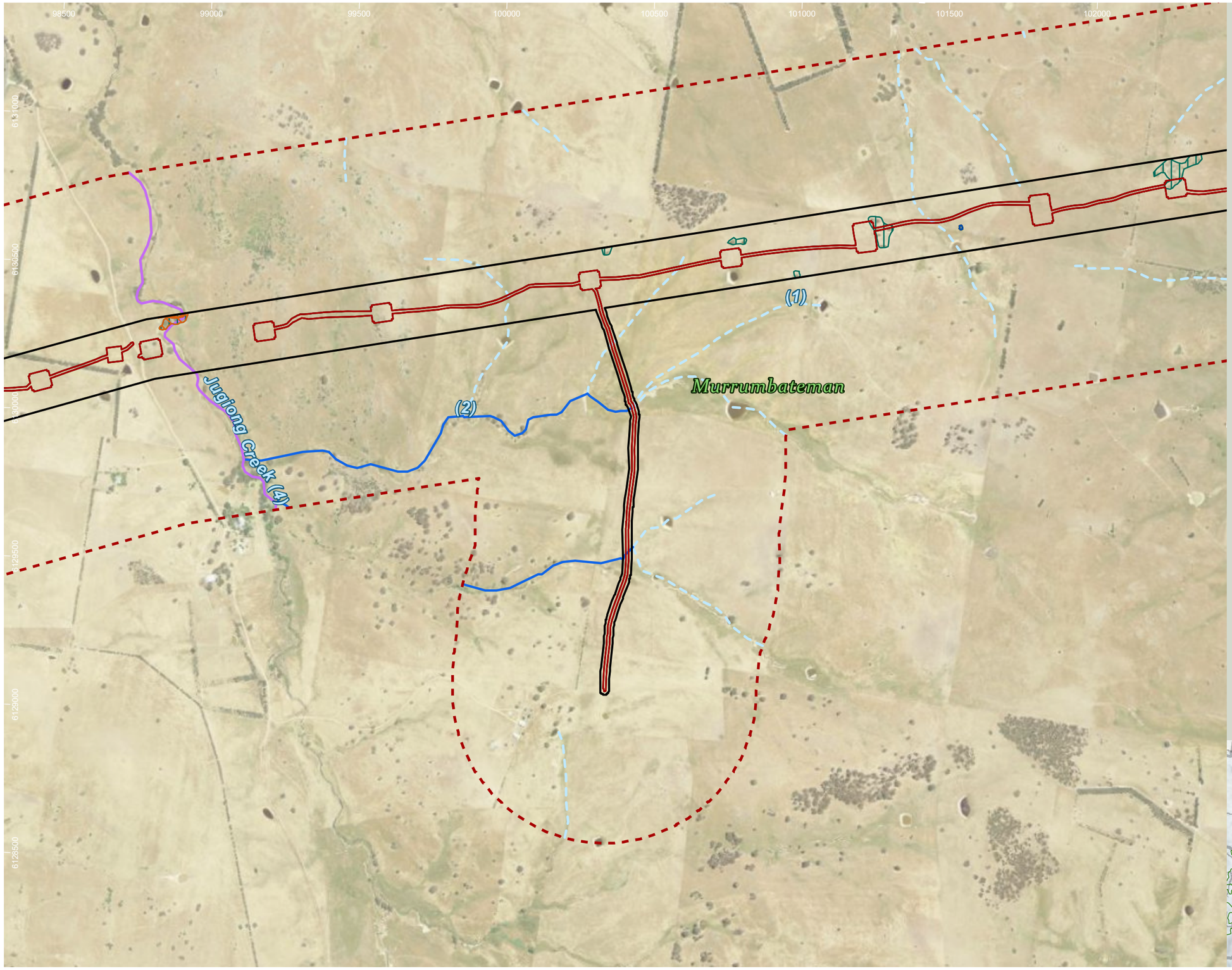
Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

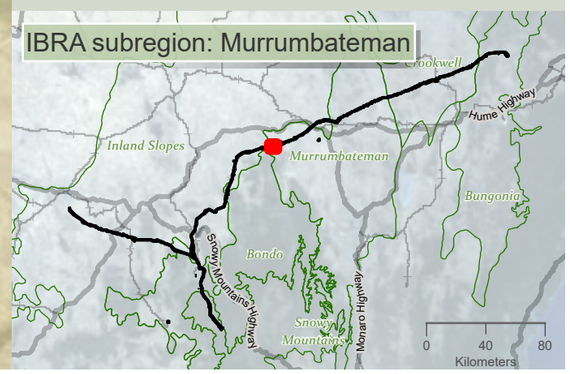
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

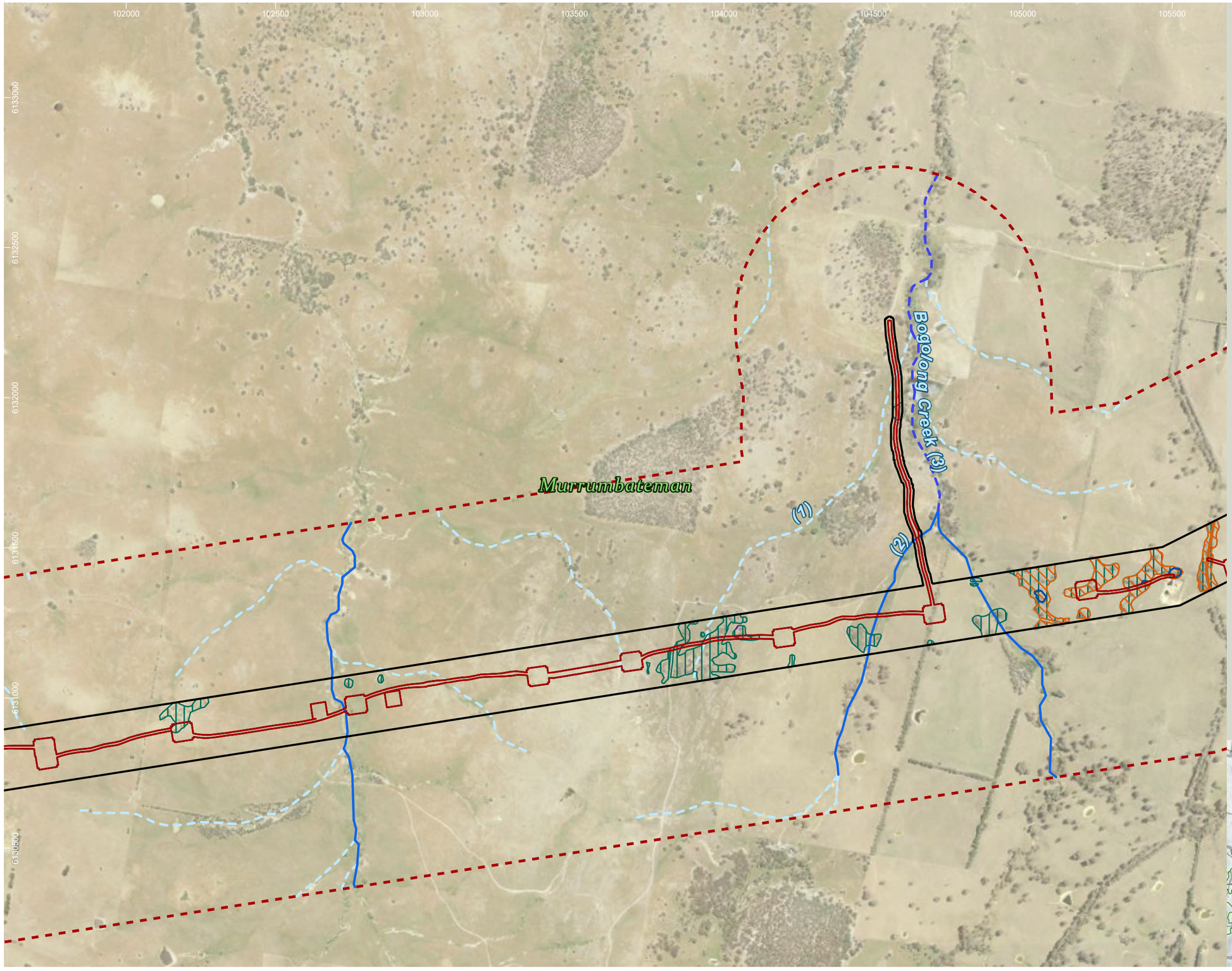
Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 64

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

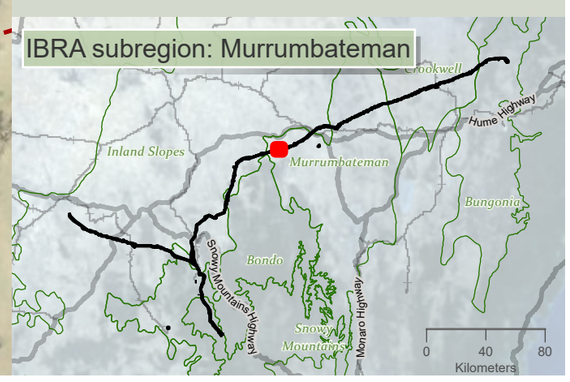
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 65

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski | Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Murrumbateman

(2) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

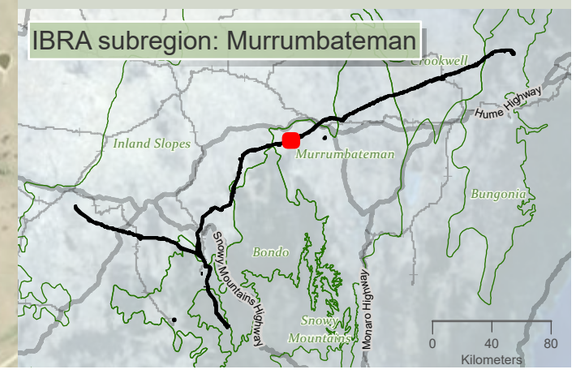
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 66

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

108500 109000 109500 110000 110500 111000 111500 112000

6135000 6134500 6134000 6133500 6133000 6132500

Murrumbateman

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

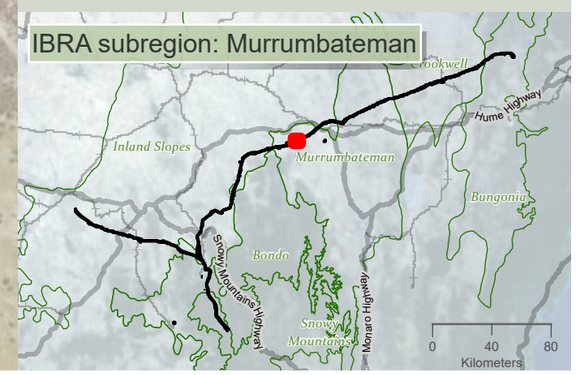
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

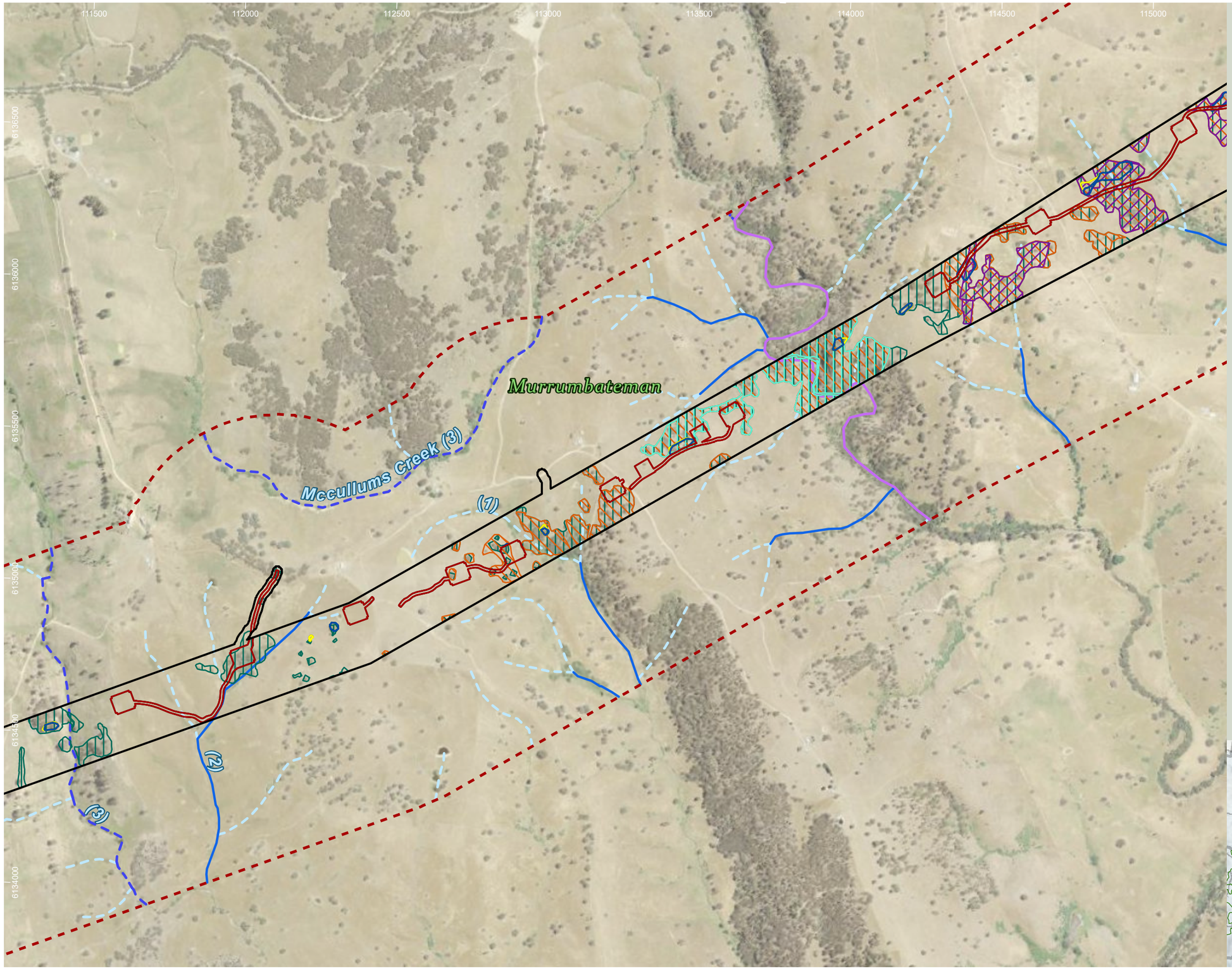
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 67

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

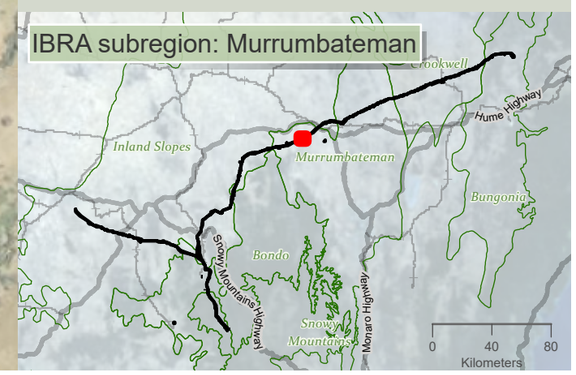
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski: Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

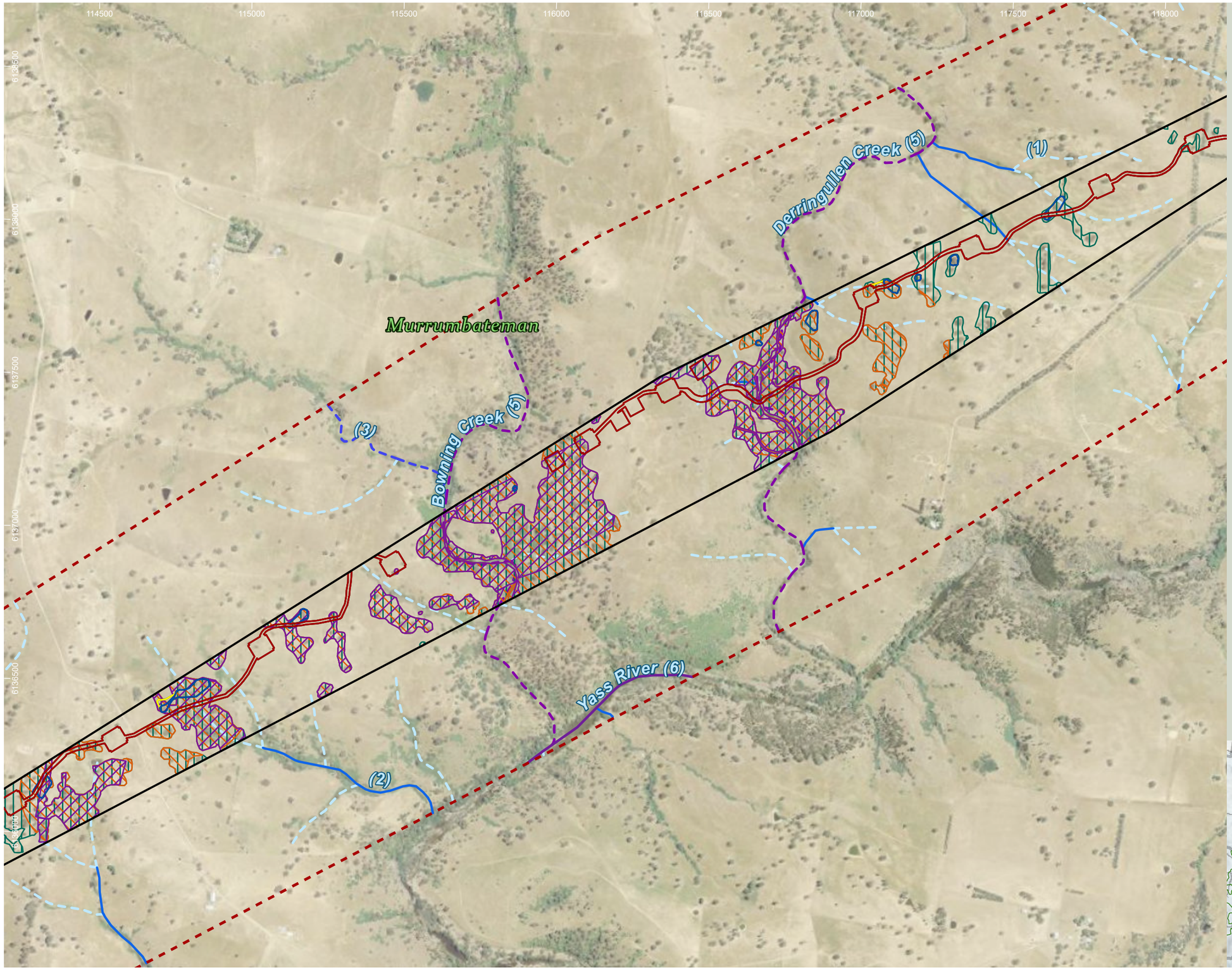
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 68

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

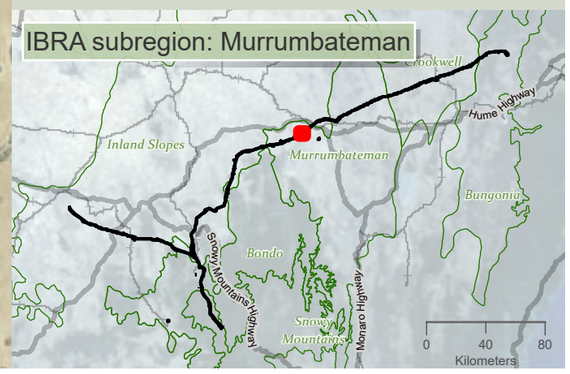
- 1
- 2
- 3
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

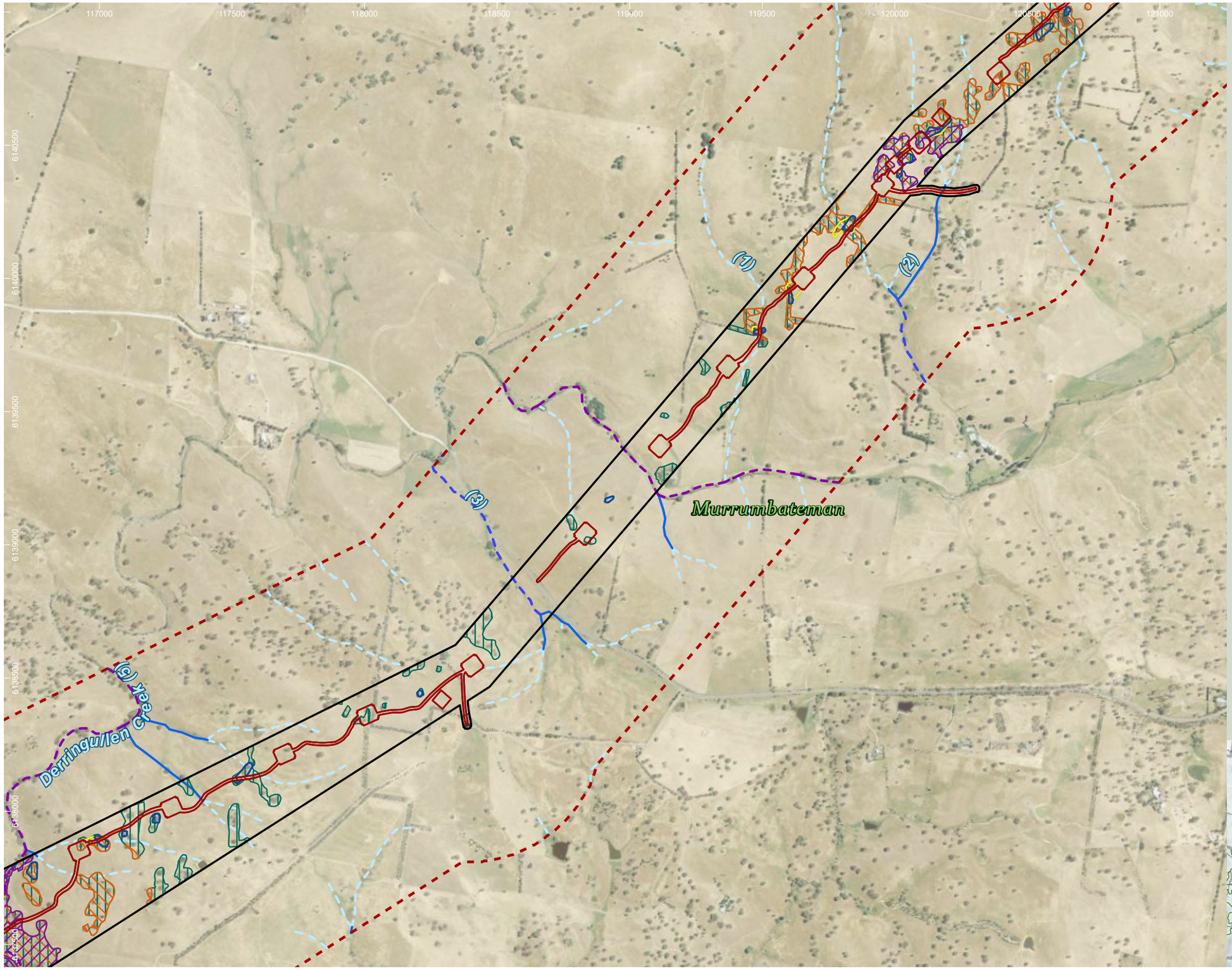
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 69

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

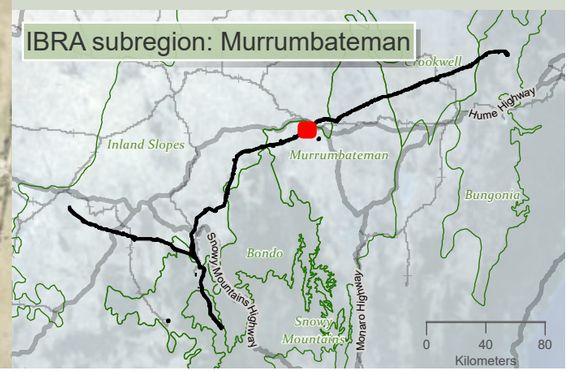
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

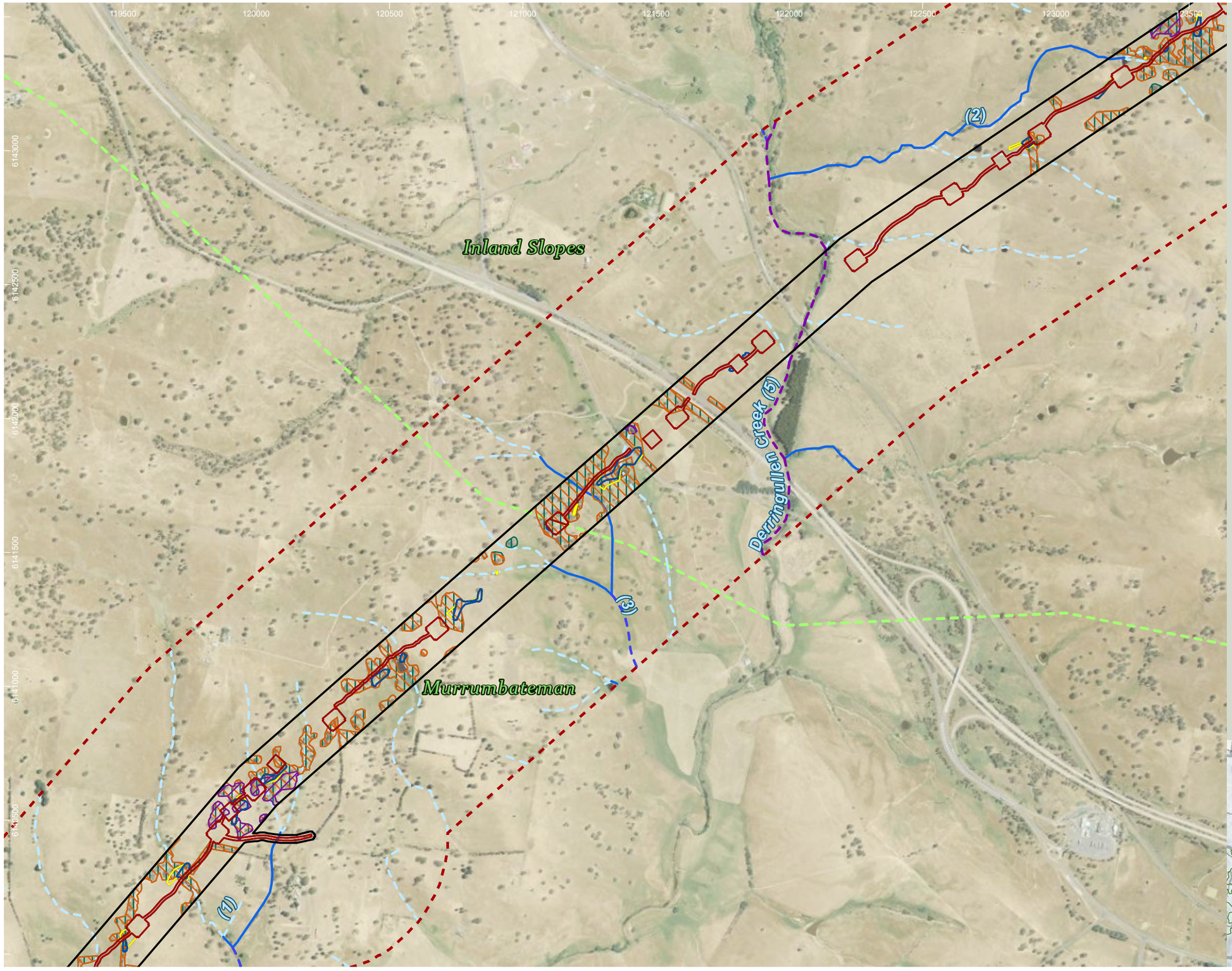
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 70

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

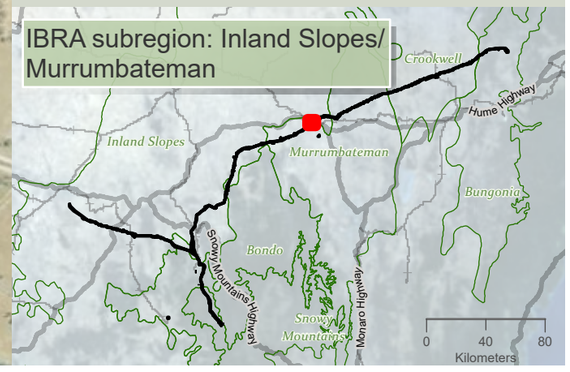
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

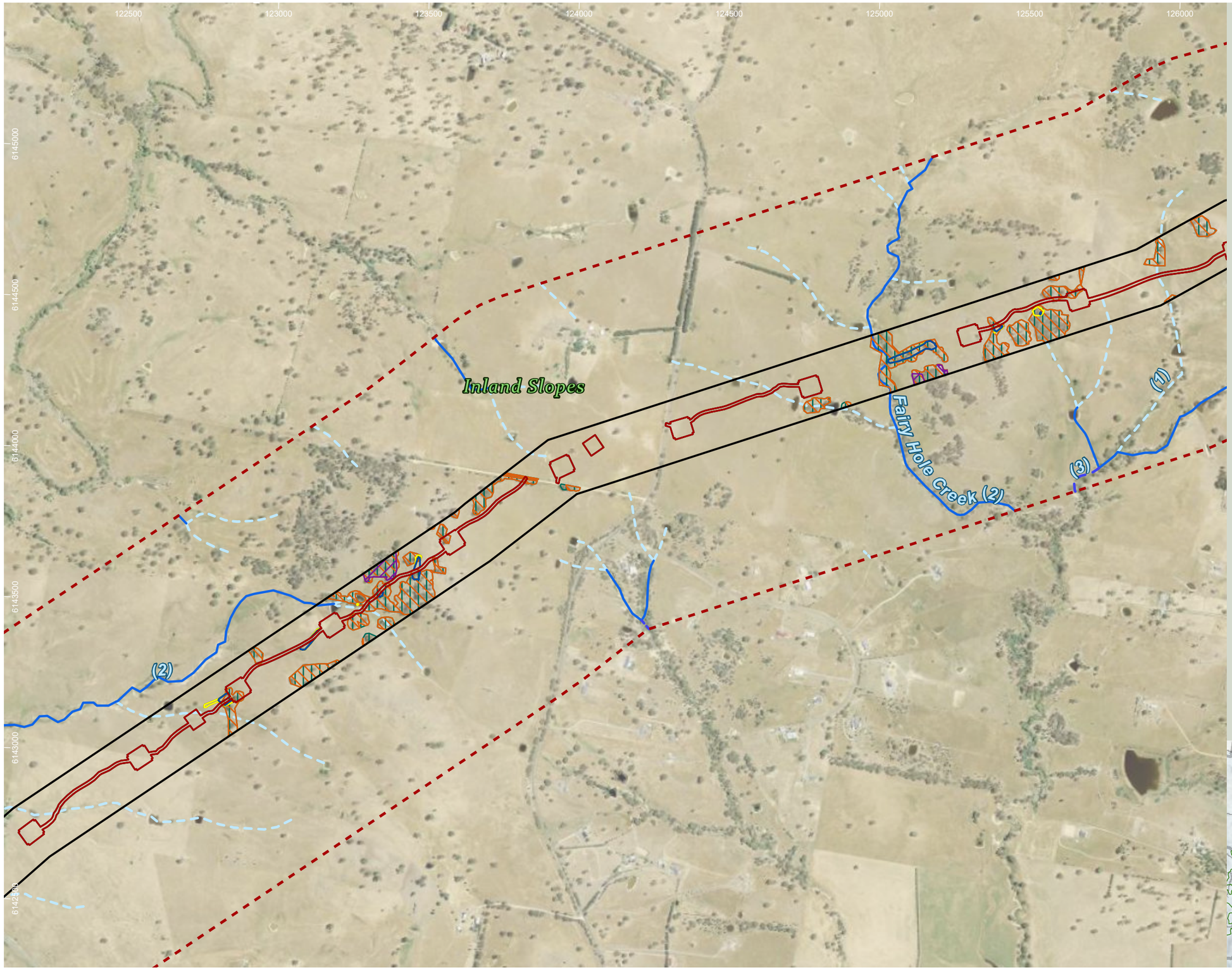
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 71

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

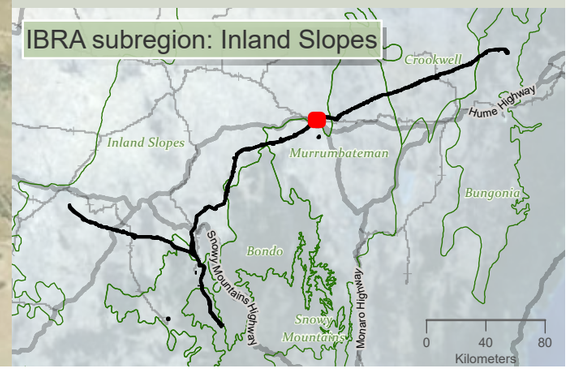
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

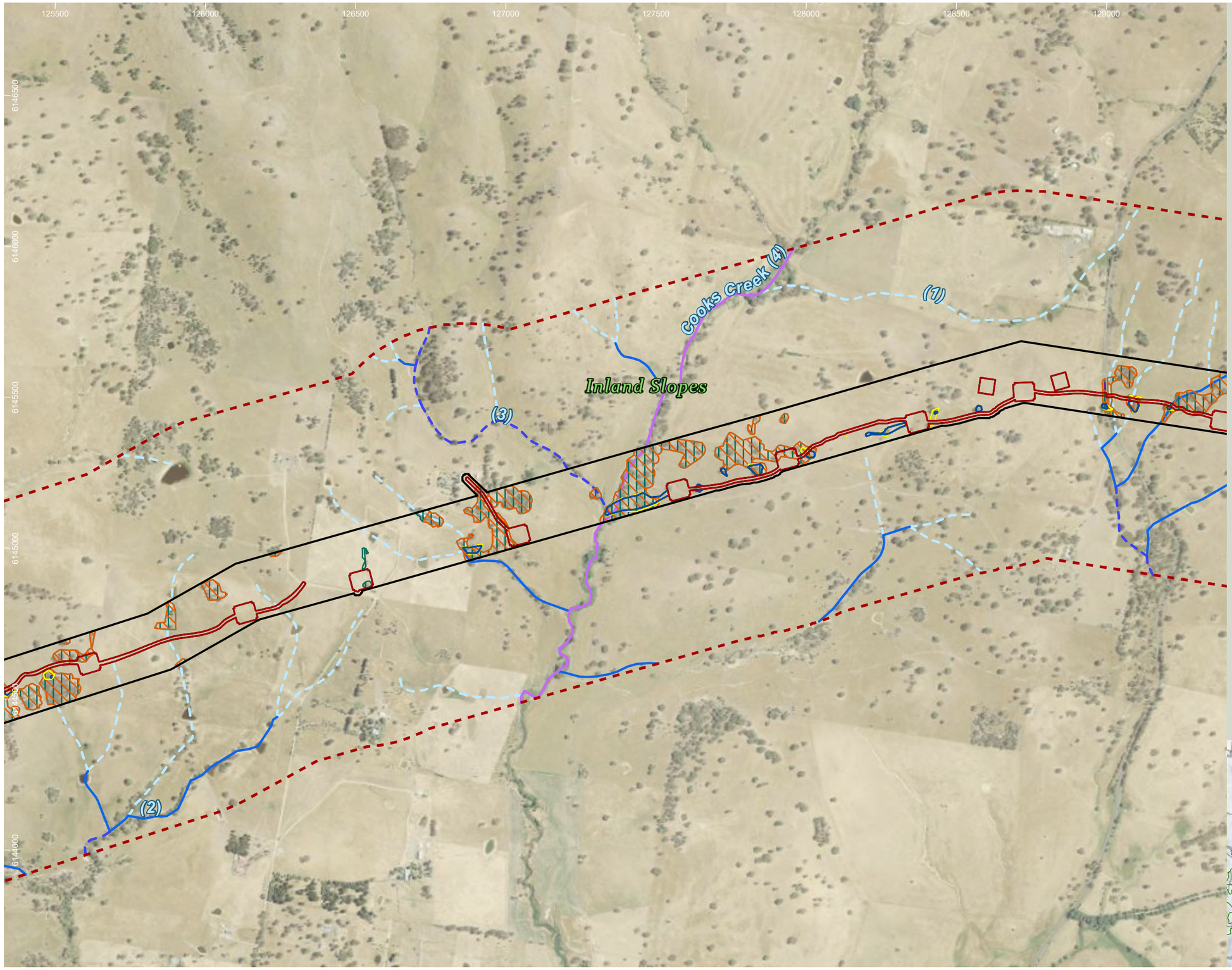
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 73

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

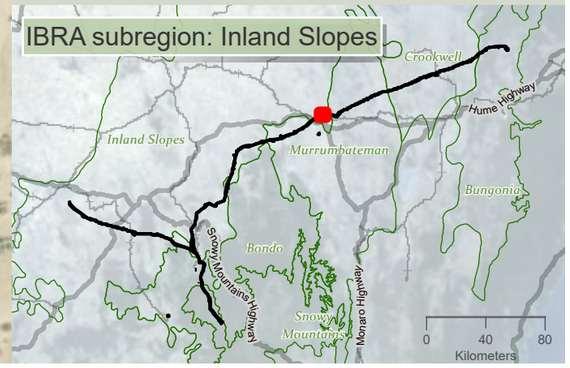
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 74

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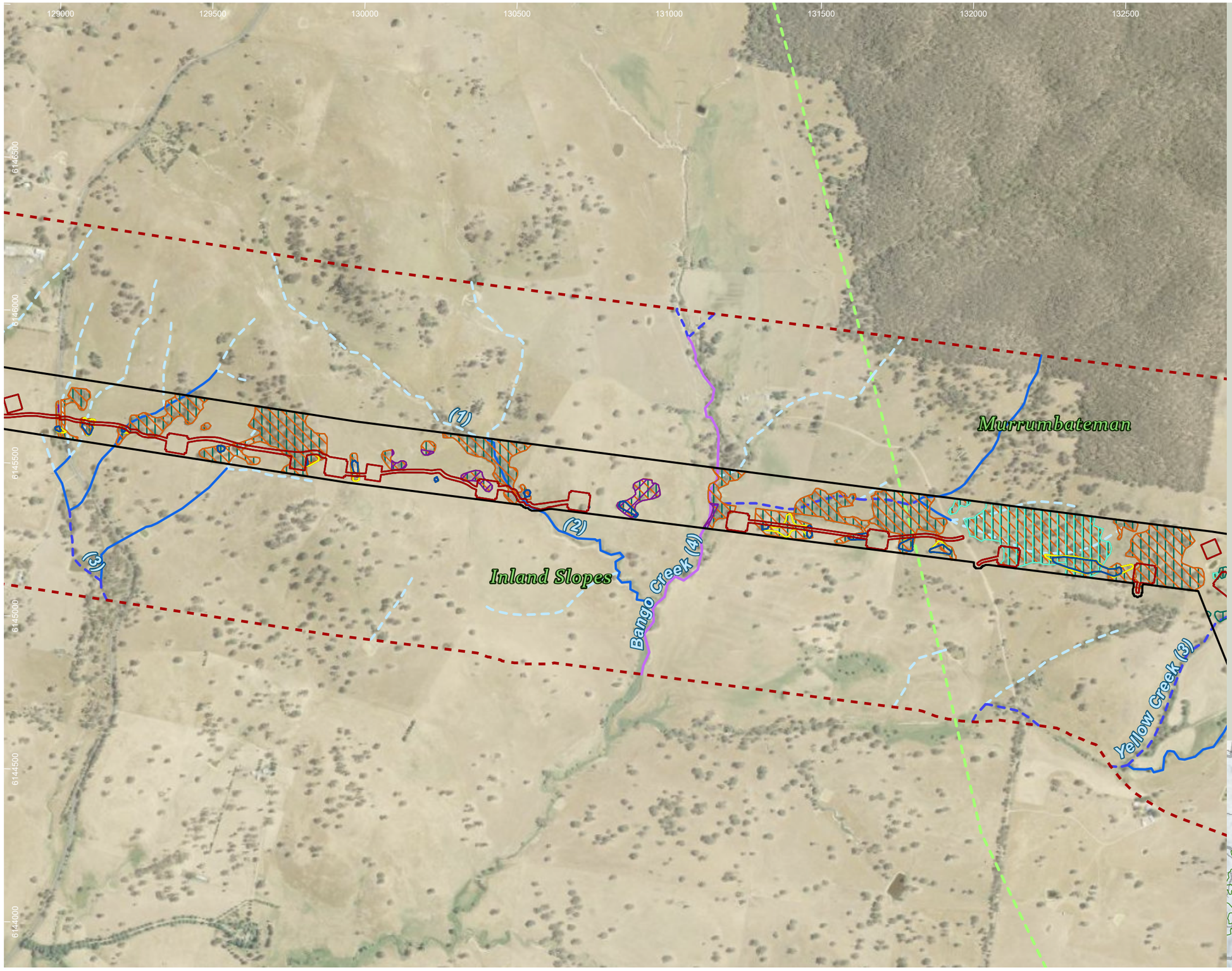


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

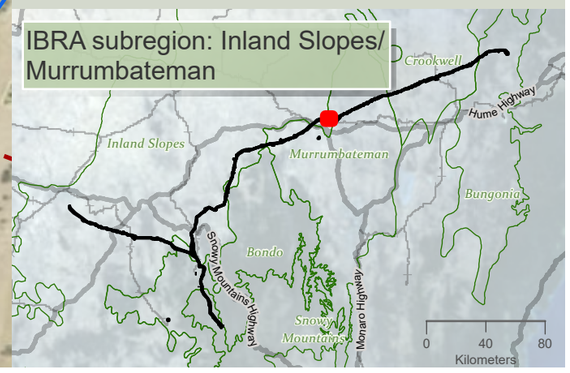
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 75

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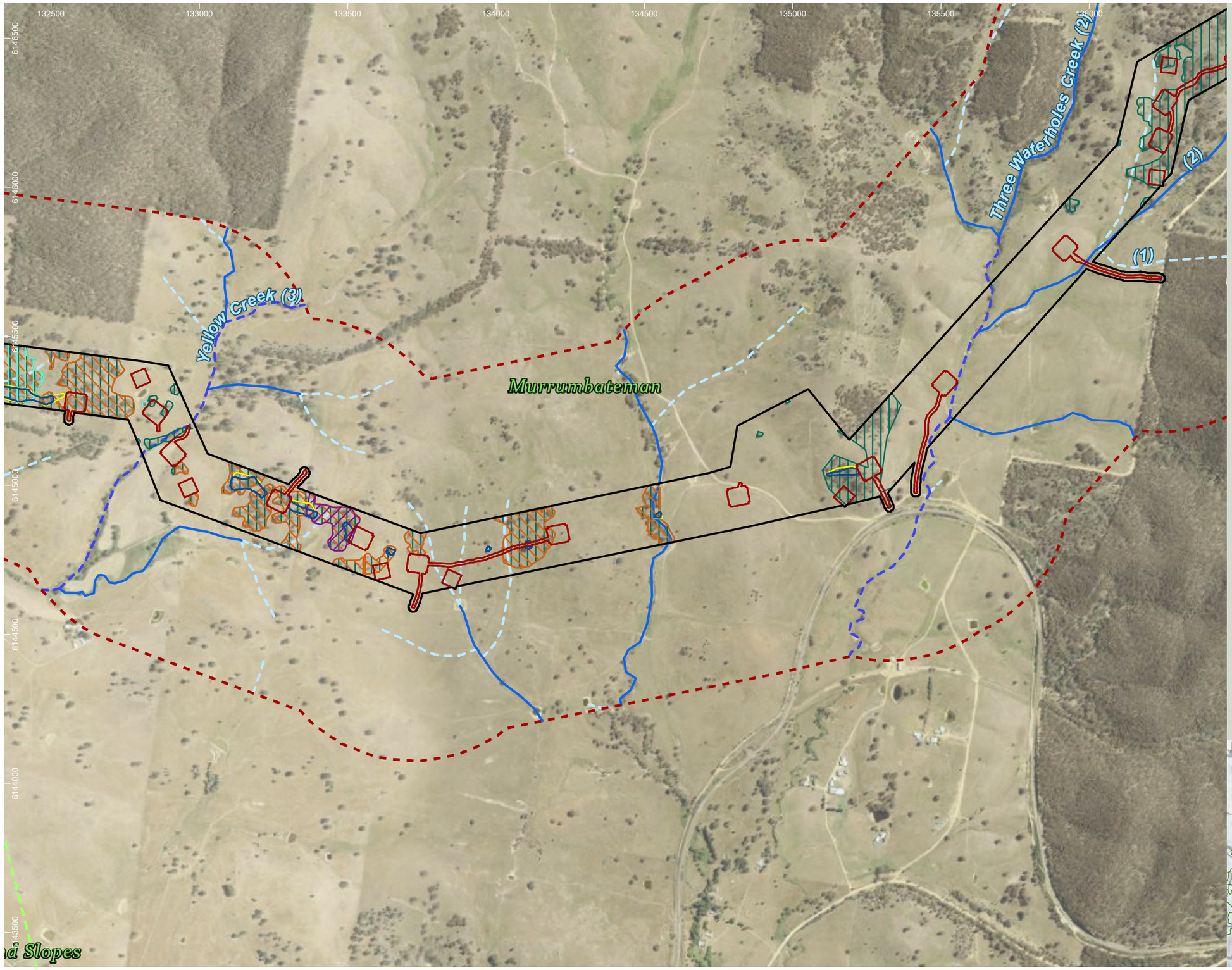


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

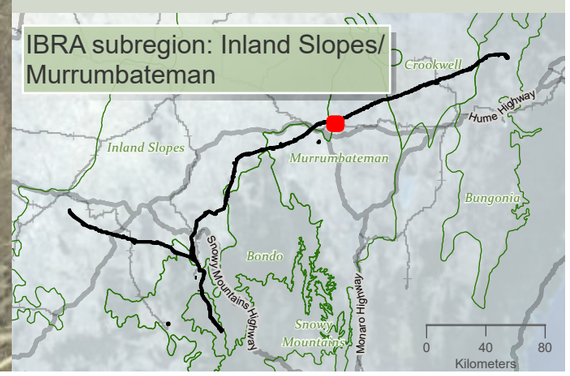
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 76

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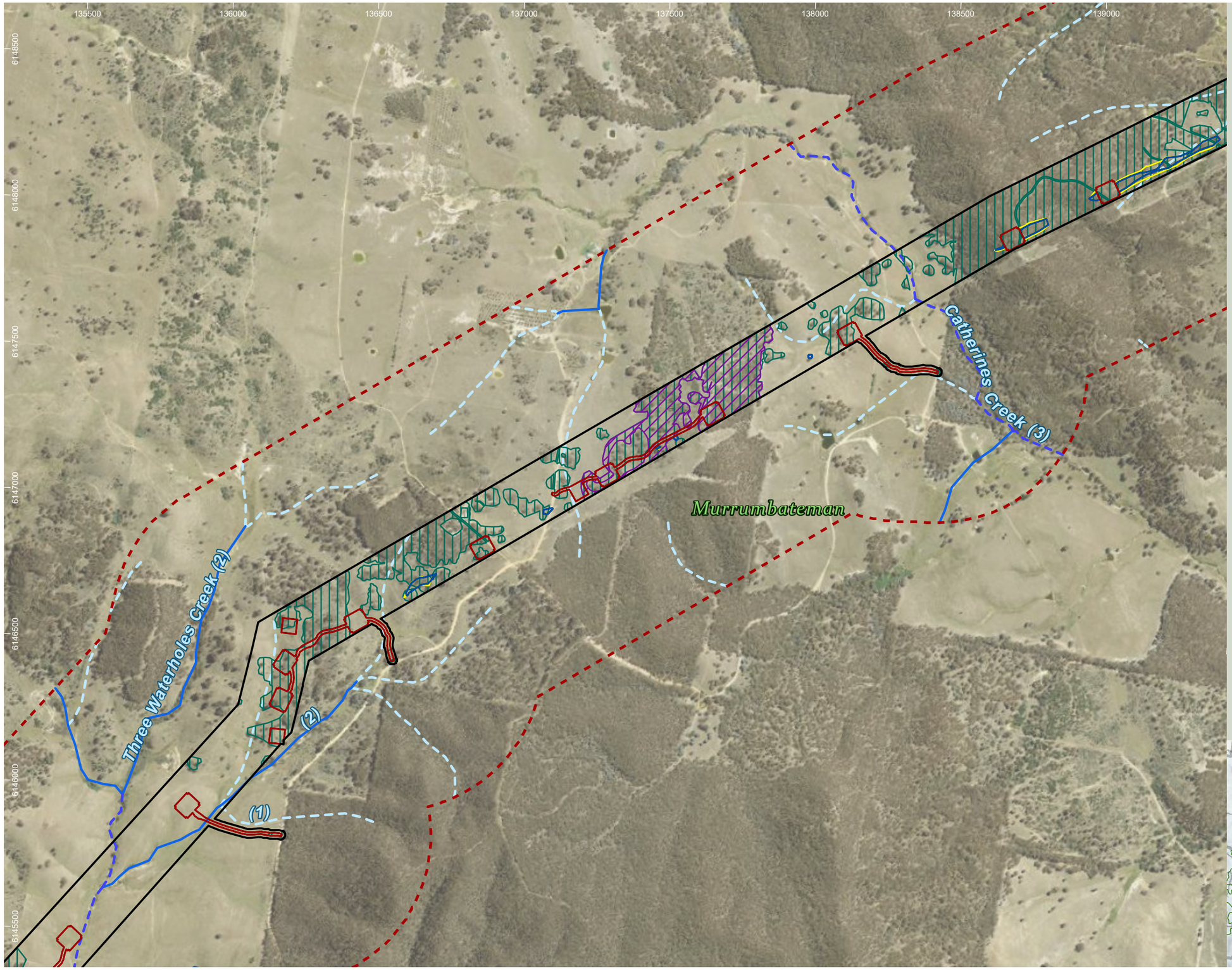


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

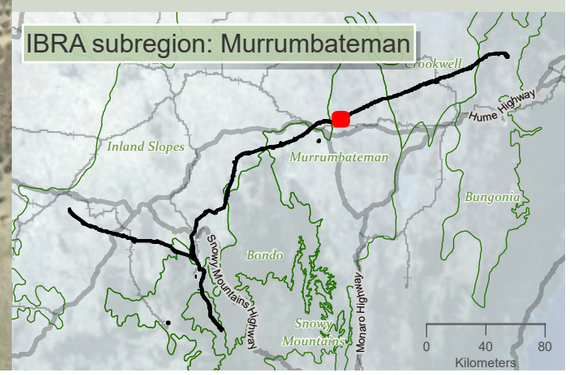
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 77

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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138500 139000 139500 140000 140500 141000 141500 142000

6150000 6149500 6149000 6148500 6148000 6147500

Bunton Creek (3)

(1)

(2)

Murrumbateman

Catherines Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

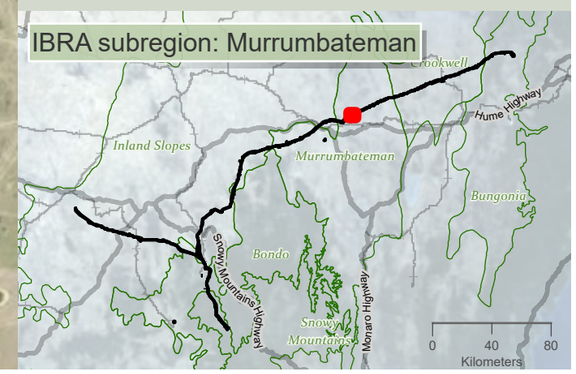
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 78

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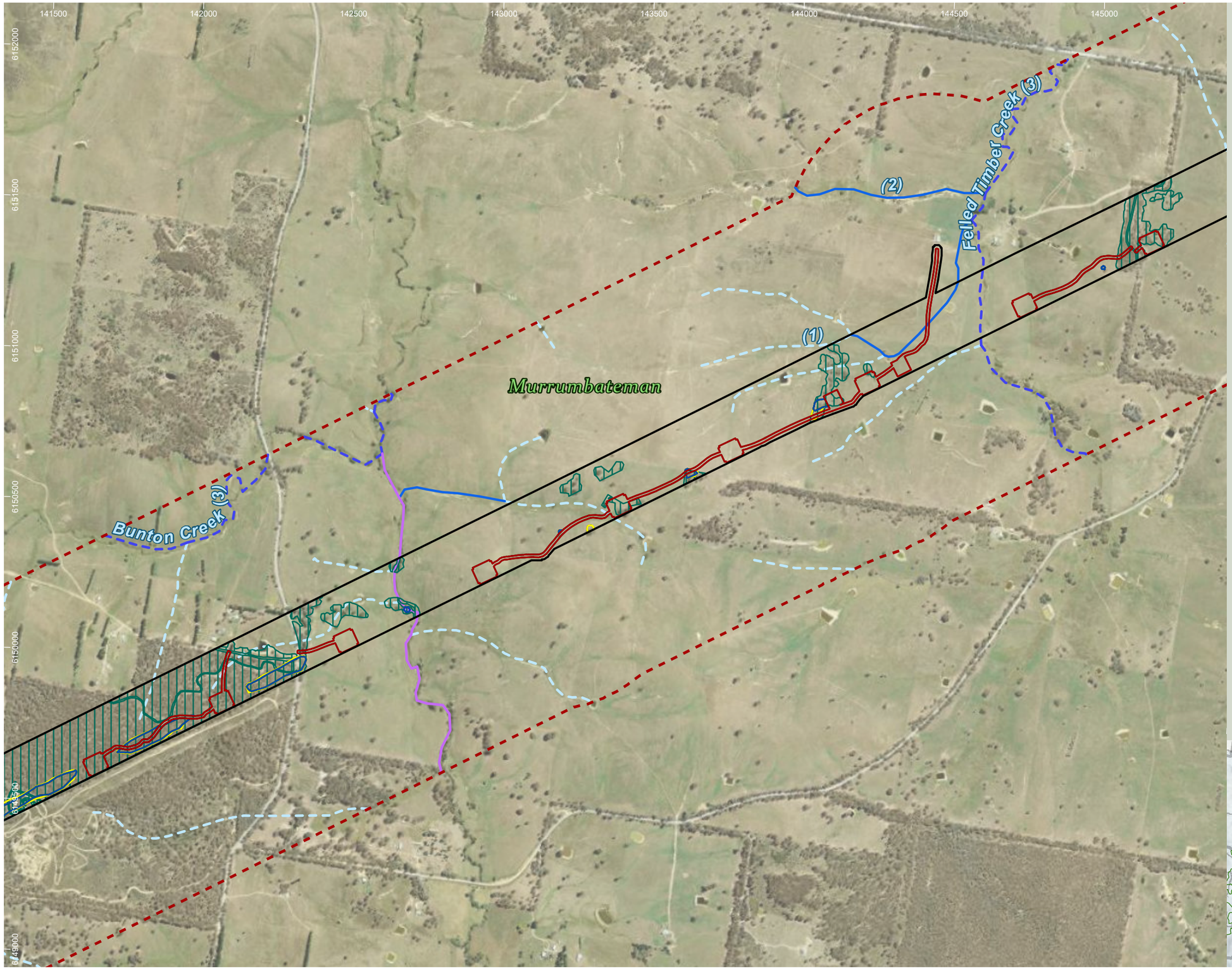


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

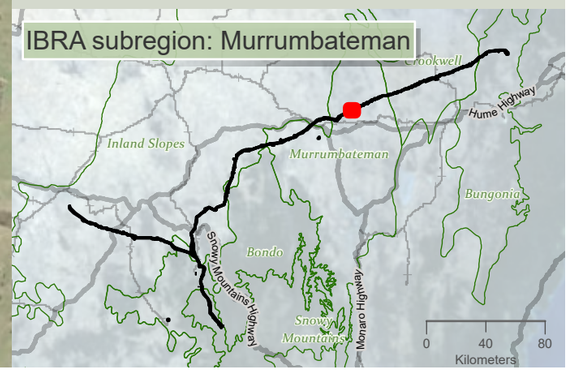
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche6699_Humelink_BDAR_Stage 2 Part B.aprx - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 79

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

144500 145000 145500 146000 146500 147000 147500 148000

6153500 6153000 6152500 6152000 6151000

Murrumbateman

Jerrawa Creek (5)

Felled Timber Creek (3)

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

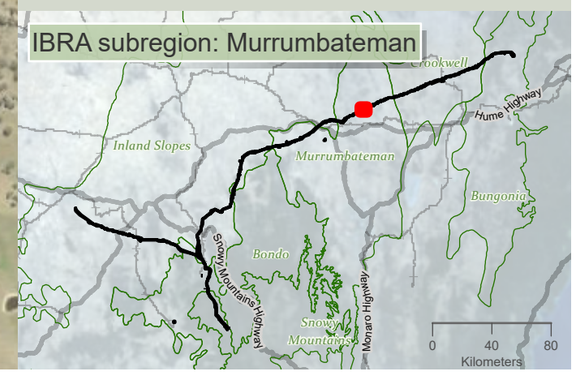
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 80

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148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Murrumbateman

Sams Creek (2)

Jerrawa Creek (5)

(2)

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4
- 5

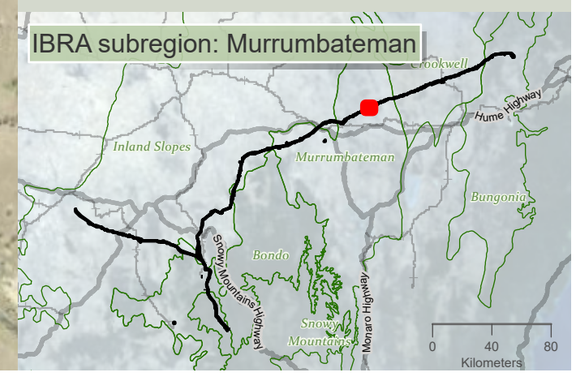
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus

IBRA subregion: Murrumbateman



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 81

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151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

(1)

Merrill Creek (4)

Lachlan River (6)

Murrumbateman

Dowlings Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

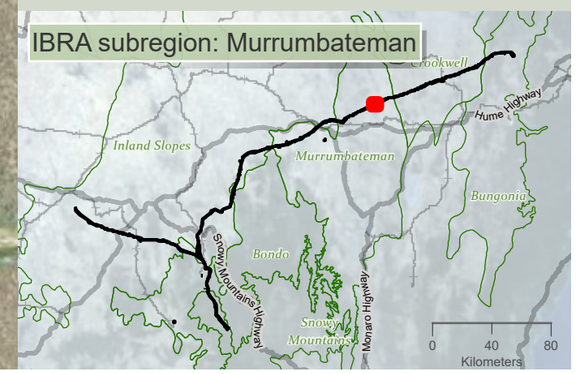
- 1
- 2
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 82

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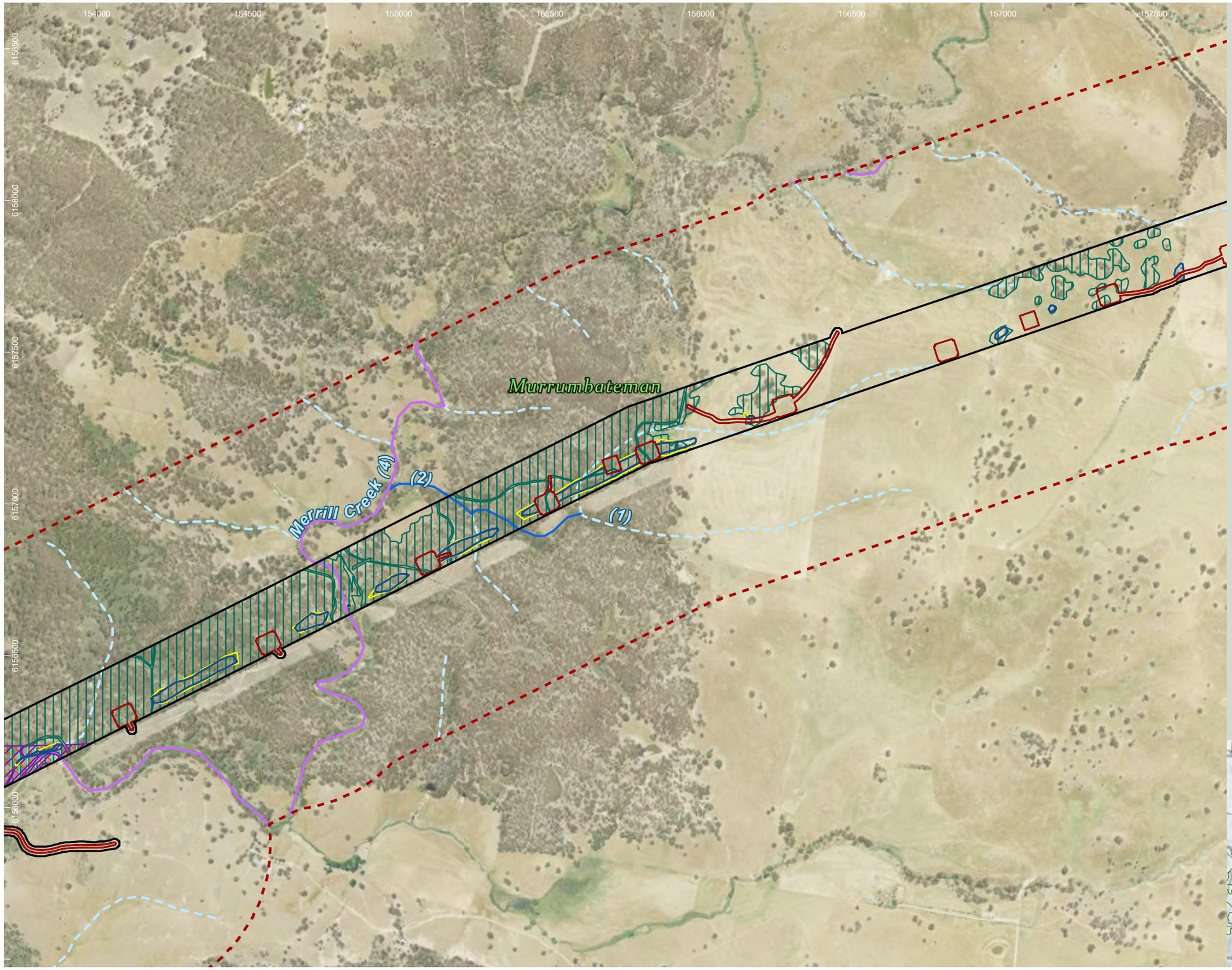


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

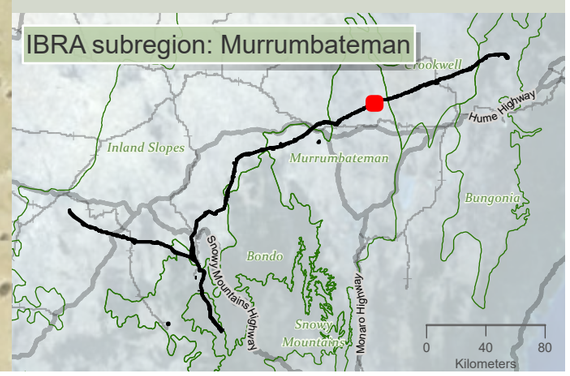
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part B.aprx
Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 N 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 83

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157000 157500 158000 158500 159000 159500 160000 160500

6159500 6159000 6158500 6158000 6157500 6157000

Murrumbateman

(2) Middle Creek (1)

(1)

Middle Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2

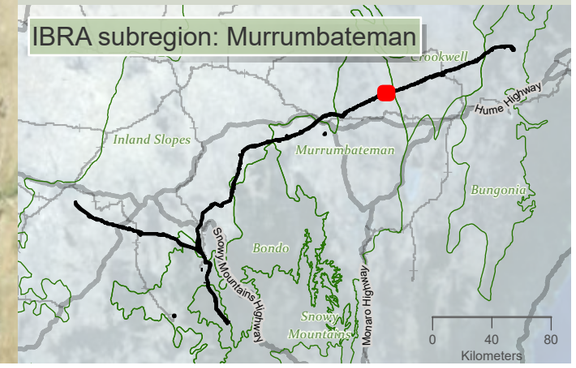
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus

IBRA subregion: Murrumbateman



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 84

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160500 161000 161500 162000 162500 163000 163500 164000

6159500 6160000 6160500 6161000

6158000 6158500 6159000

Crookwell

Murrumbateman

Merrill Creek (2)

Middle Creek (1)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

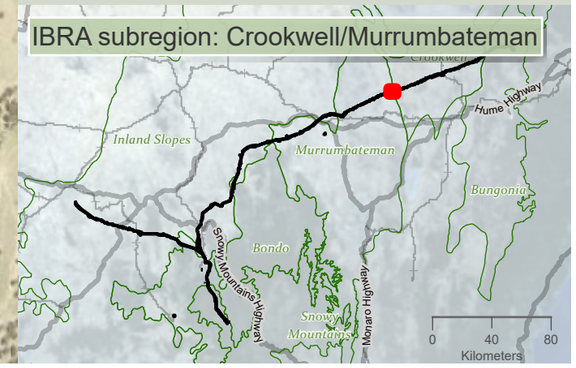
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 85

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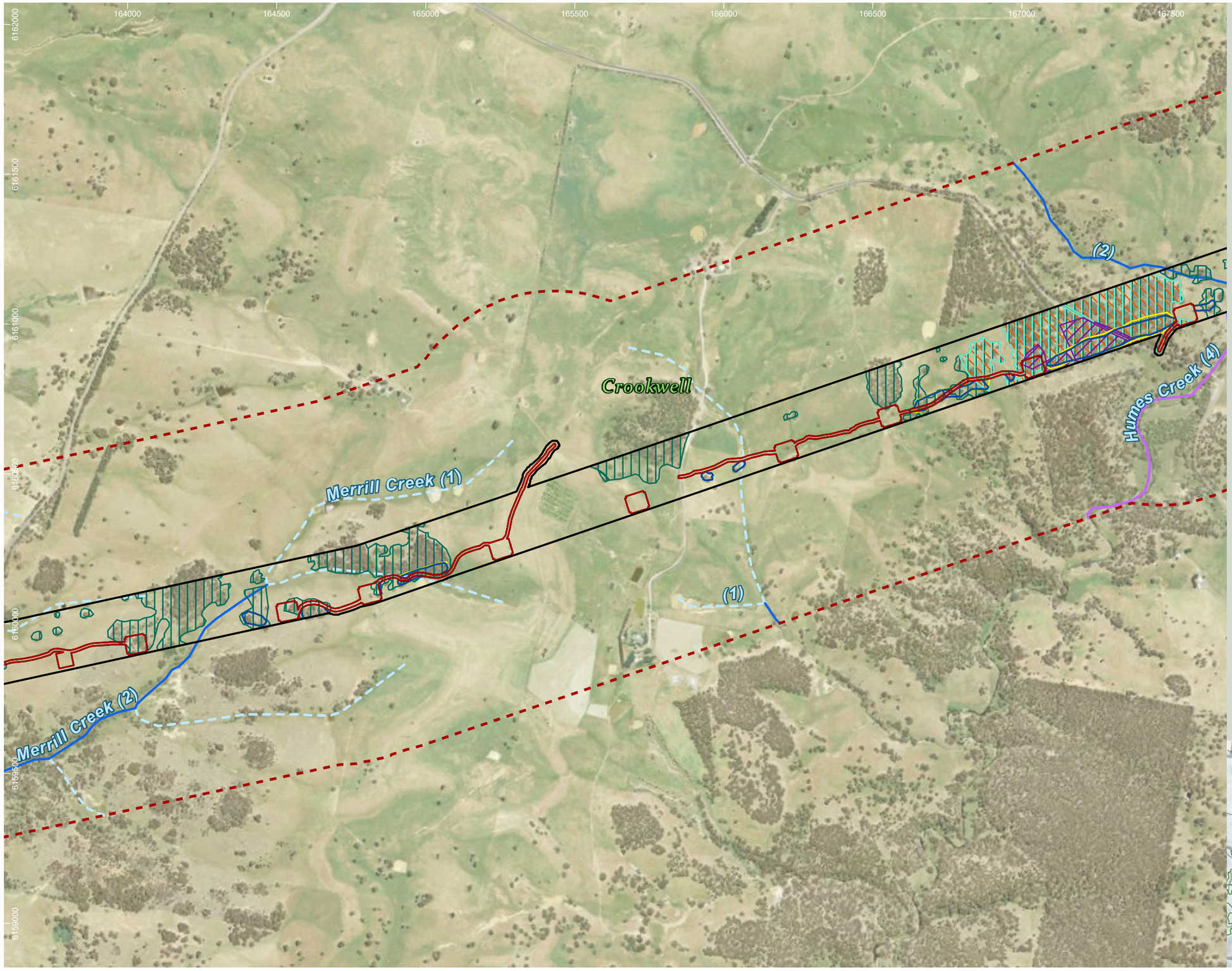


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

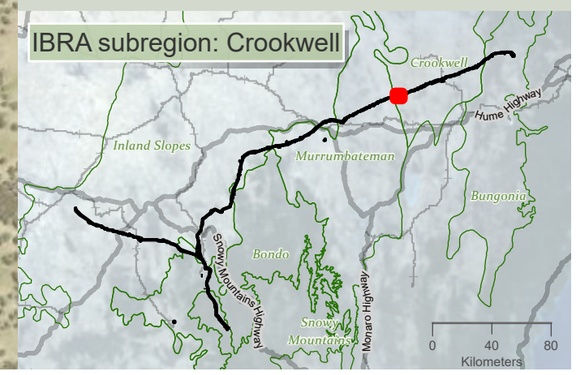
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 86

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167000
167500
168000
168500
169000
169500
170000
170500
6163000
6162500
6162000
6161500
6161000
6160500
(1)
(2)
(3)
(4)
Crookwell
Humes Creek (3)
Humes Creek (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4

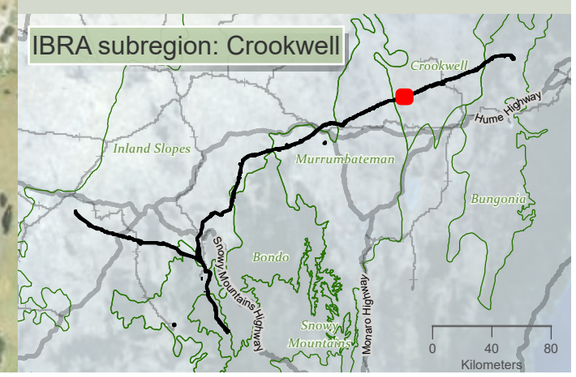
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus

IBRA subregion: Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 87

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Drawn by: MathewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

170500 171000 171500 172000 172500 173000 173500 174000

6164500 6164000 6163500 6163000 6162500 6162000 6161500

Crookwell

(1)

Gurrundah Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

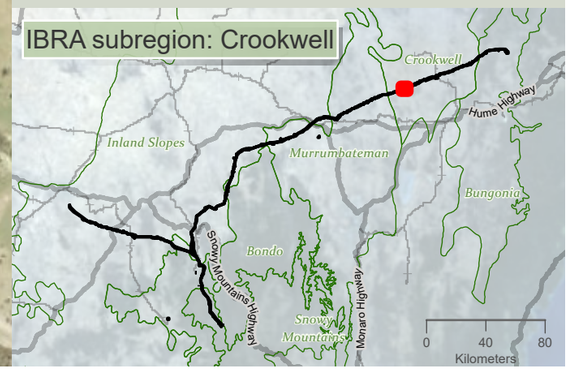
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 88

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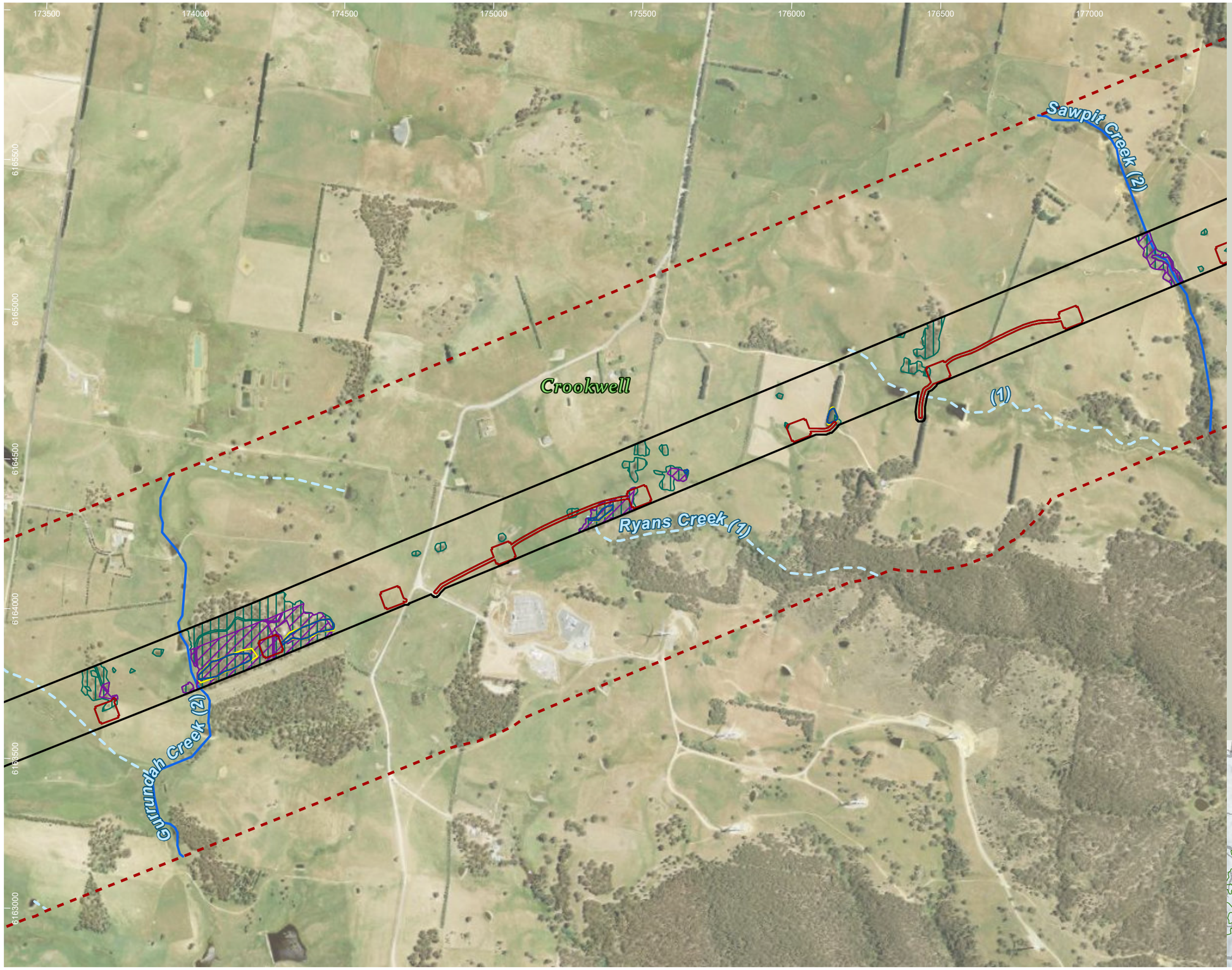


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

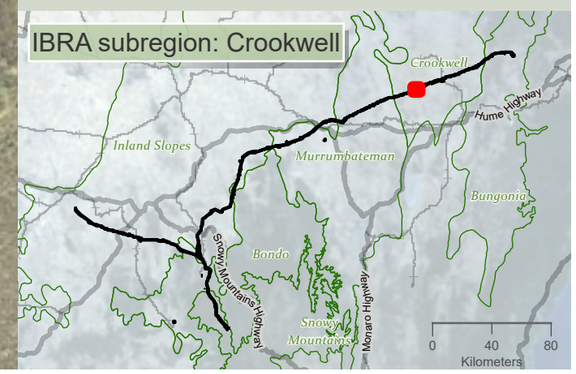
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 89

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Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

Crookwell

(1)

(2)

Kialla Creek (3)

Sawpit Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3

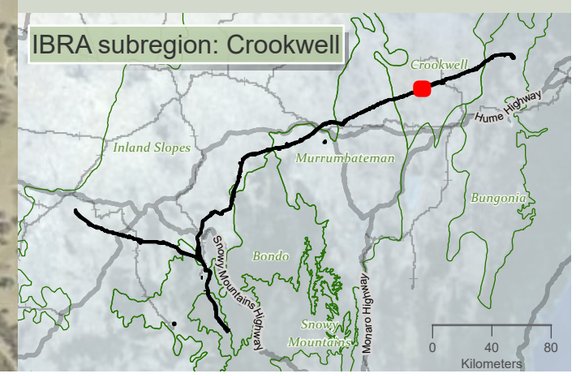
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Phascolarctos cinereus

IBRA subregion: Crookwell



0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 90

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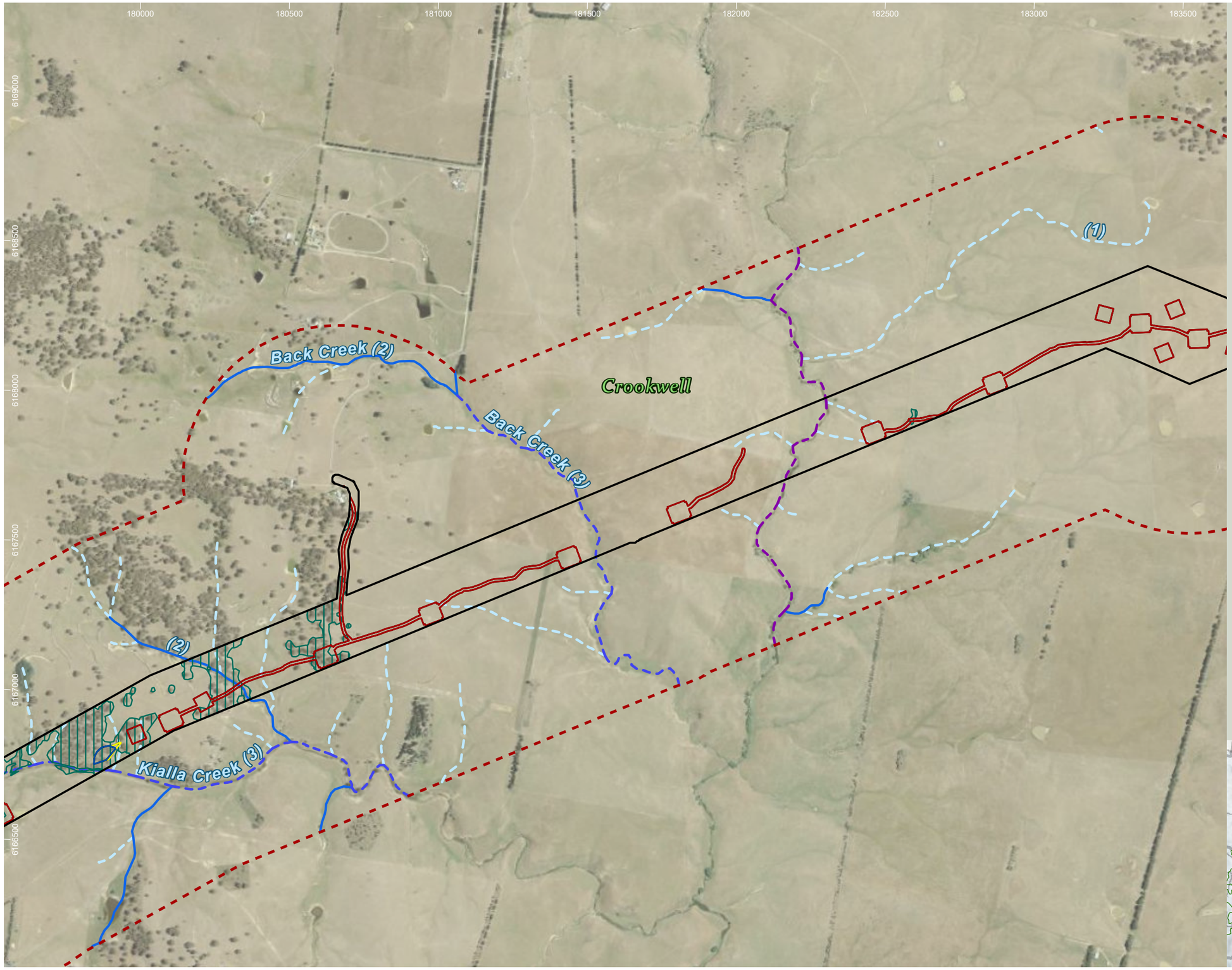
Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

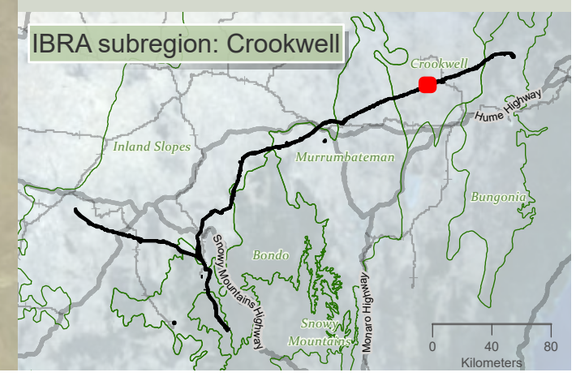
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 91

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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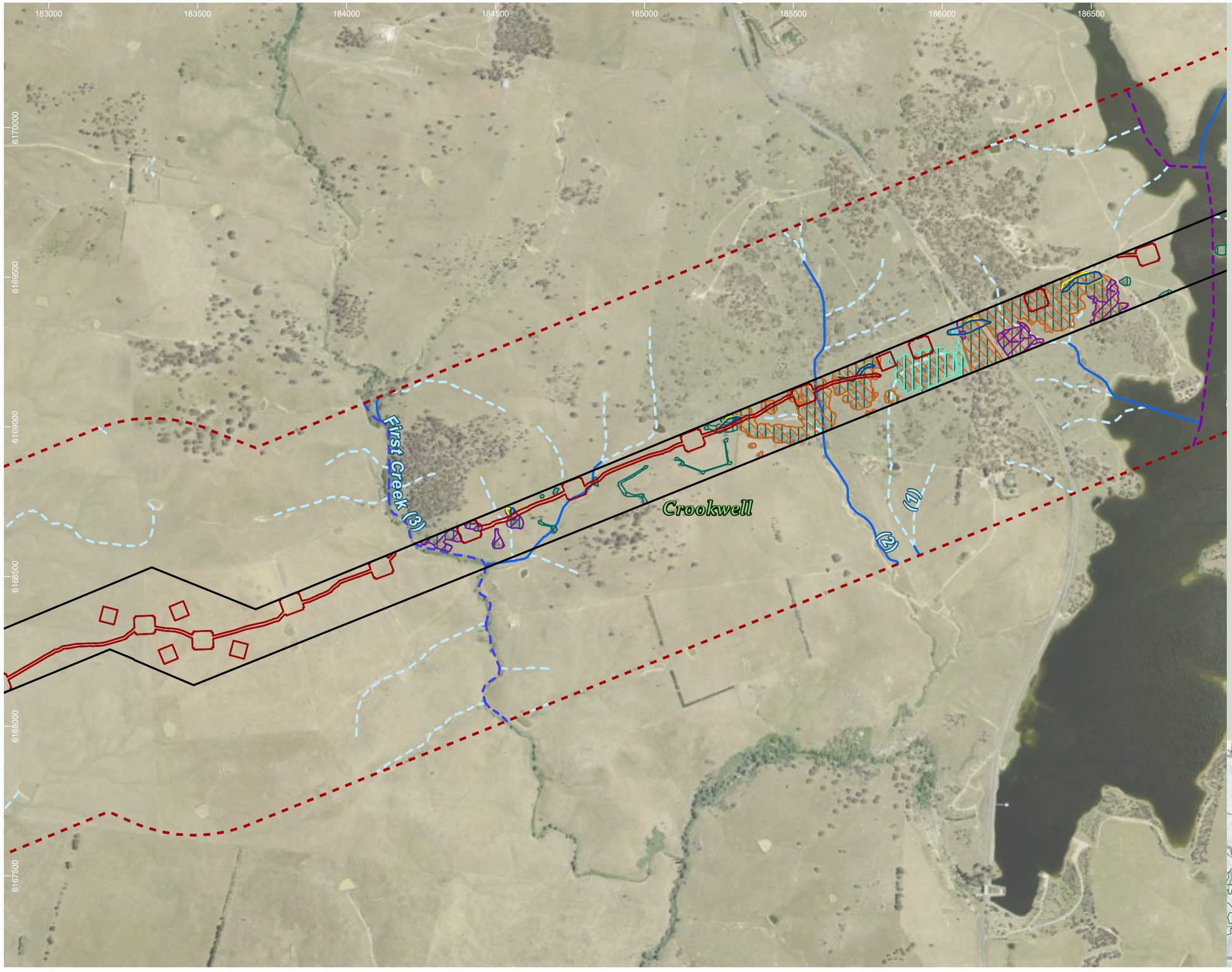


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

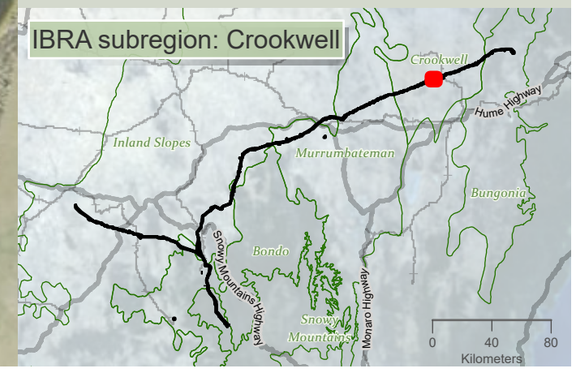
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 92

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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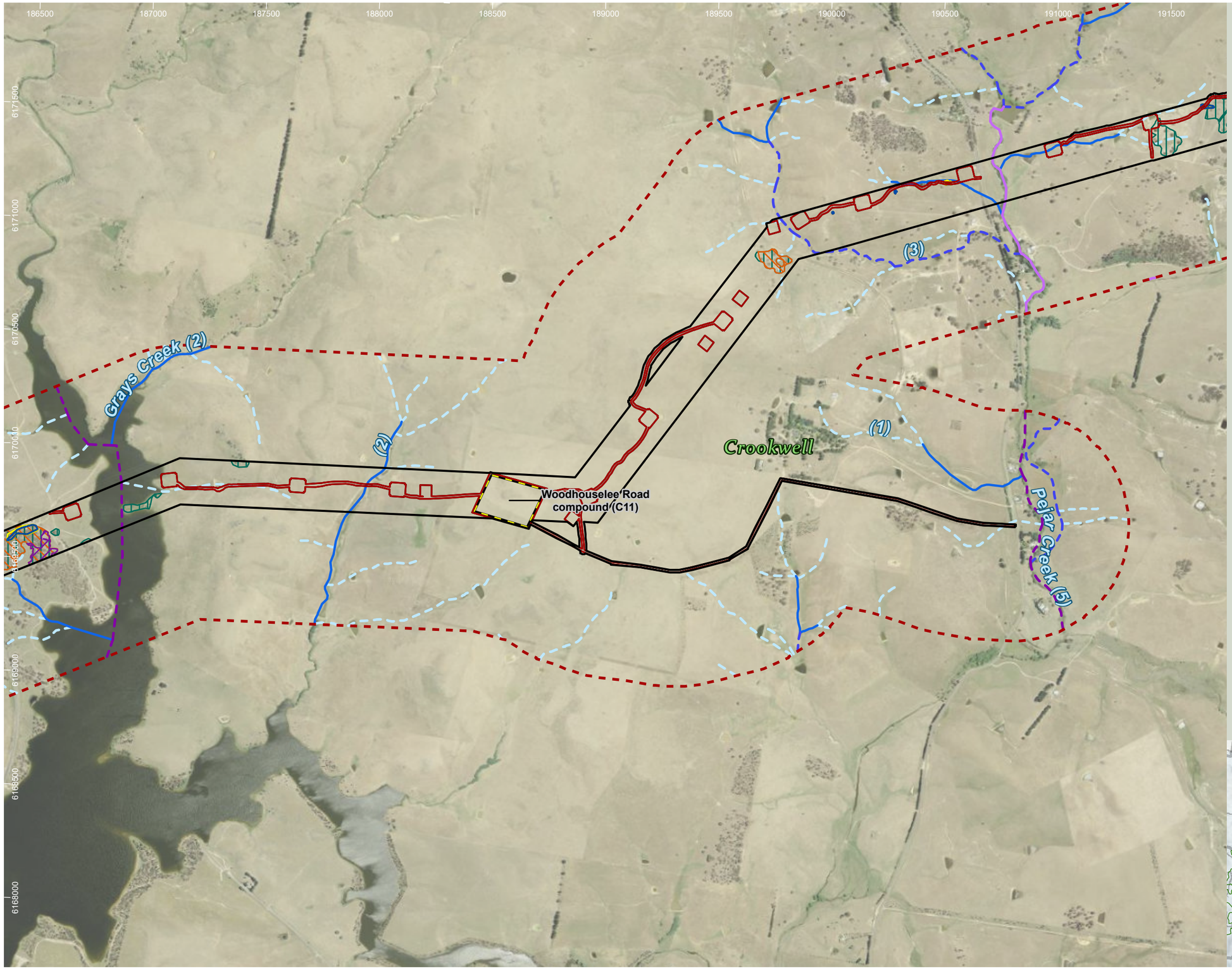


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

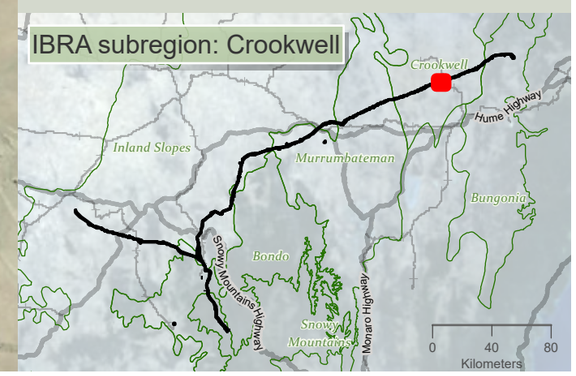
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 93

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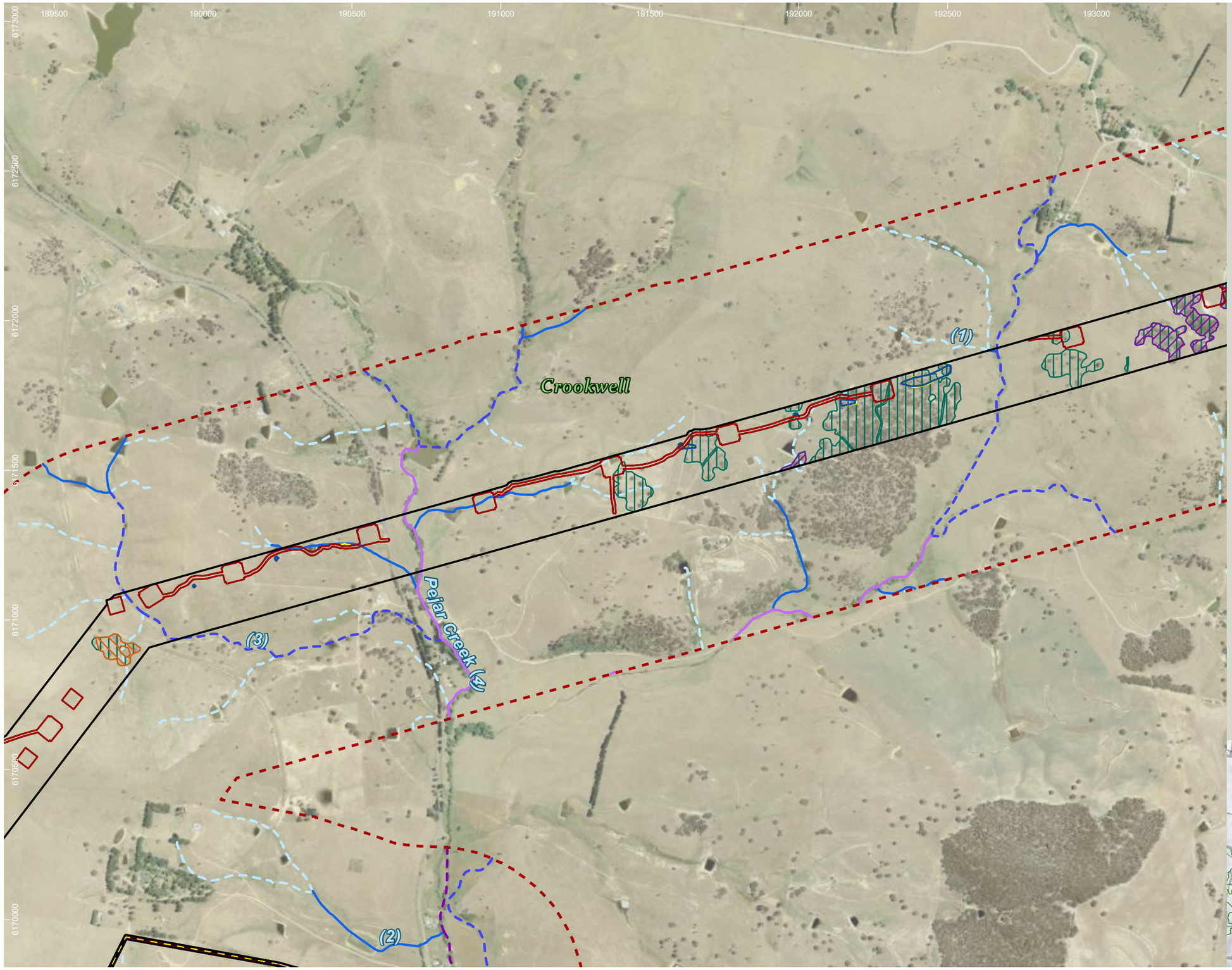


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

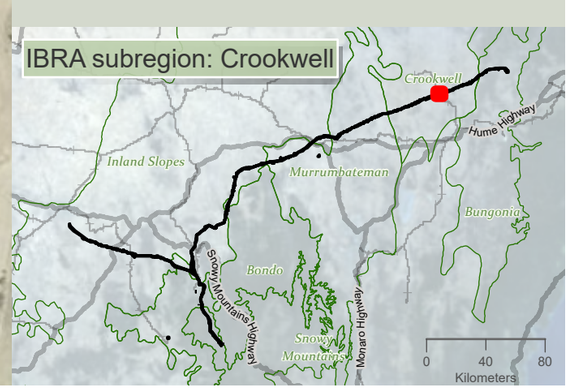
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 94

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193000 193500 194000 194600 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

(3) (2) (1)

Melamalong Creek (7)

Crookwell

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

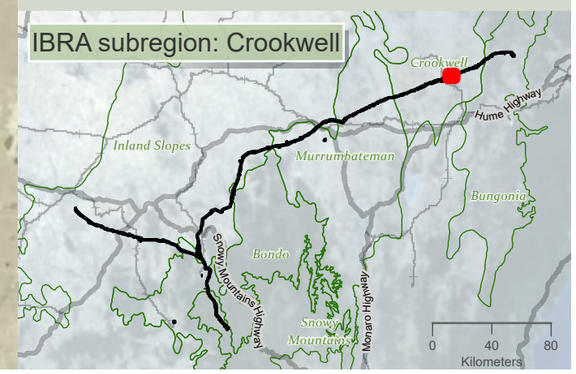
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 95

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196000 196500 197000 197500 198000 198500 199000 199500

6175000 6174500 6174000 6173500 6173000 6172500

Crookwell

Tarlo River (5)

Sawpit Gully (3)

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

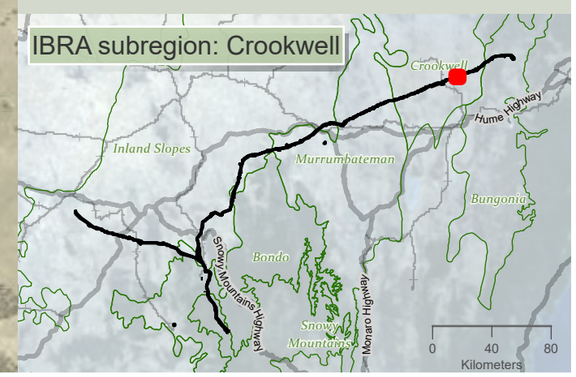
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 96

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Turrallo Creek (5)

Crookwell

Tarlo River (6)

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

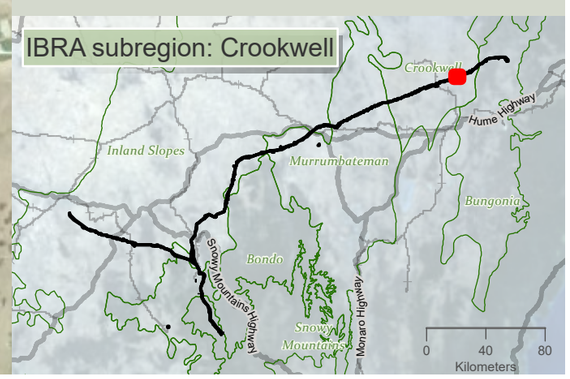
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 97

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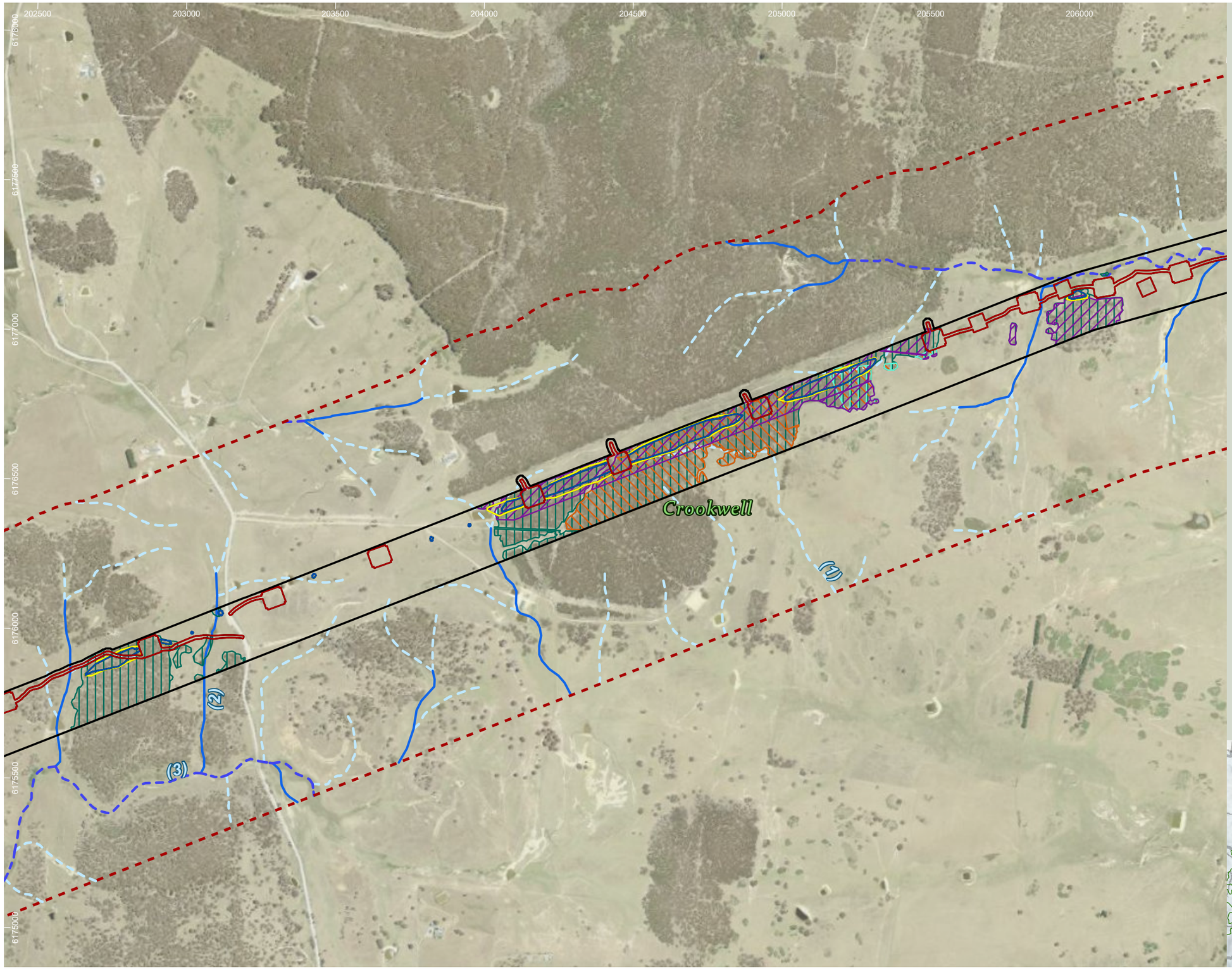


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

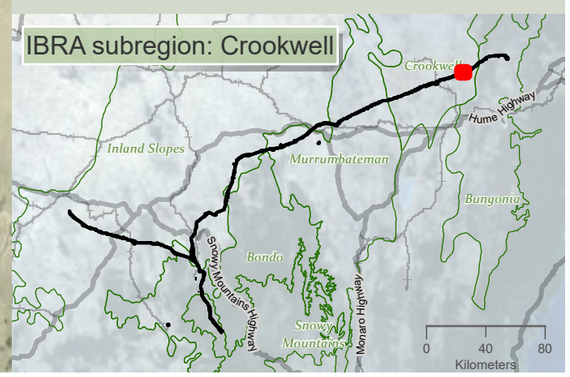
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 98

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Myrtle Creek (4)

(3)

Cowpers Creek (3)

Crookwell

(2)

(1)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

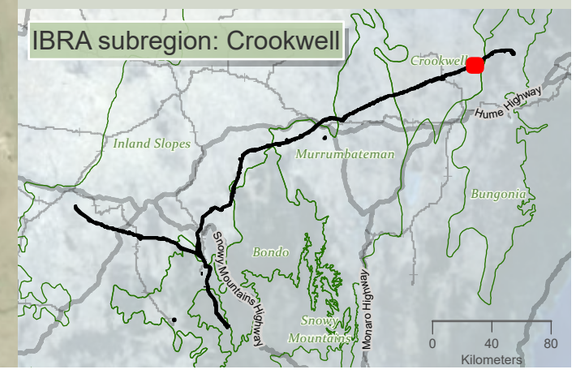
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Phascolarctos cinereus



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 99

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Crookwell

(1) (2) (3)

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

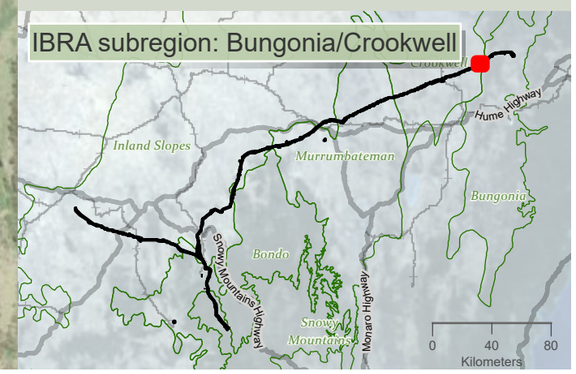
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Marsupial species habitat

- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 100

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214000 214500 215000 215500 216000 216500 217000 217500 218000

6185500 6185000 6184500 6184000 6183500 6183000 6182500

(4) (2) (3) (1) (4)

Kerrawary Creek

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

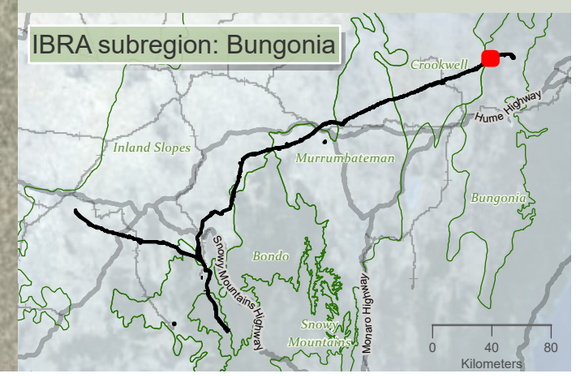
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Petrogale penicillata
- Phascolarctos cinereus



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 102

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217500 218000 218500 219000 219500 220000 220500 221000

6187000 6186500 6186000 6185500 6185000 6184500

Bannaby Creek (3)

(1)

Bungonia

(2)

(3)

(4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4

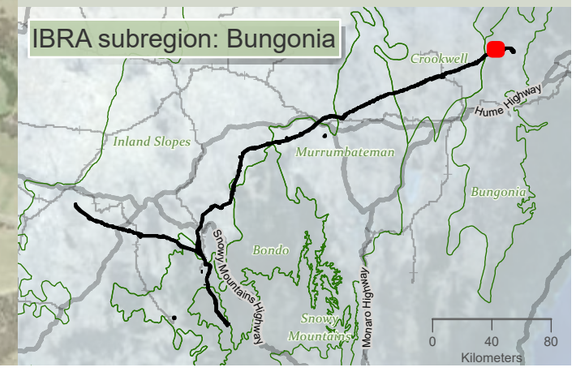
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Petrogale penicillata
- Phascolarctos cinereus

IBRA subregion: Bungonia



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 103

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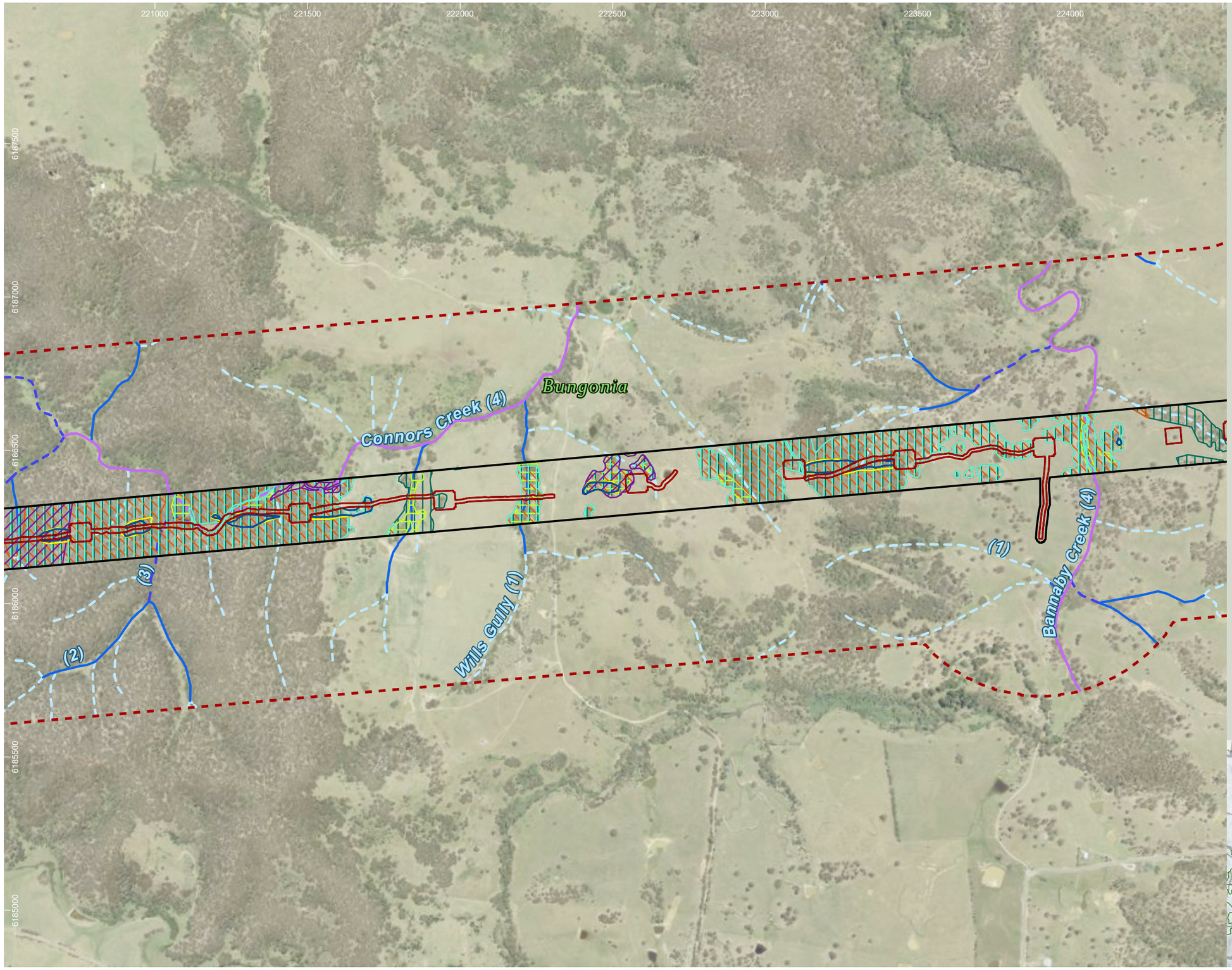


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

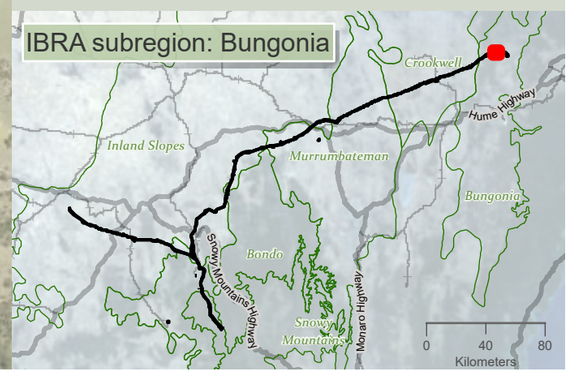
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petauroides volans
- Petaurus norfolcensis
- Petrogale penicillata
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 104

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224500 225000 225500 226000 226500 227000 227500

6188000 6187500 6187000 6186500 6186000 6185500

(1) (2) (3) (4)

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

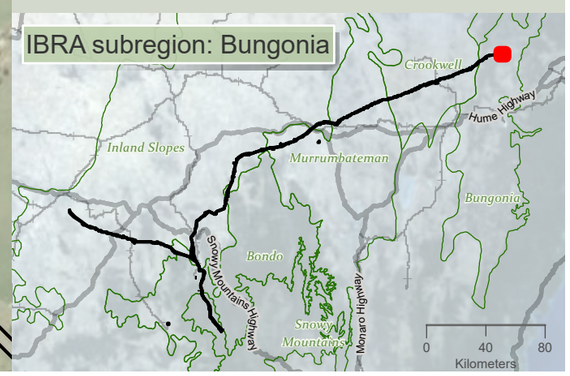
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Petauroides volans
- Petaurus norfolcensis
- Petrogale penicillata
- Phascolarctos cinereus



0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 105

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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227000 227500 228000 228500 229000 229500 230000 230500

6186500 6186000 6185500 6185000 6184500 6184000

(2) (1) (3)

Bungonia

Bannaby 500'kV substation compound (C12)

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

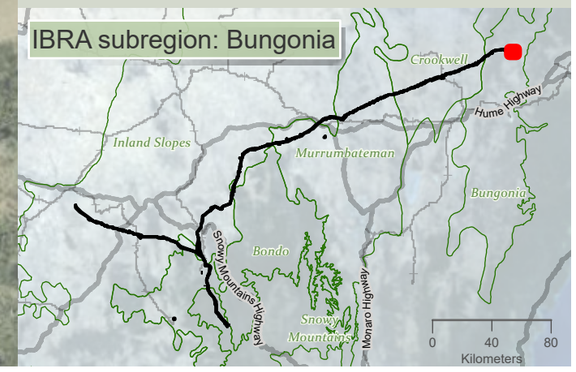
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Marsupial species habitat

- Cercartetus nanus
- Petaurus norfolcensis
- Petrogale penicillata
- Phascolarctos cinereus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Marsupial species habitat

HumeLink BDAR

Figure 13-11 map reference 106

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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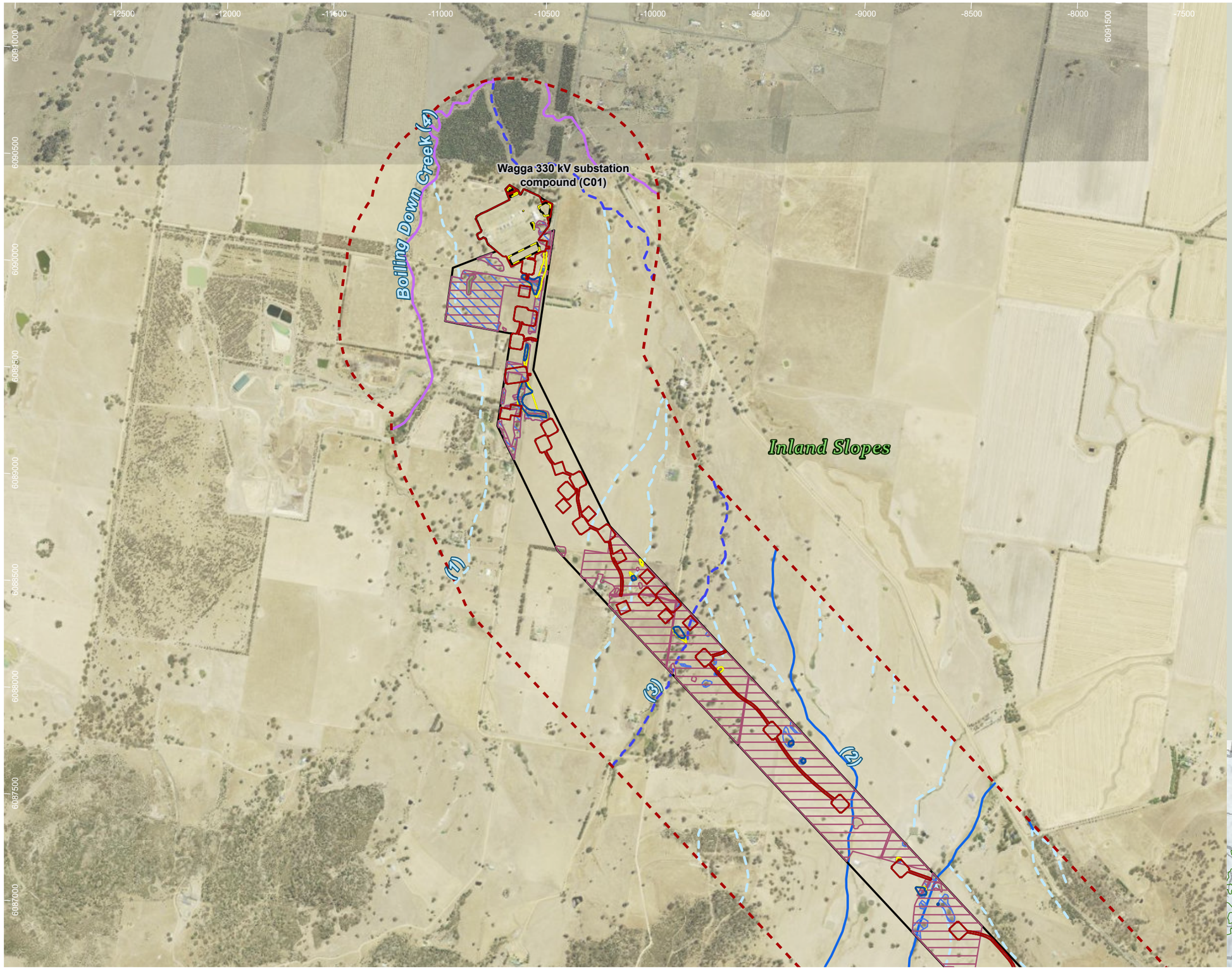


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

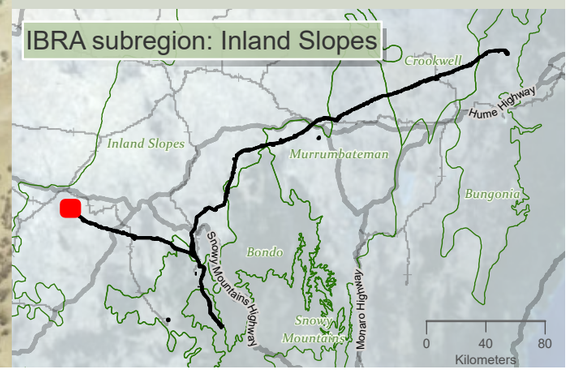
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 N 550
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

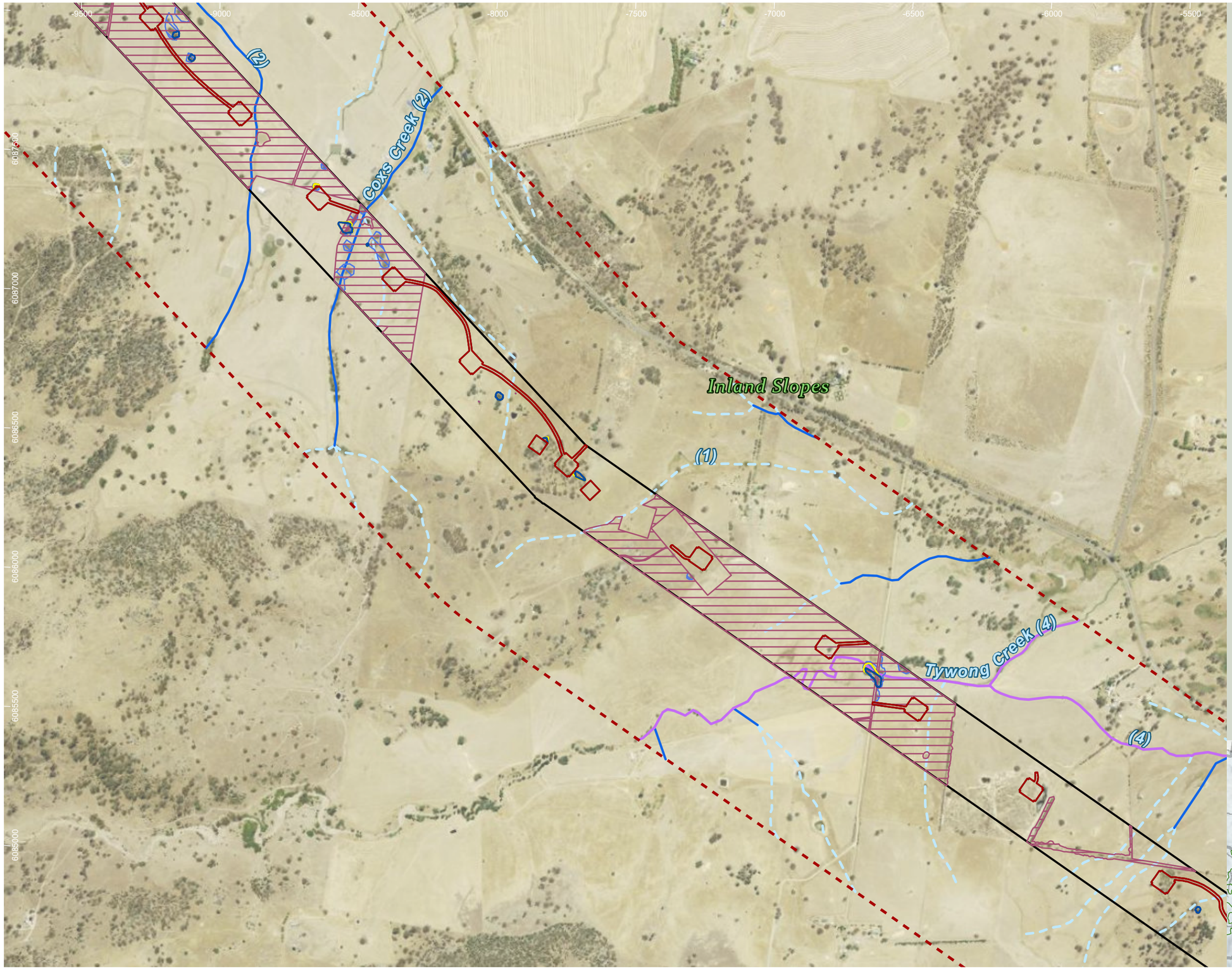
Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 1

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File C:\OneDriveSyncFolder\Niche\6699 - Confidential\Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

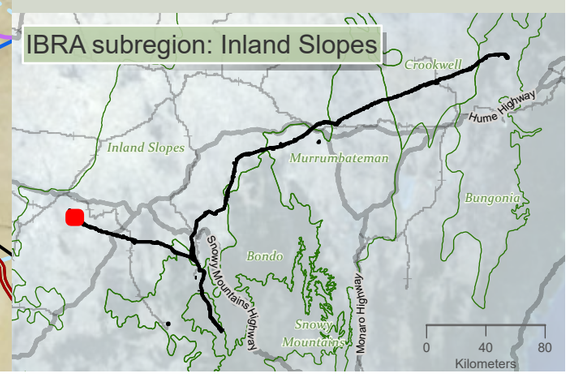
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 2

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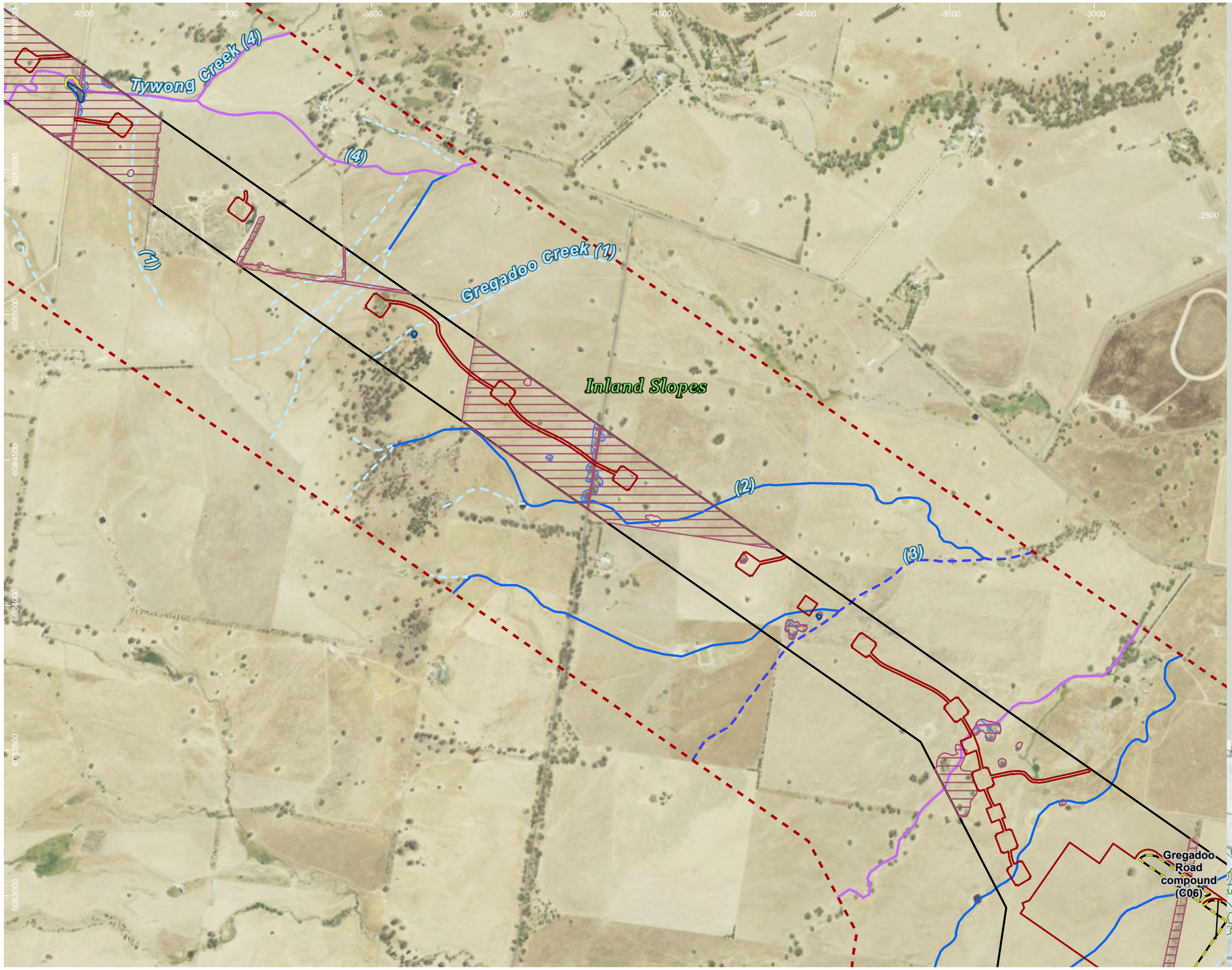


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

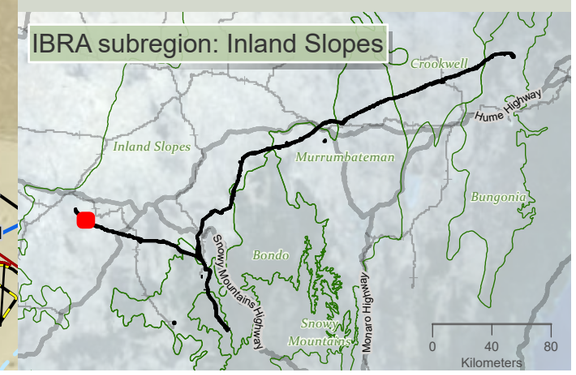
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 3

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-3500 -3000 -2500 -2000 -1500 -1000 -500 0

6084000 6083500 6083000 6082500 6082000 6081500 6081000

Gregadoo Road compound (C06)

Inland Slopes

(1) (2) (3)

O'briens Creek (6)

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

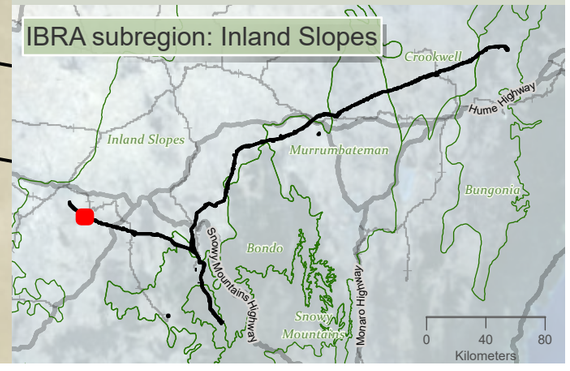
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 4

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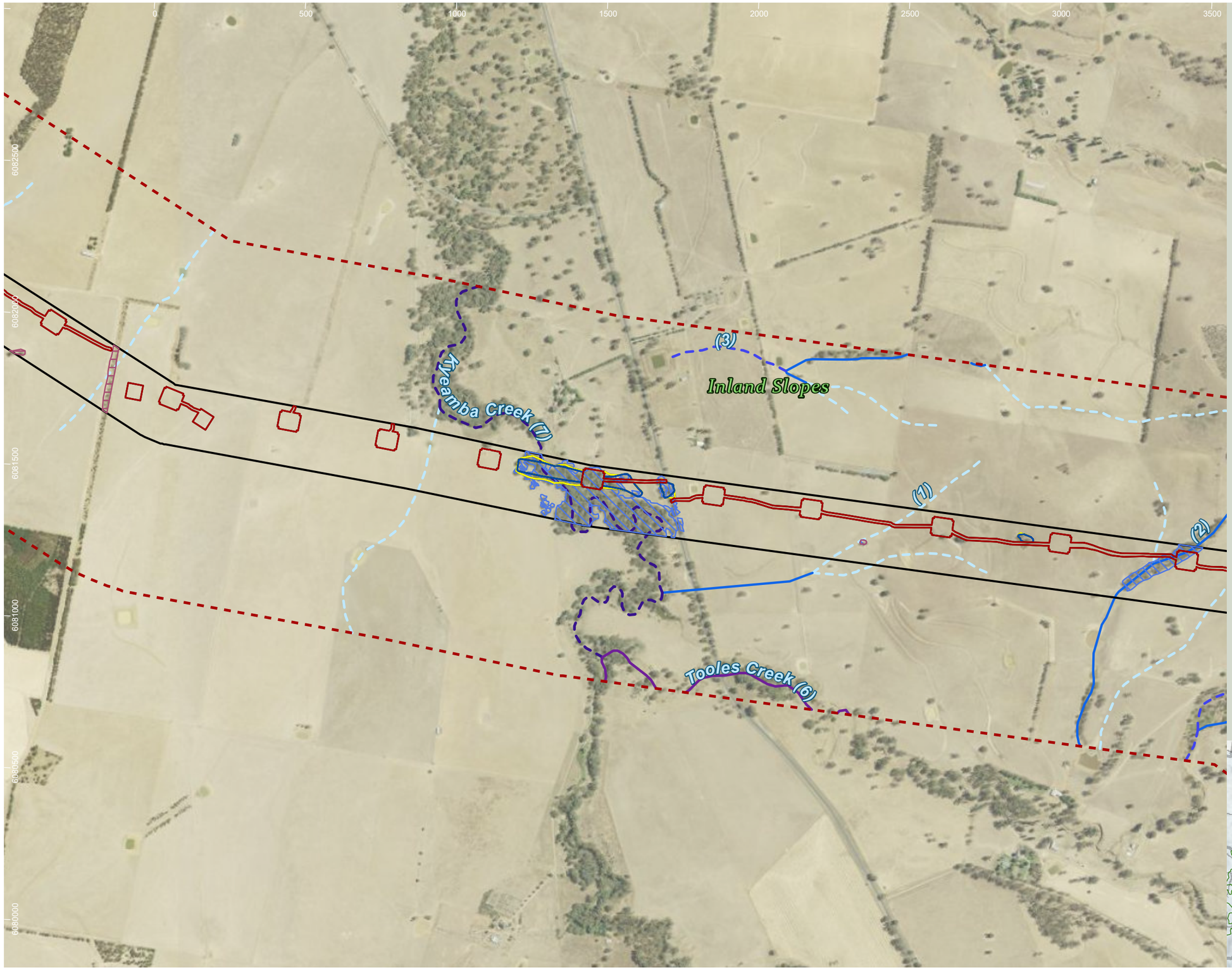


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

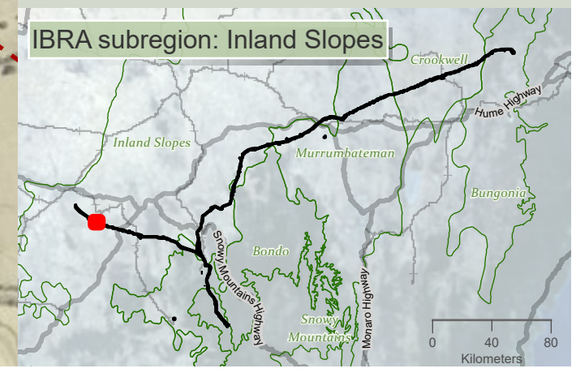
- 1
- 2
- 3
- 6
- 7

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 5

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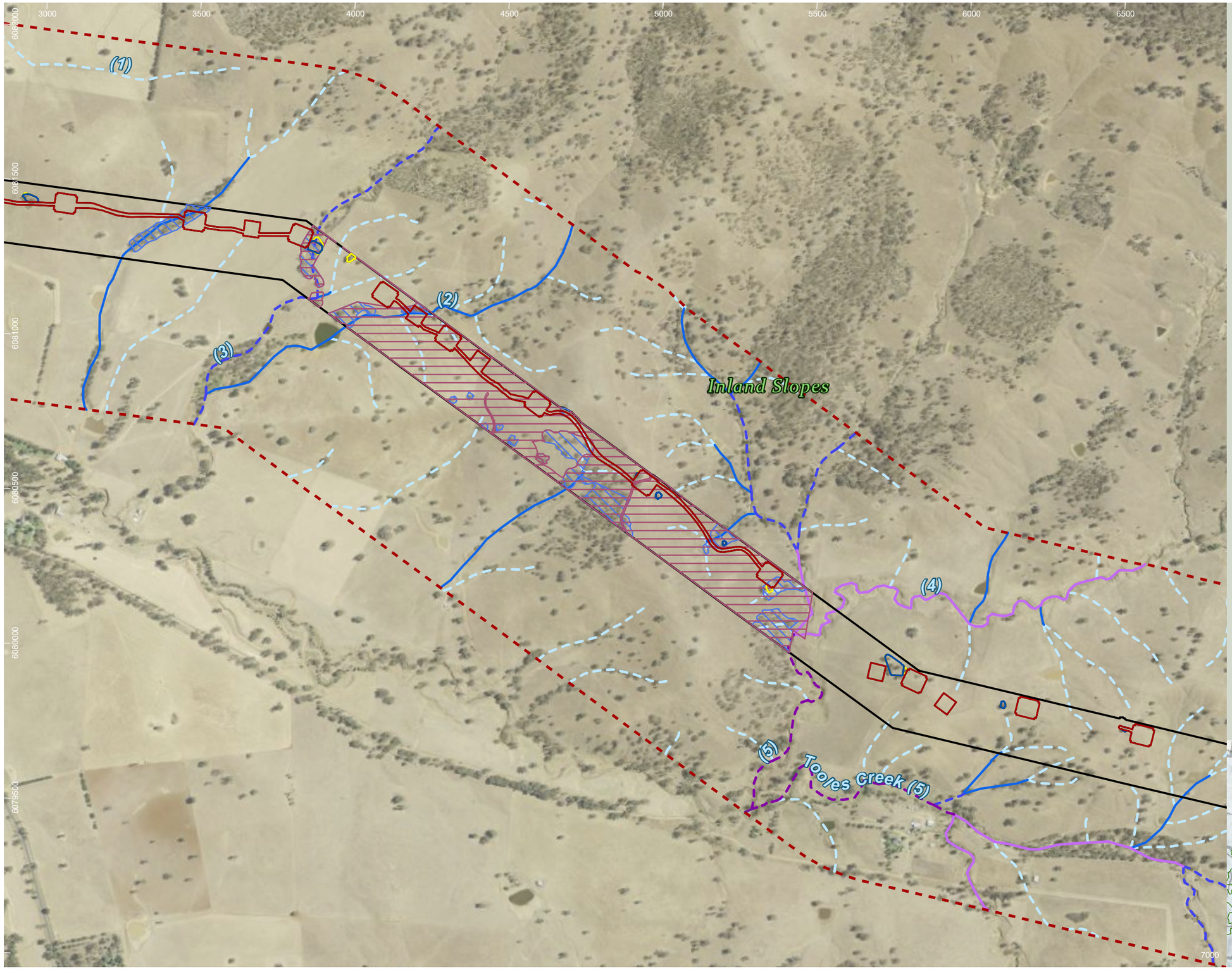


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

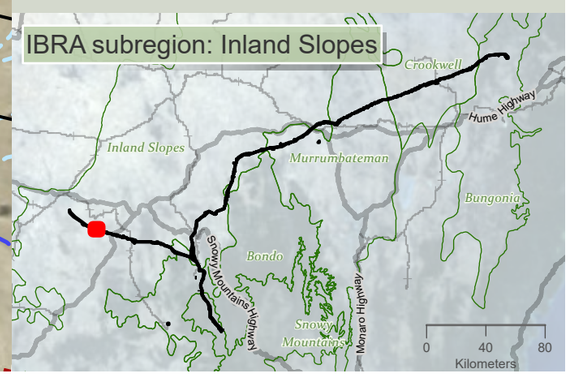
- 1
- 2
- 3
- 4
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 6

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6500 7000 7500 8000 8500 9000 9500 10000

6081000 6080500 6080000 6079500 6079000 6078500 6078000

Inland Slopes

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

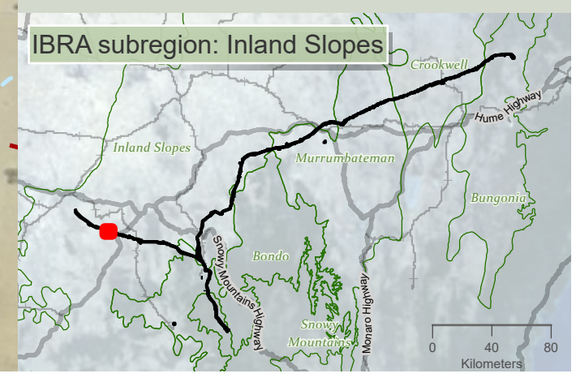
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 7

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10000 10500 11000 11500 6080500 12000 12500 13000 13500

6080000 6079500 6079000 6078500 6078000 6077500

(3) (1) (4) (2)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4
- 6

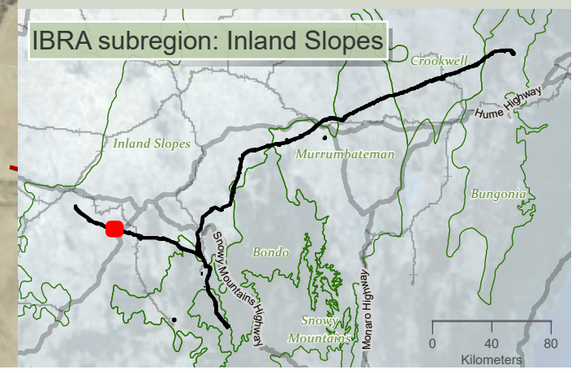
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 8

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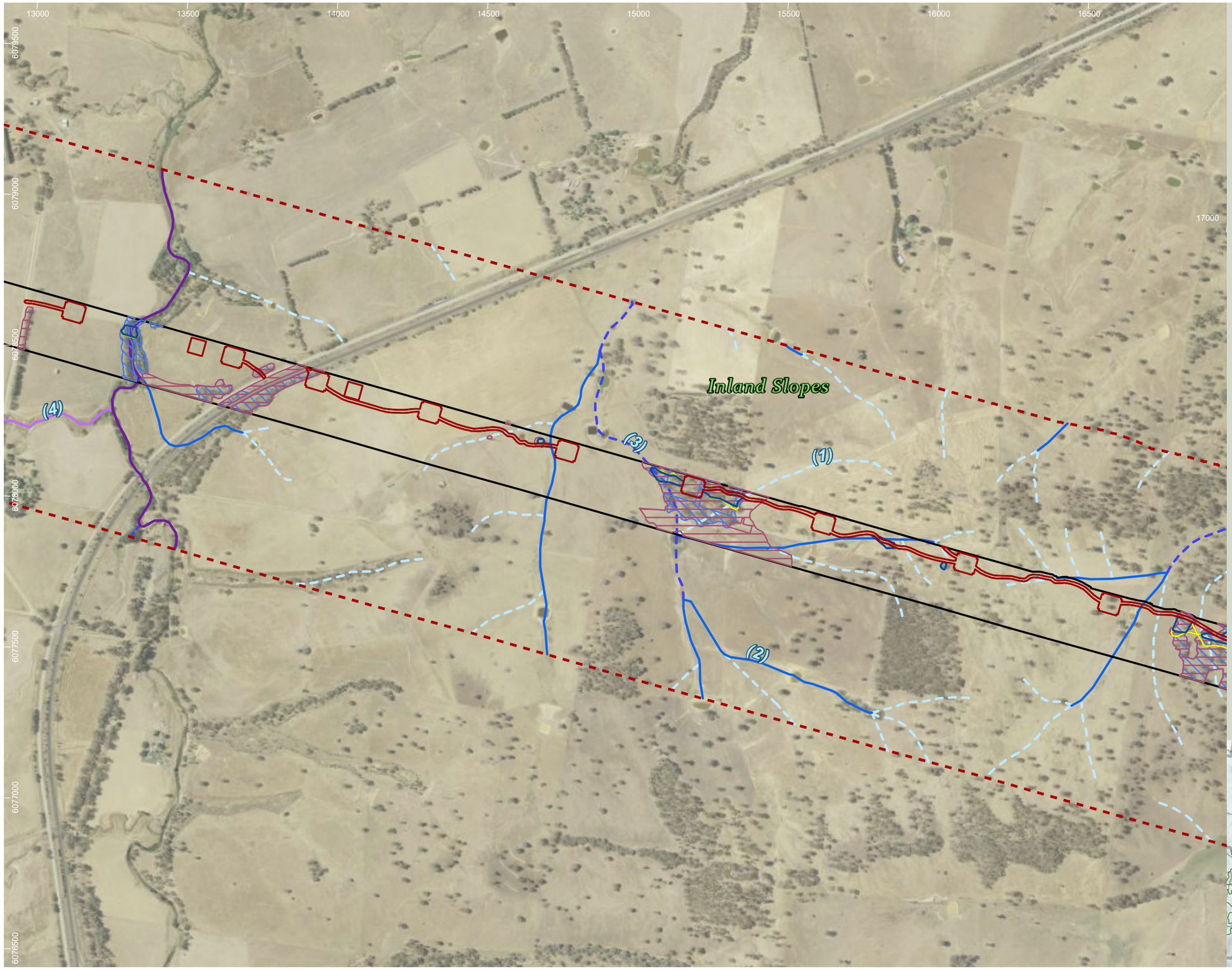


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

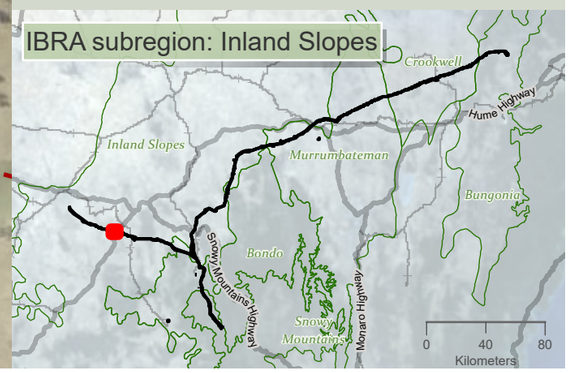
- 0
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 9

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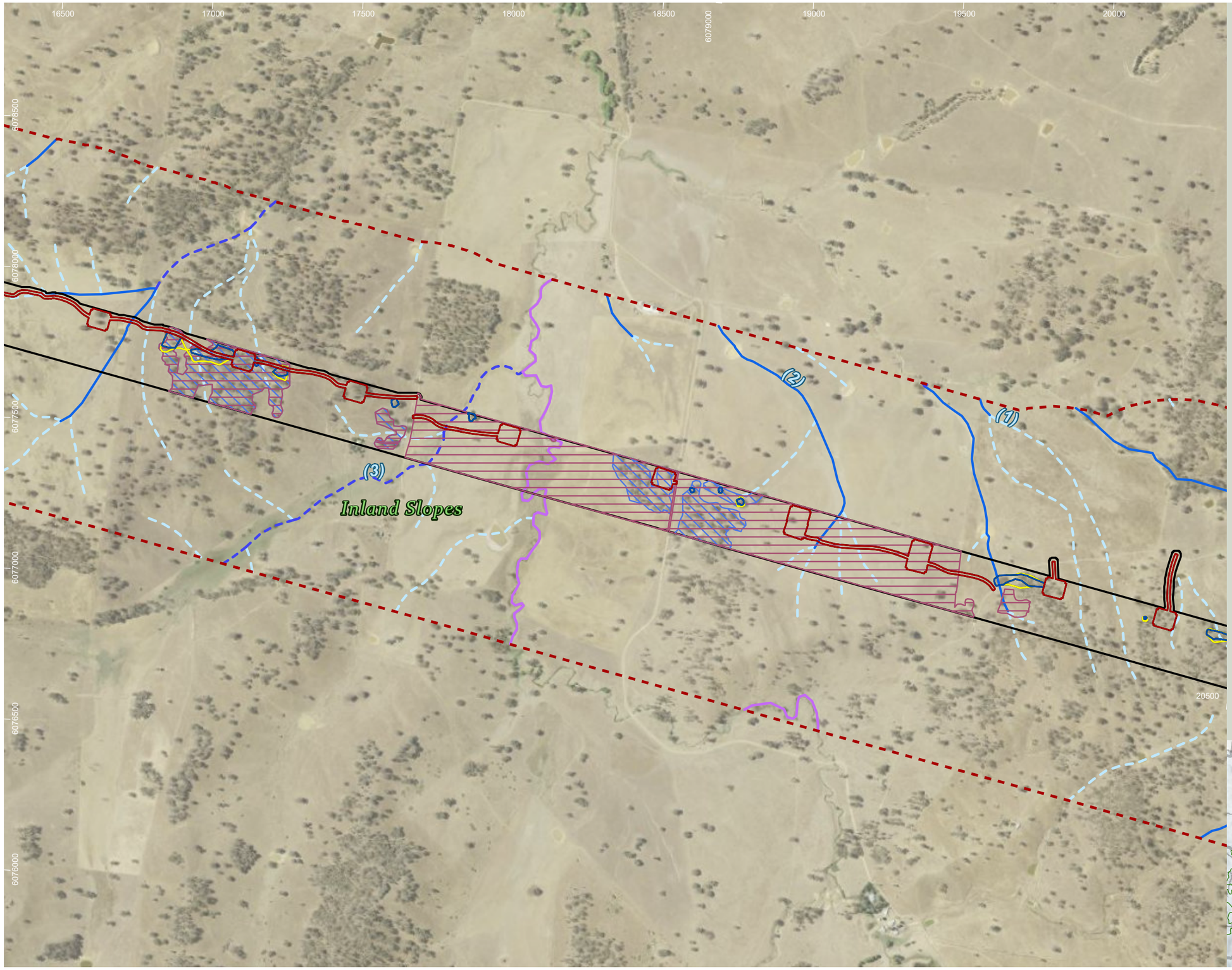
Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

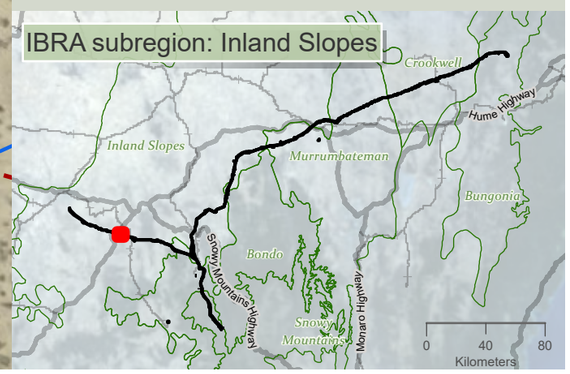
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 10

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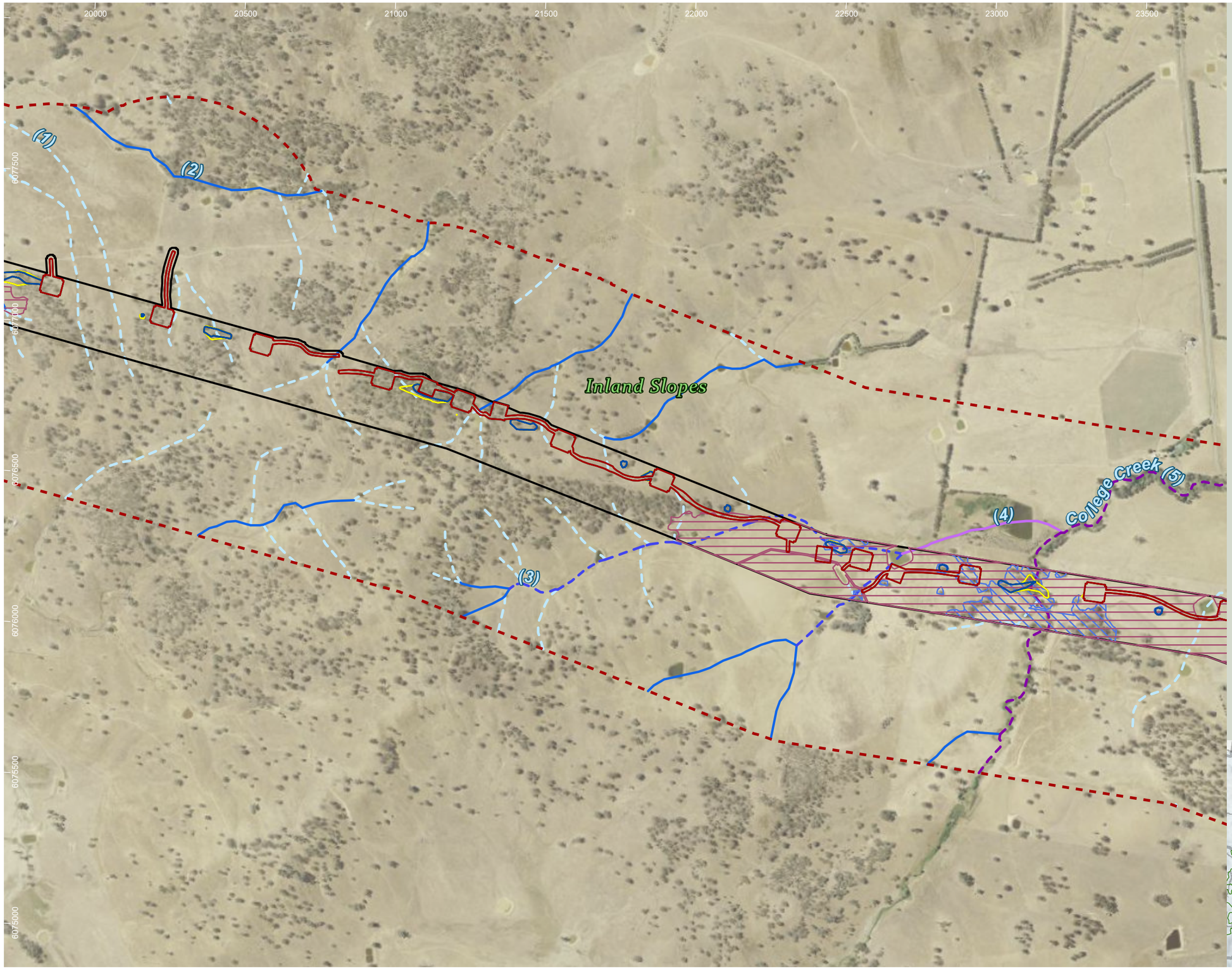


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

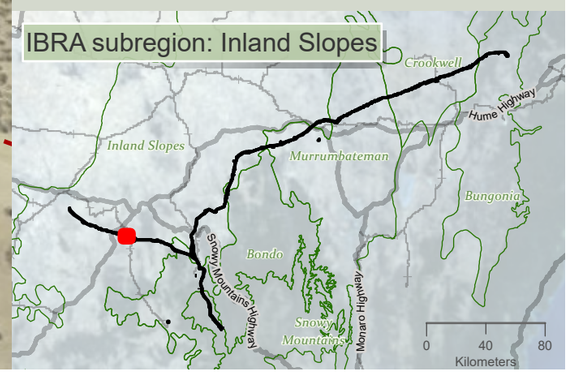
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 11

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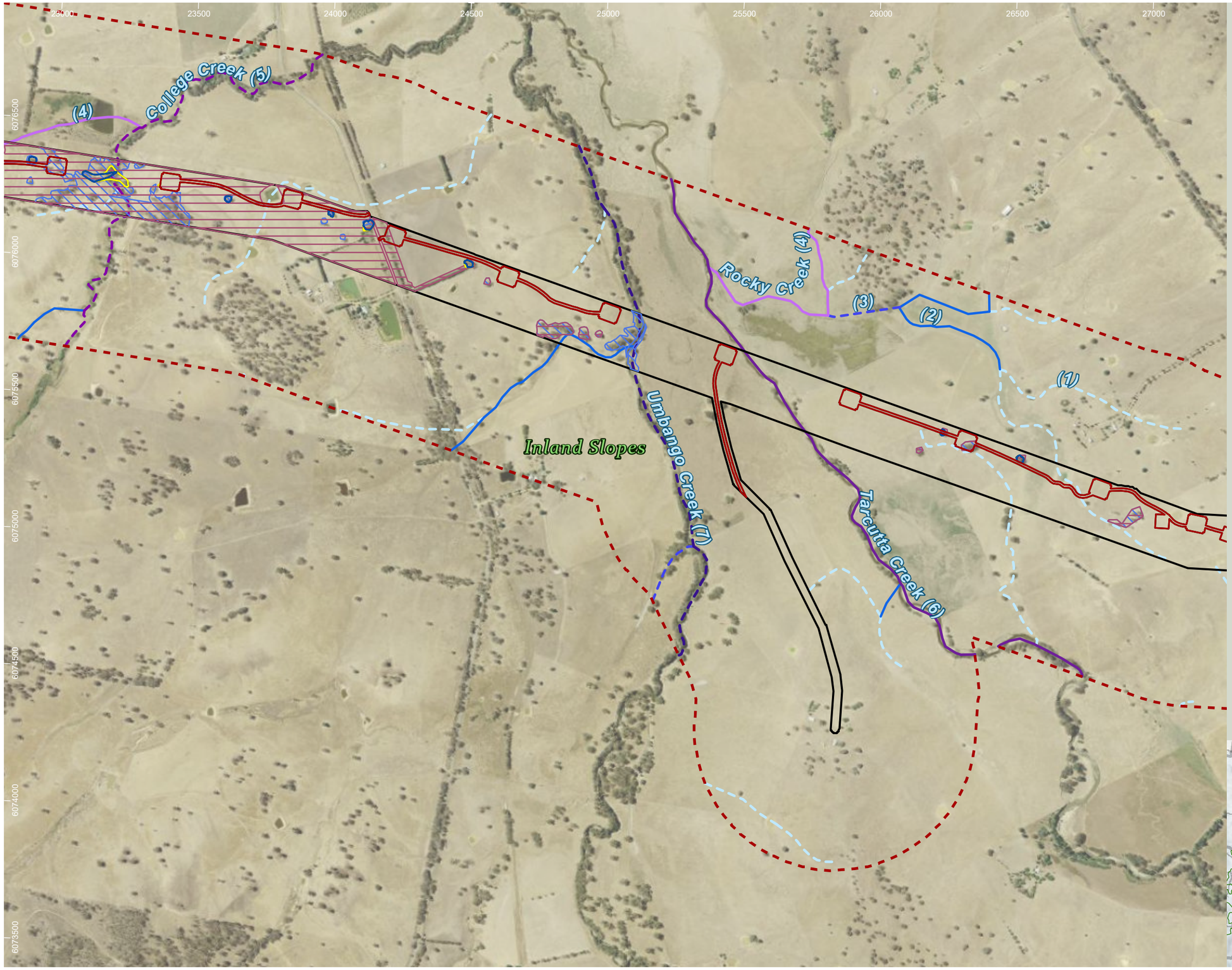


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

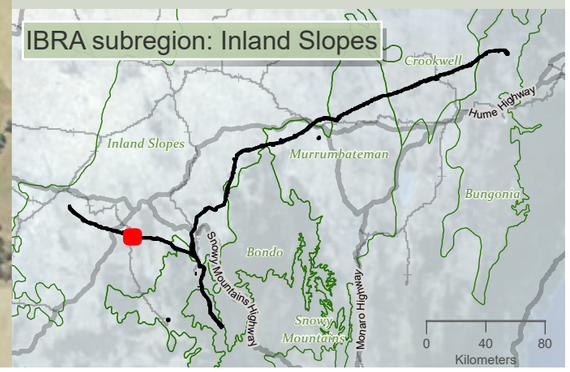
- 1
- 2
- 3
- 4
- 5
- 6
- 7

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 12

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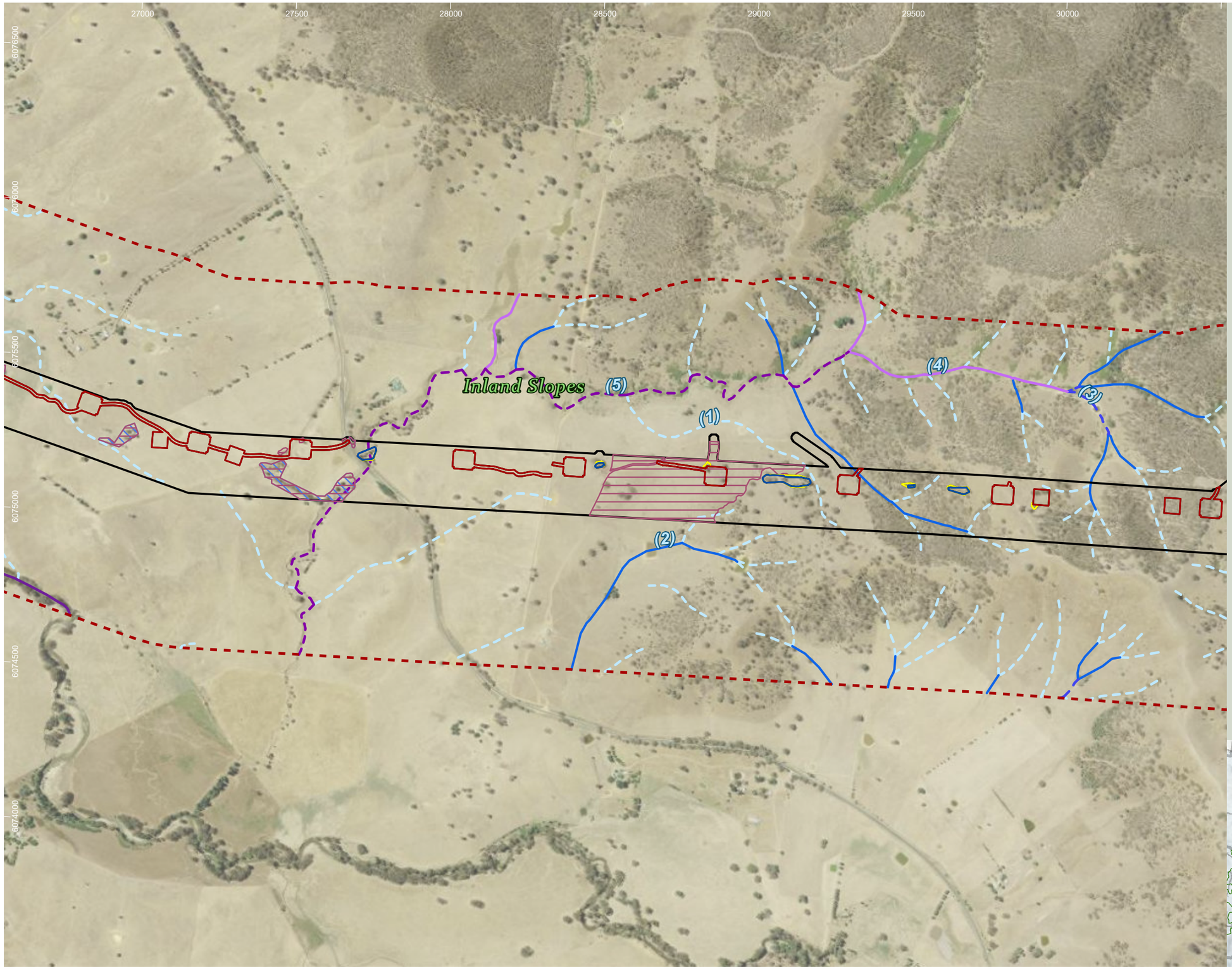


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

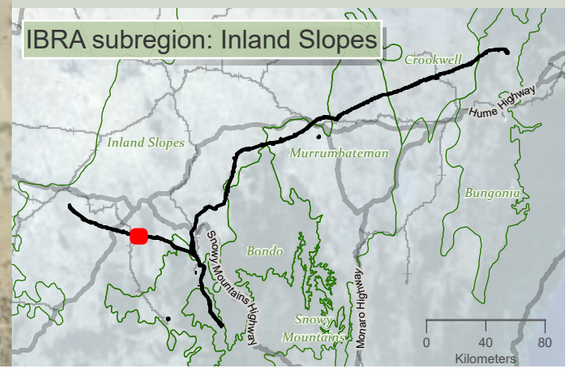
- 1
- 2
- 3
- 4
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 13

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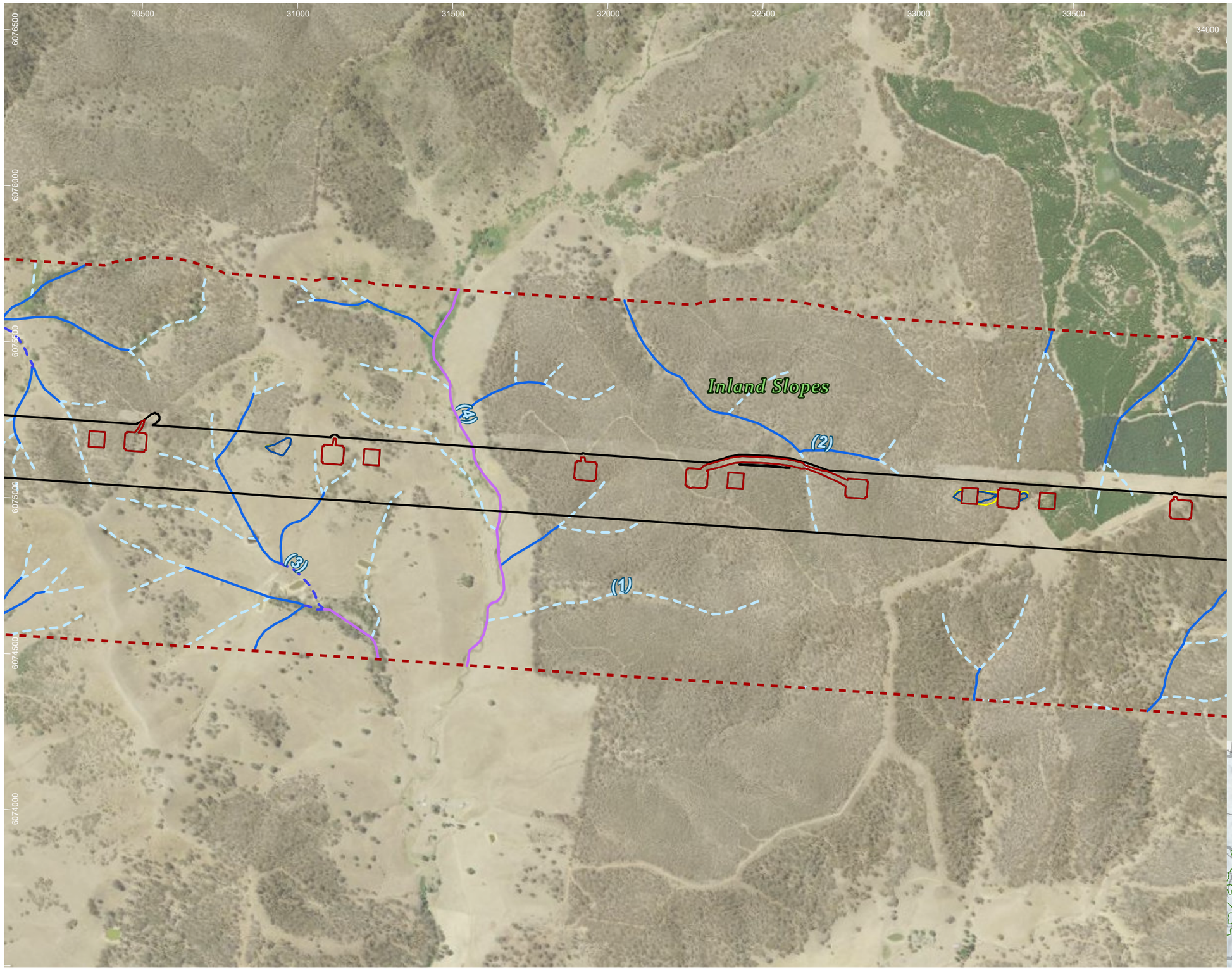


HumeLink project areas

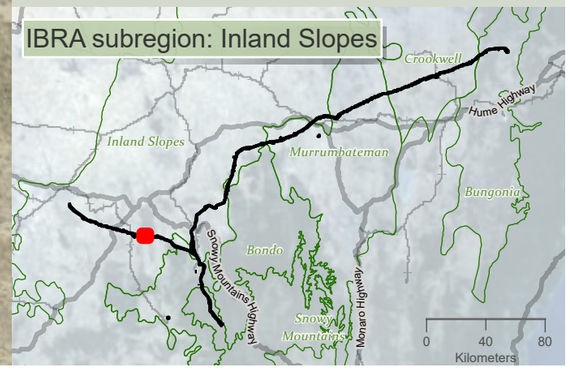
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 14

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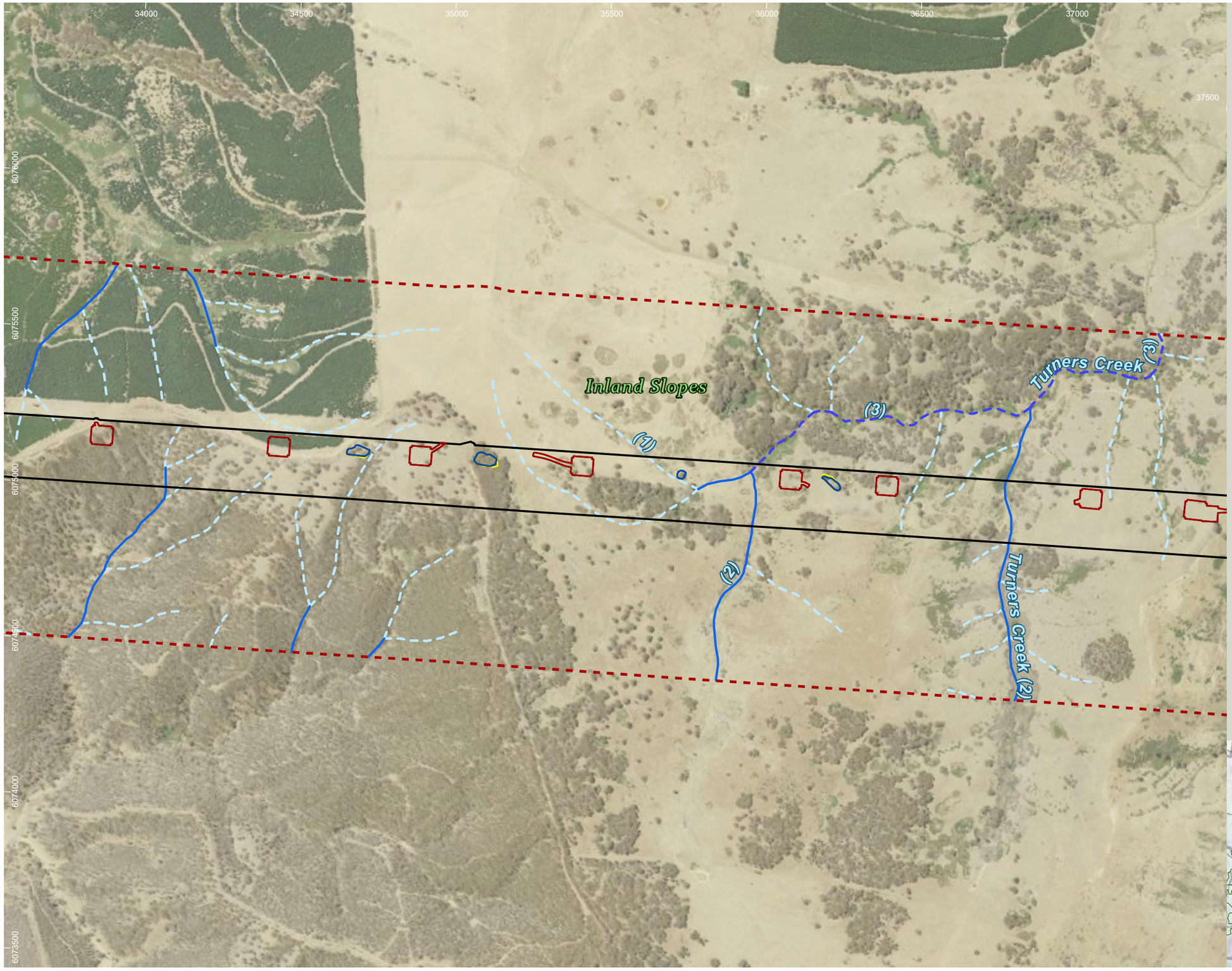


HumeLink project areas

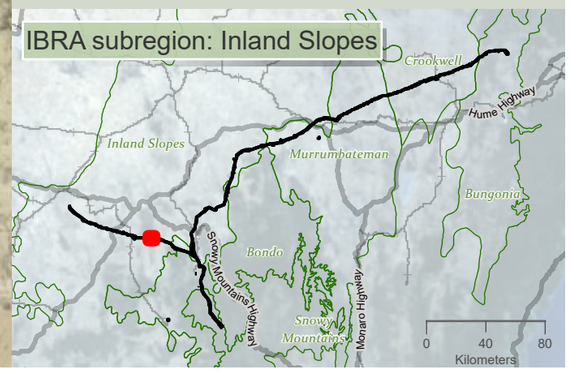
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 15

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37500 38000 38500 39000 39500 40000 40500

6076500 6075000 6075500 6074000 6074500 6073500

(1) (2) (3)

Inland Slopes

HumeLink project areas

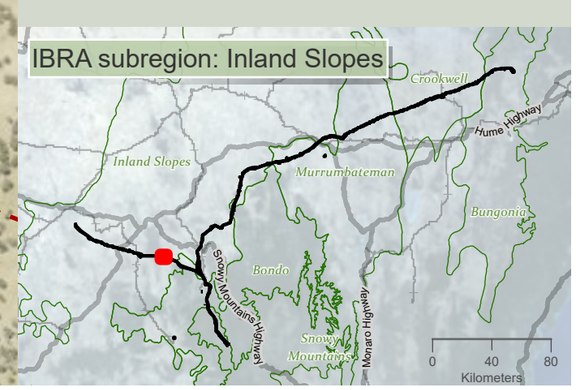
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 16

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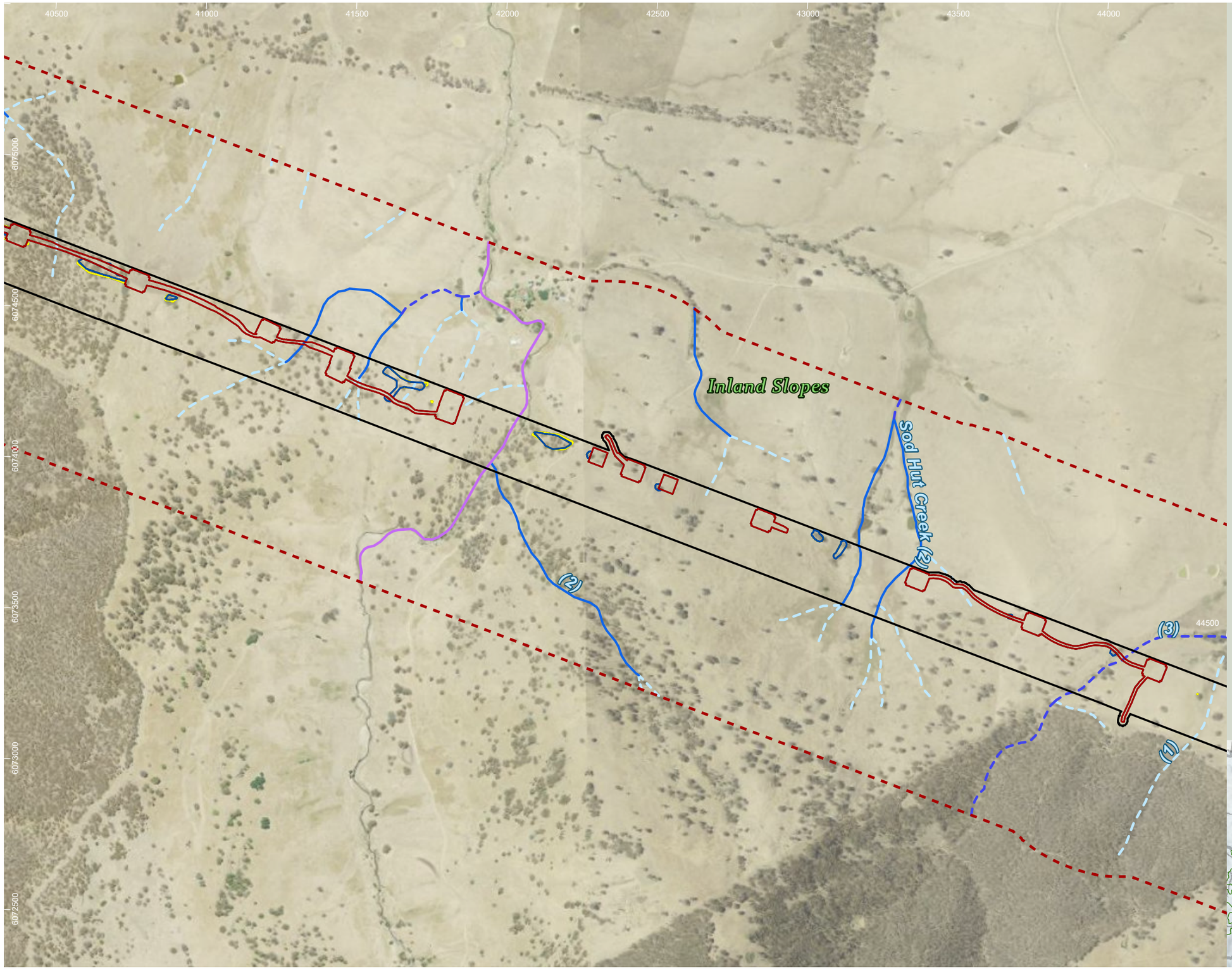


HumeLink project areas

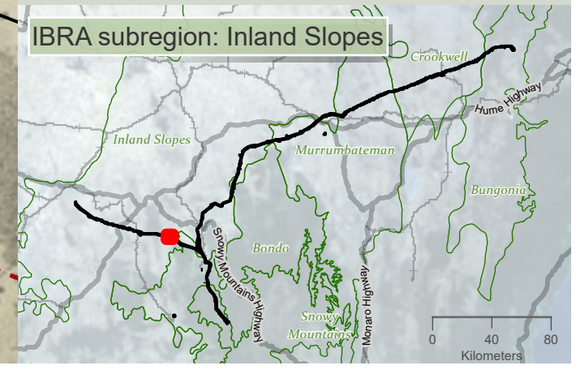
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 17

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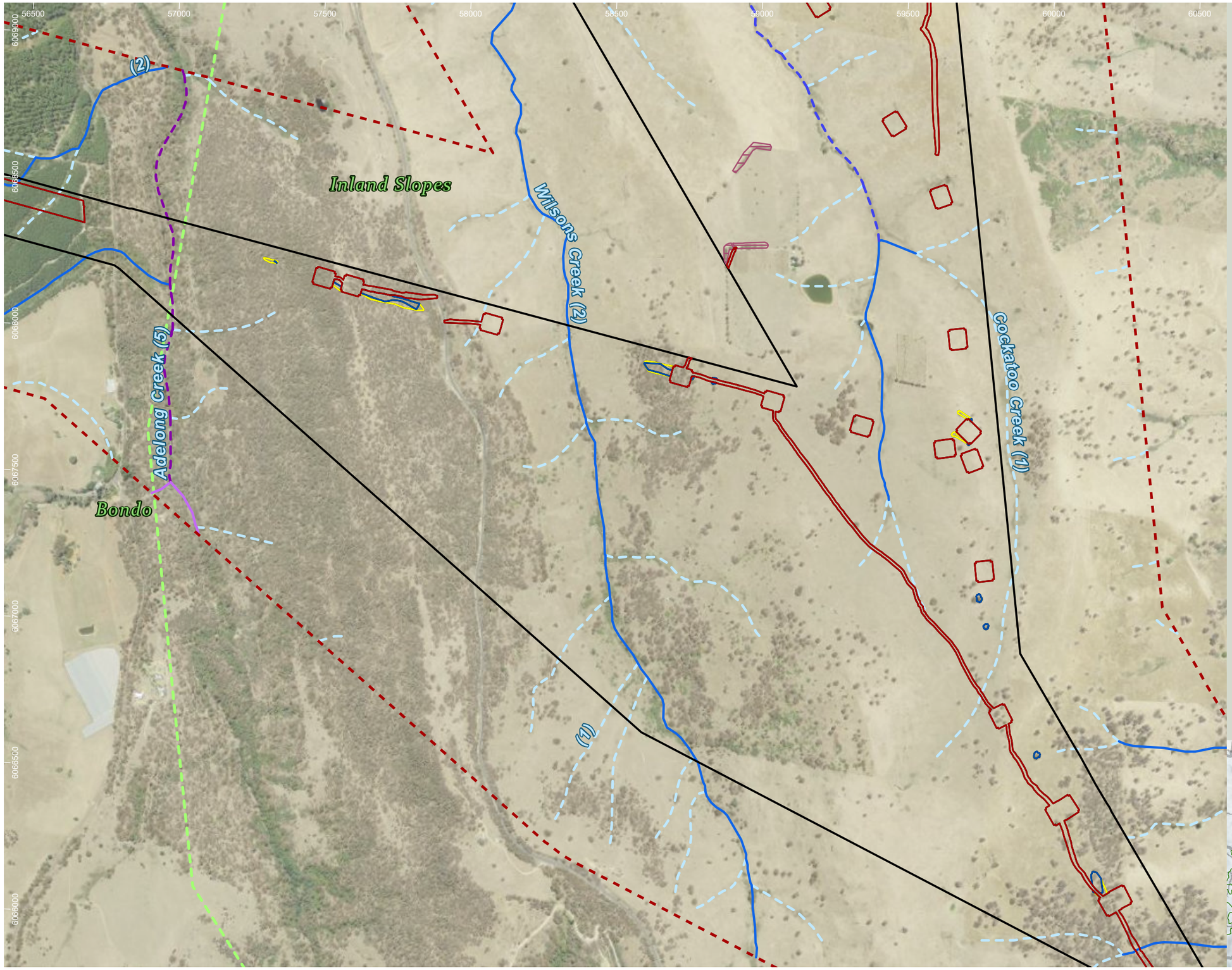


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

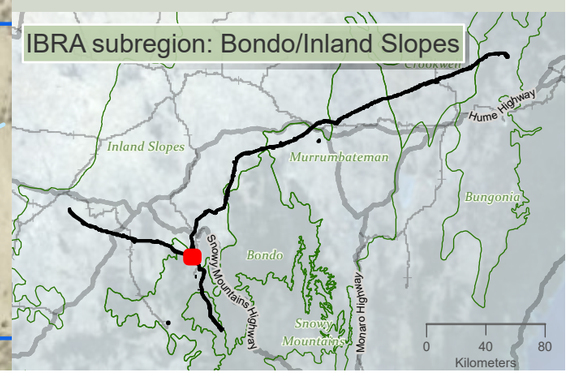
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 22

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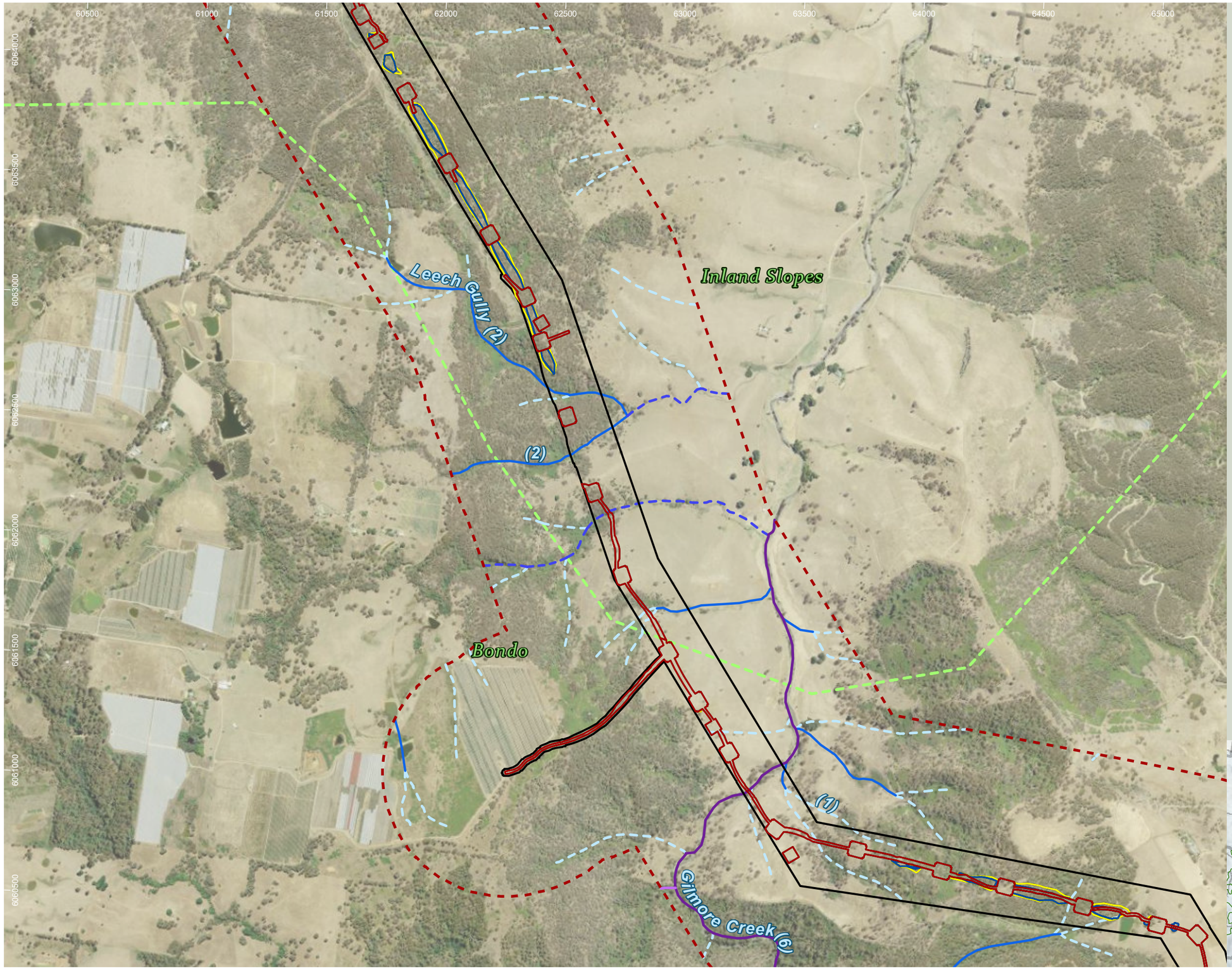


HumeLink project areas

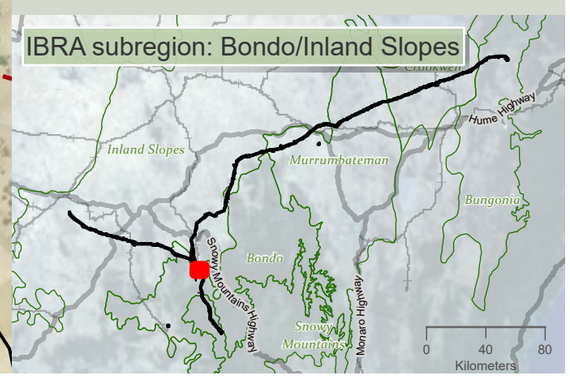
- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 24

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62500 63000 63500 64000 64500 65000 65500 66000 66500 67000 67500

6062000 6061500 6061000 6060500 6060000 6059500 6059000 6058500

Inland Slopes

Gilmore Creek (6)

(1)

(2)

Bondo

Snubba Road compound (C03)

HumeLink project areas

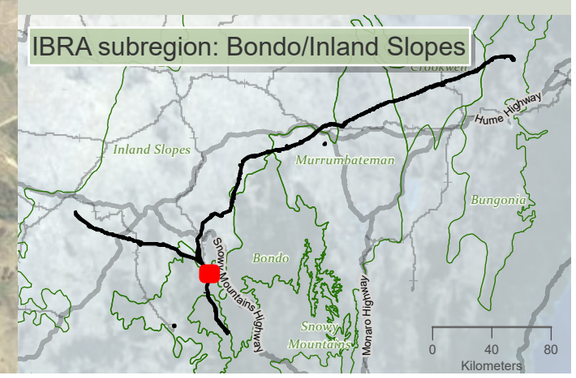
- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 25

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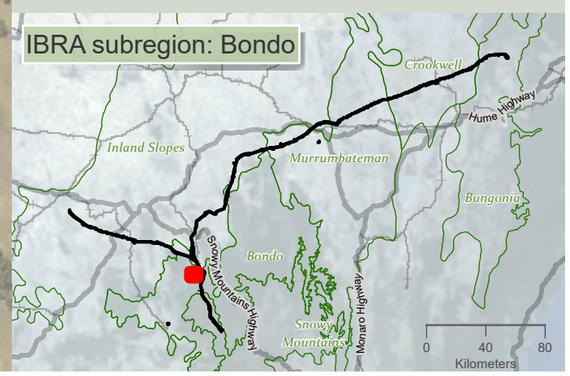
HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 5



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 26

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HumeLink project areas

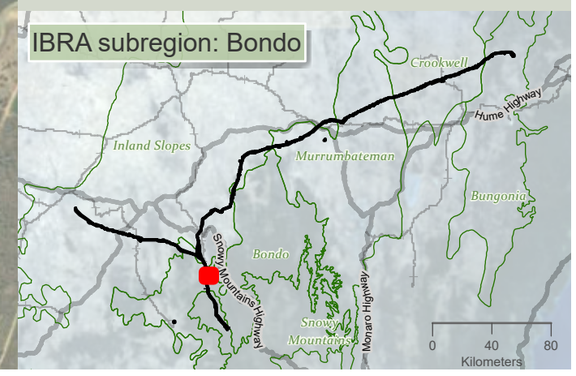
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 28

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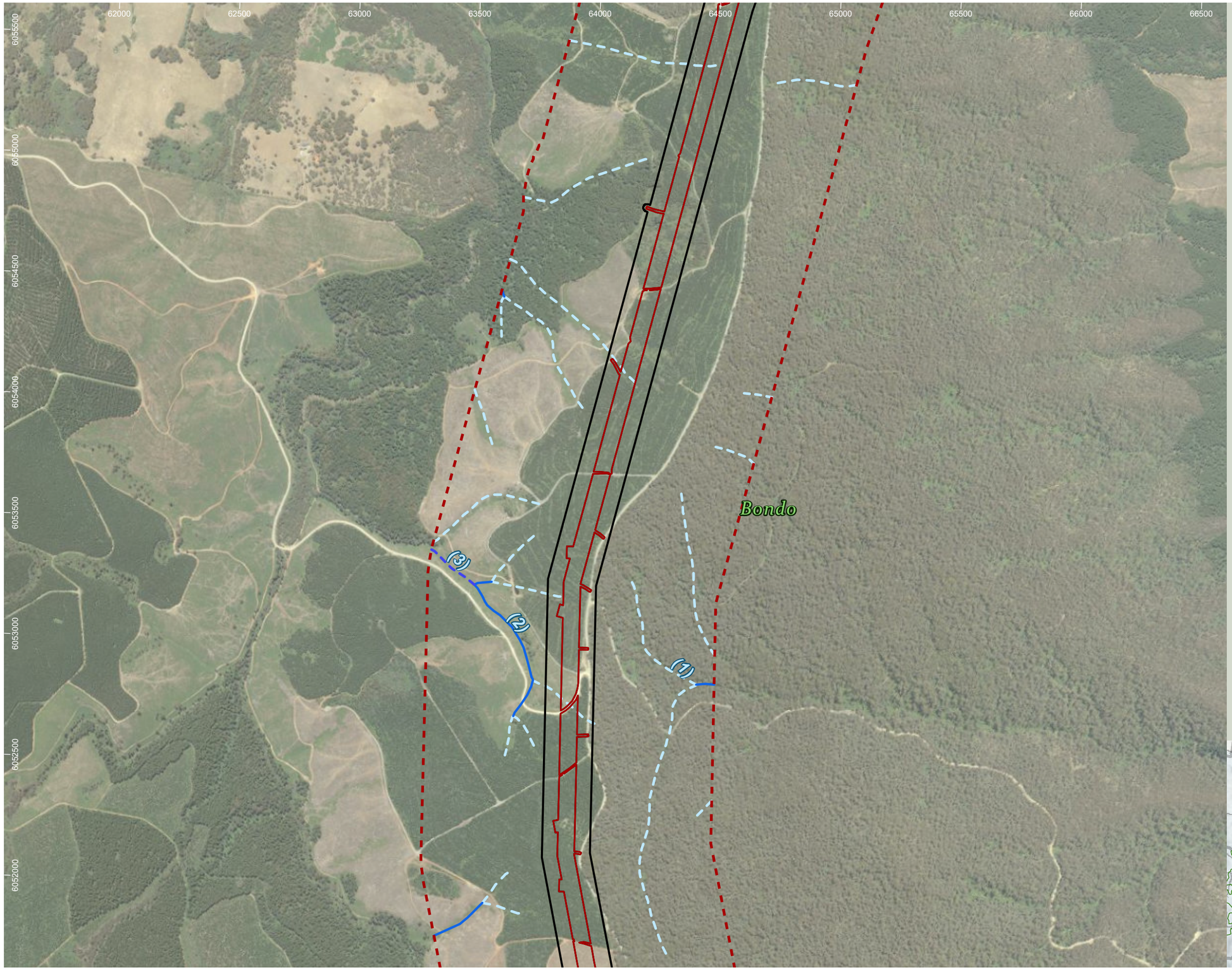


HumeLink project areas

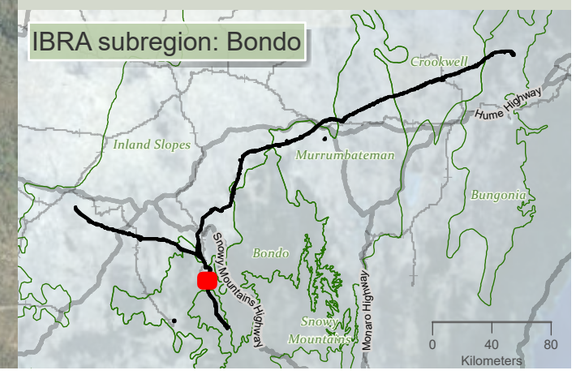
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 29

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61500 62000 62500 63000 63500 64000 64500 65000 65500 66000

6052000 6051500 6051000 6050500 6050000 6049500 6049000 6048500 6048000

Snubba Creek (4)

Ridings Creek (2)

Bondo

Snubba Road compound (C16)

(1)

(3)

Snubba Creek (3)

Snowy Mountains

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

- 1
- 2
- 3
- 4
- 5

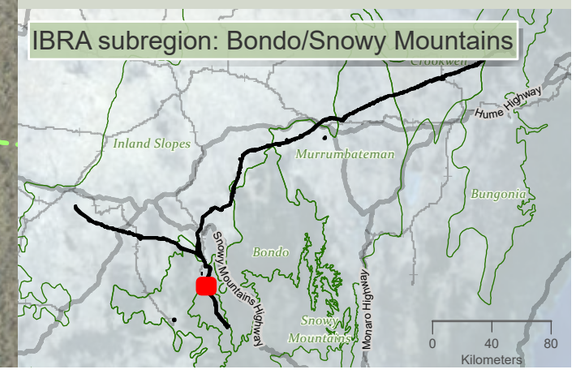
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Pterostylis foliata

IBRA subregion: Bondo/Snowy Mountains



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niche Environment and Heritage

0 N 550 m

WGS 1984 Web Mercator

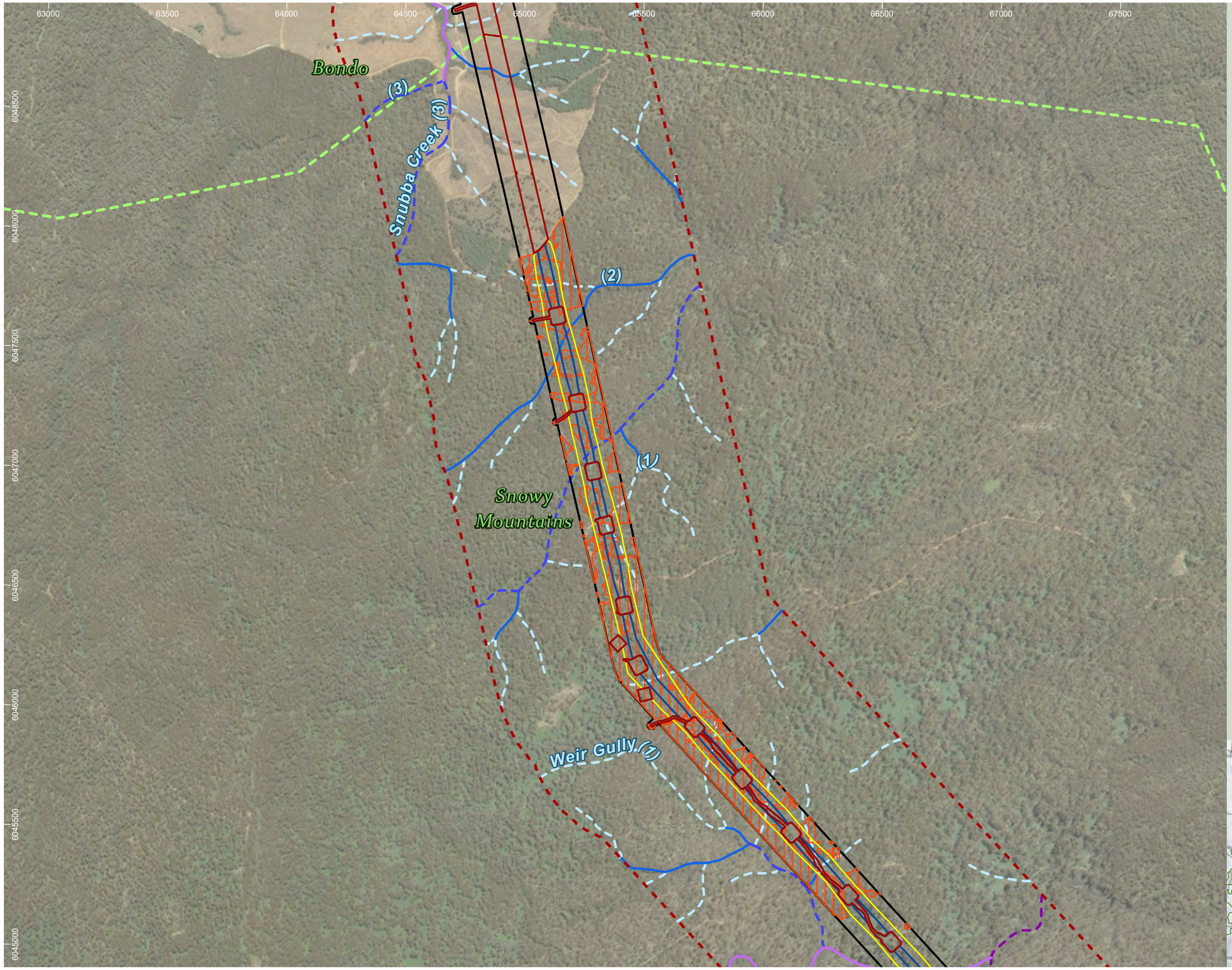
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 30

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

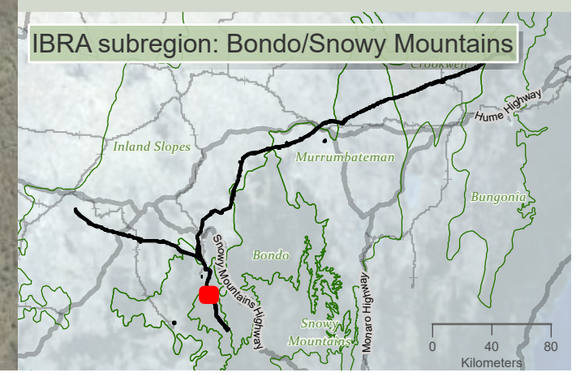
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Pterostylis foliata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

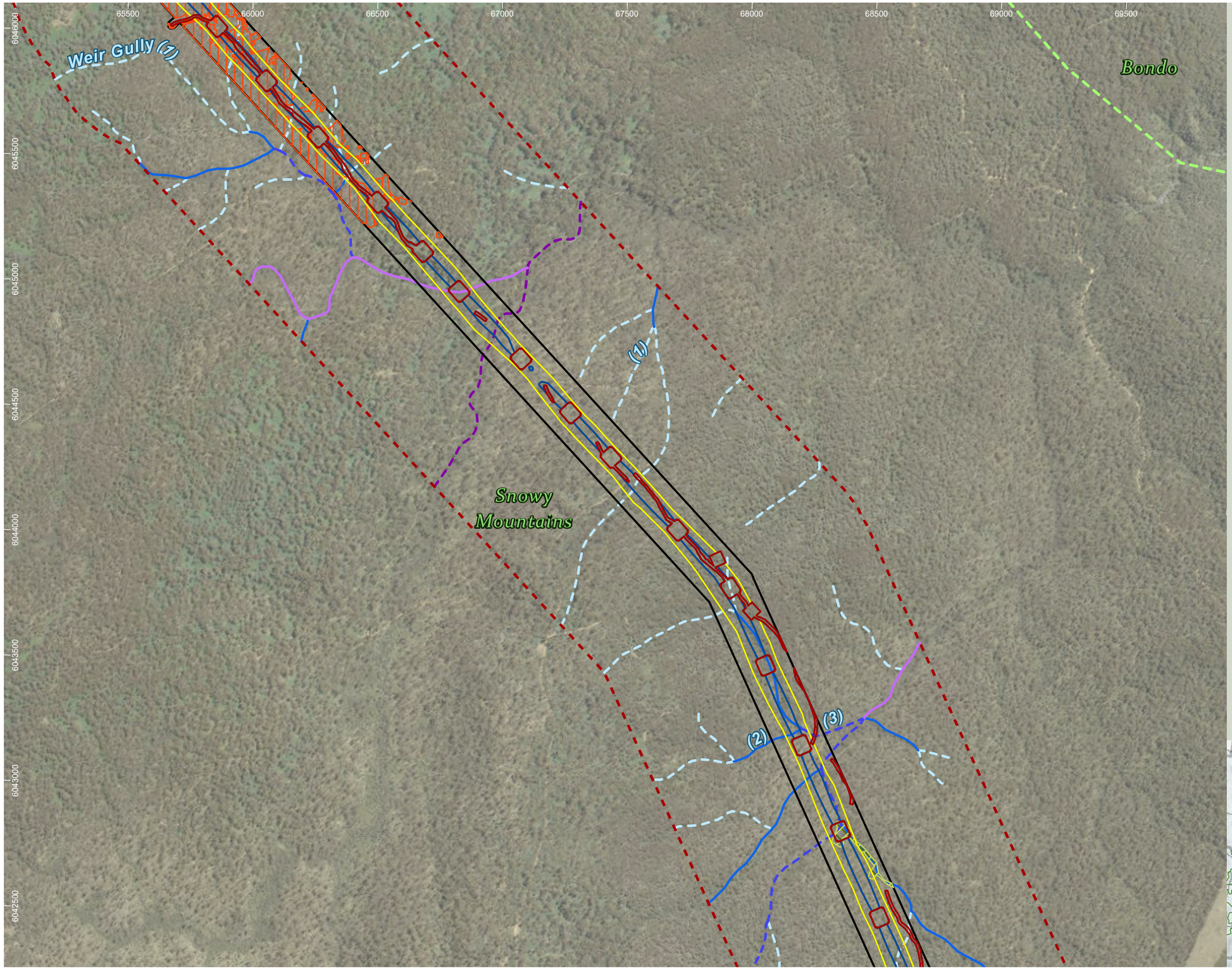
Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 31

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

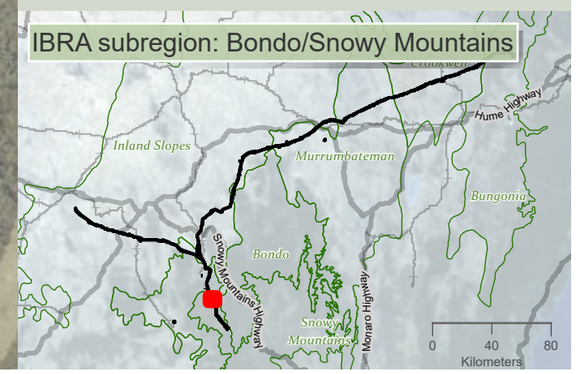
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Pterostylis foliata
- Pterostylis oreophila
- Thelymitra alpicola



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 32

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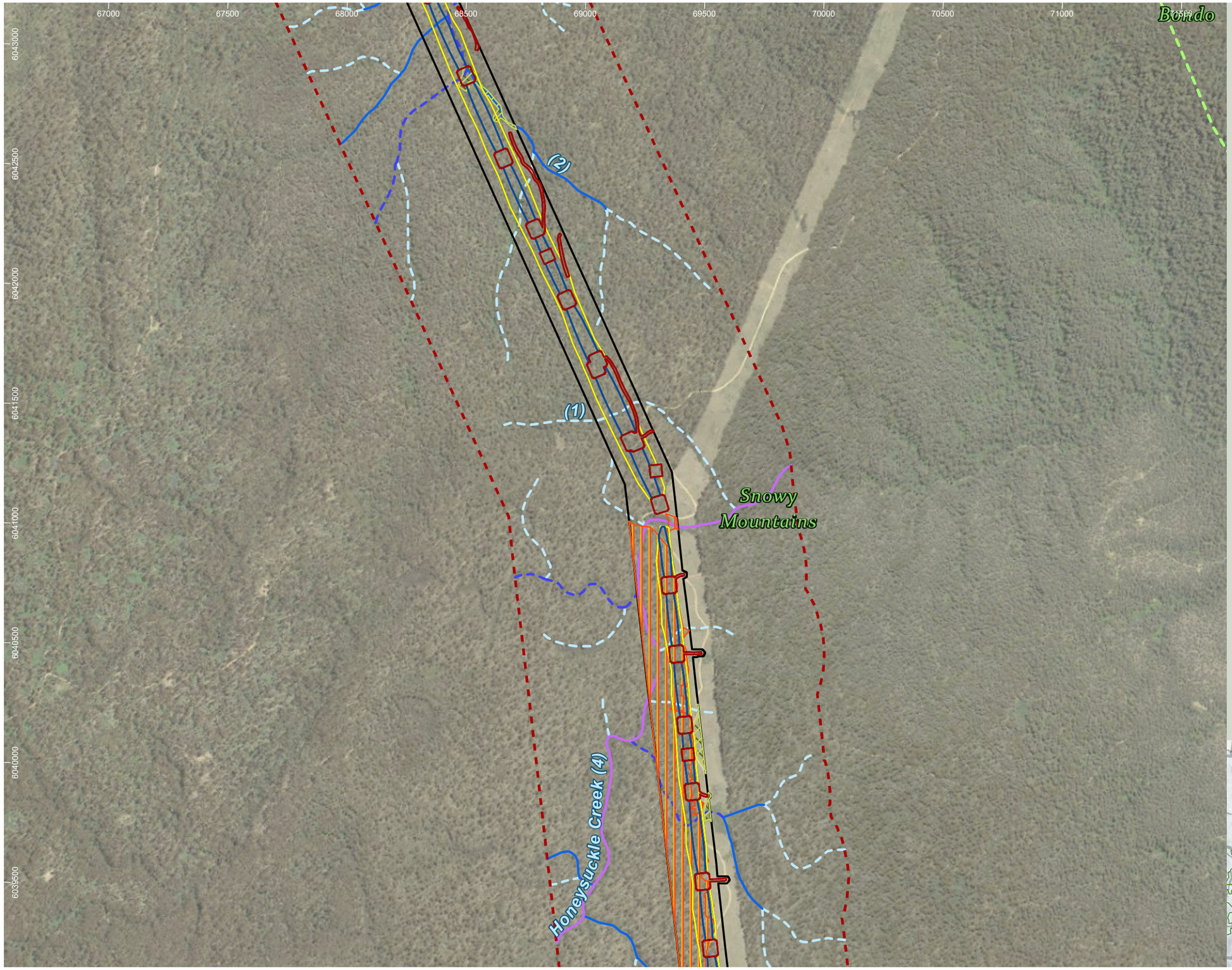
Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

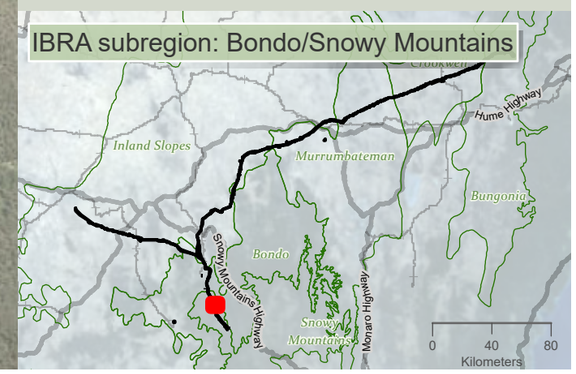
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum keltonii
- Pterostylis foliata
- Pterostylis oreophila
- Thelymitra alpicola



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 33

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

67500 68000 68500 69000 69500 70000 70500 71000 71500 72000

6039500 6039000 6038500 6038000 6037500 6037000 6036500 6036000

(2)

(1)

Snowy Mountains

Long Creek (4)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4

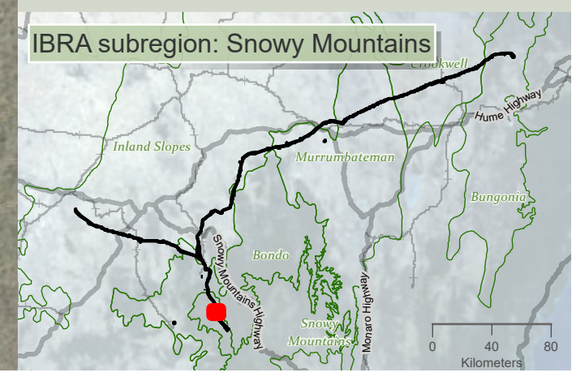
Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum keltonii
- Pterostylis foliata
- Pterostylis oreophila
- Thelymitra alpicola

IBRA subregion: Snowy Mountains



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 34

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HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

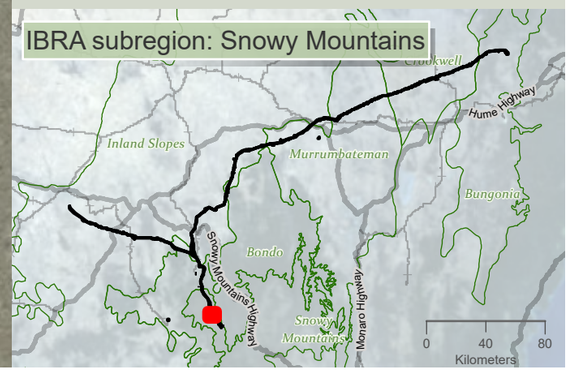
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum keltonii
- Pterostylis foliata
- Pterostylis oreophila
- Thelymitra alpicola



niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 36

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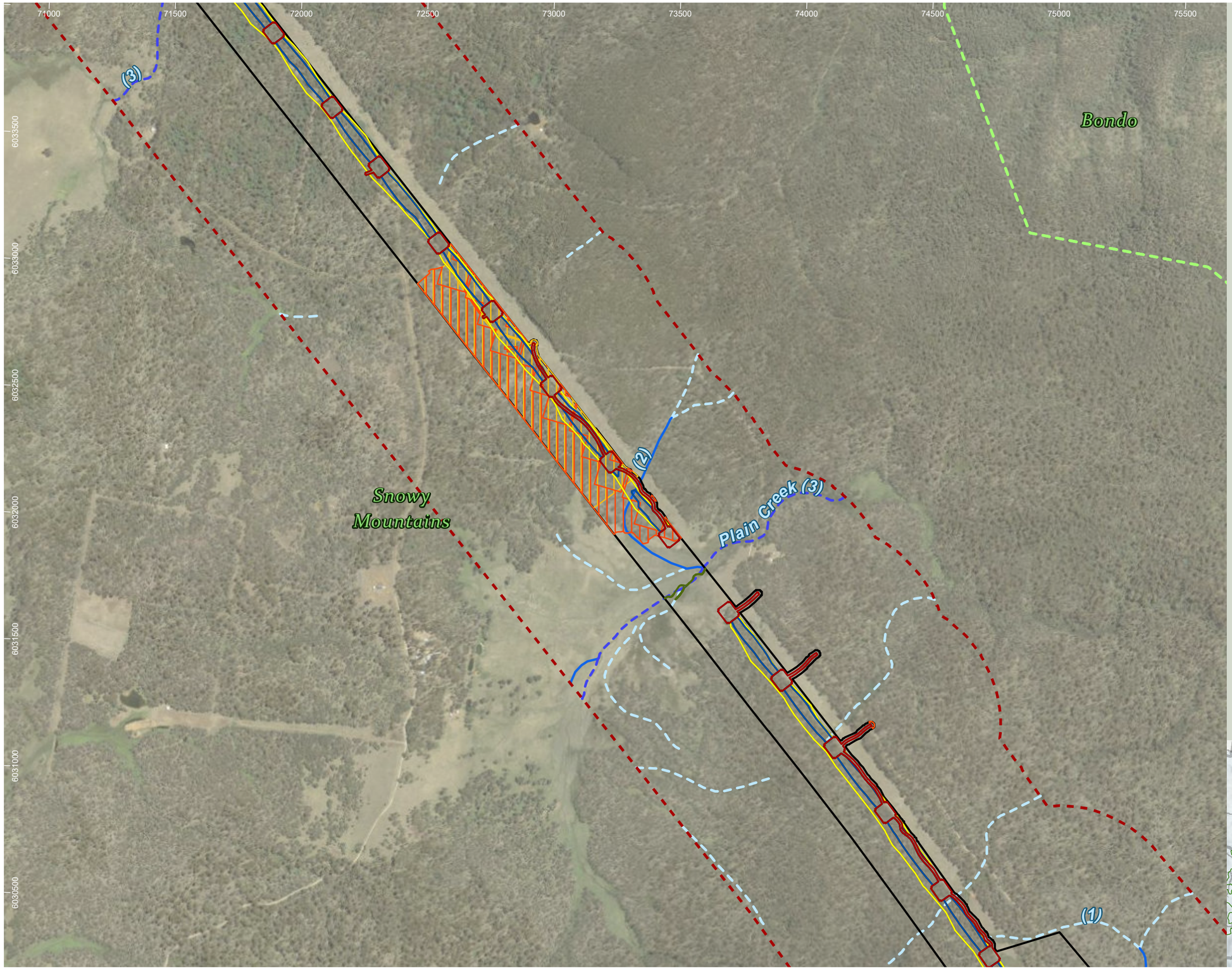


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

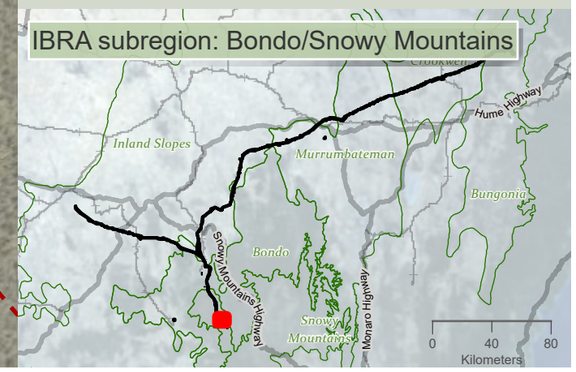
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum keltonii
- Pterostylis foliata
- Pterostylis oreophila



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 37

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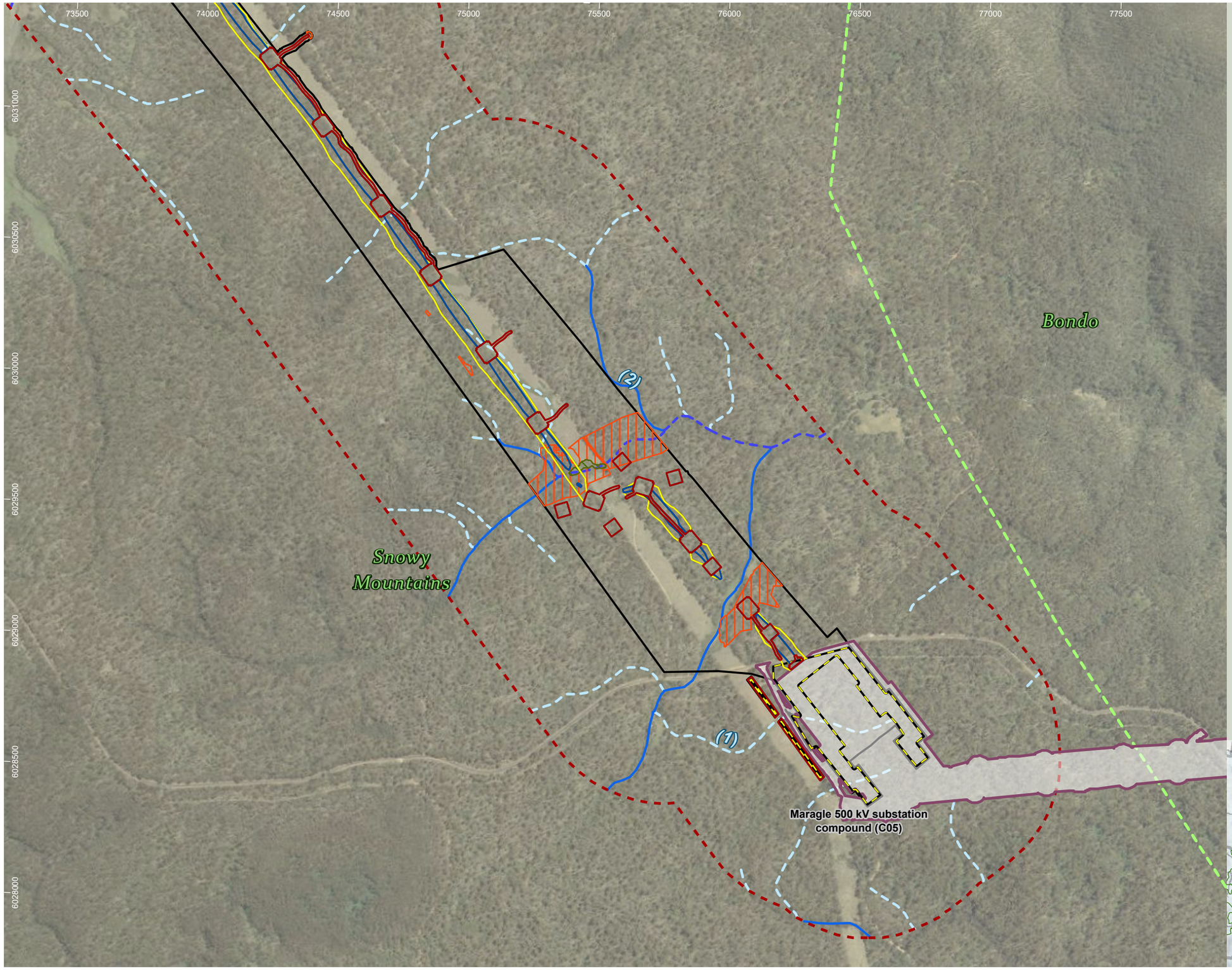


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- IBRA subregion

Strahler stream order

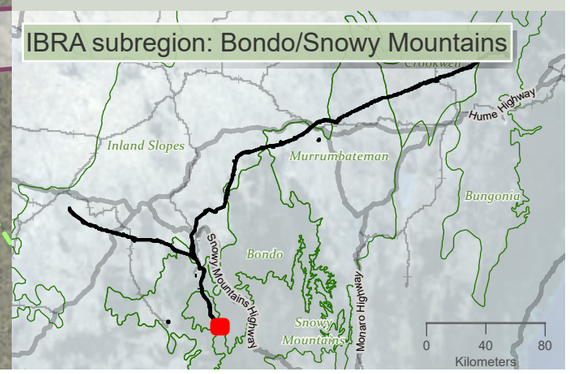
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum keltonii
- Pterostylis foliata
- Pterostylis oreophila



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 38

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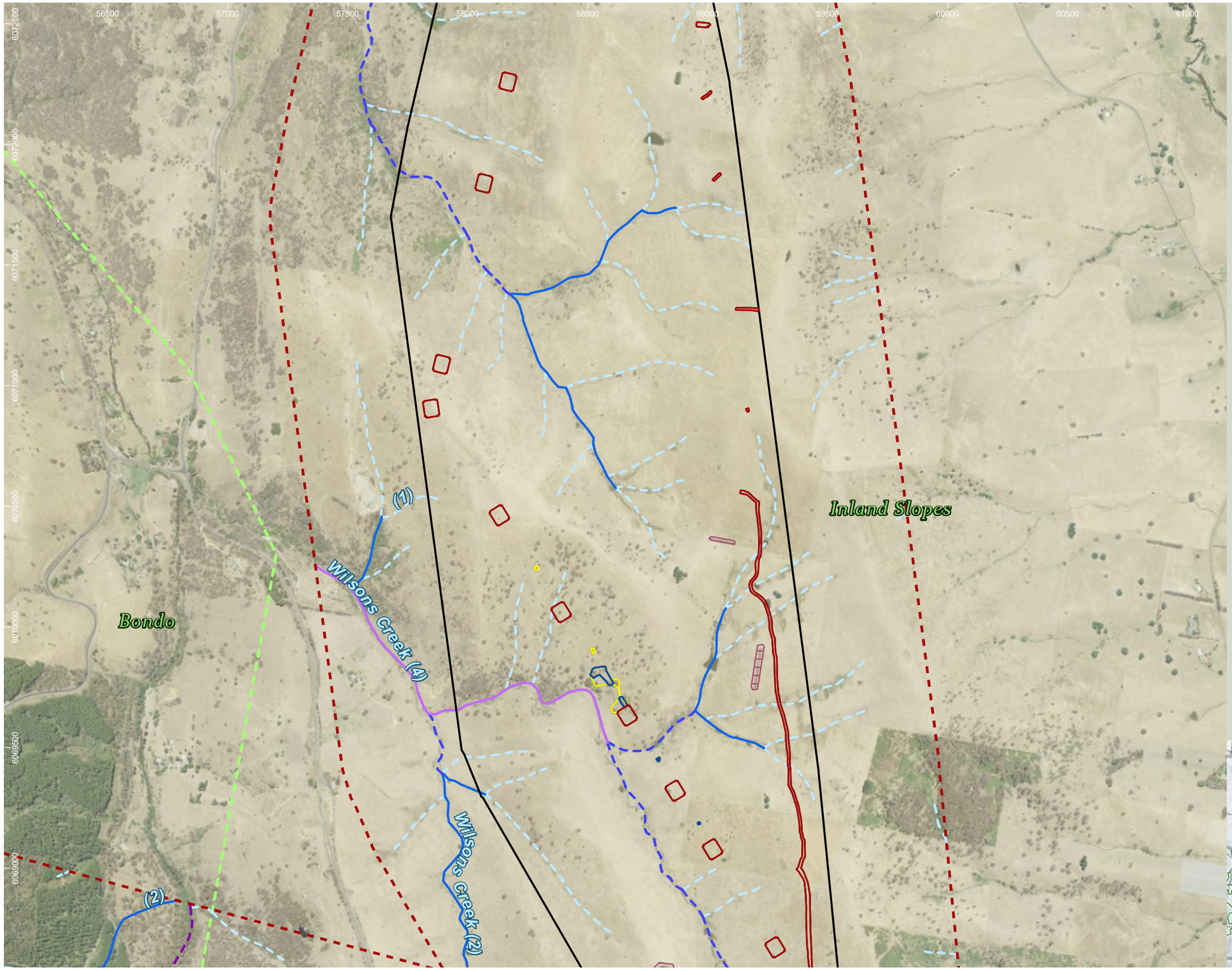
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx - Confidential



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

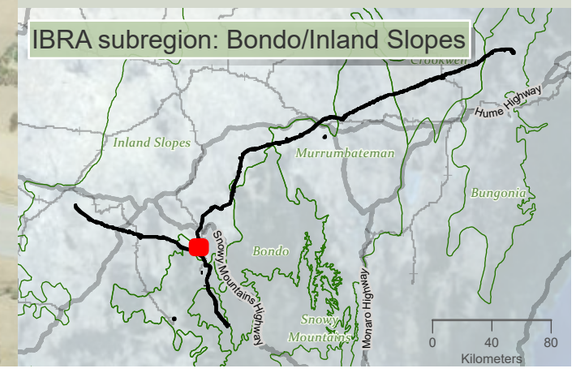
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 39

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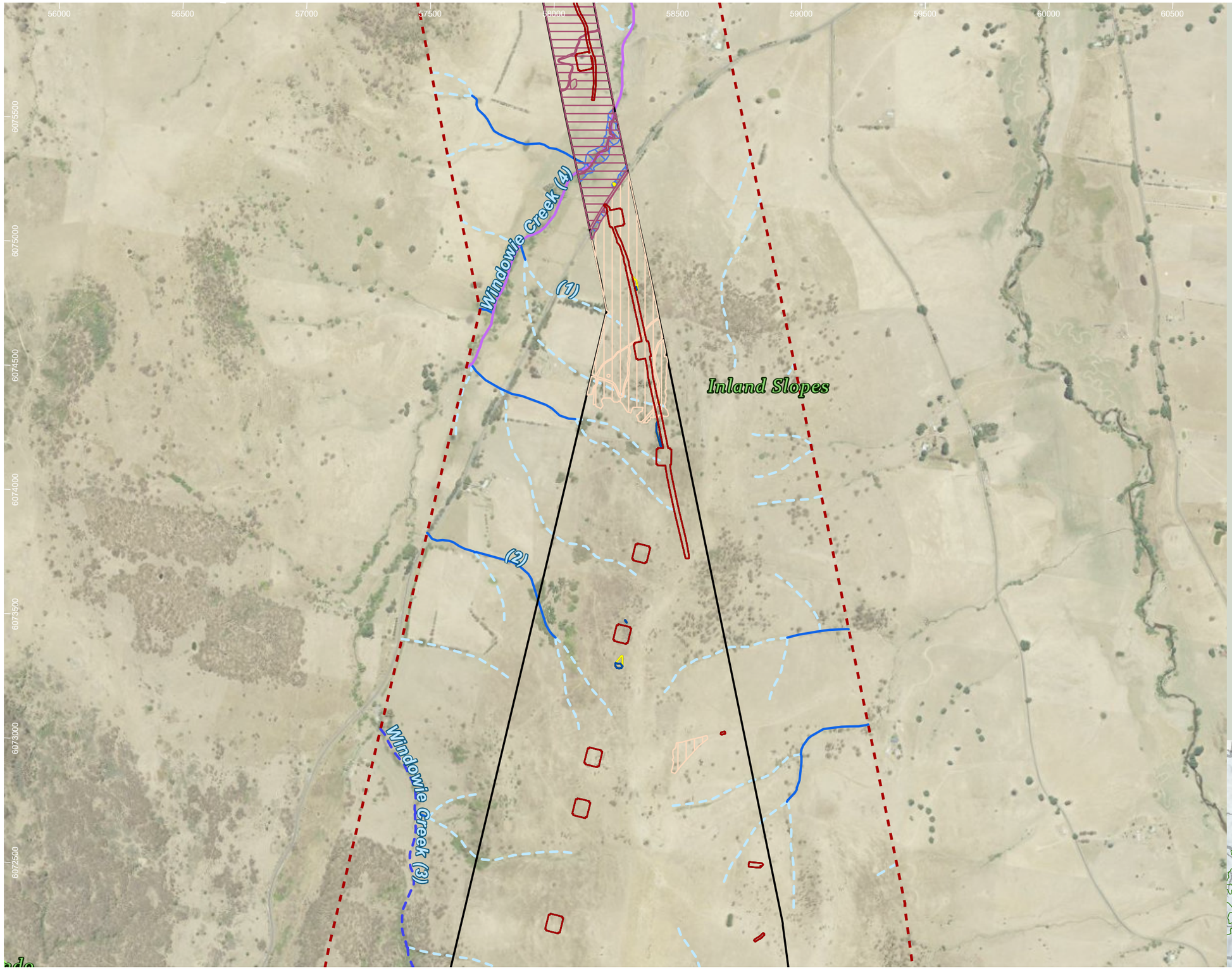


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

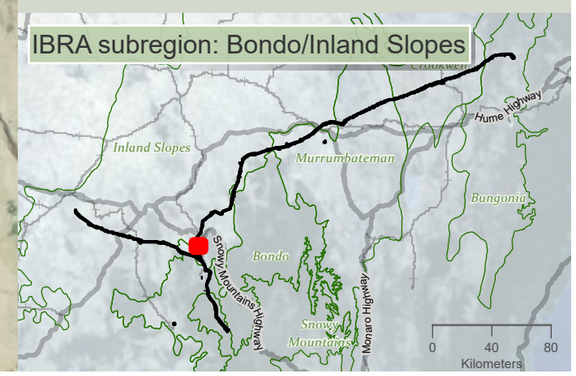
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris tricolor
- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 40

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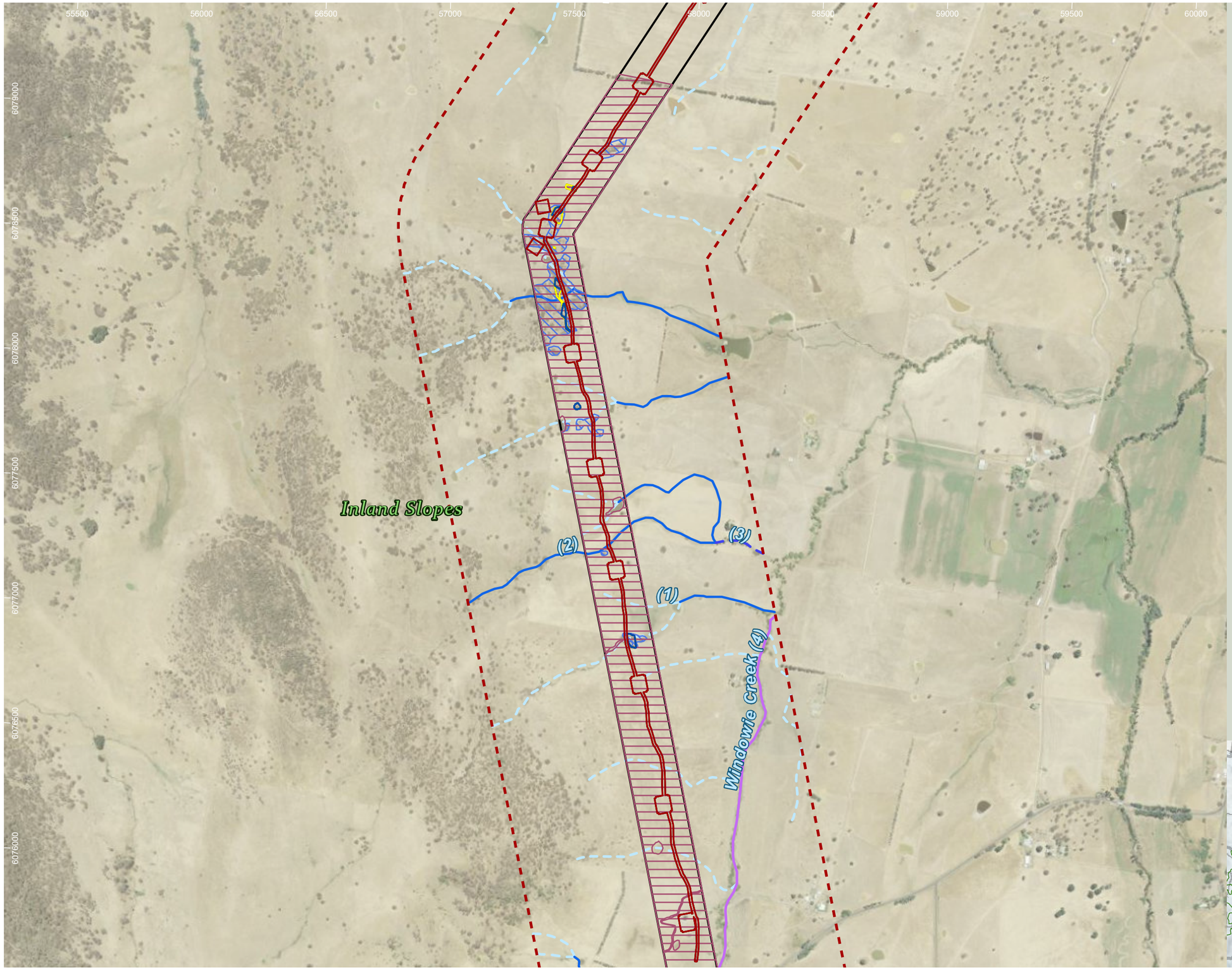


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

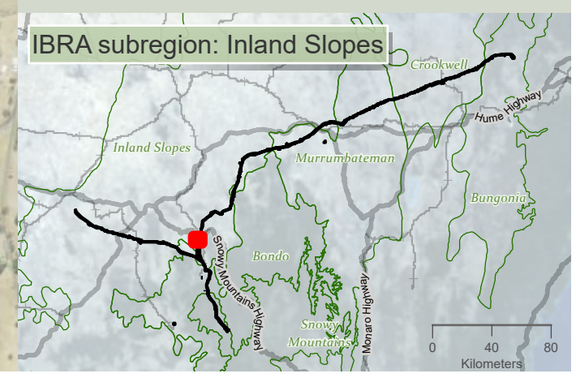
- 0
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 41

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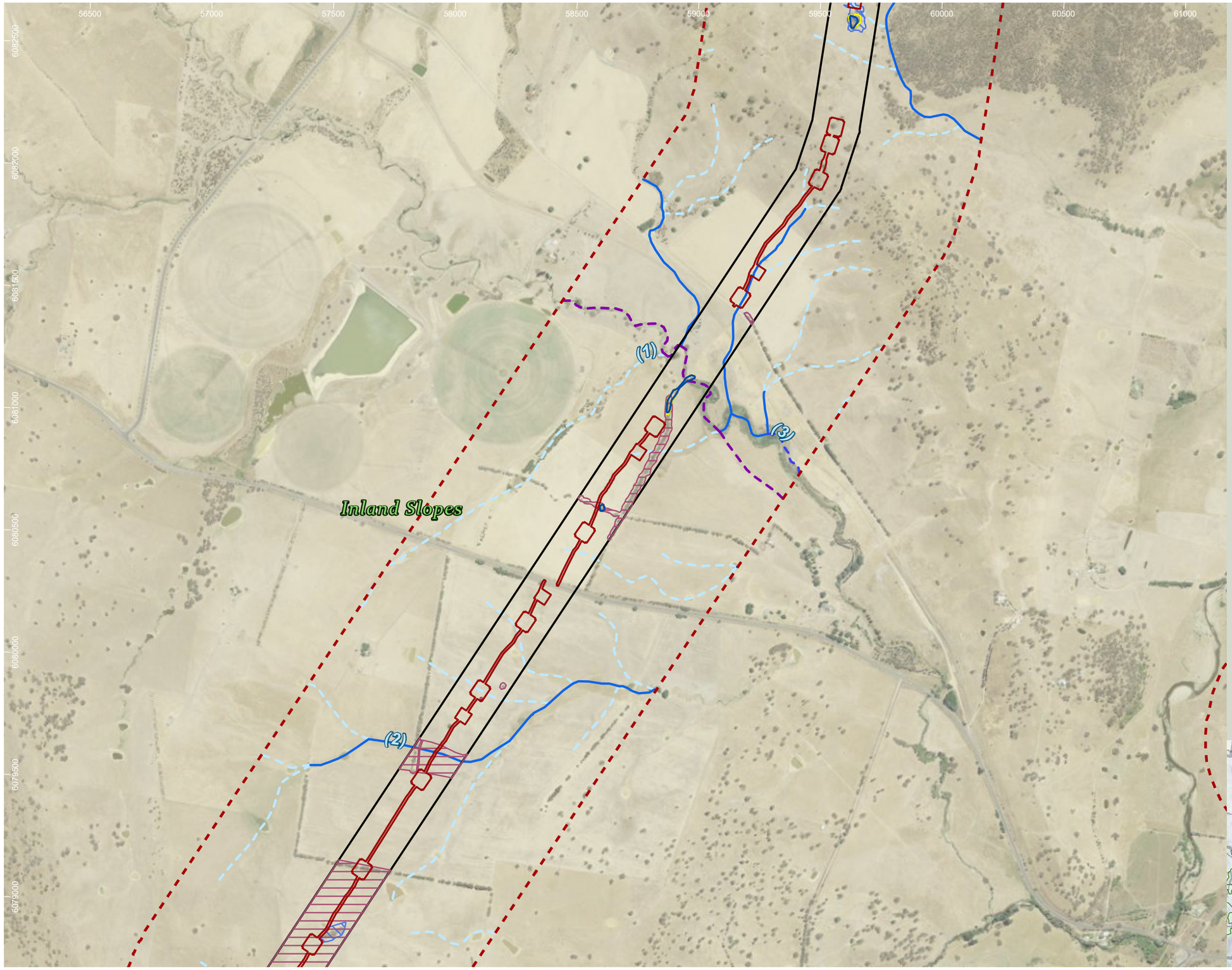
Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

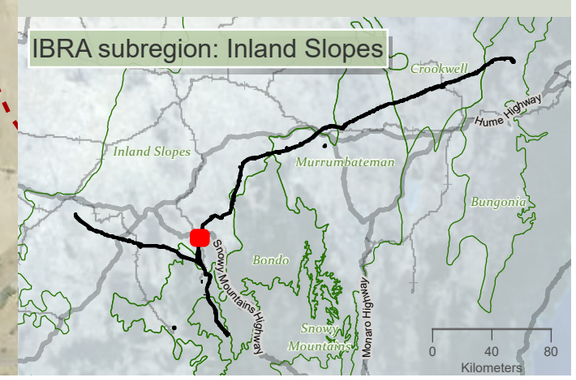
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDrive\Sync Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 42

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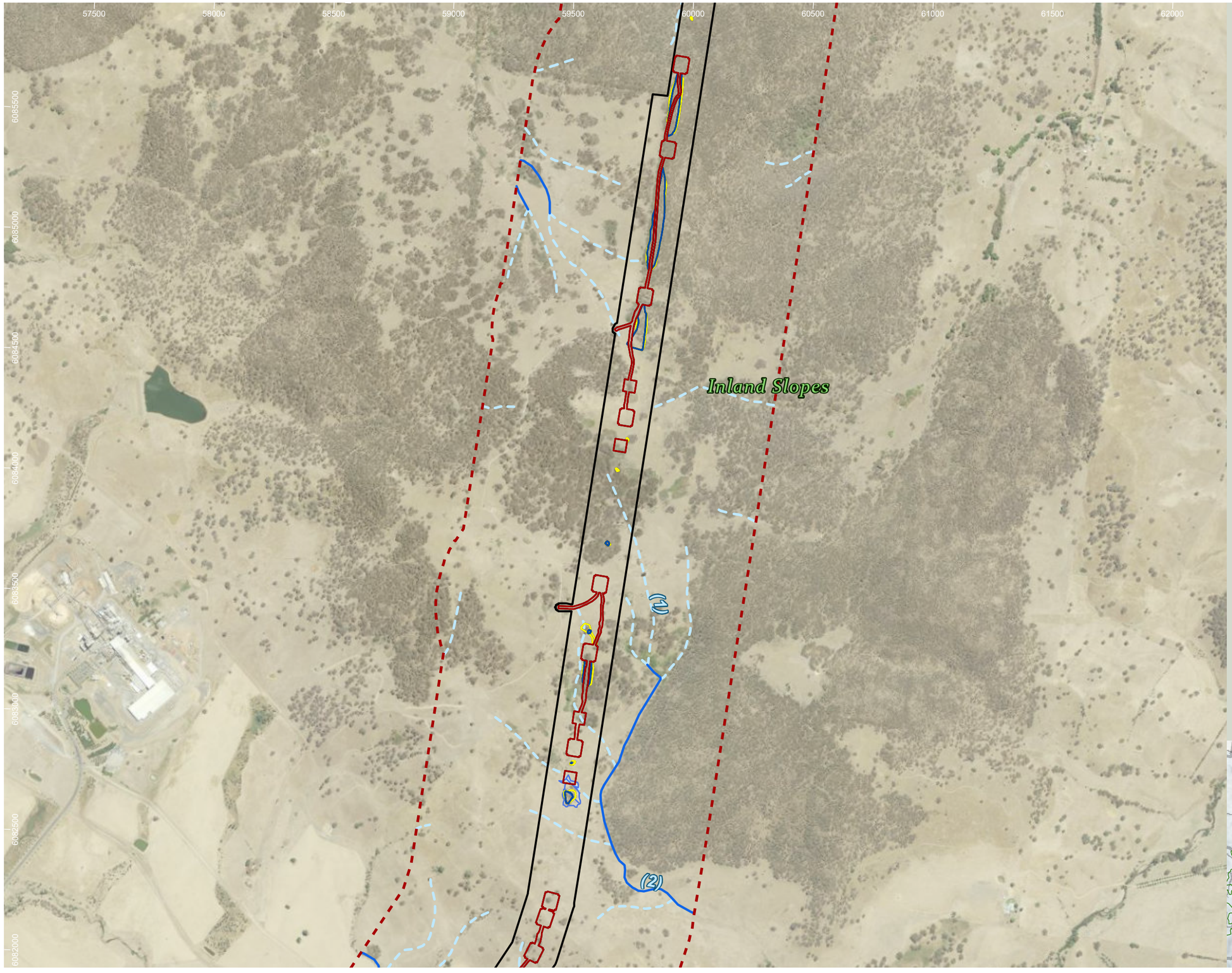


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

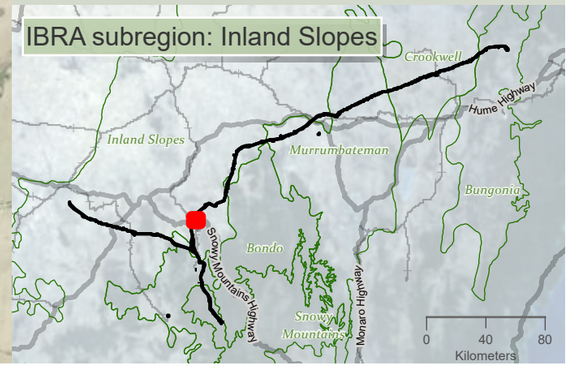
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 44

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61000 61500 62000 62500 63000 63500 64000 64500

6095000 6094000 6093000 6092000 6091000

Gocup Creek (4)

(1)

(3)

(2)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

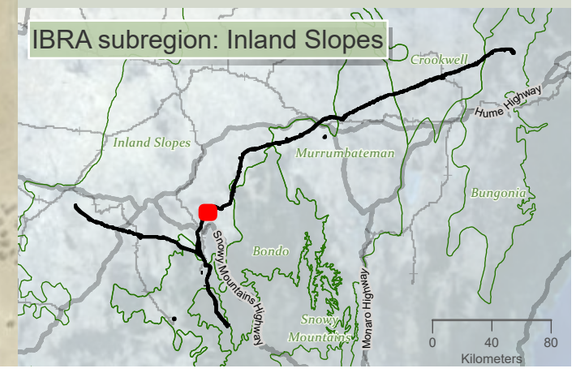
- 1
- 2
- 3
- 4
- 8

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 46

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63500 64000 64500 65000 65500 66000 66500 67000

6094000 6093500 6093000 6092500 6092000 6091500 6091000

(1) (2) (3) (4)

Inland Slopes

Tumut River (8)

Gocup Creek (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

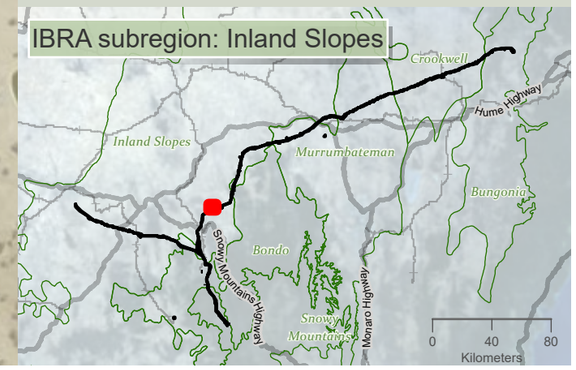
- 1
- 2
- 3
- 4
- 5
- 8

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 47

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_Stage 2 Part B.aprx

66500 67000 67500 68000 68500 69000 69500 70000

6094000 6093500 6093000 6092500 6092000 6091500

(1) (2) Inland Slopes Killimicat Creek (5)

HumeLink project areas

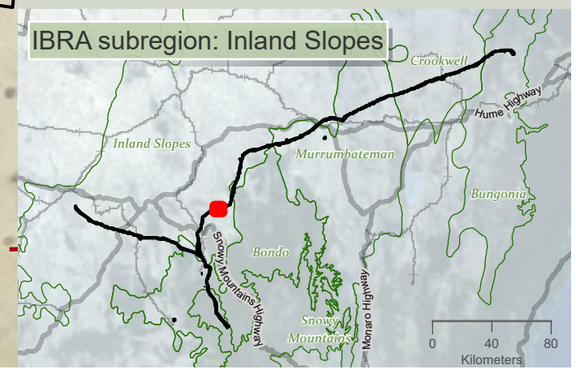
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 48

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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70000 70500 71000 71500 72000 72500 73000 73500

6095000 6094500 6094000 6093500 6093000 6092500

Inland Slopes

Sawpit Gully (4)

Killimicat Creek (5)

(1) (2) (3)

HumeLink project areas

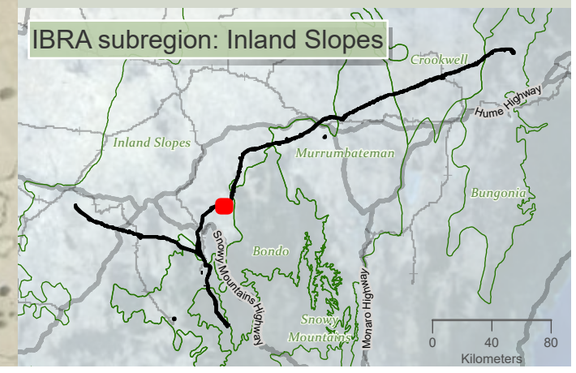
- Project footprint
- Landscape assessment area

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

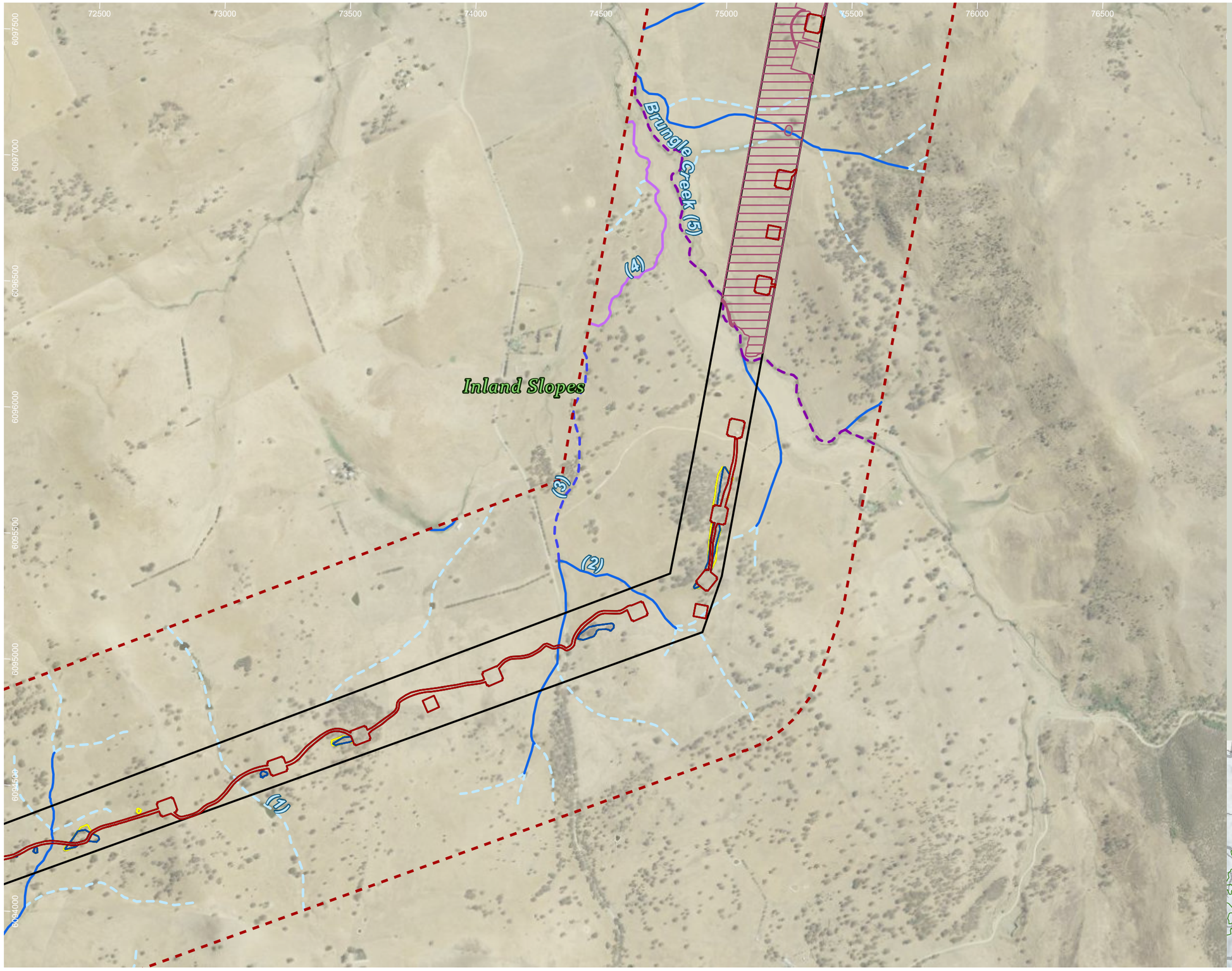
Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 49

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\ SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

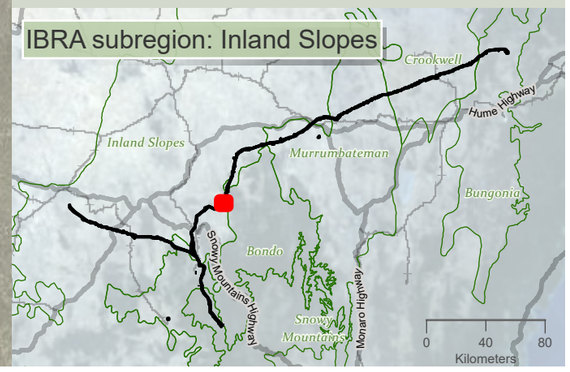
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT- BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

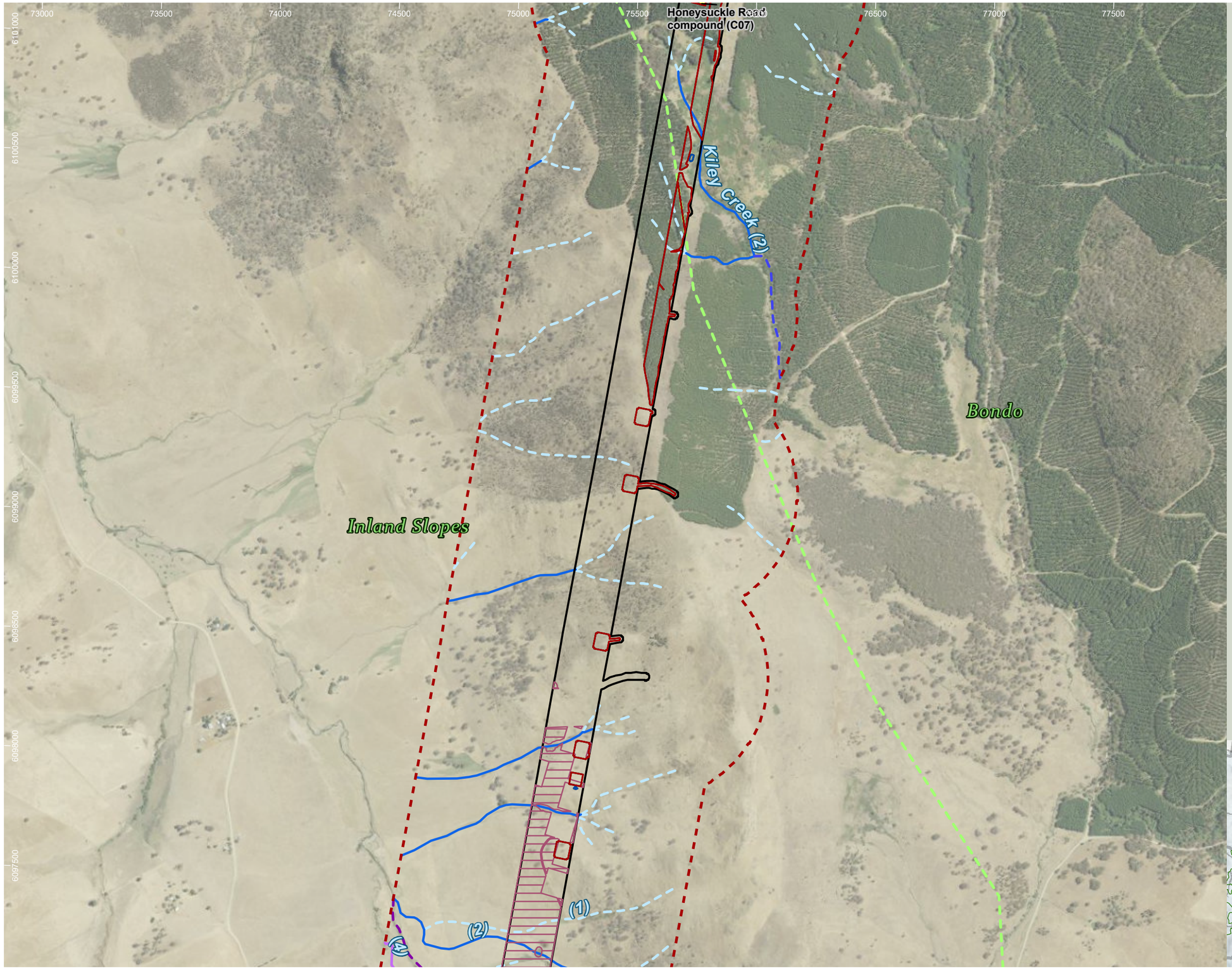
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 50

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

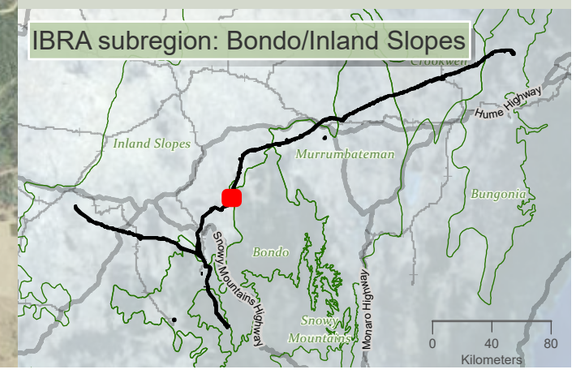
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 51

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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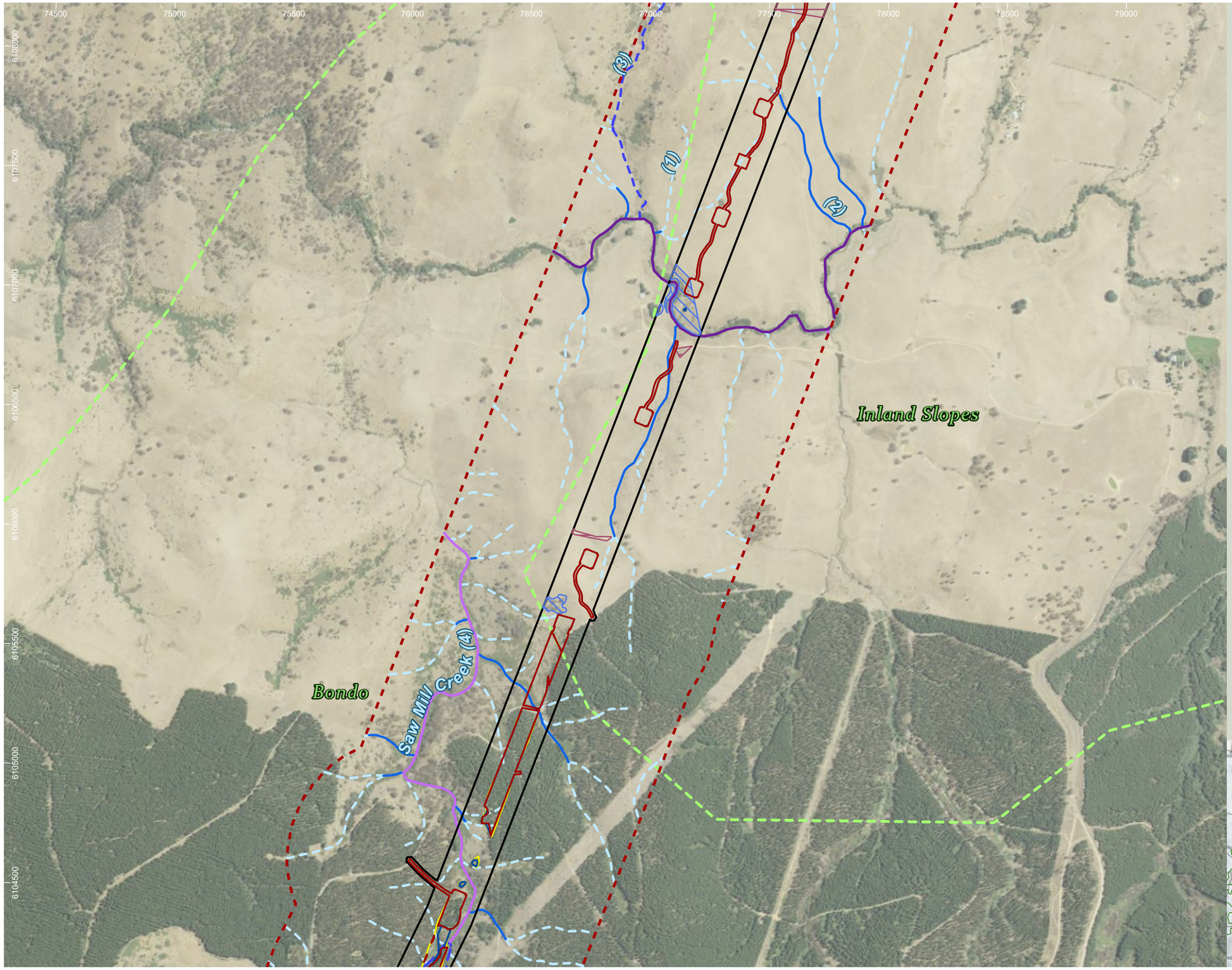


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

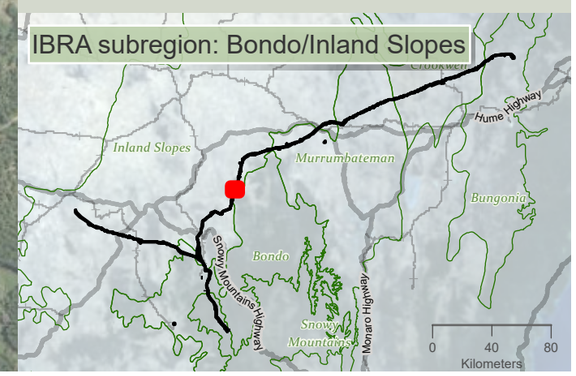
- 1
- 2
- 3
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 53

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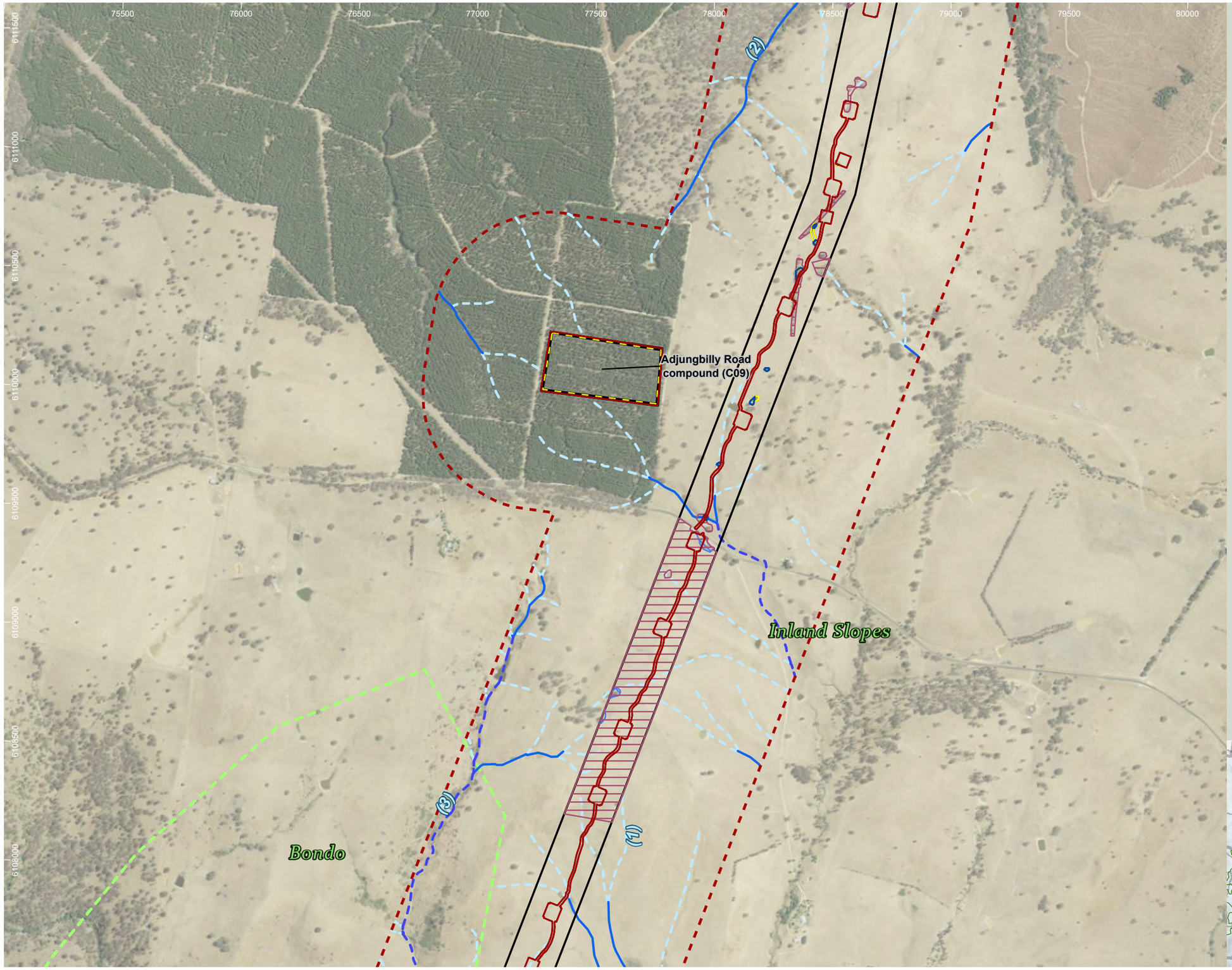


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Strahler stream order

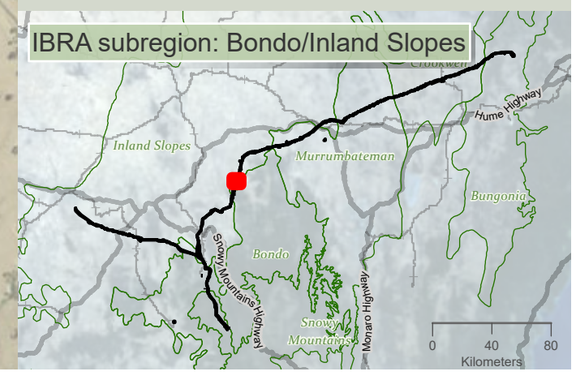
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 54

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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76500 77000 77500 78000 78500 79000 79500 80000 80500 81000

6114500 6114000 6113500 6113000 6112500 6112000 6111500 6111000

(1)

Inland Slopes

O'briens Creek (4)

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

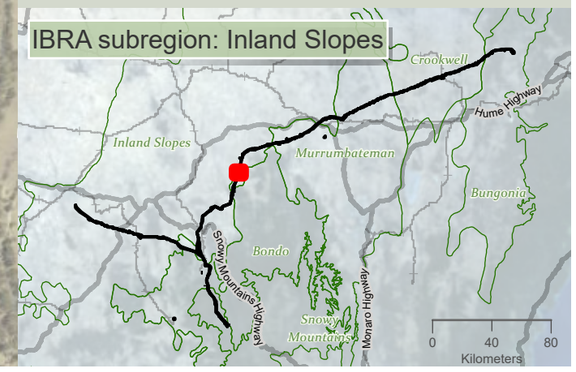
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 55

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Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

Inland Slopes

Cart Road Creek (3)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

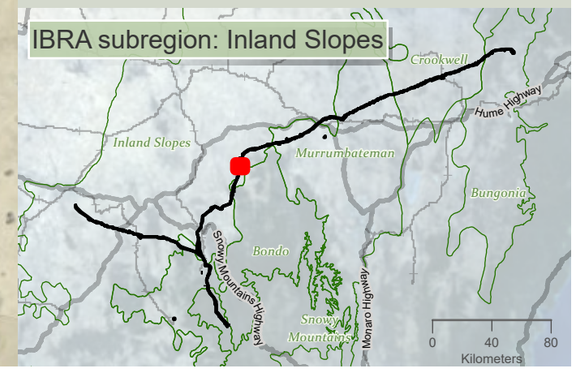
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



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niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 56

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77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

(1)

Oak Creek (5)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

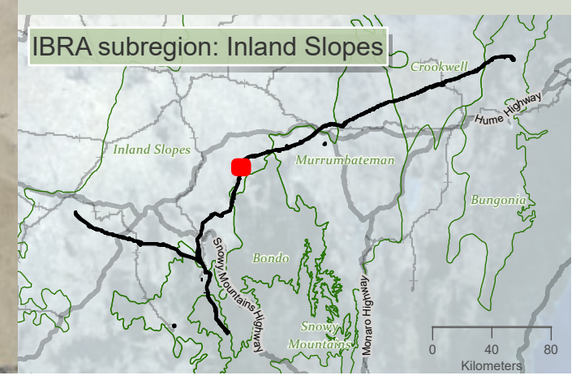
- 1
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 450
m
N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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79000 79500 80000 80500 81000 81500 82000 82500 83000

6124500 6124000 6123500 6123000 6122500 6122000 6121500

Inland Slopes

(1)

(2)

Yellow Clay Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

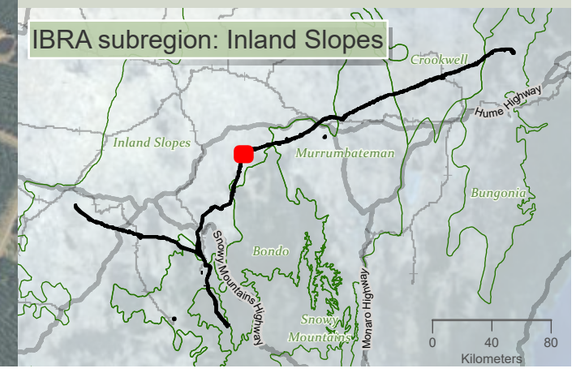
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

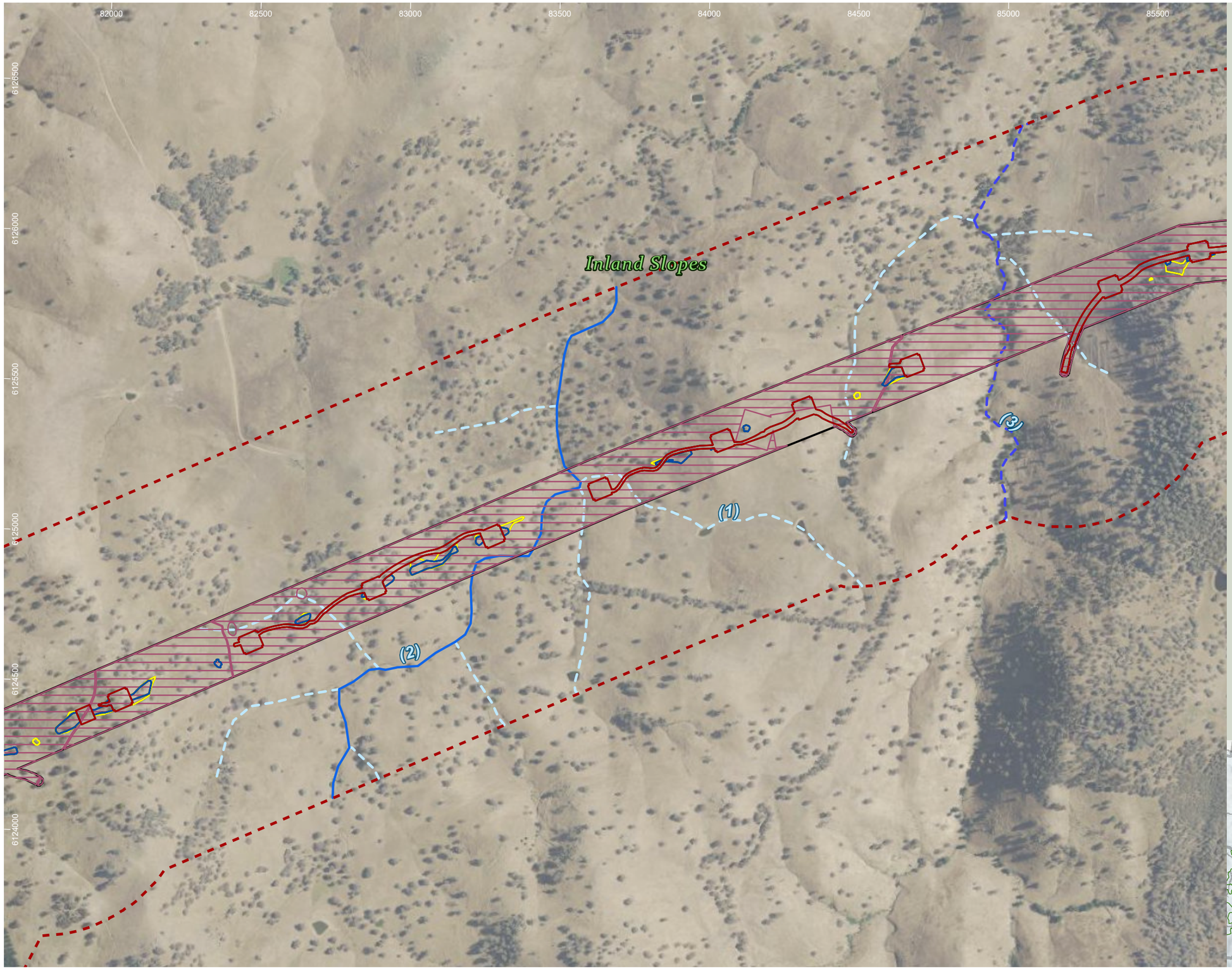
Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 58

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

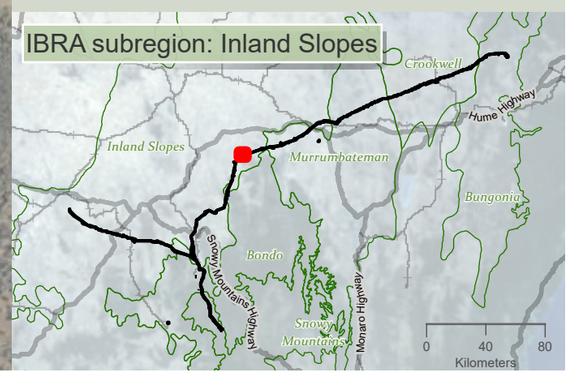
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 59

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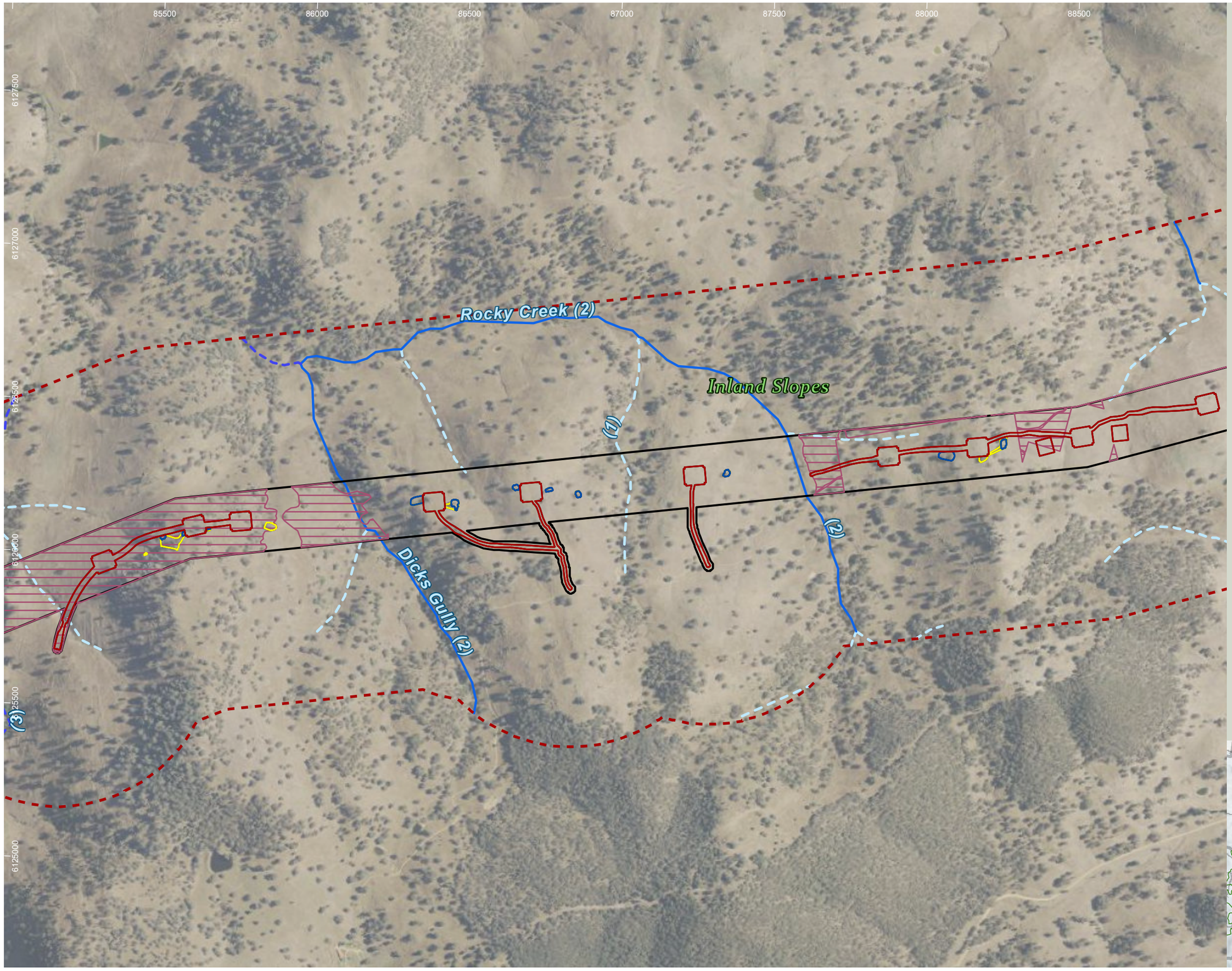
Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

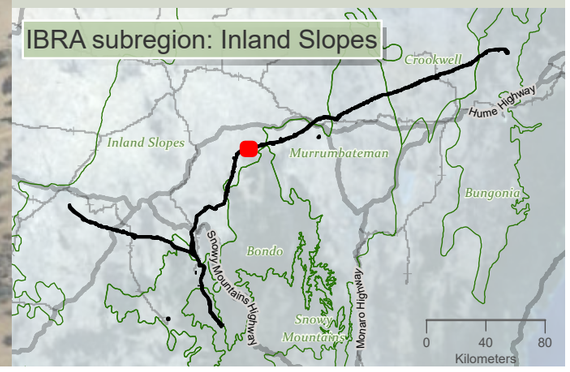
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 60

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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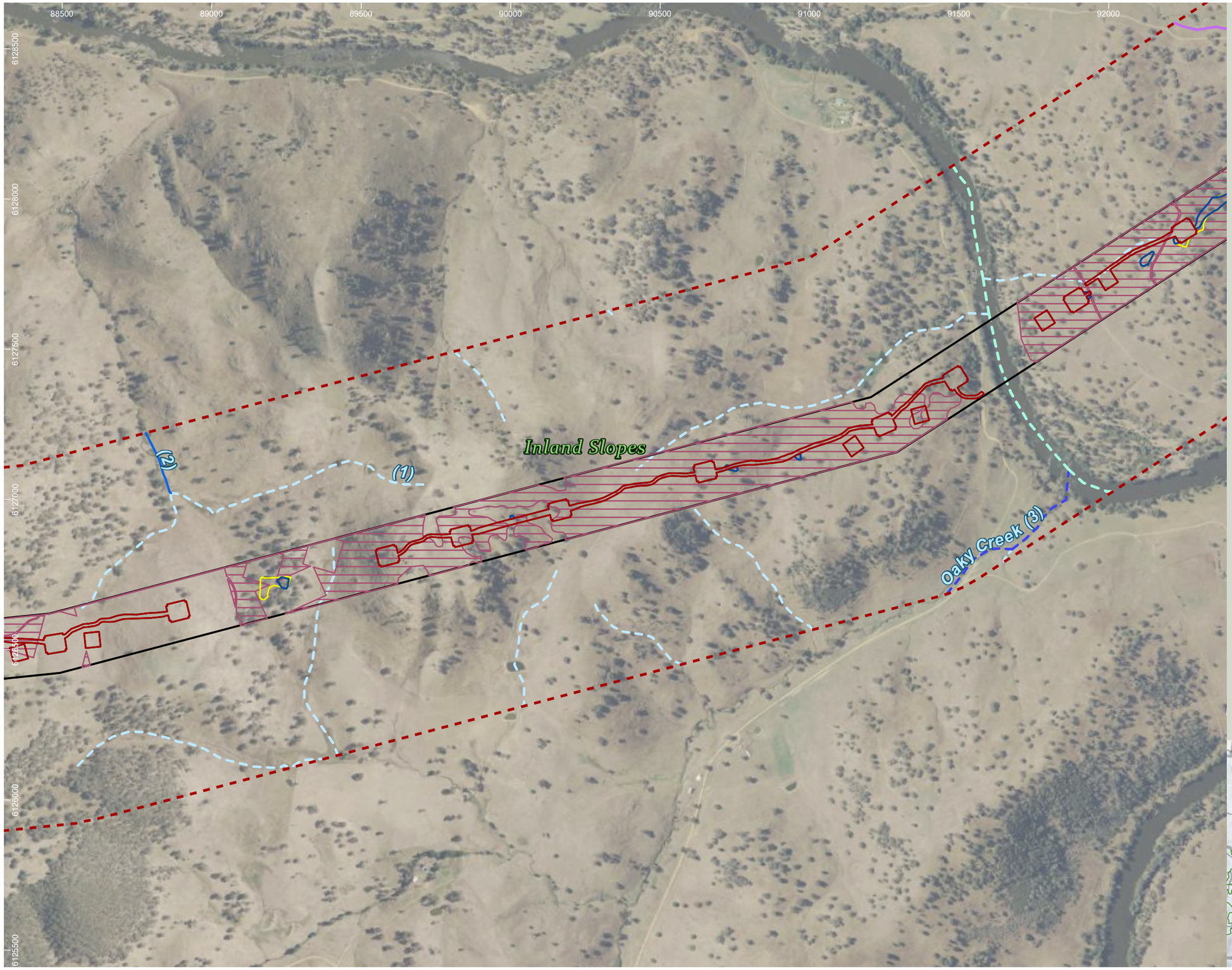


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

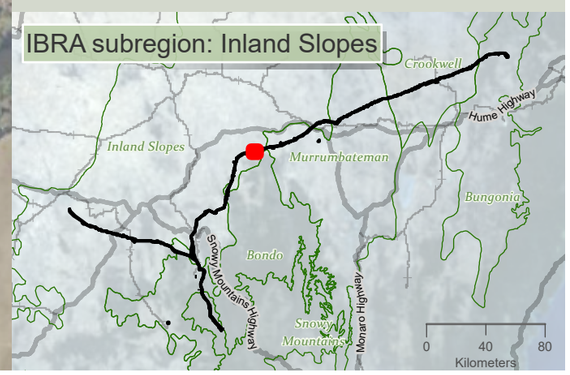
- 1
- 2
- 3
- 4
- 9

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500 6127000

Oak Creek (4)

Murrumbidgee River (9)

(1)

(2)

Inland Slopes

Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

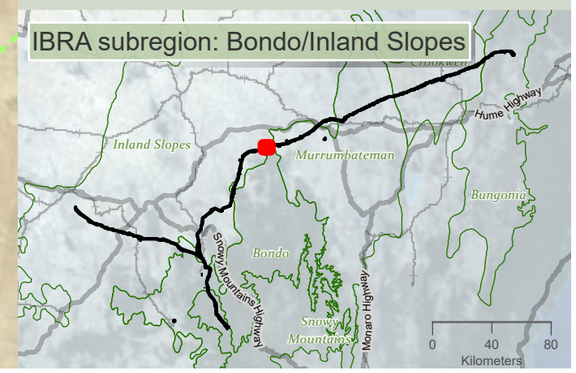
- 1
- 2
- 3
- 4
- 9

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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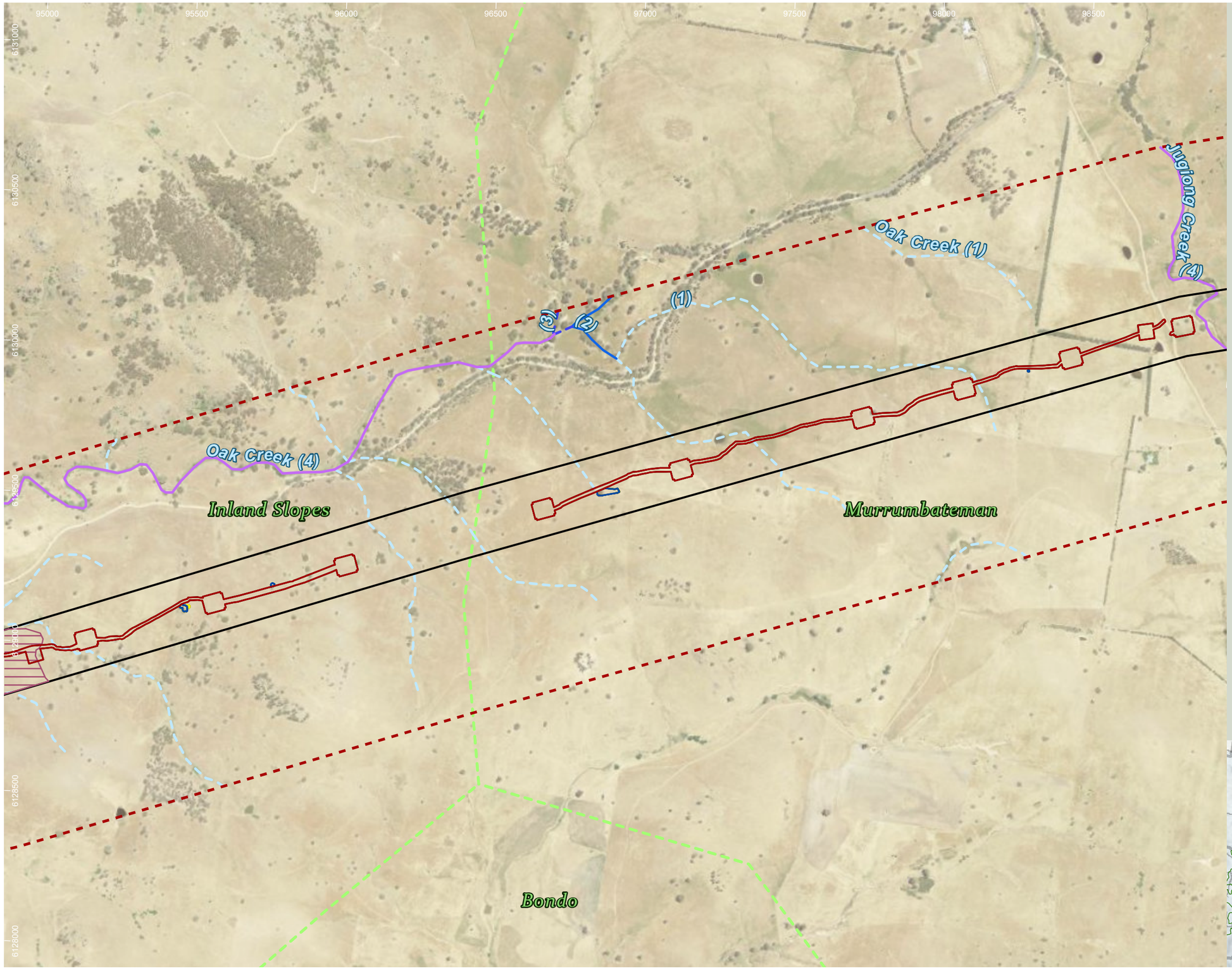


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

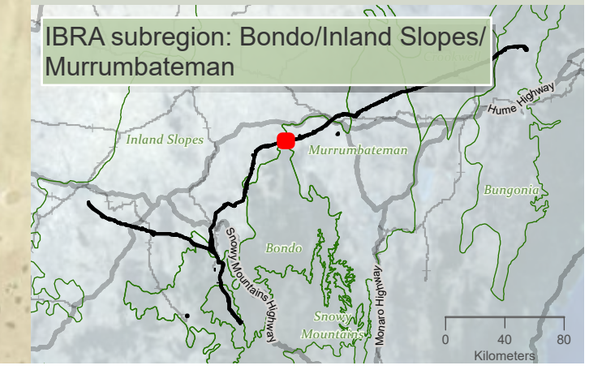
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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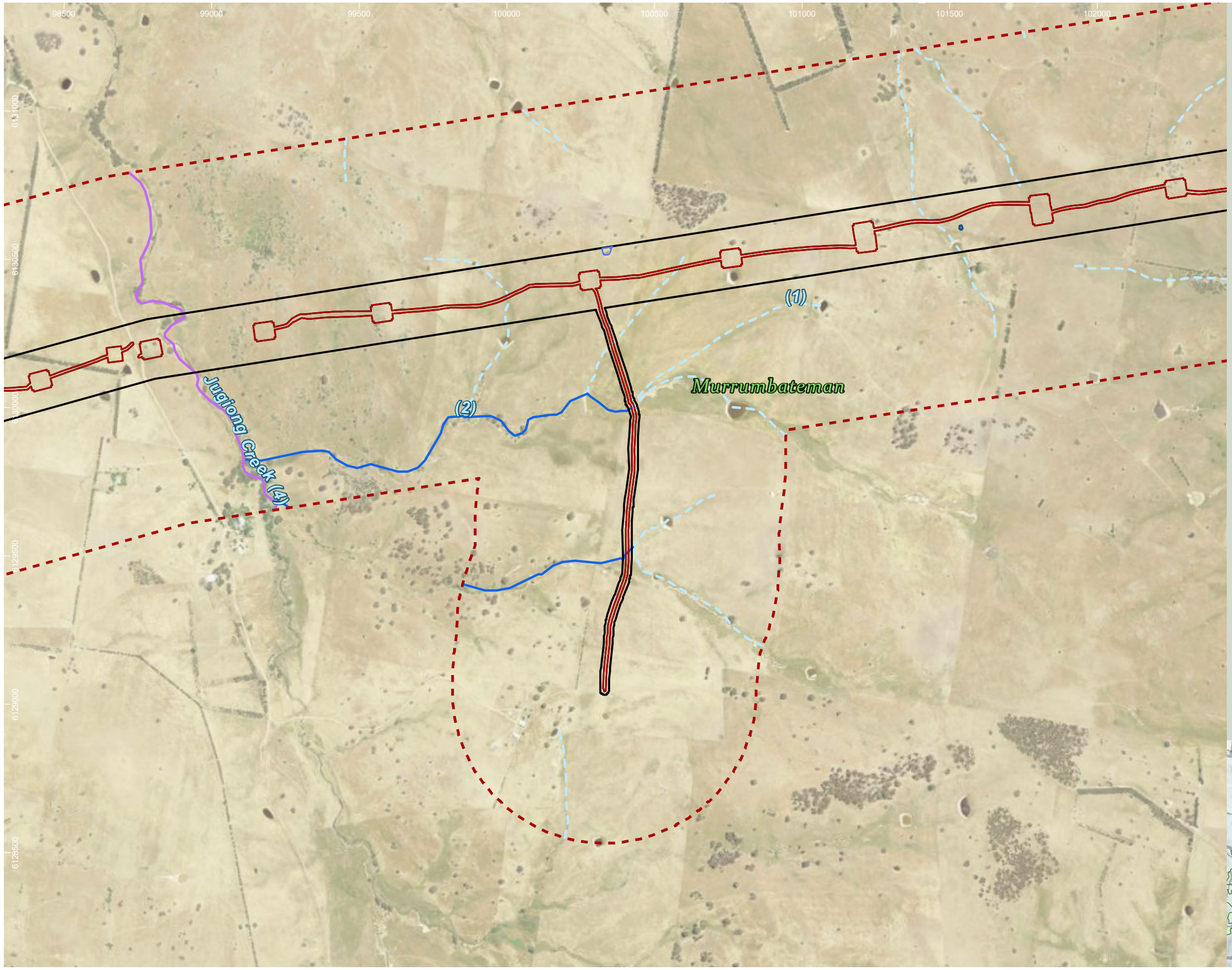


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

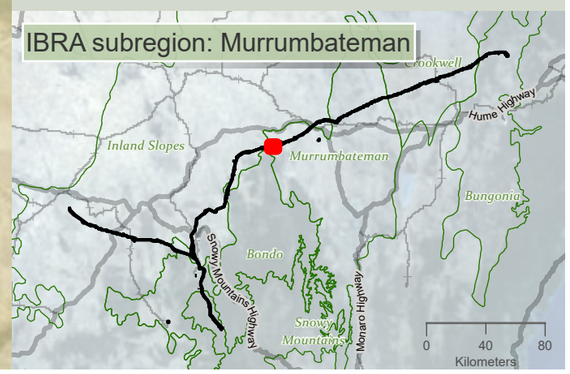
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400
m
N
WGS 1984 Web Mercator

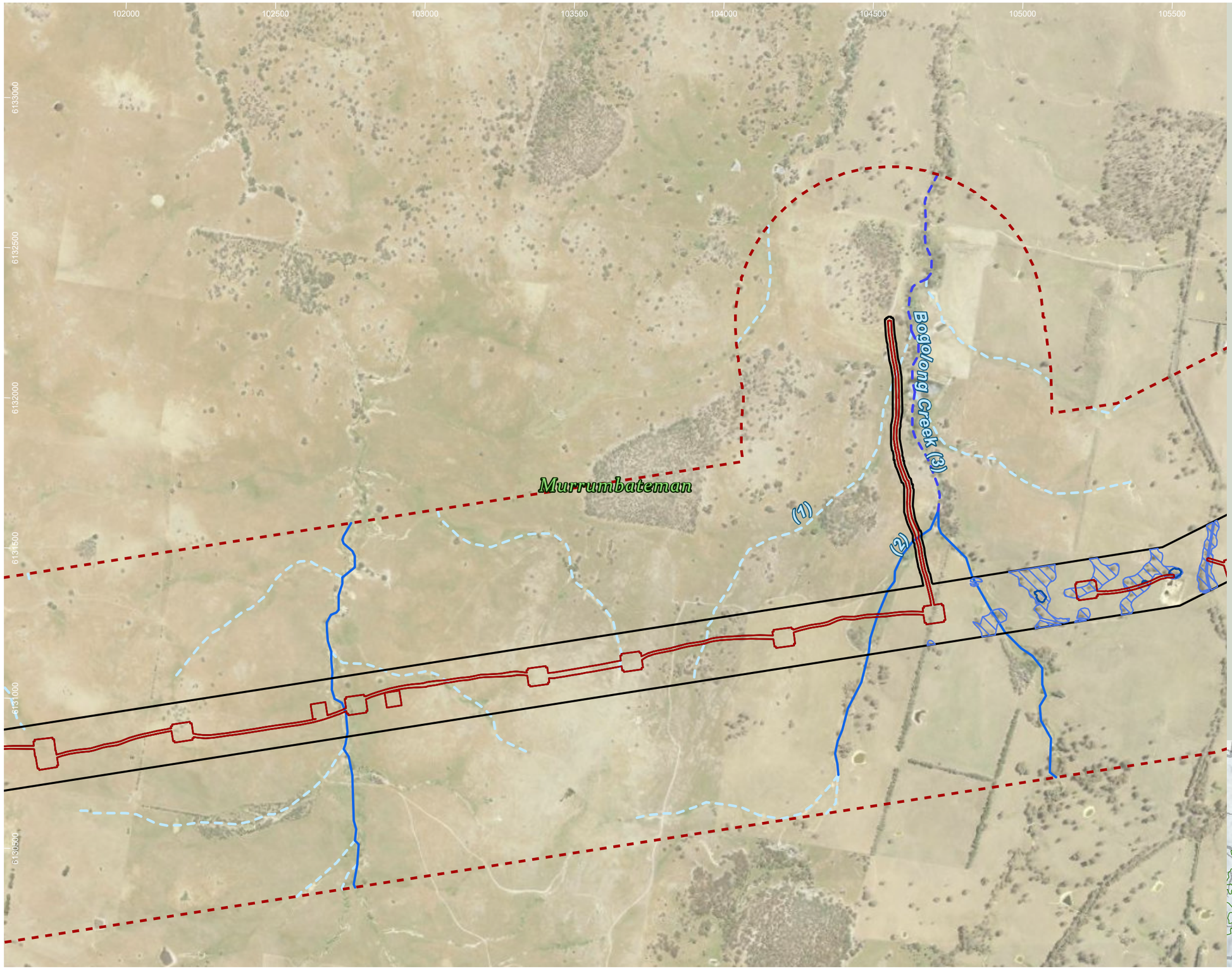
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 64

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

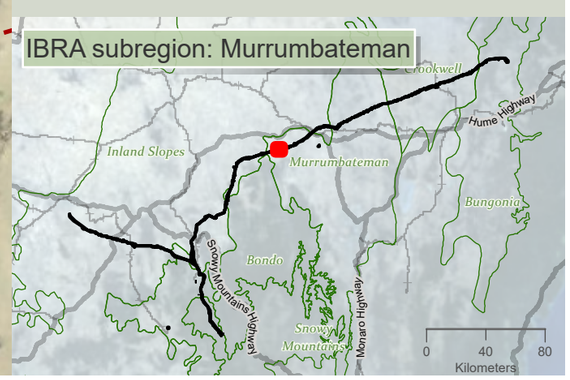
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 65

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Murrumbateman

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

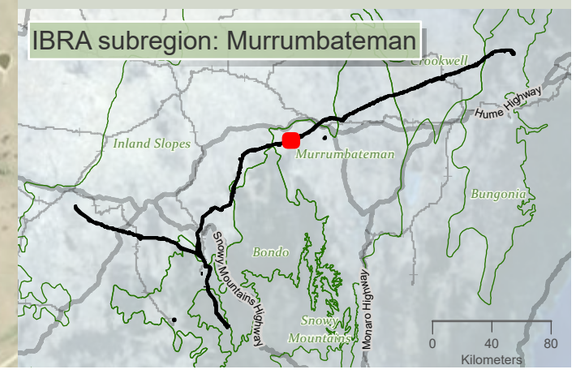
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 66

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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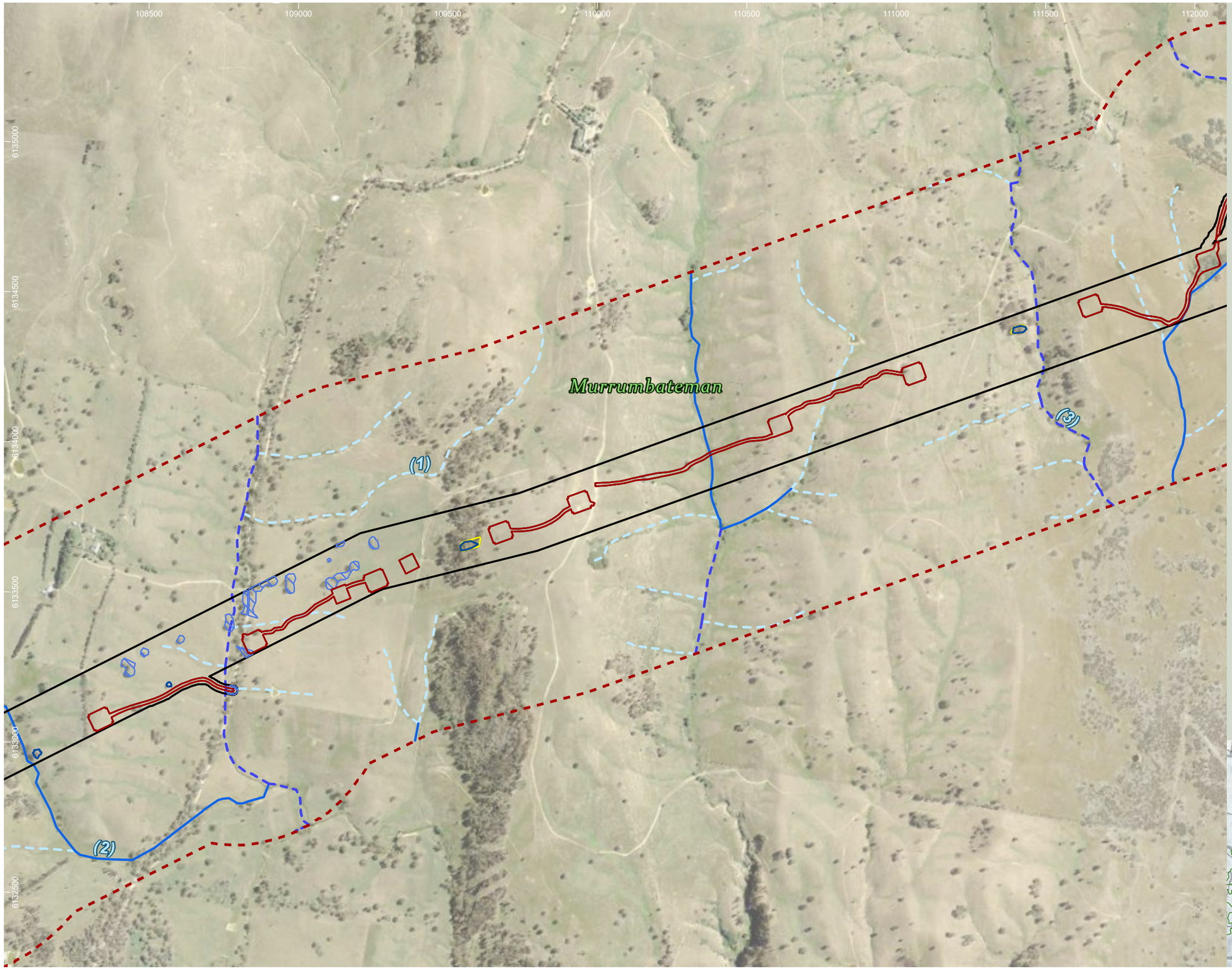


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

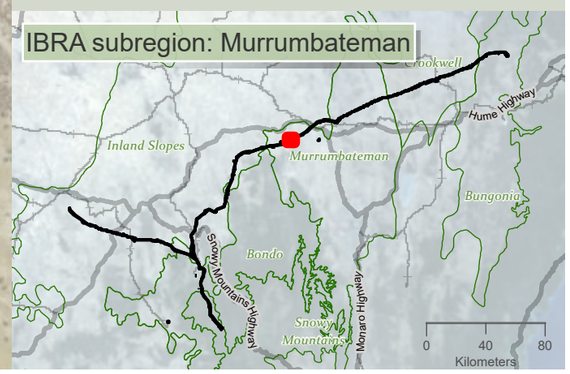
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 67

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

111500 112000 112500 113000 113500 114000 114500 115000

6136500 6136000 6135500 6135000 6134500 6134000

Murrumbateman

Mccullums Creek (3)

(1)

(2)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

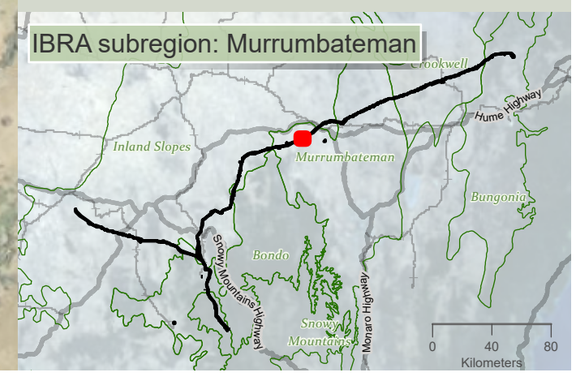
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 68

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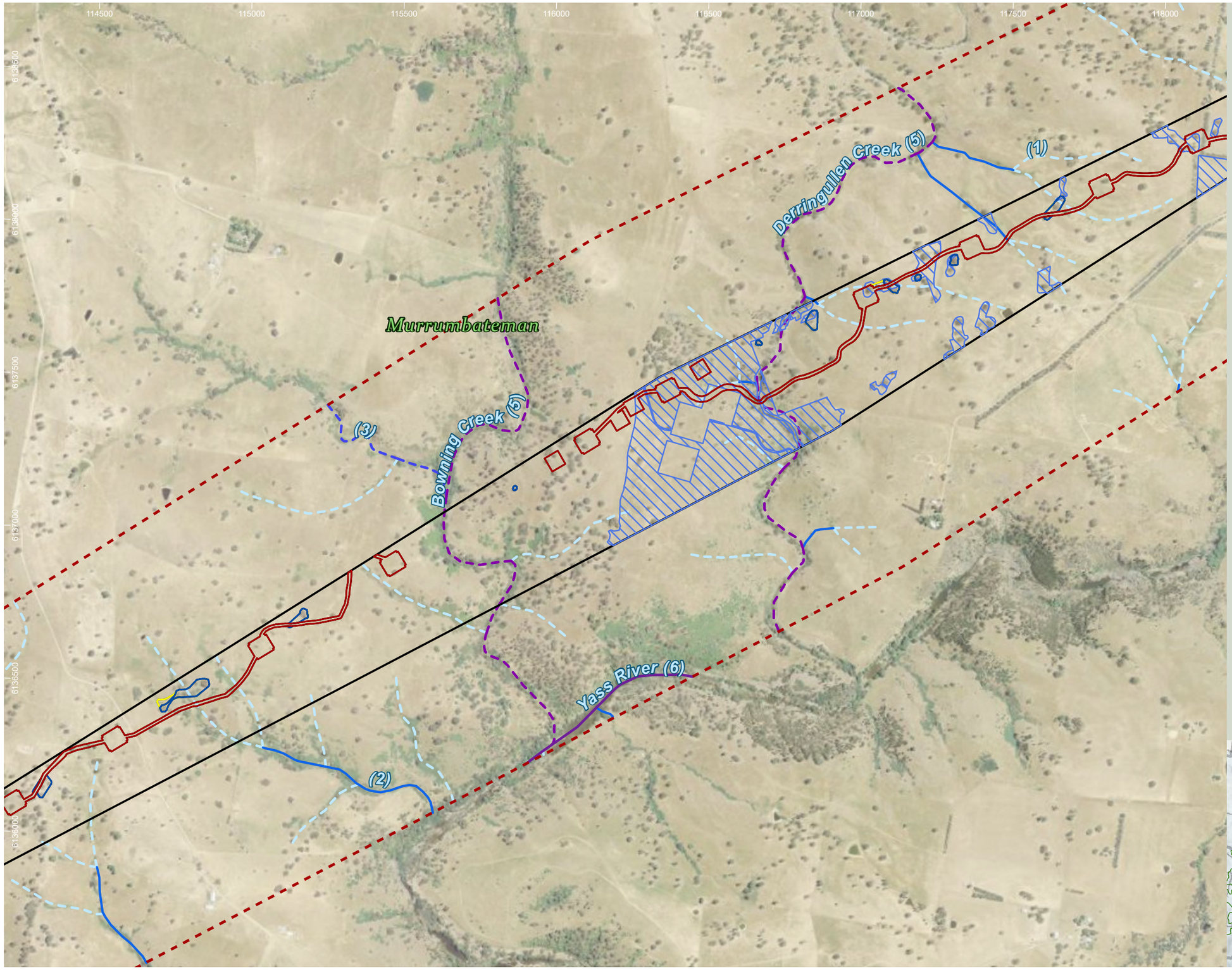


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

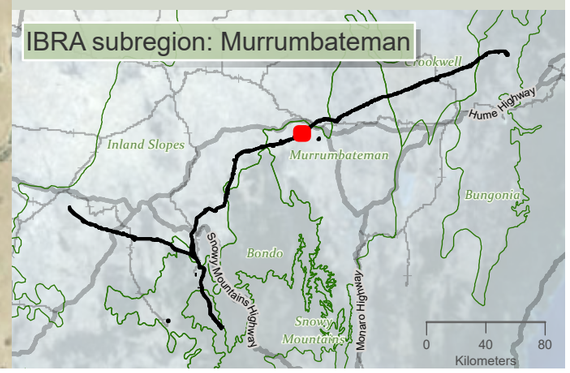
- 1
- 2
- 3
- 5
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 69

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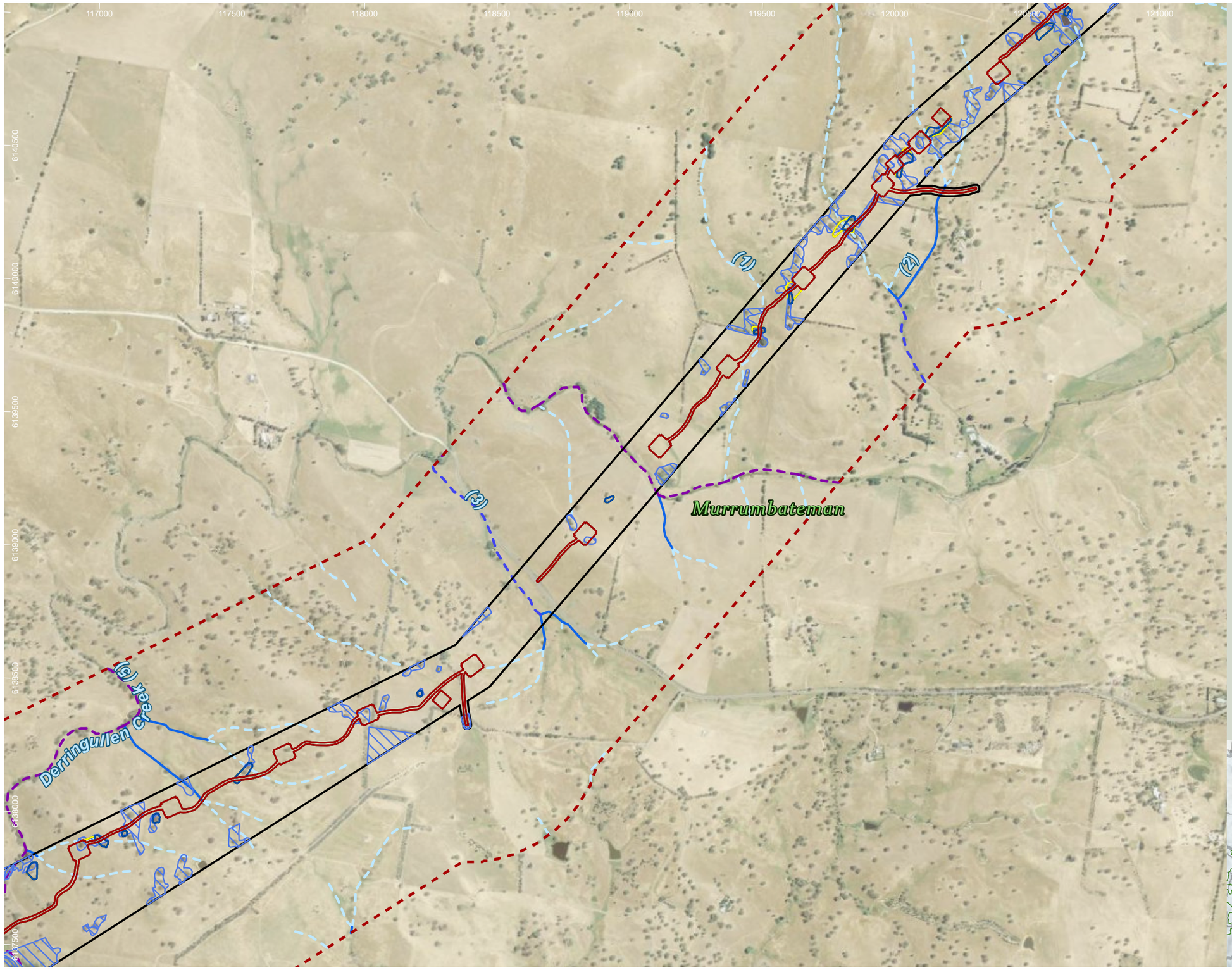


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

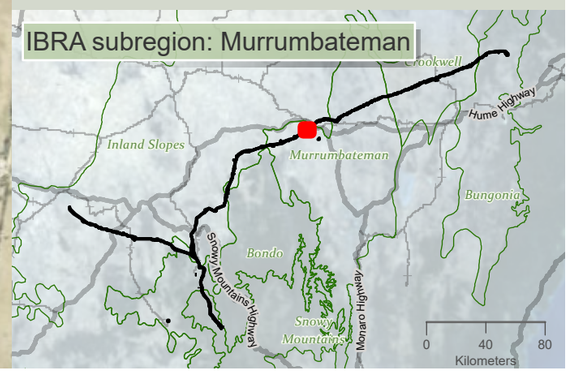
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 70

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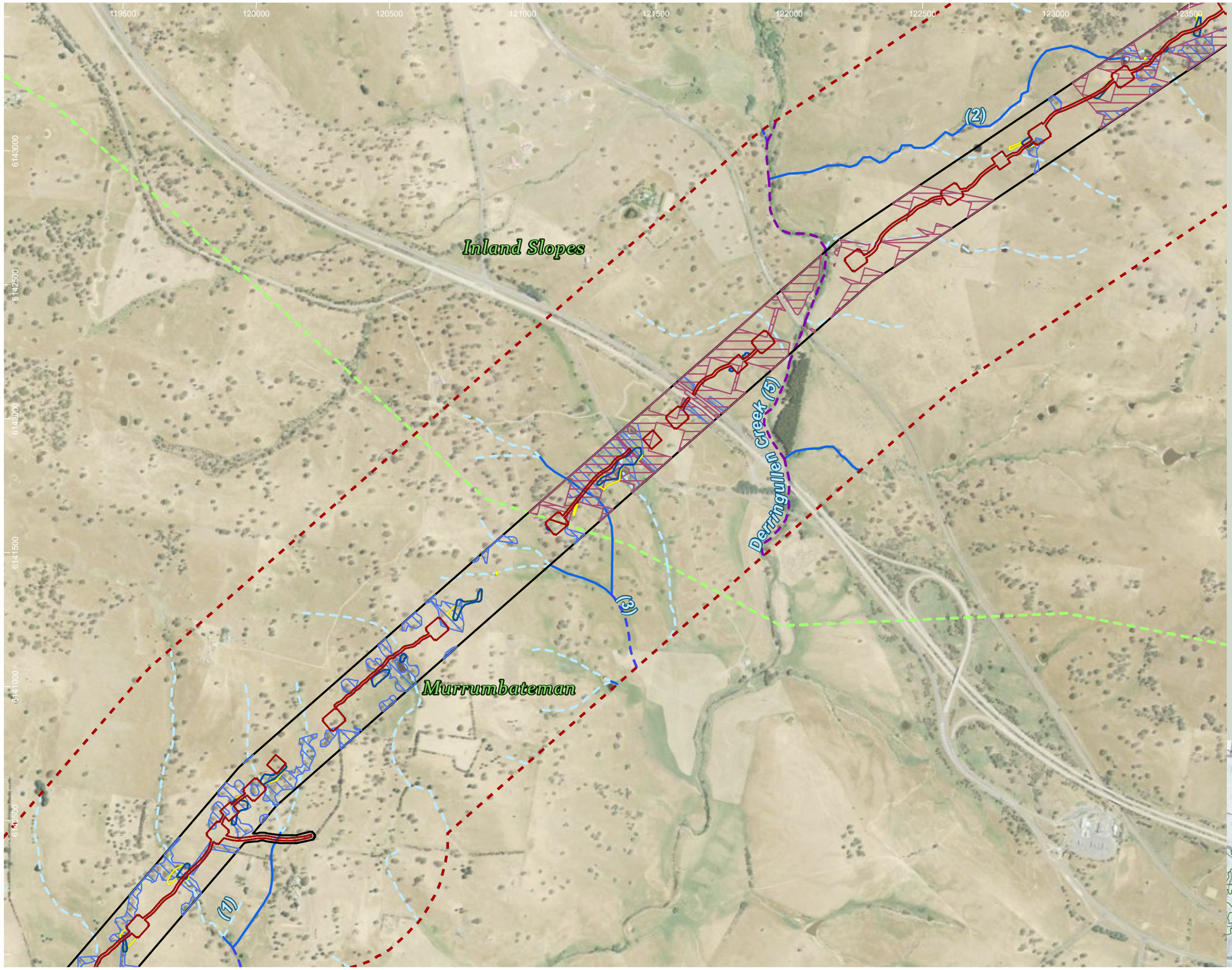


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

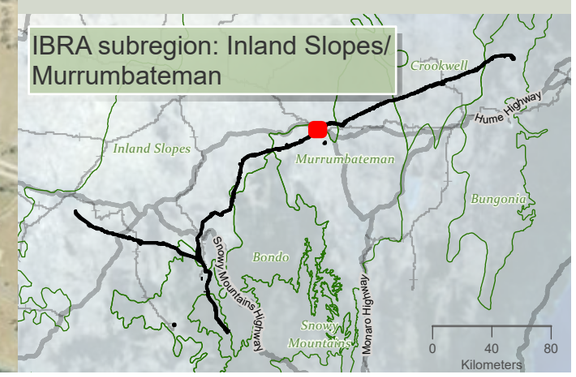
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 71

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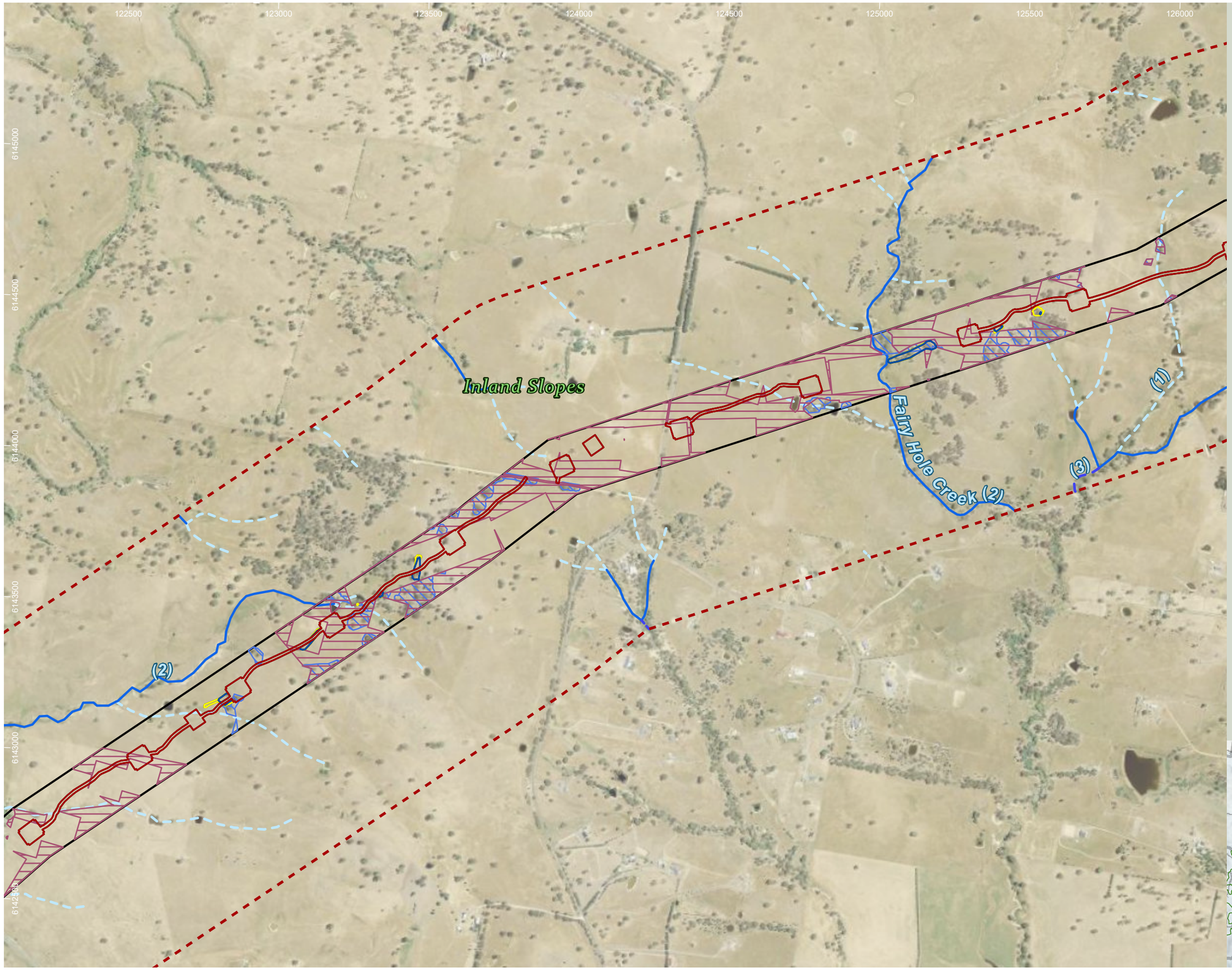
Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

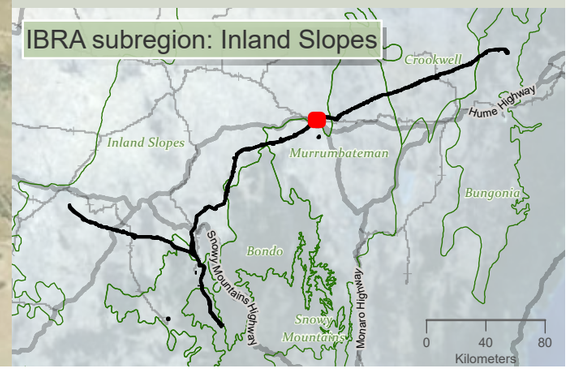
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 73

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

125500 126000 126500 127000 127500 128000 128500 129000

6146500 6146000 6145500 6145000 6144500 6144000

Cooks Creek (4)

(7)

Inland Slopes

(3)

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

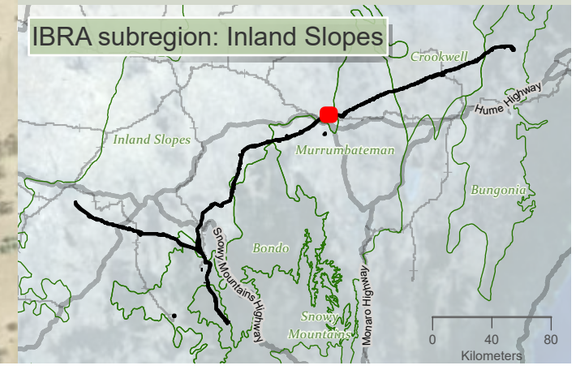
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

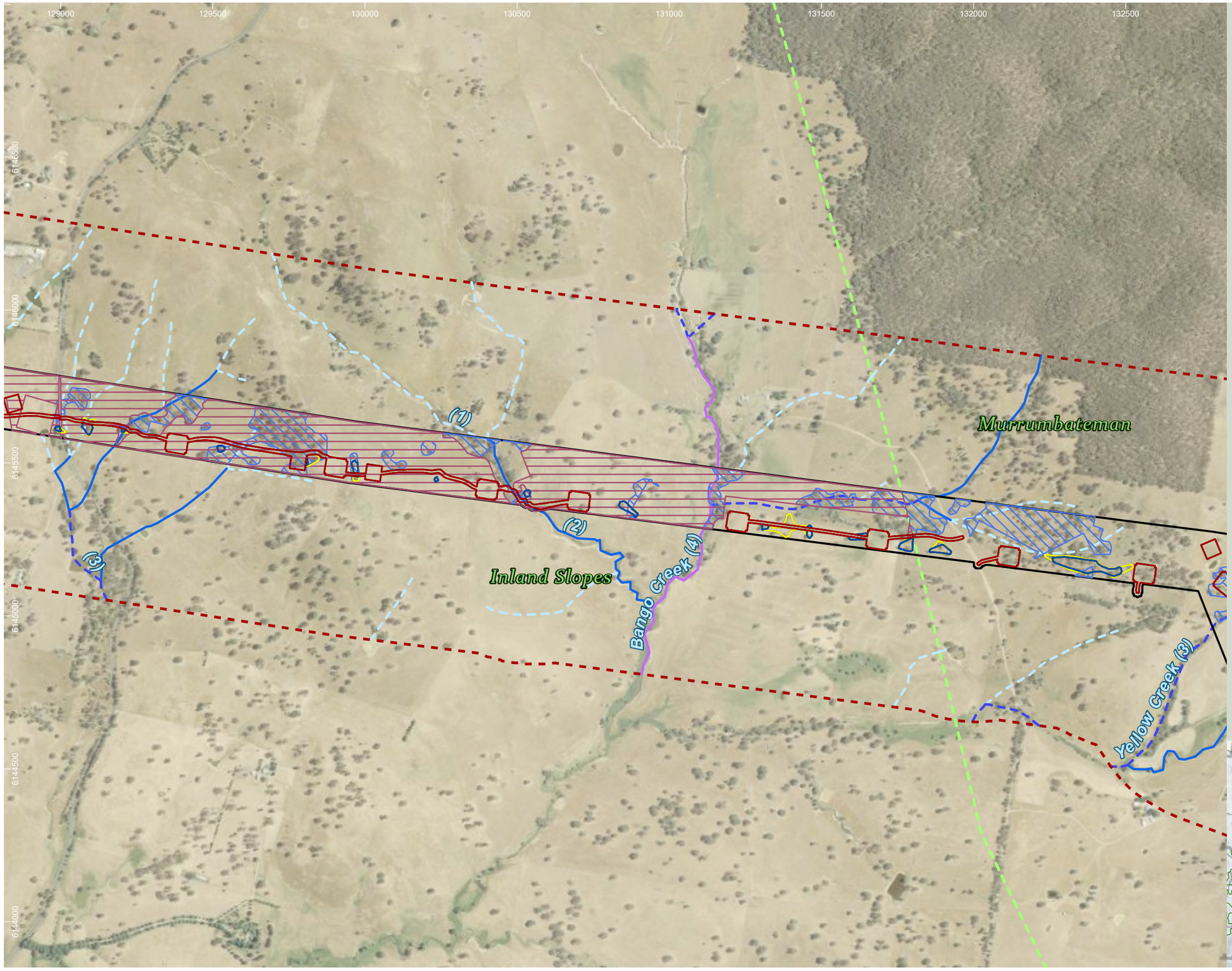
Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 74

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

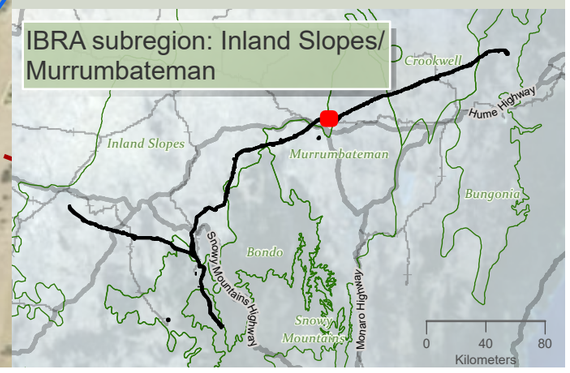
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum
- Prasophyllum sp Wybong



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 75

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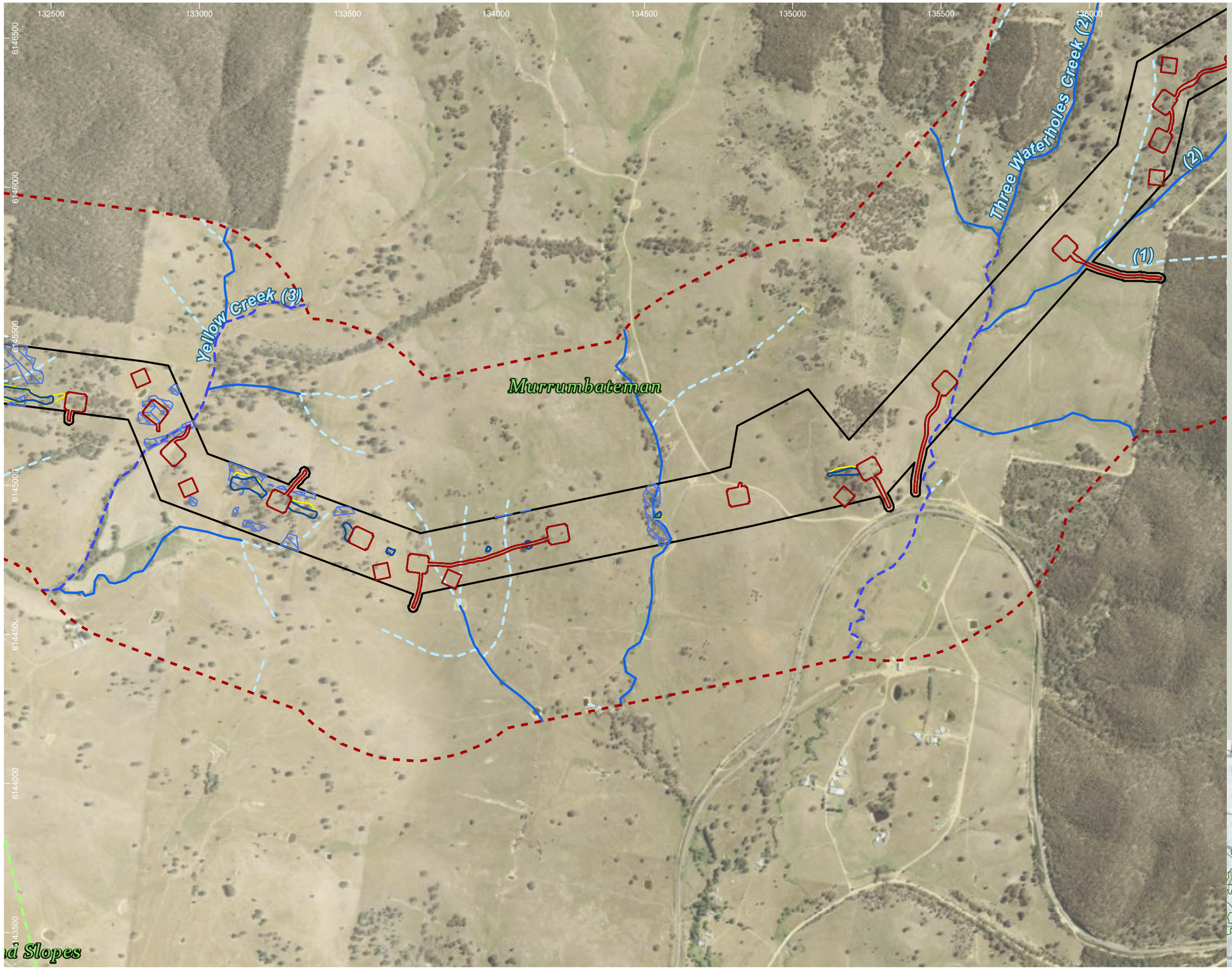


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

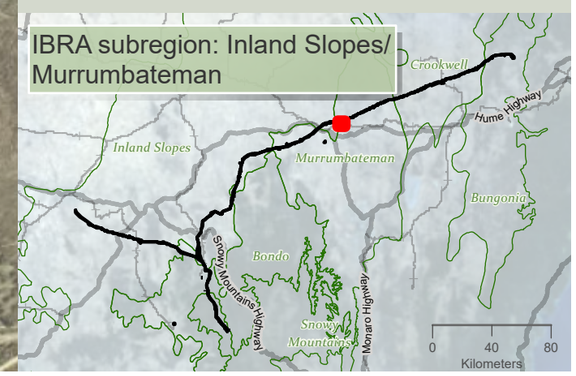
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\FoldenNiche\6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 76

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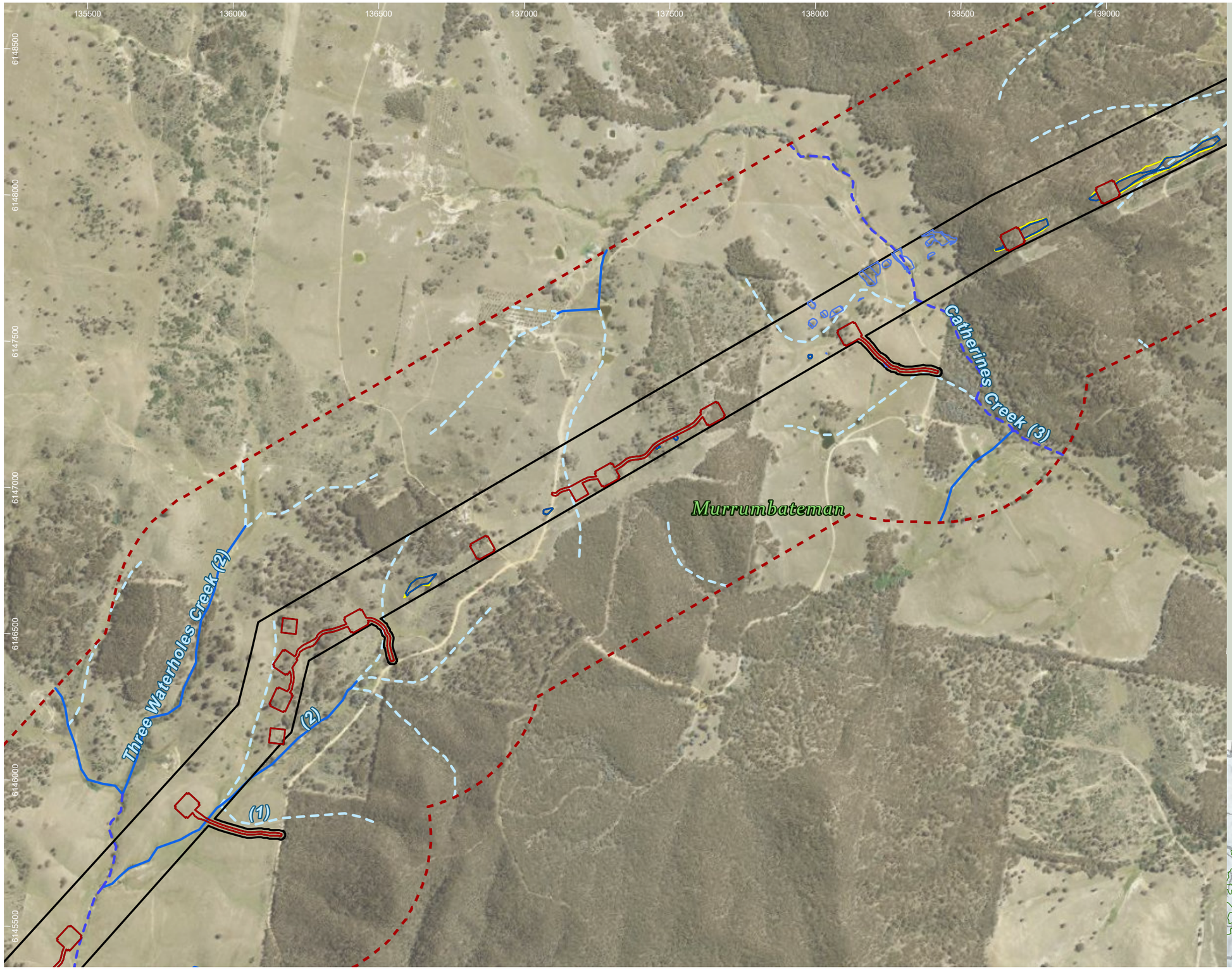


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

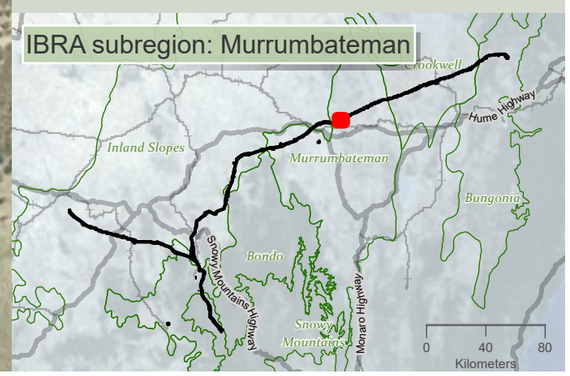
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 77

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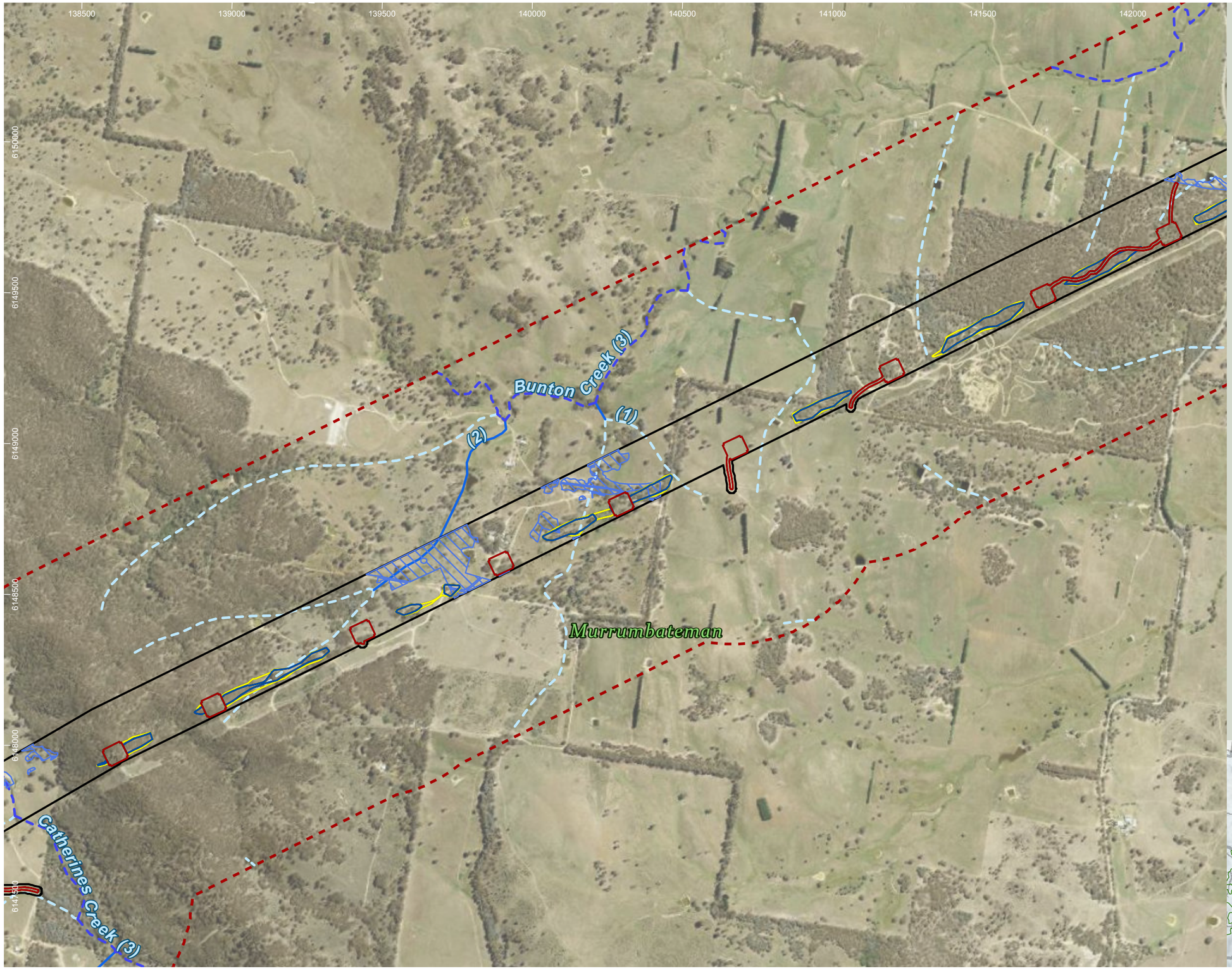


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

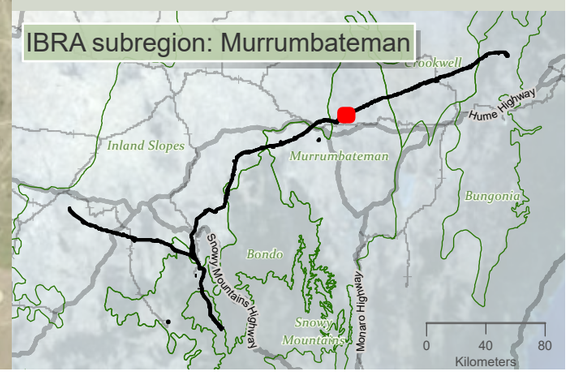
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 78

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141500 142000 142500 143000 143500 144000 144500 145000

6152000 6151500 6151000 6150500 6150000

Murrumbateman

Bunton Creek (3)

Felled Timber Creek (3)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

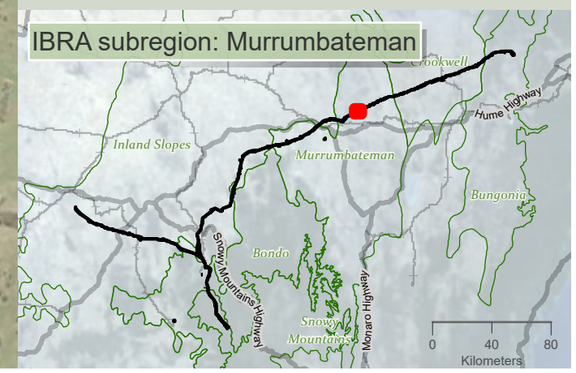
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 79

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144500 145000 145500 146000 146500 147000 147500 148000

6153500 6153000 6152500 6152000 6151000

Murrumbateman

Jerrawa Creek (5)

Felled Timber Creek (3)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

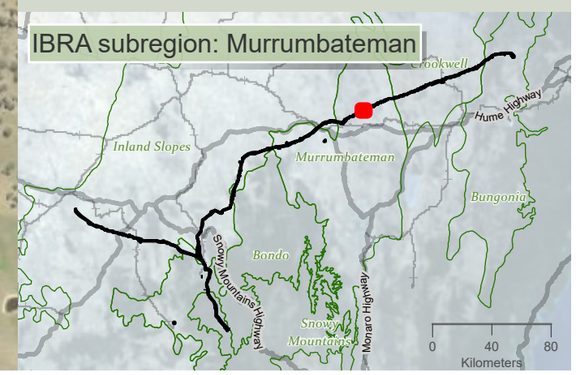
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 80

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Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Murrumbateman

Sams Creek (2)

Jerrawa Creek (5)

(2)

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

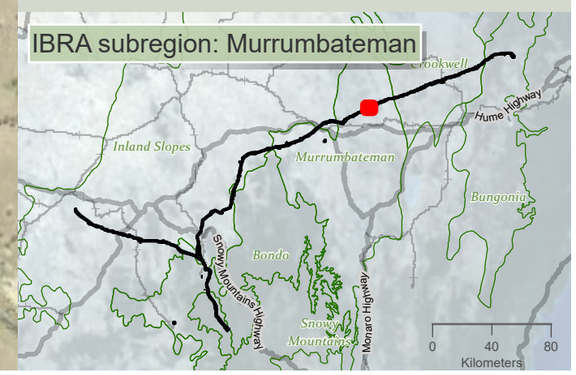
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 81

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151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

(1)

Merrill Creek (4)

Lachlan River (6)

Murrumbateman

Dowlings Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

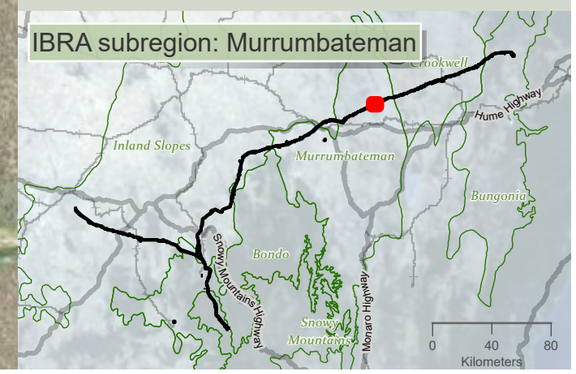
- 1
- 2
- 4
- 6

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



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niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 82

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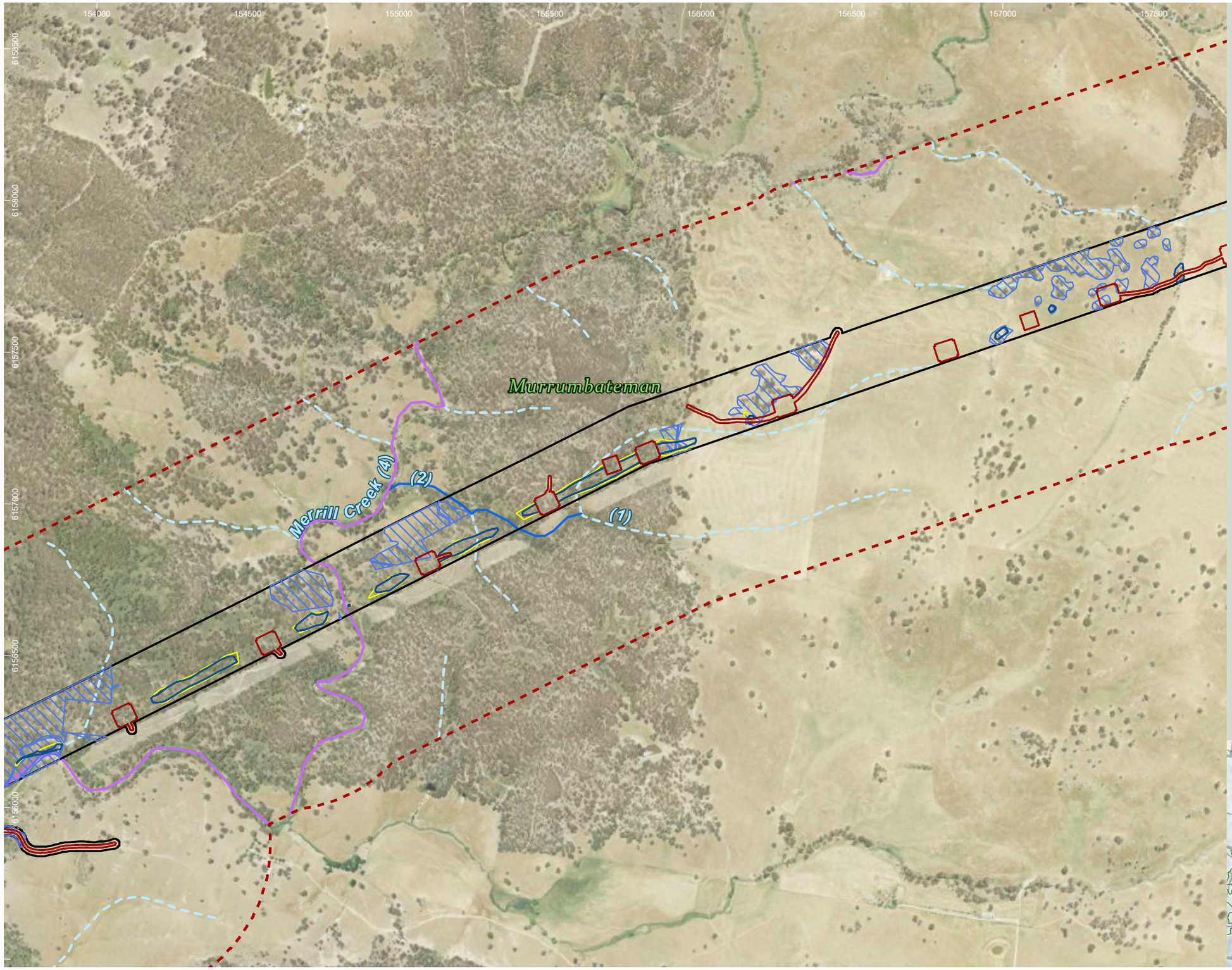


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

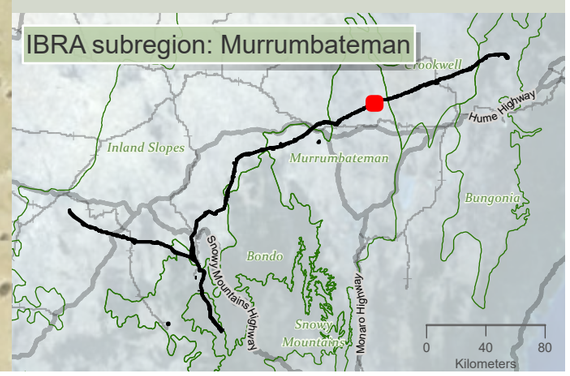
- 1
- 2
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 83

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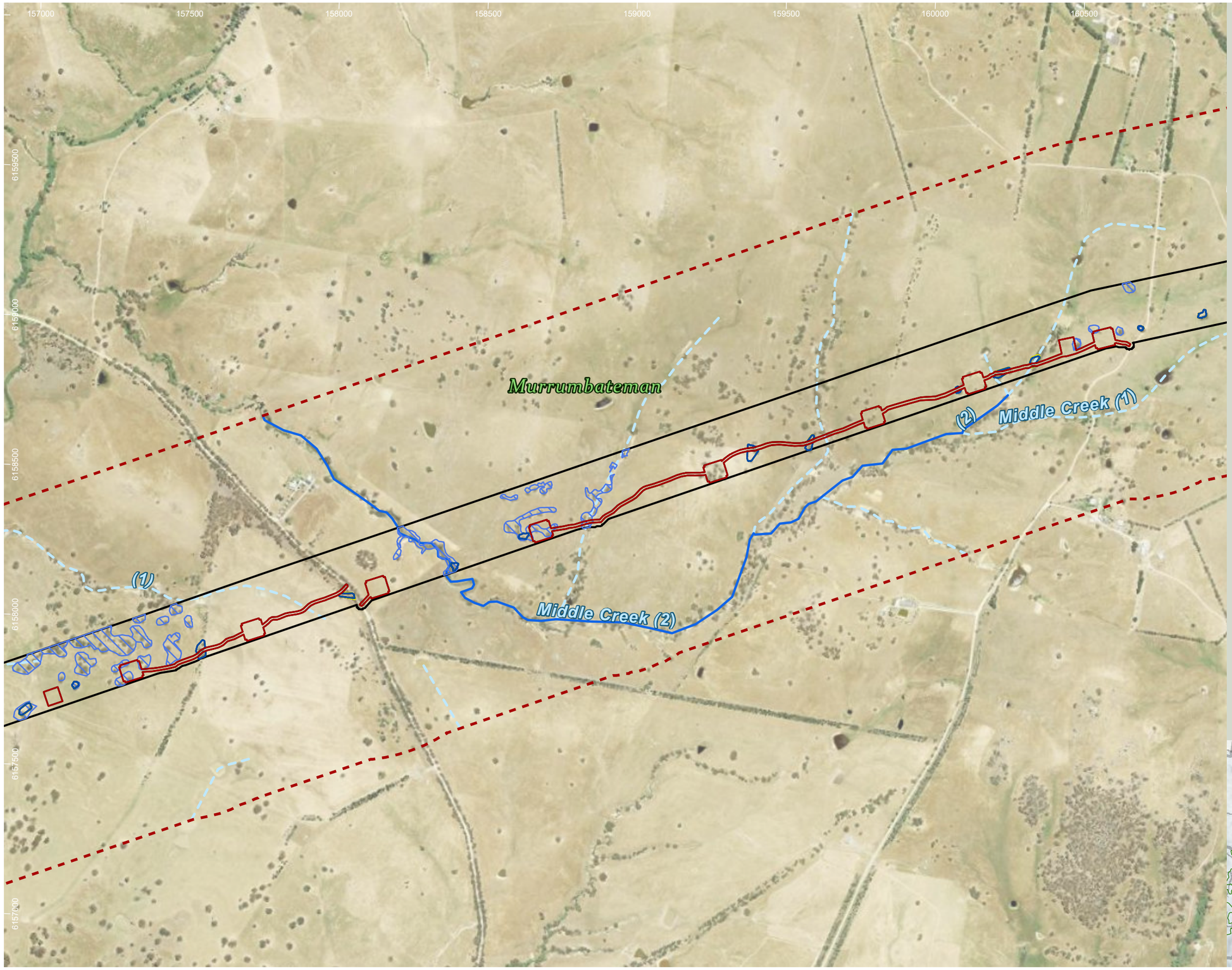


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

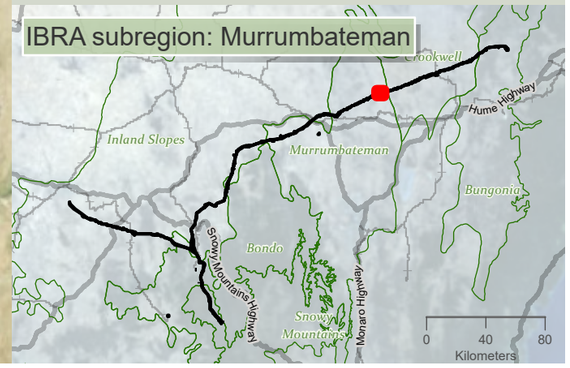
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 84

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160500 161000 161500 162000 162500 163000 163500 164000

6159000 6158500 6158000

Crookwell

(2)

(1)

Murrumbateman

Merrill Creek (2)

Middle Creek (1)

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

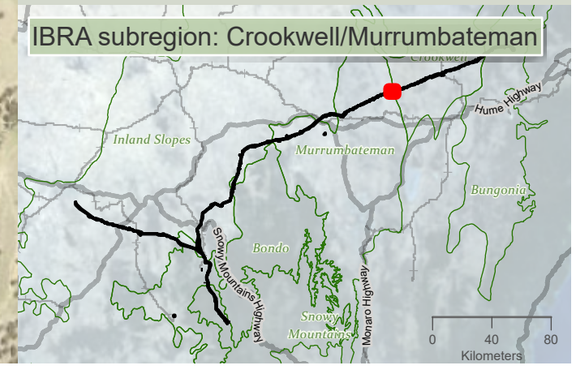
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Prasophyllum petilum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 85

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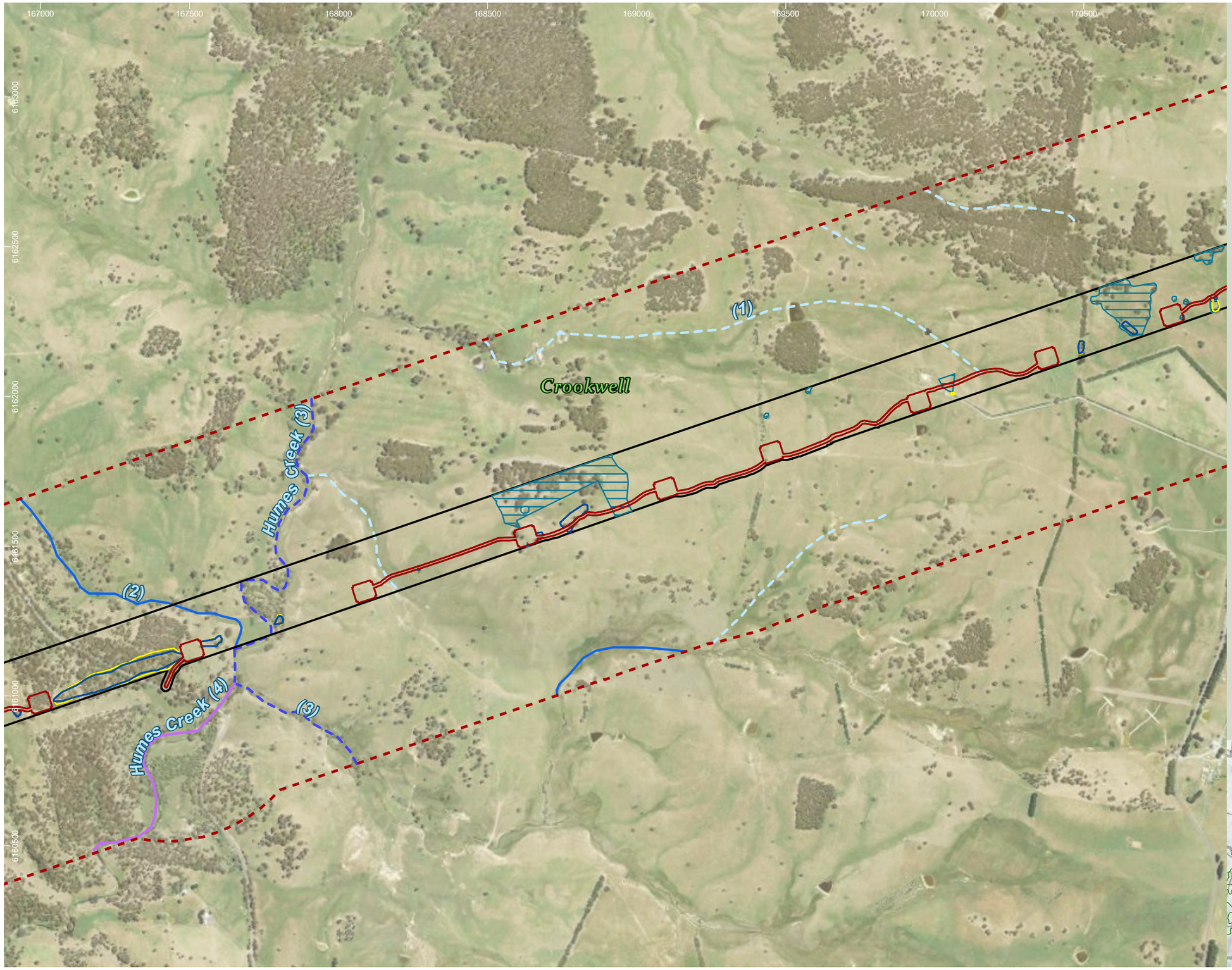


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

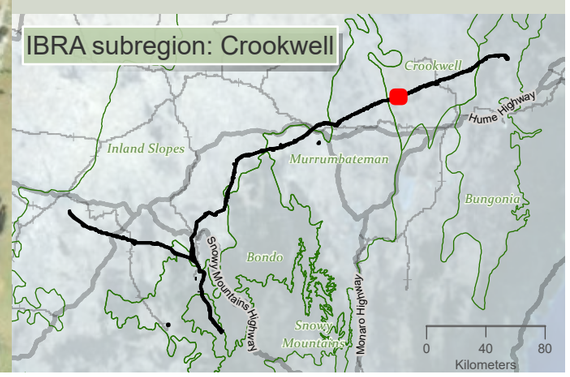
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 87

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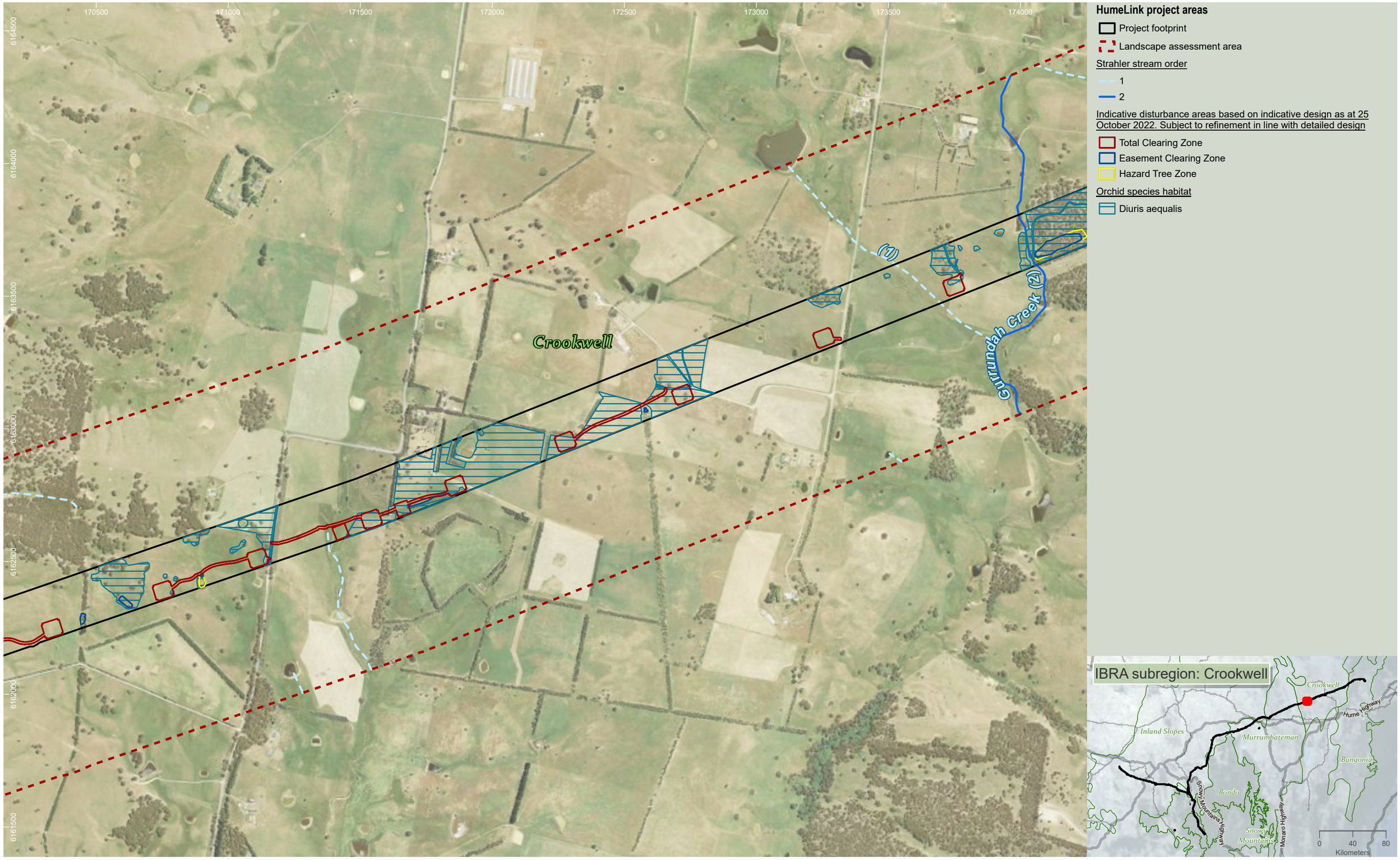

niche Environment and Heritage

0 400
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 88

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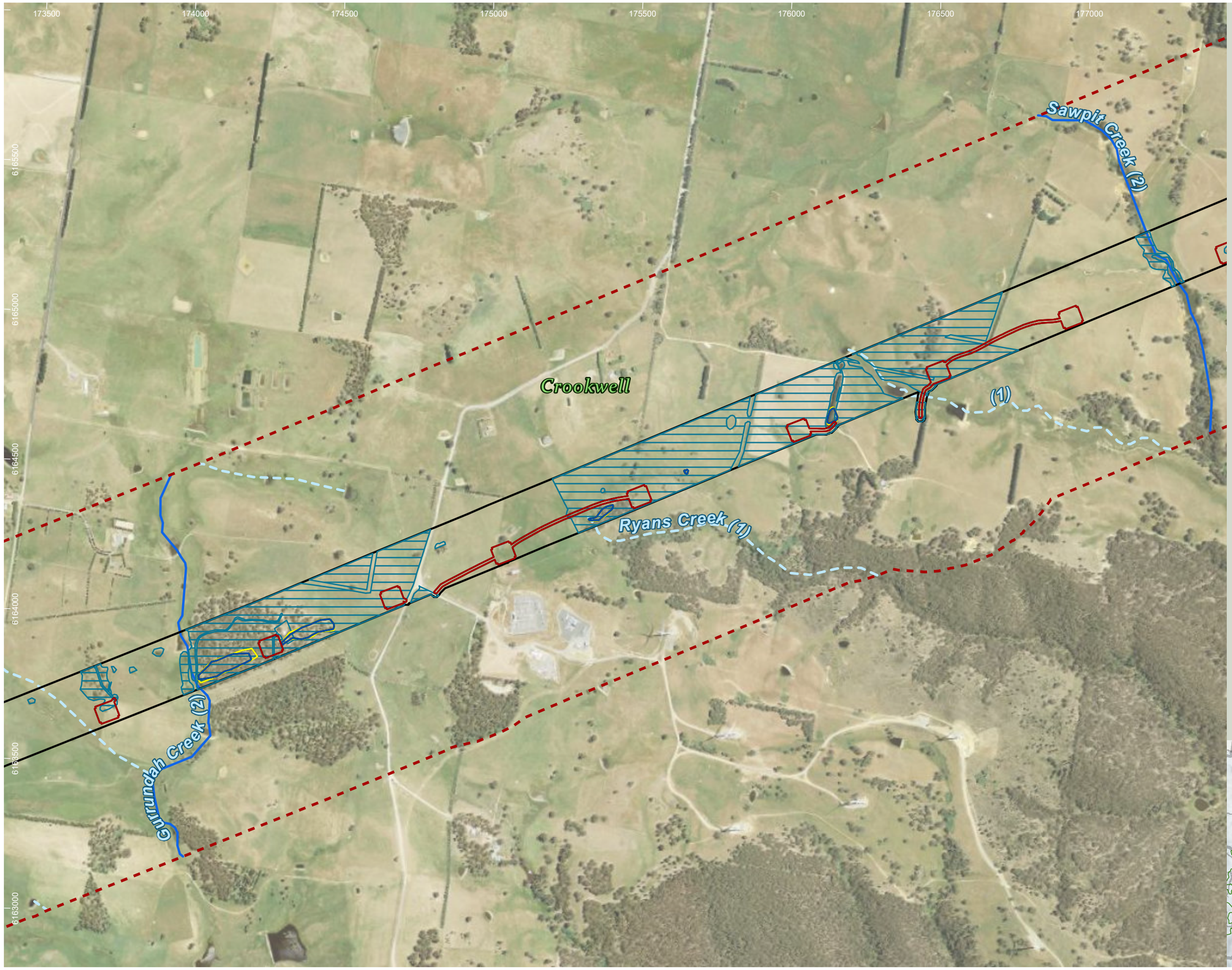


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

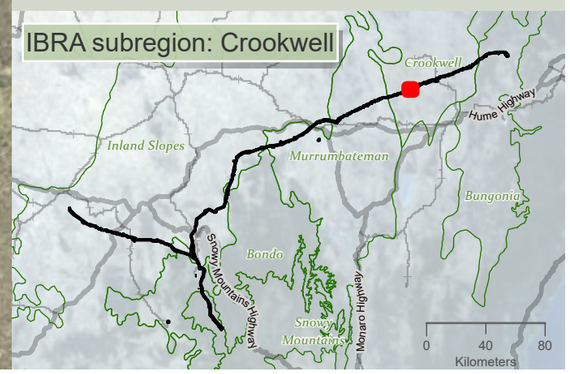
- 1
- 2

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 89

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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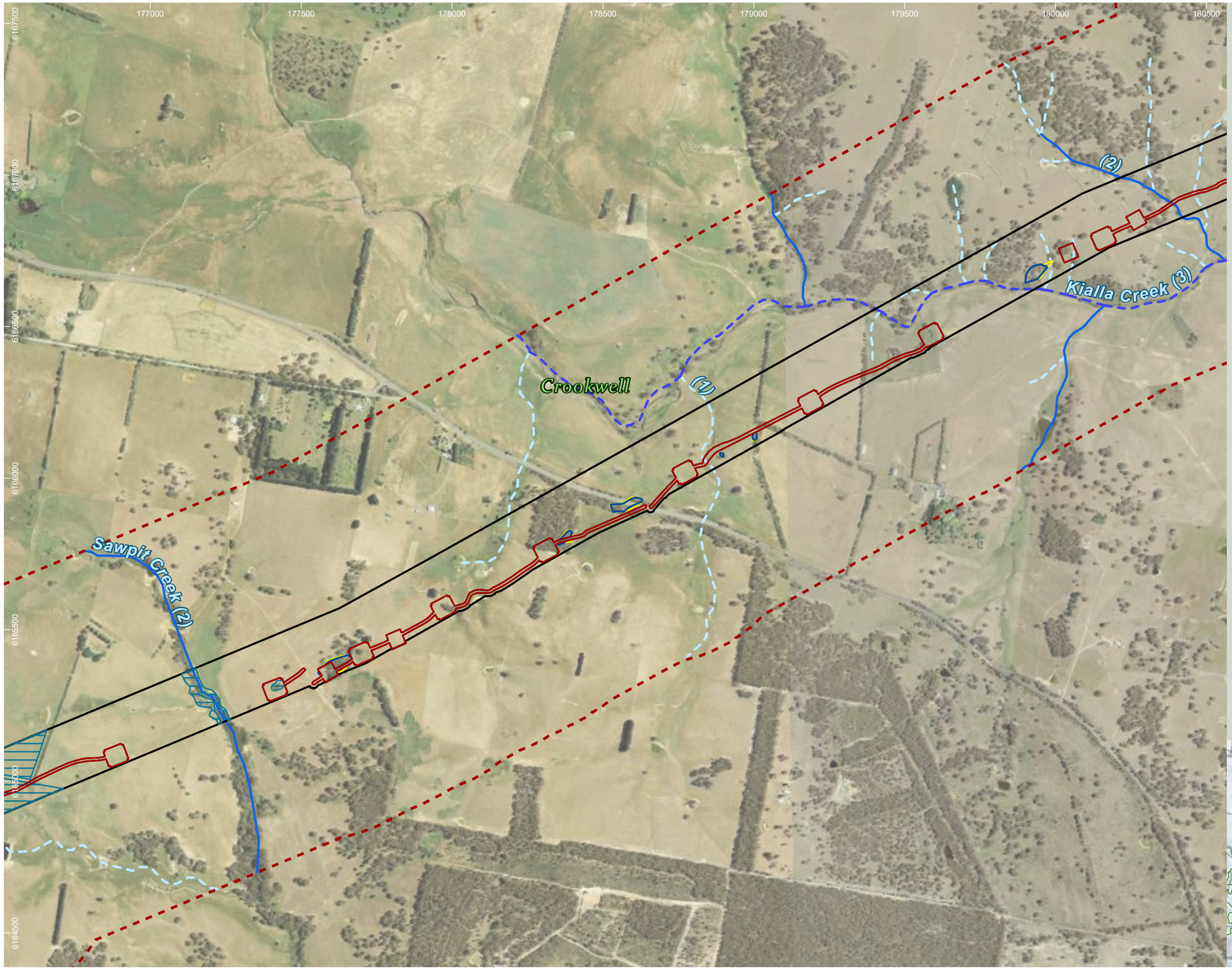


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

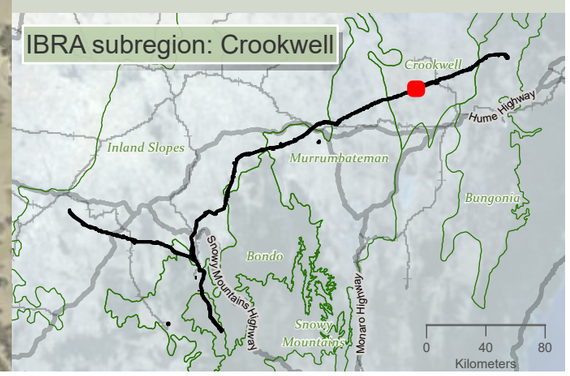
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 90

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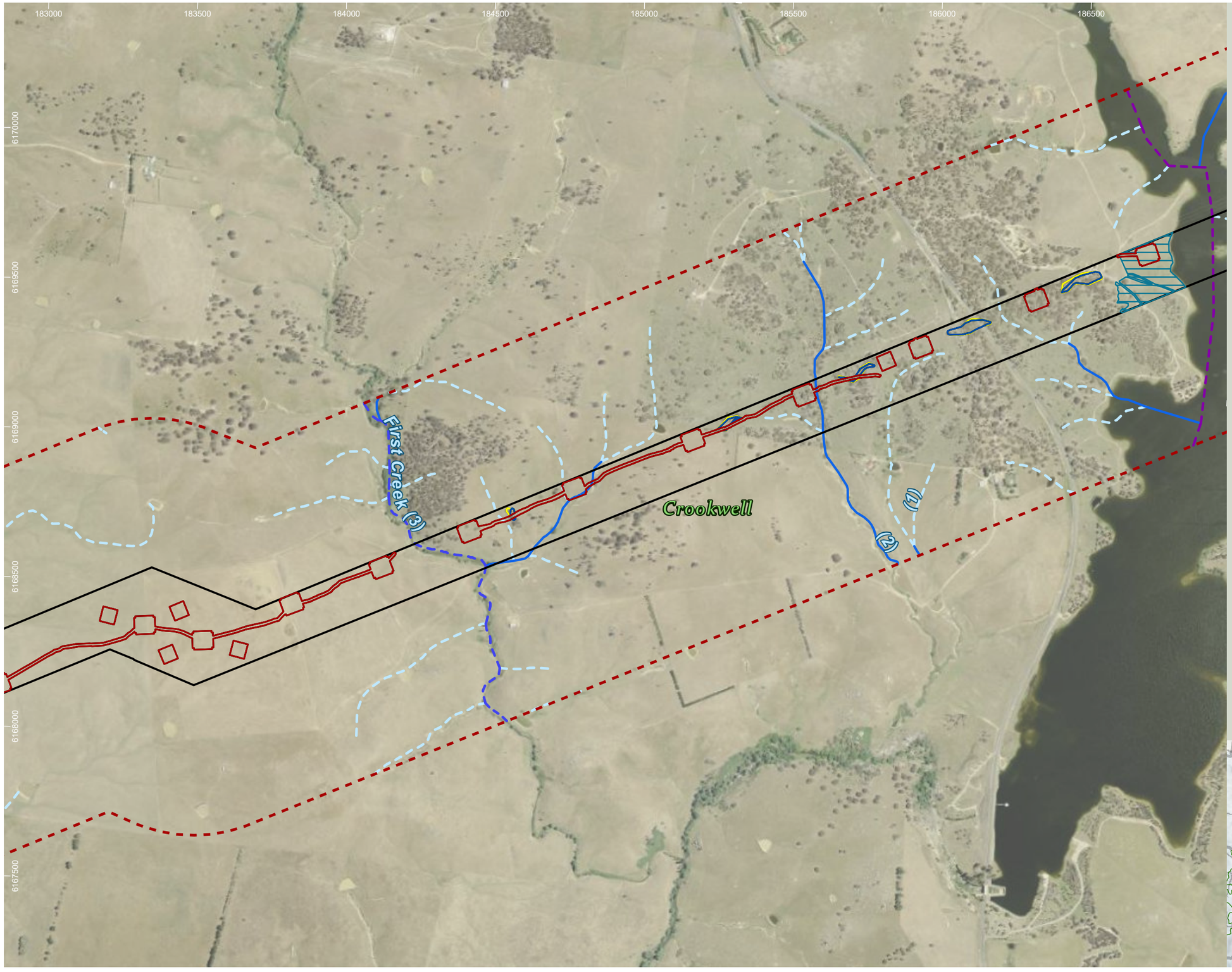


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

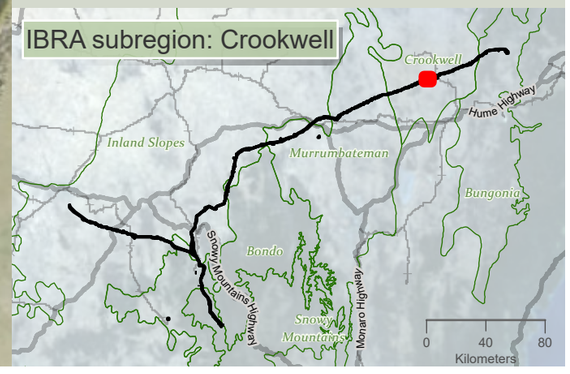
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 92

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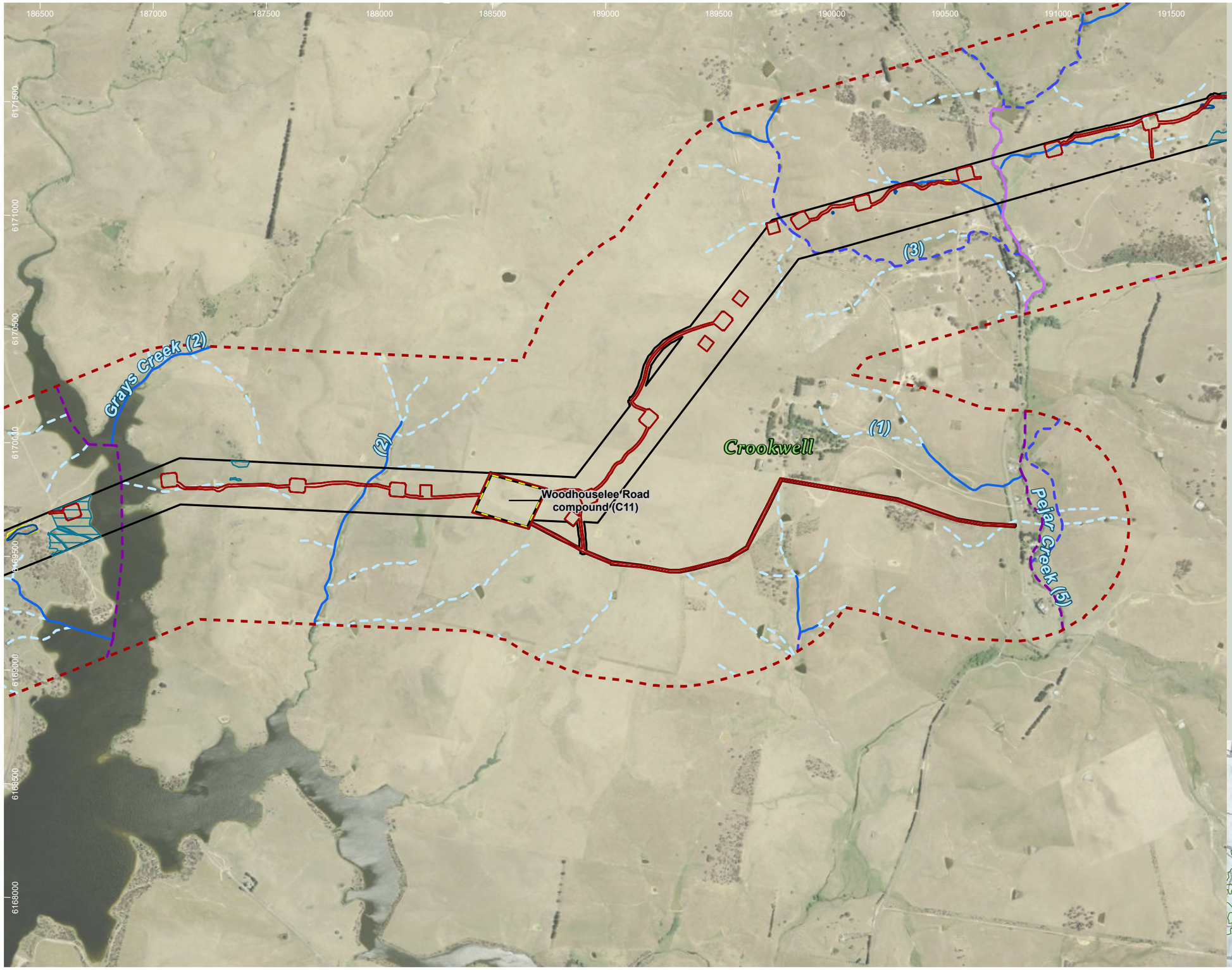
Drawn by: MatthewZajaczkowski | Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

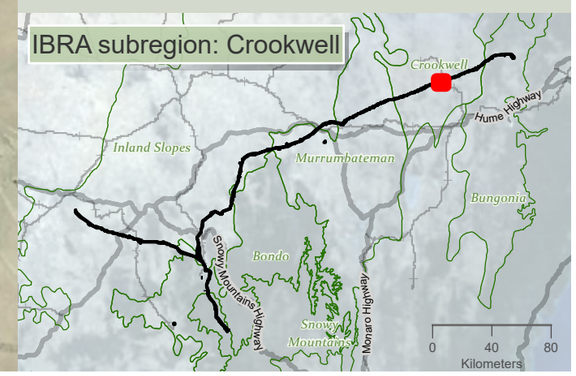
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



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niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 93

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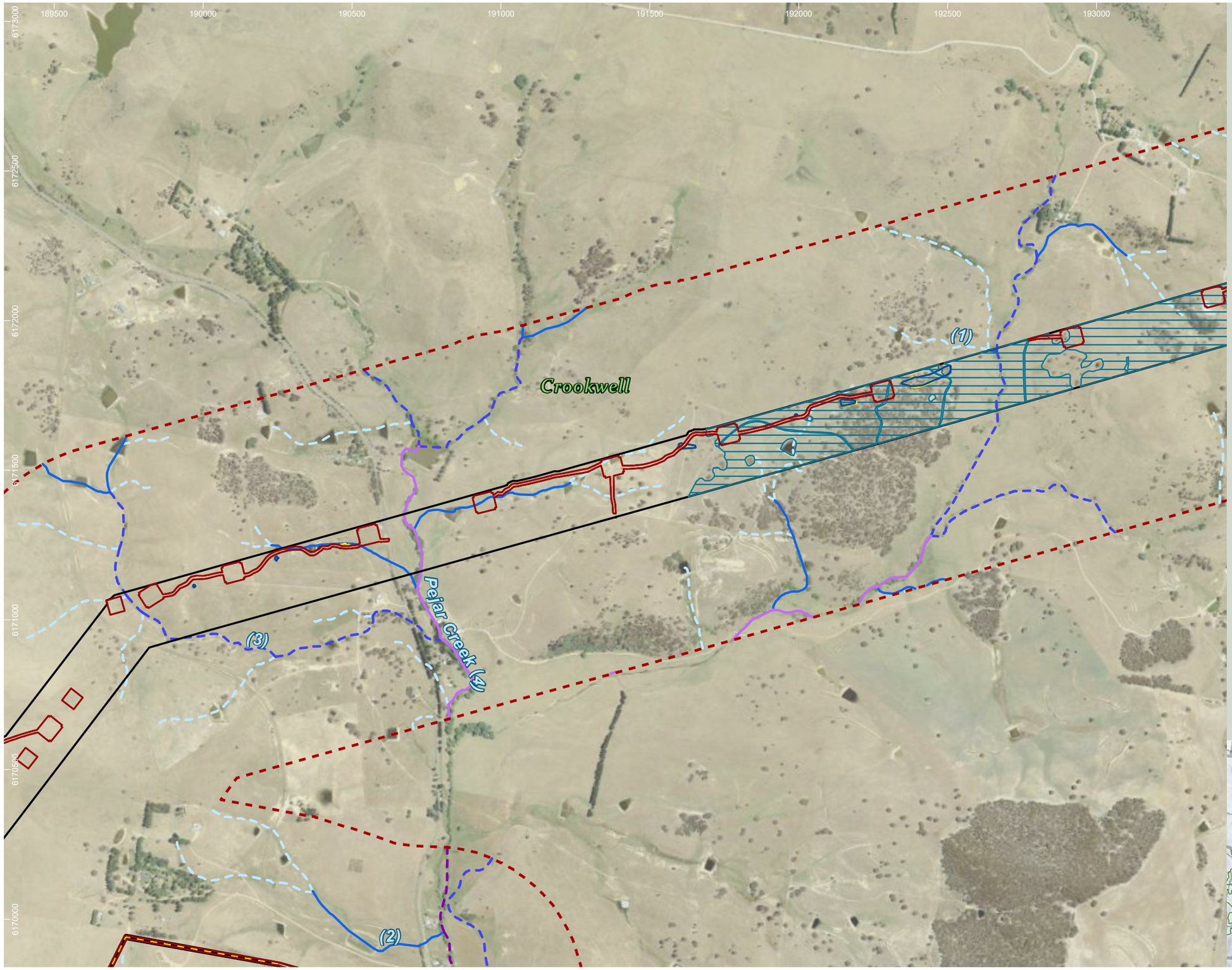


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Strahler stream order

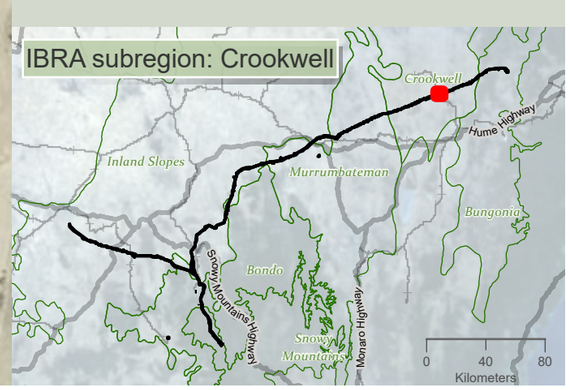
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 94

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193000 193500 194000 194600 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

Melamalong Creek (7)

(1) Crookwell

(2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

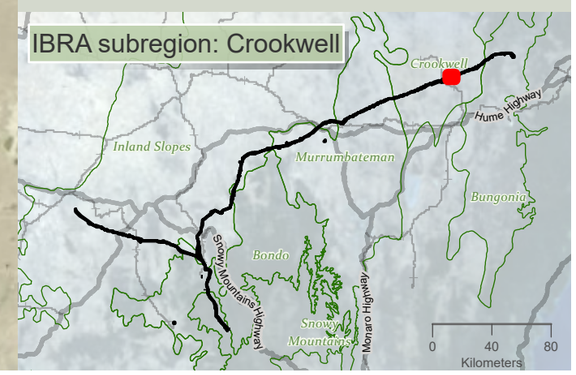
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 95

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196000 196500 197000 197500 198000 198500 199000 199500

6175000 6174500 6174000 6173500 6173000 6172500

Crookwell

Tarlo River (5)

Sawpit Gully (3)

(1) (2) (3) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

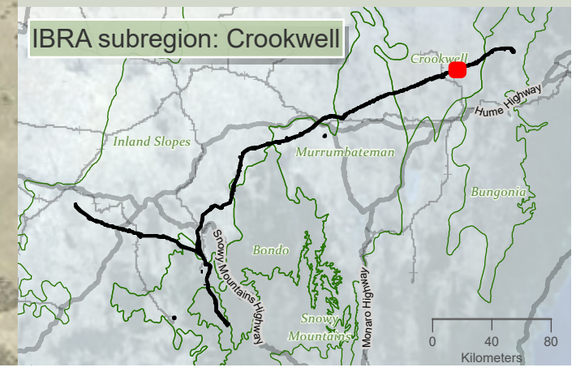
- 1
- 2
- 3
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 96

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Turrallo Creek (5)

Crookwell

Tarlo River (5)

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

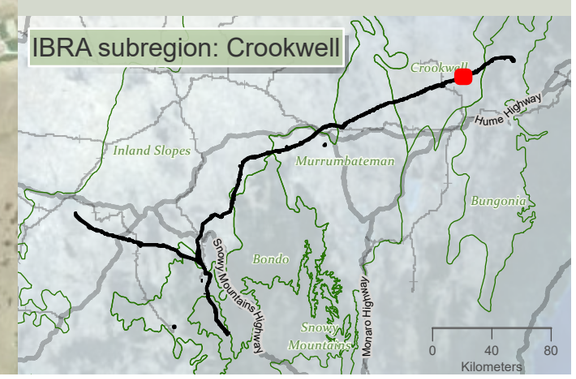
- 1
- 2
- 3
- 4
- 5

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 97

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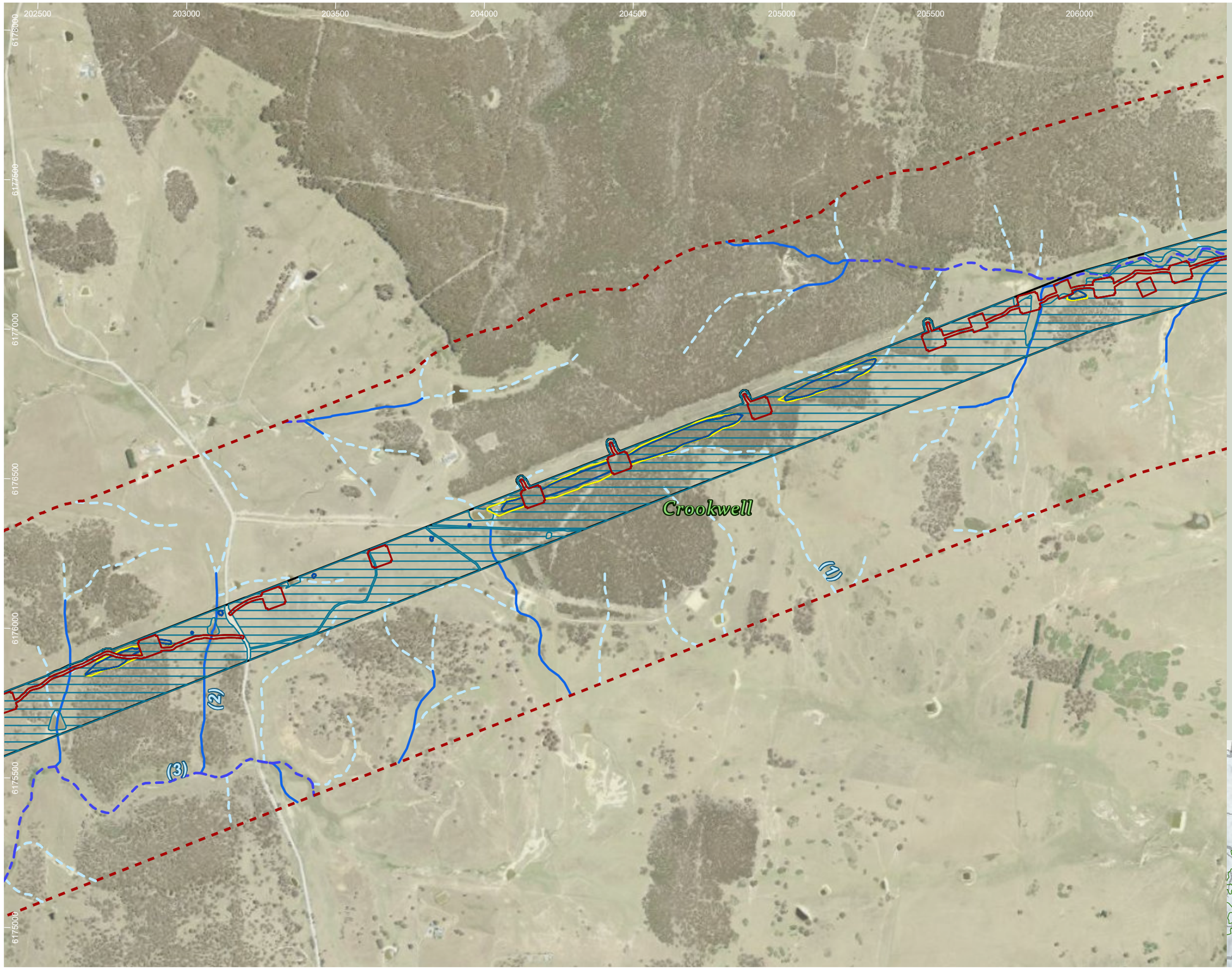


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

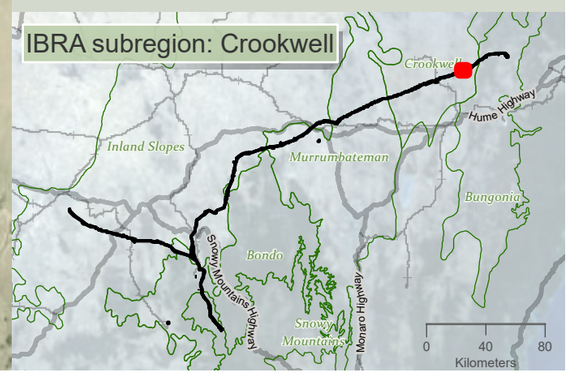
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Myrtle Creek (4)

(3)

Cowpers Creek (3)

Crookwell

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

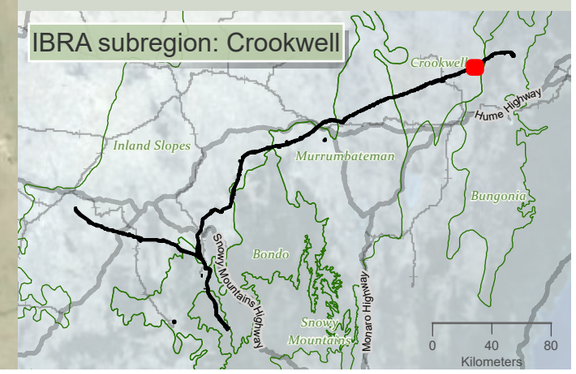
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Diuris aequalis



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niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 99

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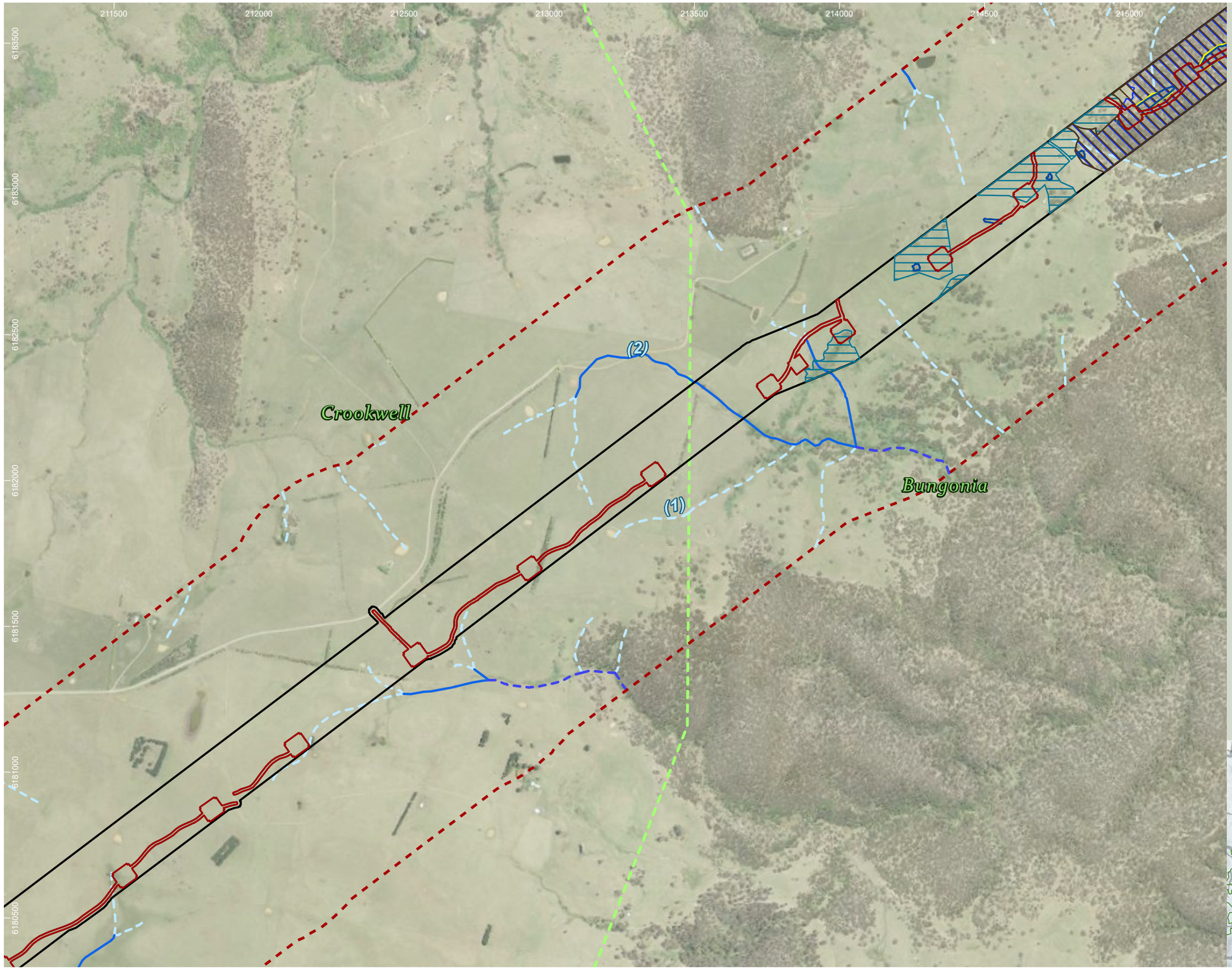


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Strahler stream order

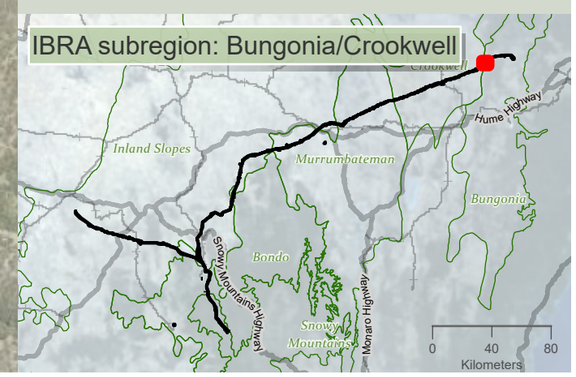
- 1
- 2
- 3

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Caladenia tessellata
- Diuris aequalis
- Genoplesium superbum



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 101

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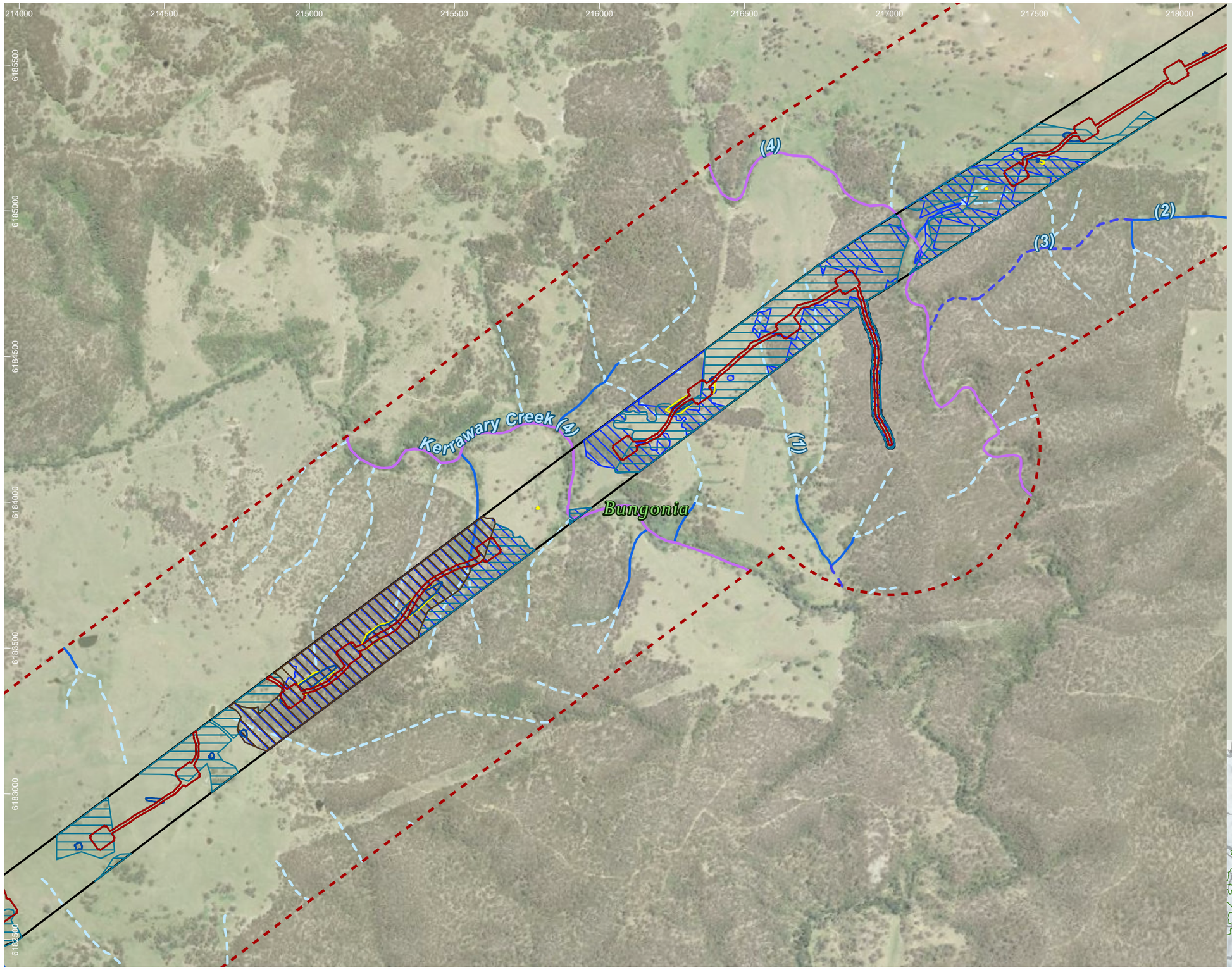


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

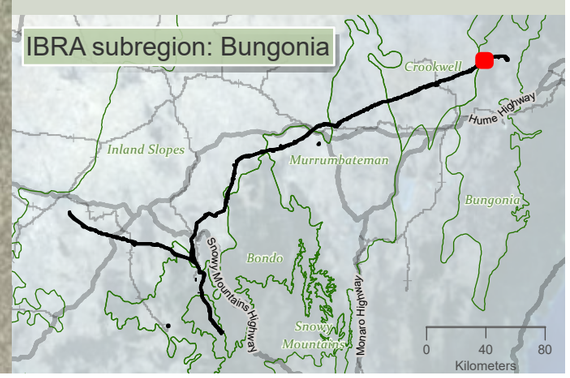
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Caladenia tessellata
- Diuris aequalis
- Genoplesium superbum



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 102

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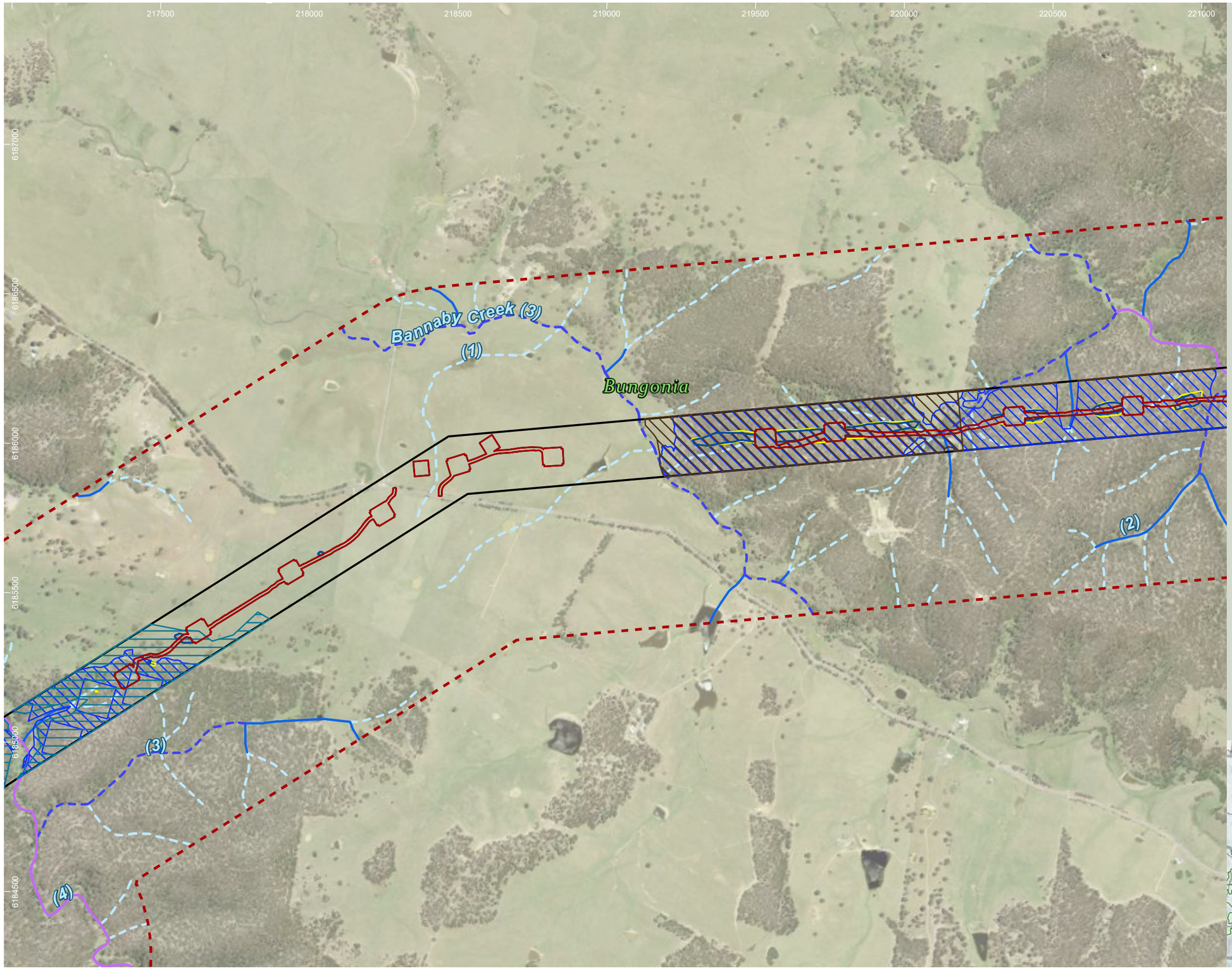


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

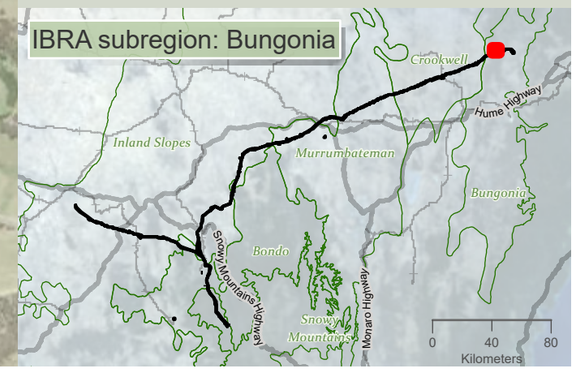
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Caladenia tessellata
- Diuris aequalis
- Genoplesium superbum



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 103

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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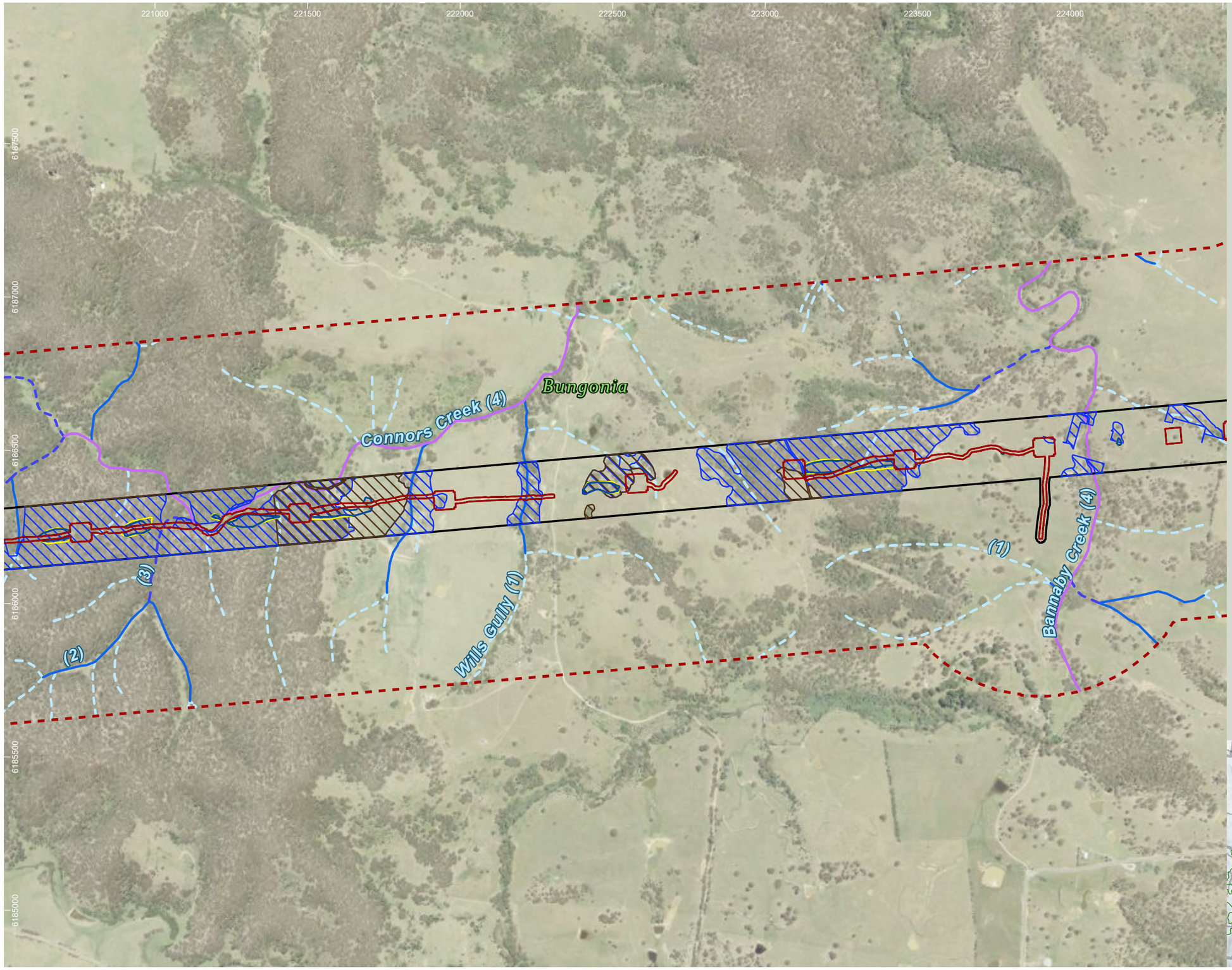


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

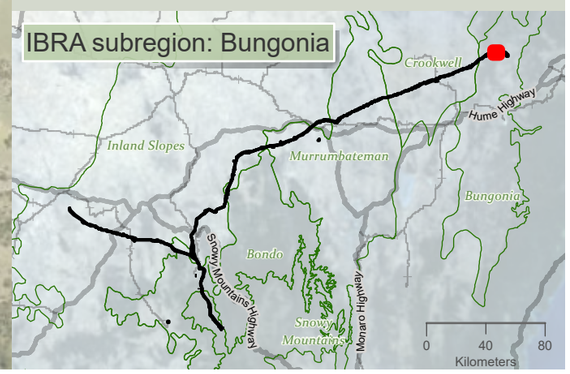
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Caladenia tessellata
- Genoplesium superbum



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 104

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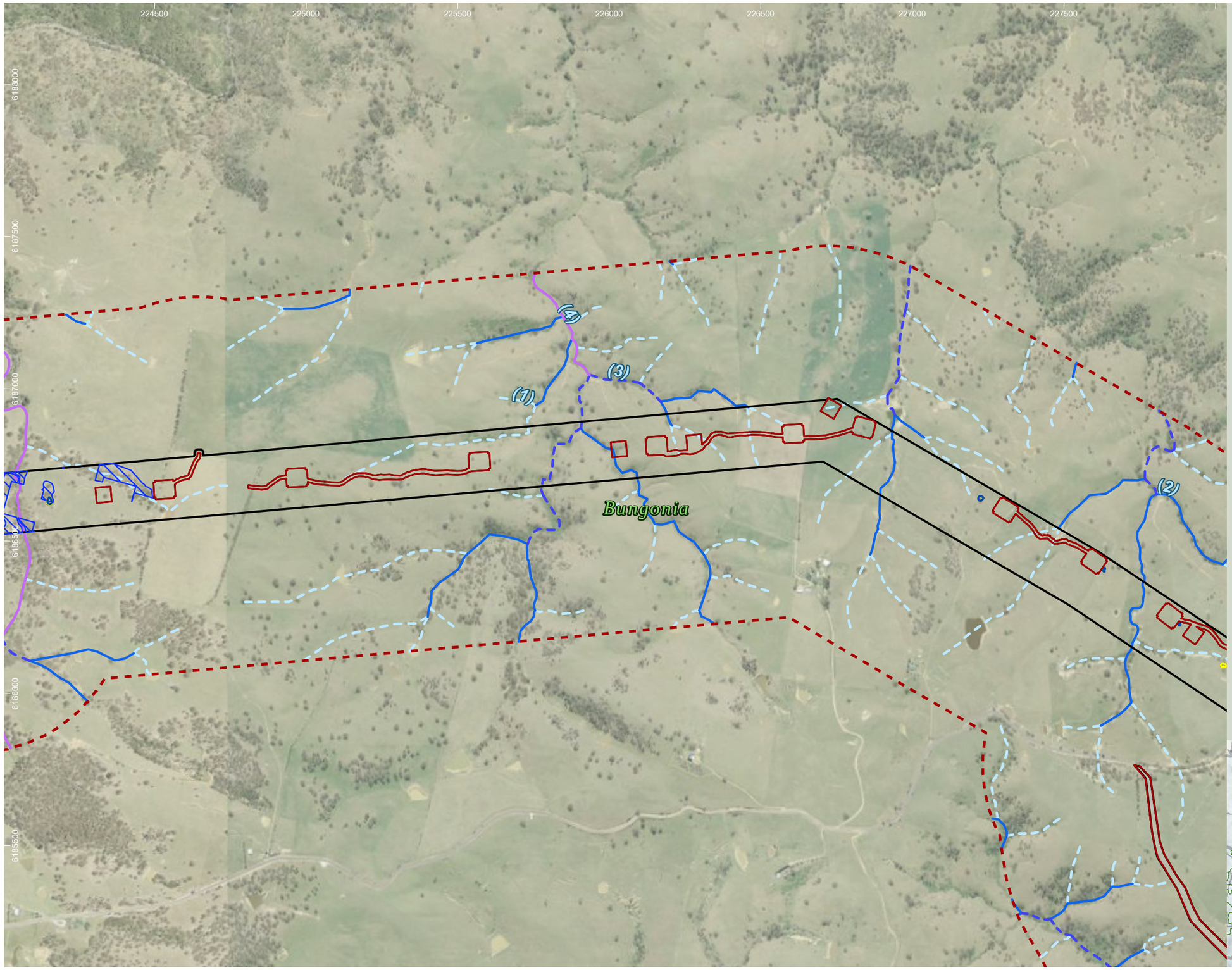


HumeLink project areas

- Project footprint
- Landscape assessment area

Strahler stream order

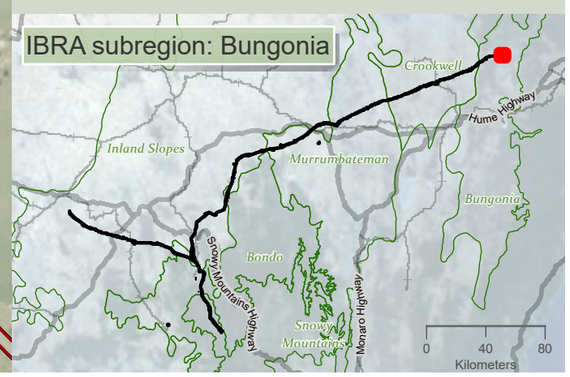
- 1
- 2
- 3
- 4

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Orchid species habitat

- Caladenia tessellata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Orchid species habitat

HumeLink BDAR

Figure 13-12 map reference 105

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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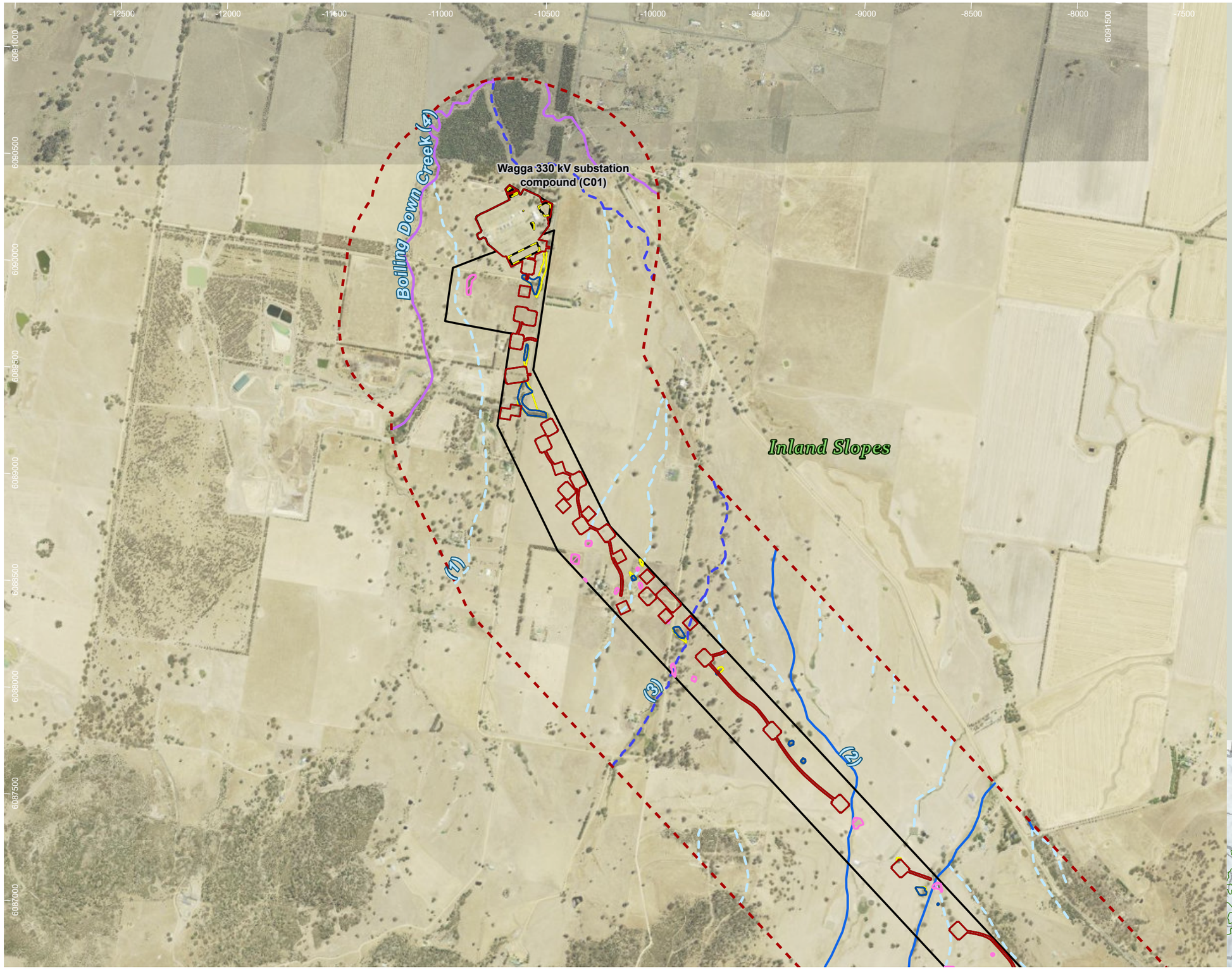


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

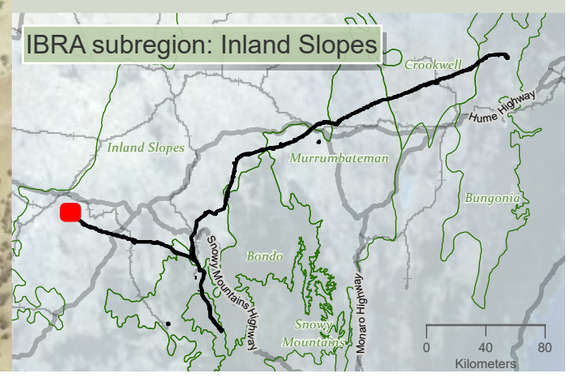
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File C:\OneDriveSyncFolder\Niche\6699 - Confidential Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 1

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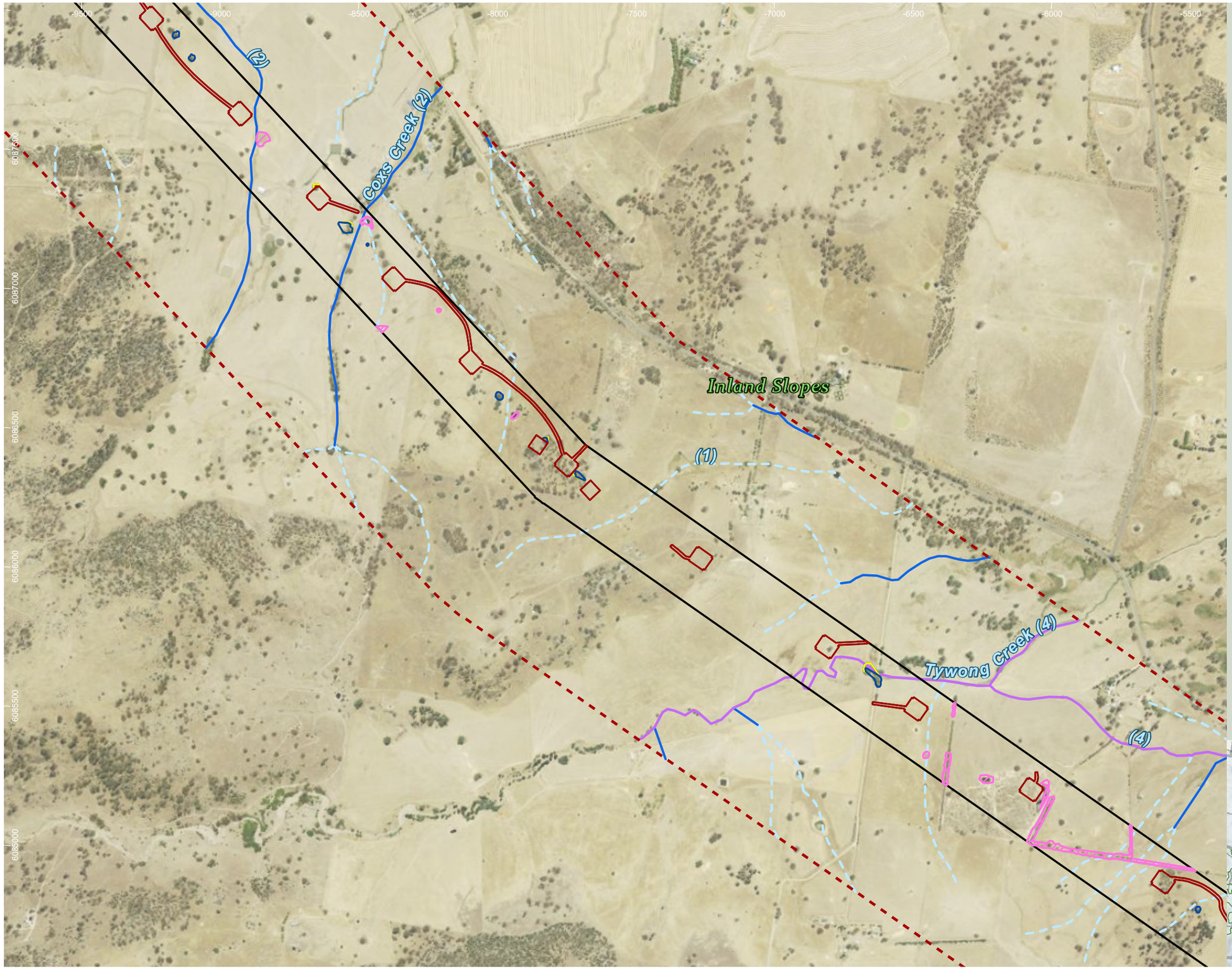


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

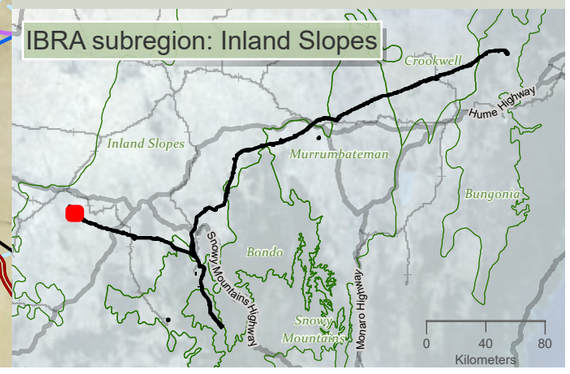
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 2

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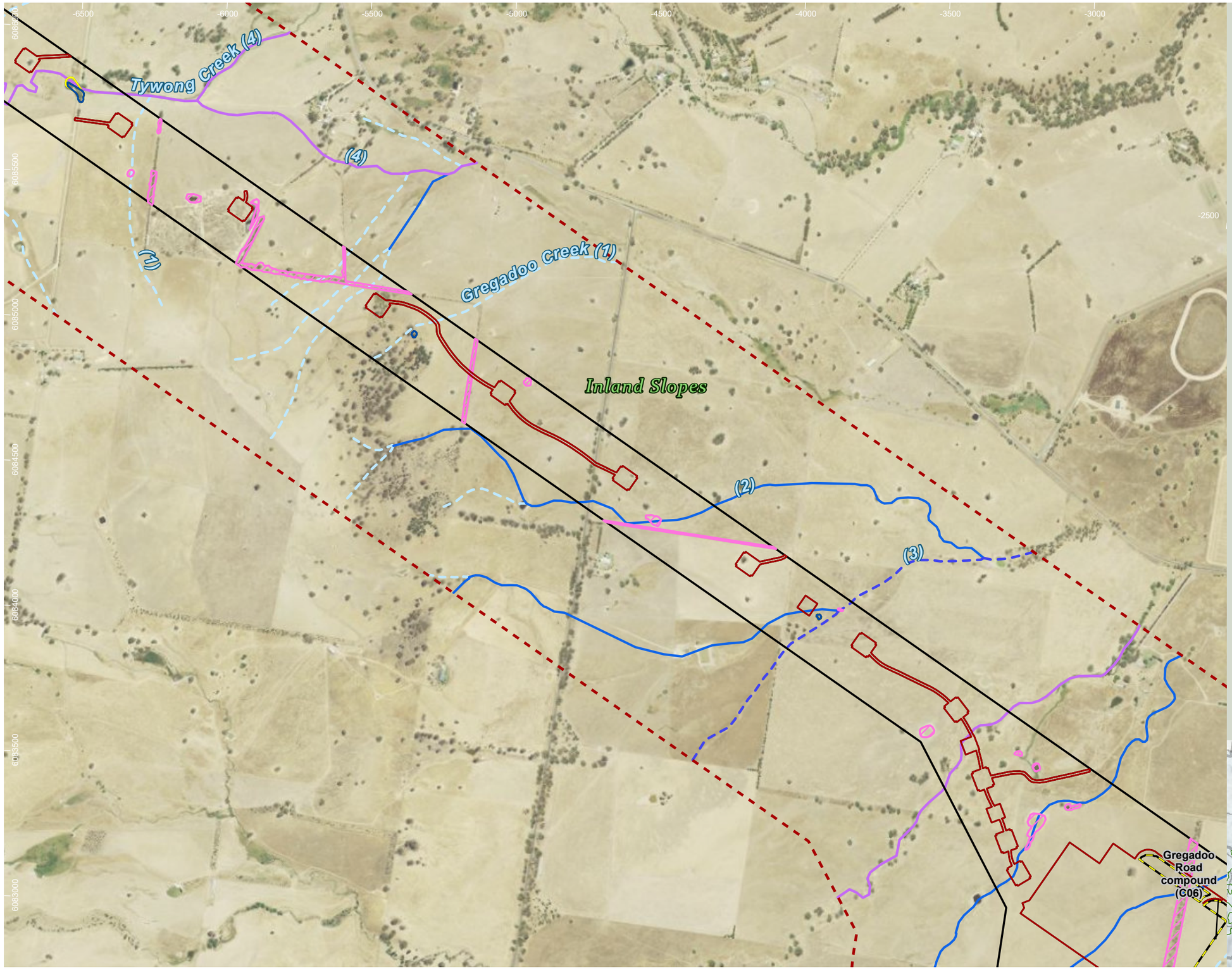


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

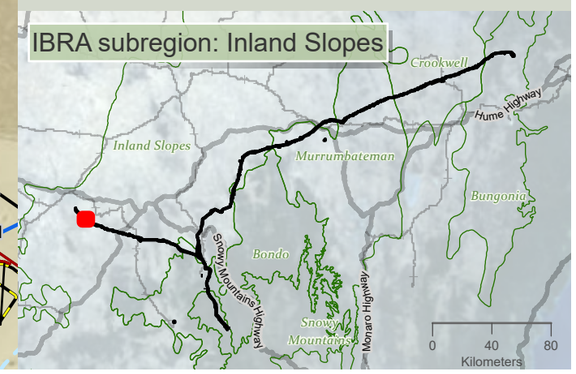
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 3

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-3500 -3000 -2500 -2000 -1500 -1000 -500 0

6084000 6083500 6083000 6082500 6082000 6081500 6081000

Gregadoo Road compound (C06)

Inland Slopes

(1) (2) (3)

O'briens Creek (6)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

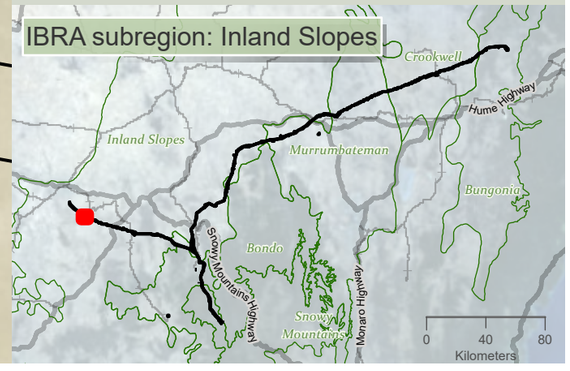
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 4

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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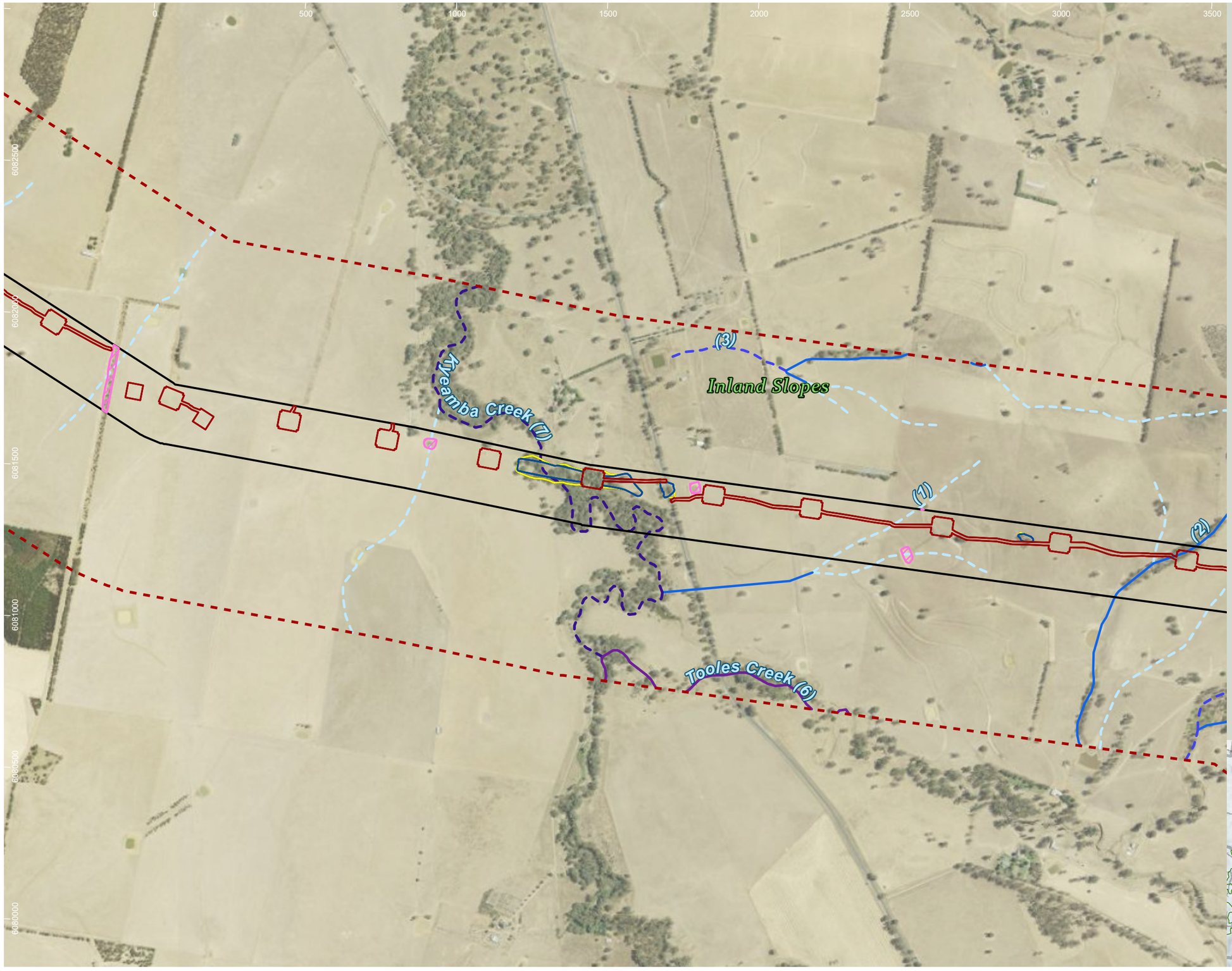


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

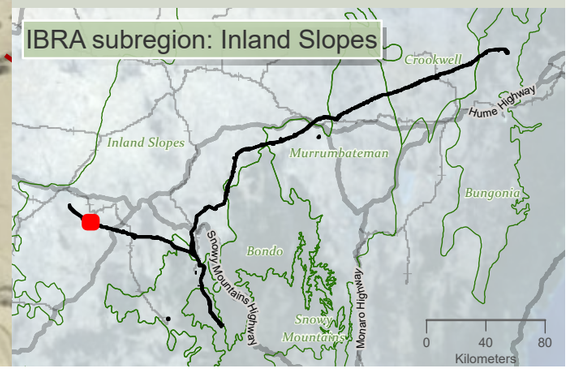
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 6
- 7

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 5

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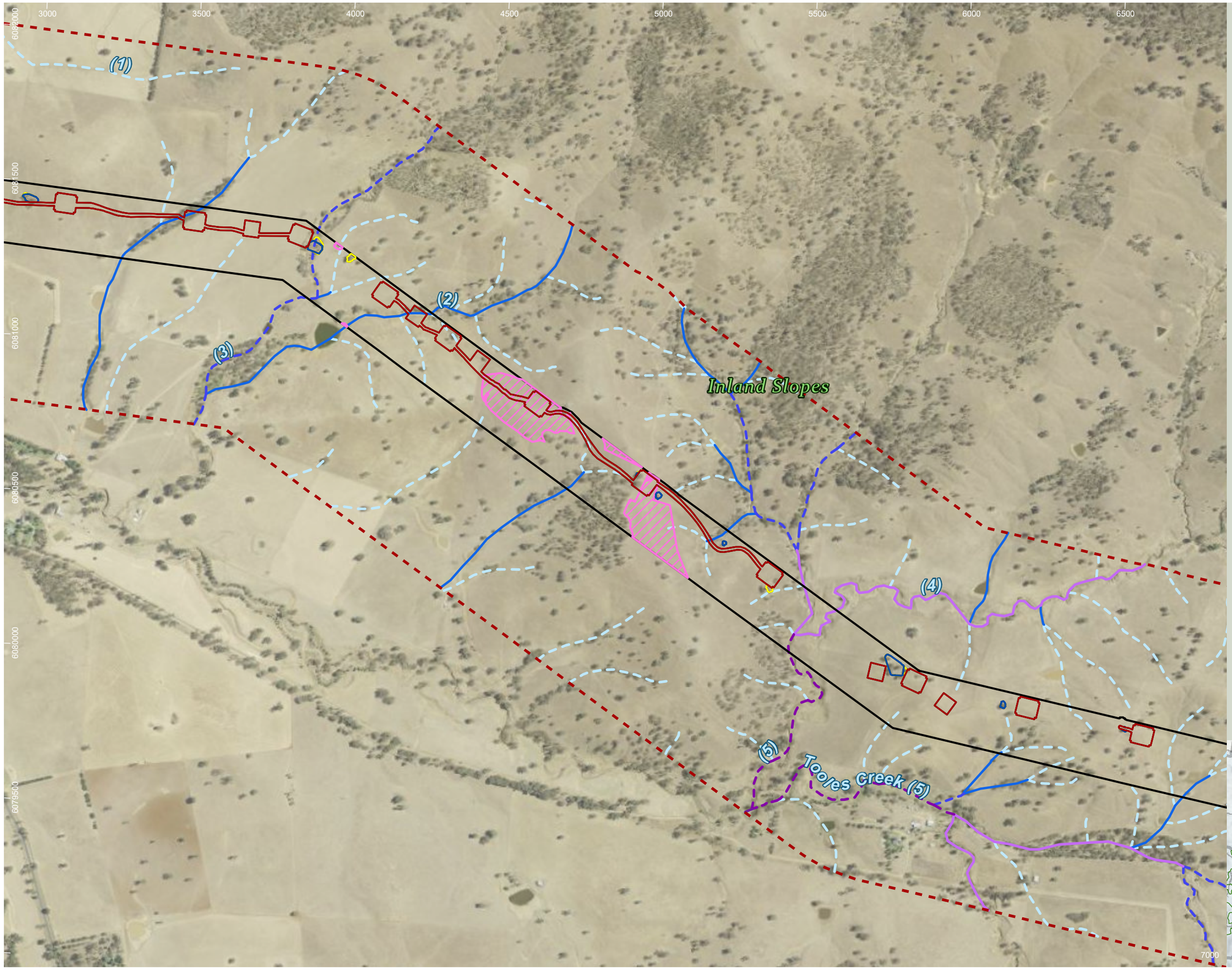


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

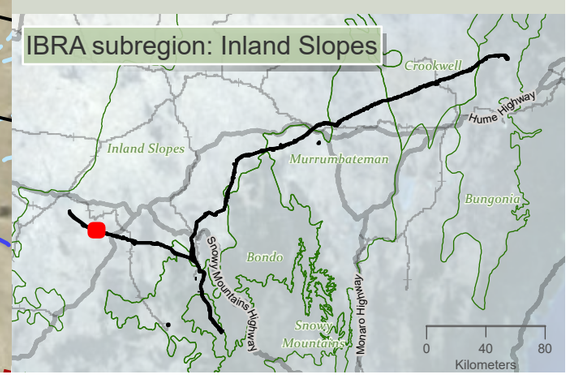
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 6

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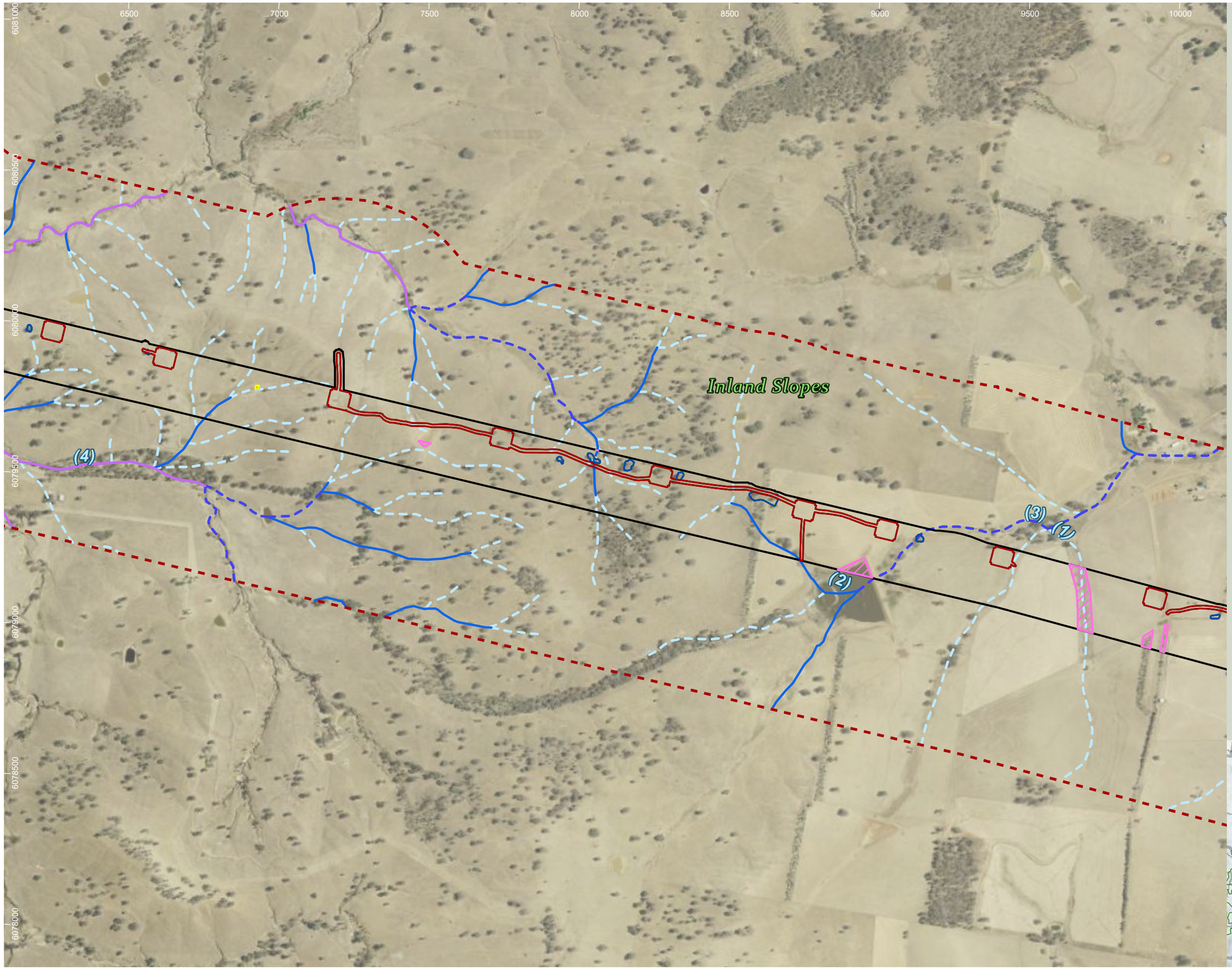


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

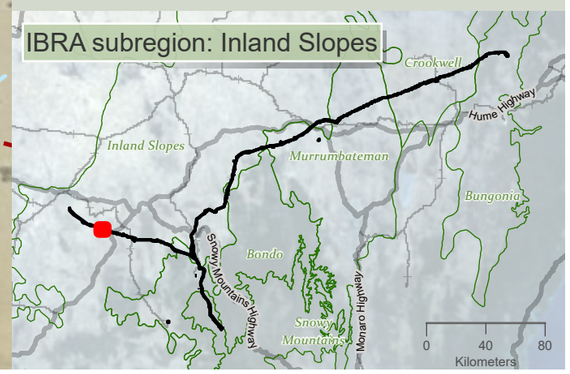
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 7

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10000 10500 11000 11500 6080500 12000 12500 13000 13500

6080000
6079500
6079000
6078500
6078000
6077500

(1) (2) (3) (4)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

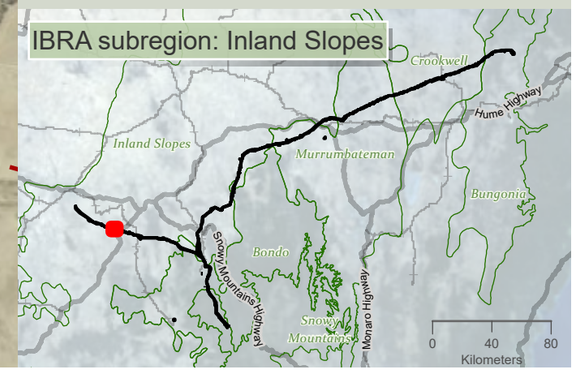
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 8

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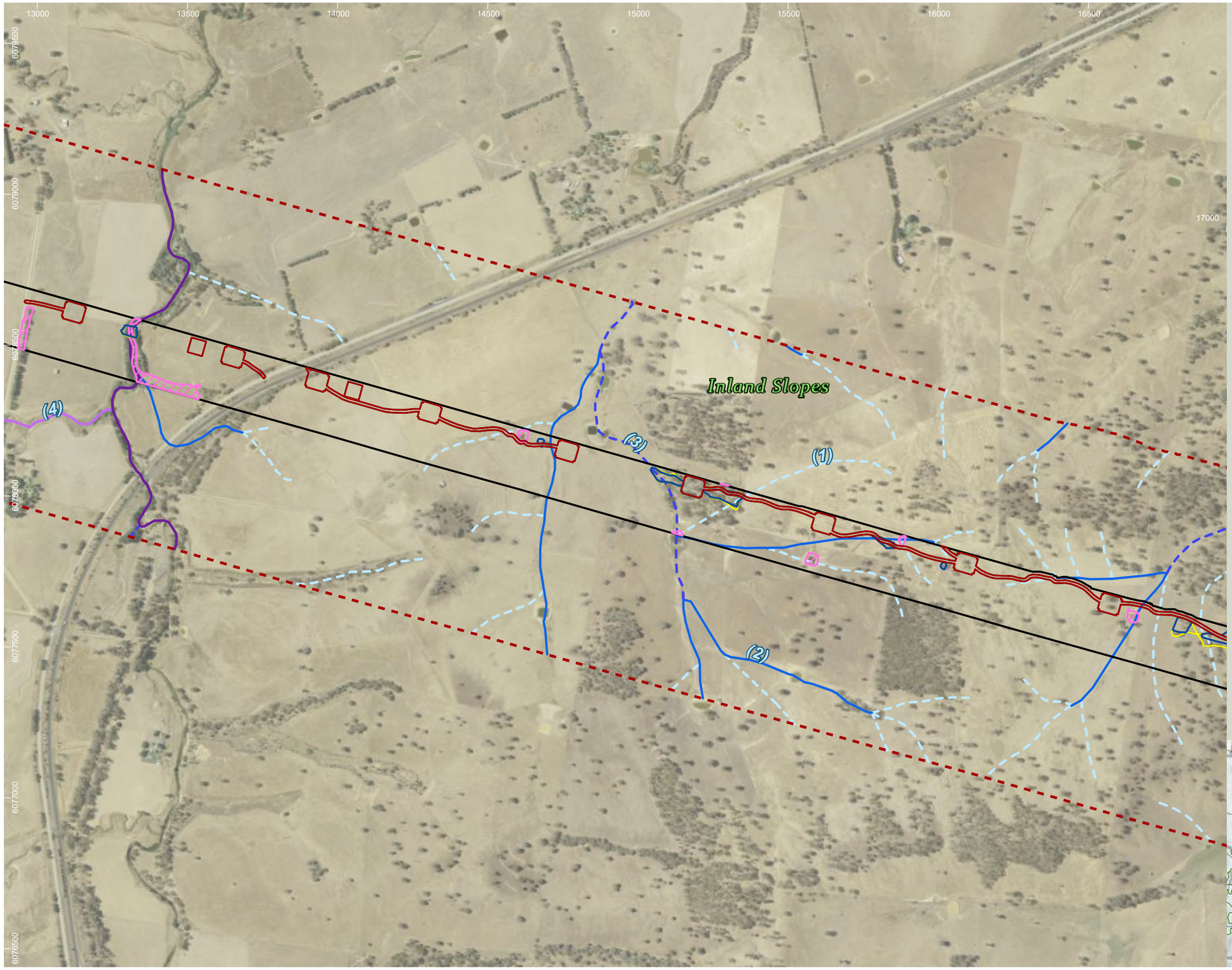


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

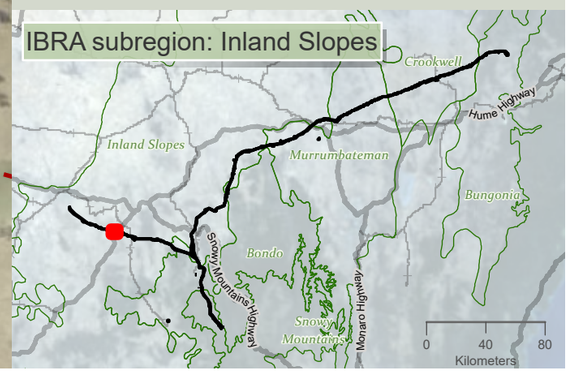
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 0
- 1
- 2
- 3
- 4
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 9

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16500 17000 17500 18000 18500 6079000 19000 19500 20000

6078500 6078000 6077500 6077000 6076500 6076000

(1) (2) (3)

Inland Slopes

20500

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

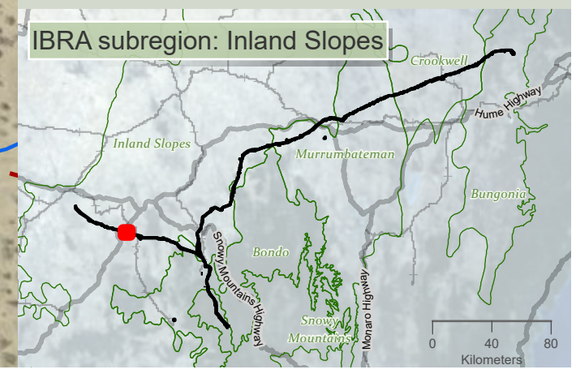
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 10

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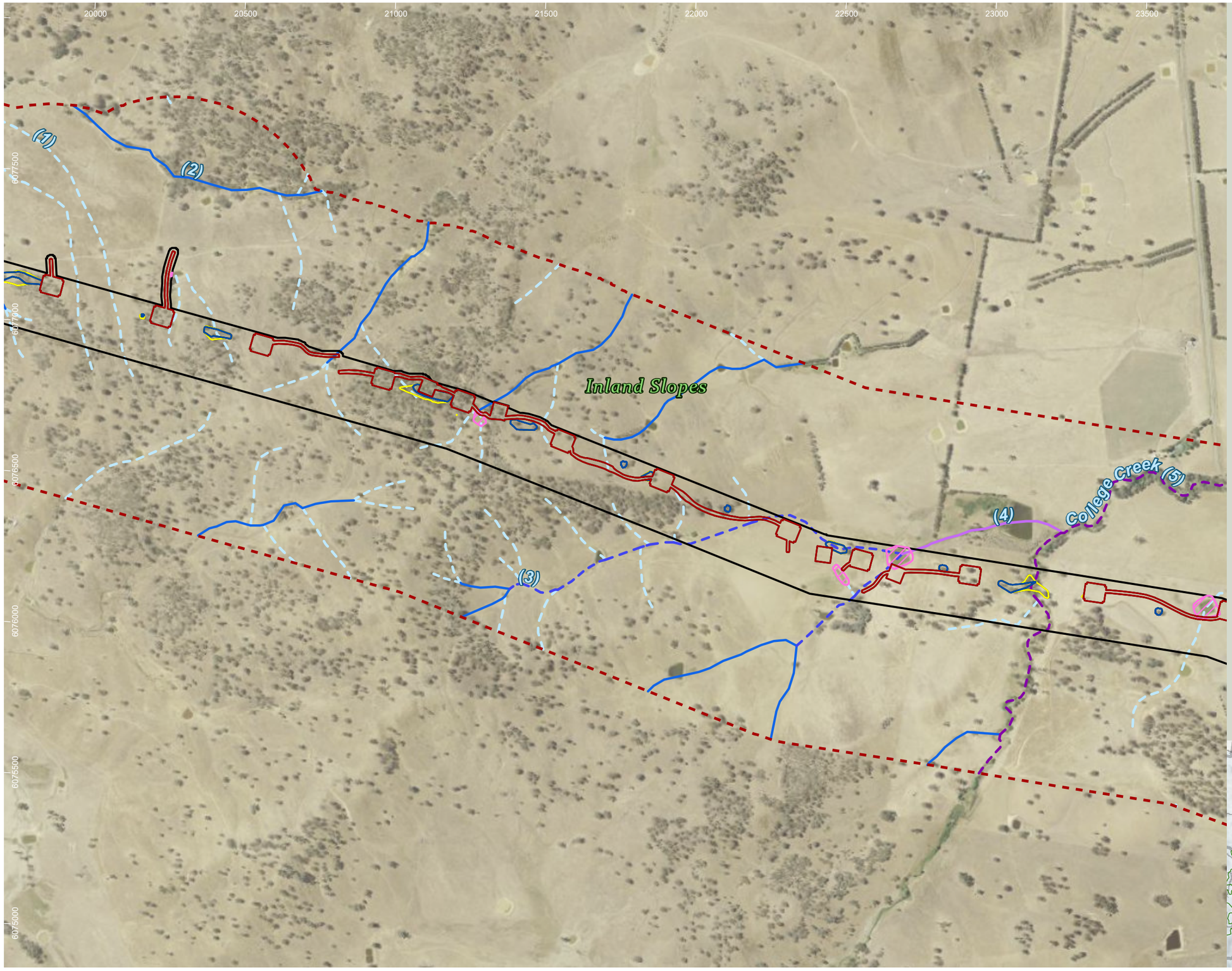


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

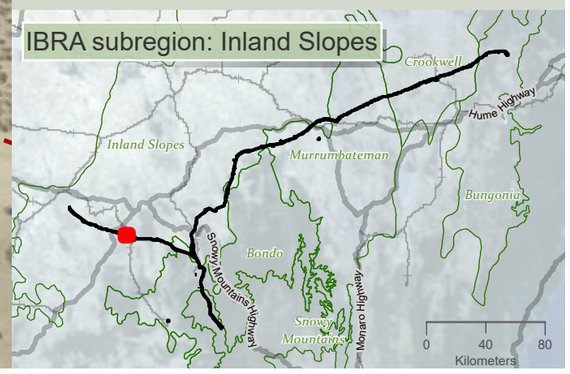
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 11

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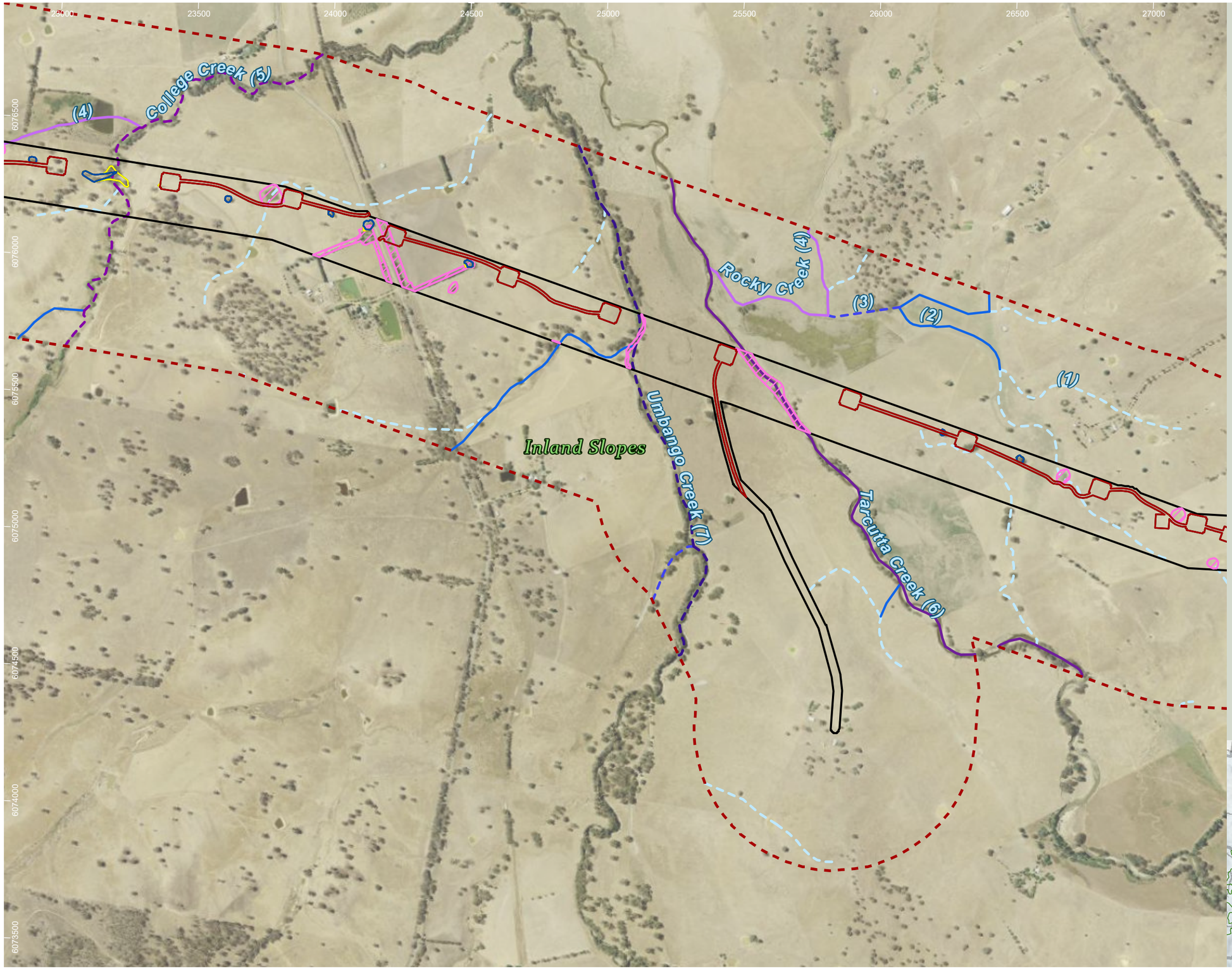


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

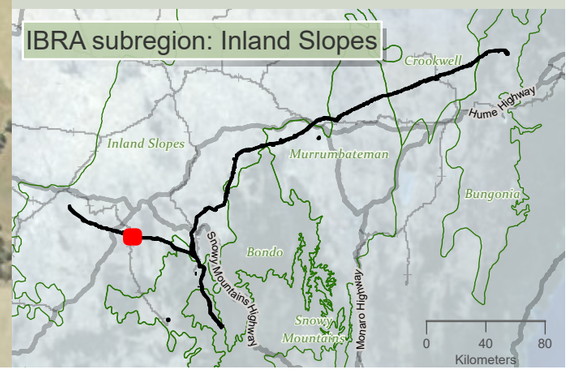
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- 6
- 7

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 12

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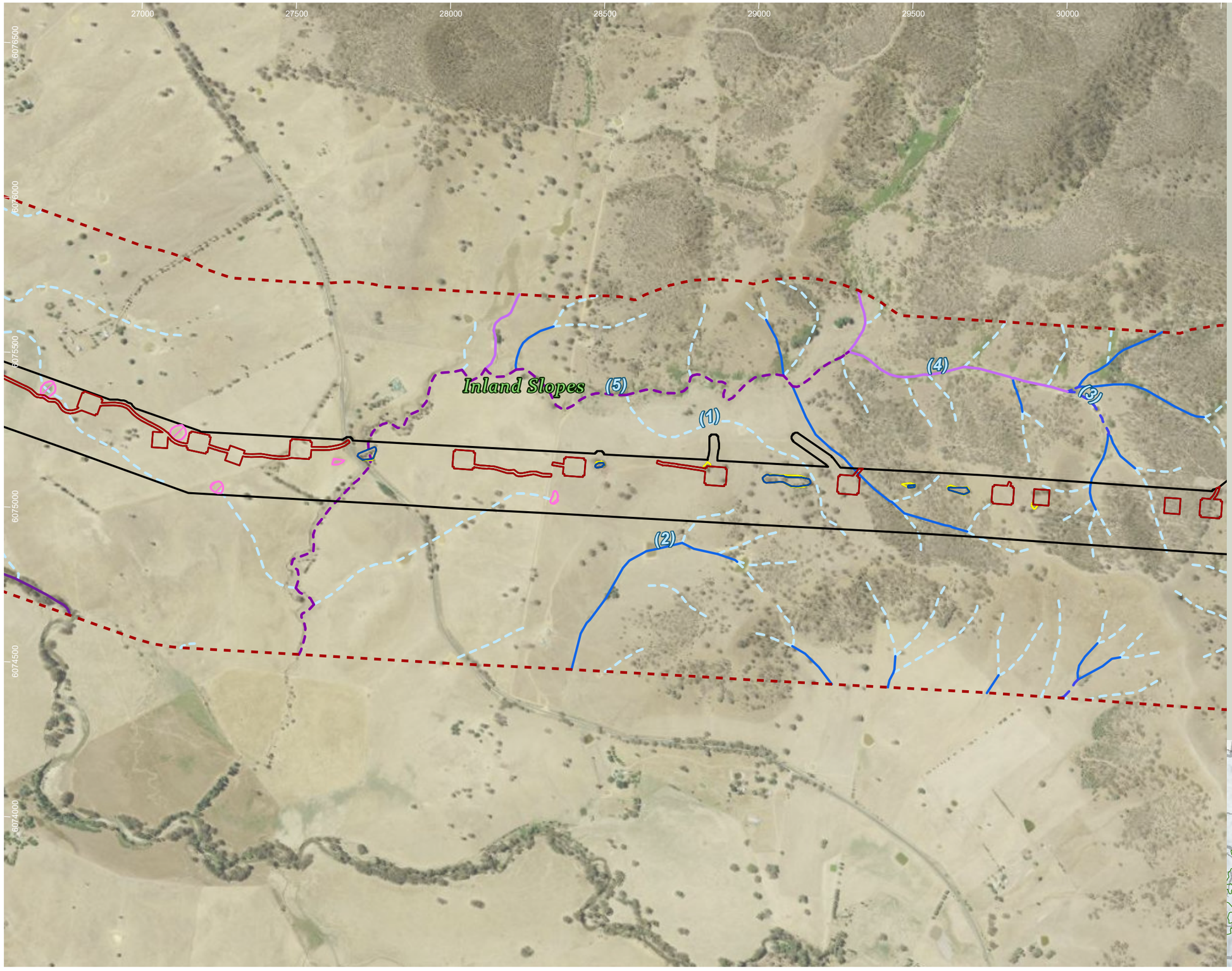


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

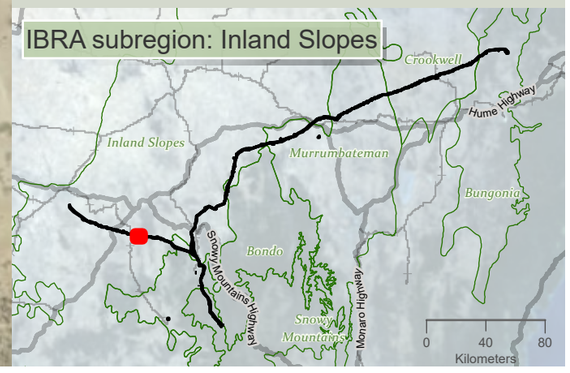
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 13

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30500 31000 31500 32000 32500 33000 33500 34000

6076500 6076000 6075500 6075000 6074500 6074000

Inland Slopes

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

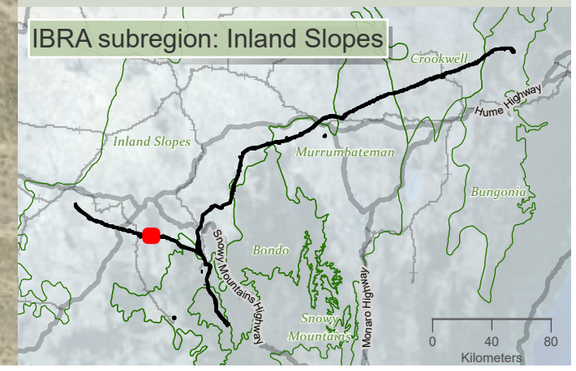
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus alligatrix subsp alligatrix
- Eucalyptus cannonii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 14

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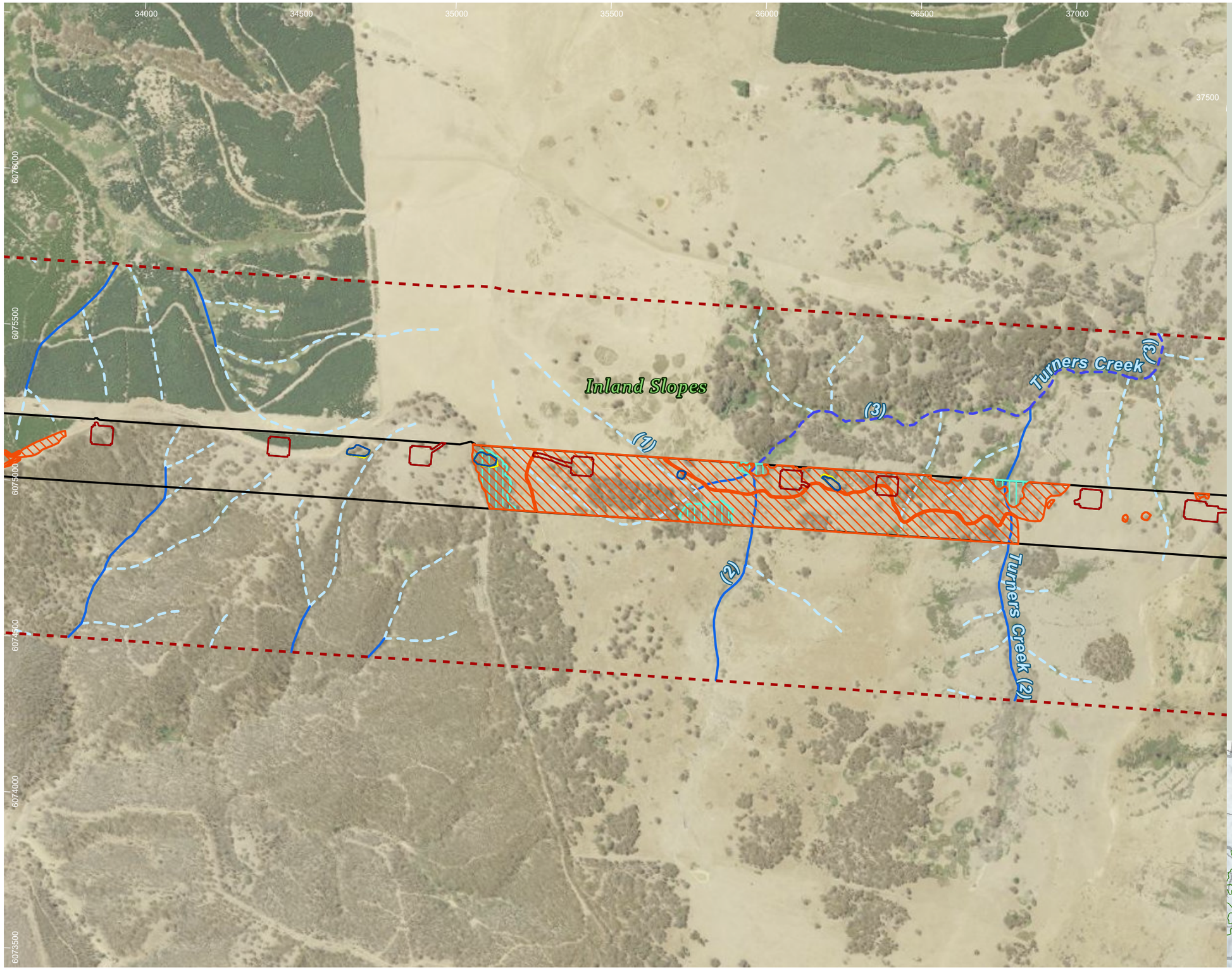


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

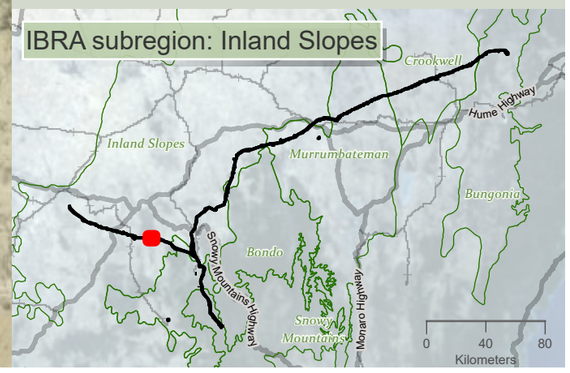
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus alligatrix subsp alligatrix
- Eucalyptus cannonii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 15

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37500
38000
38500
6076500
39000
39500
40000
40500
6076000
6075500
6075000
6074500
6074000
6073500

(1)
(2)
(3)
Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

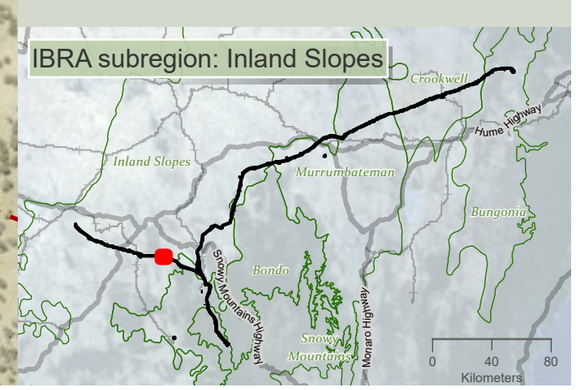
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus alligatrix subsp alligatrix
- Eucalyptus cannonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 16

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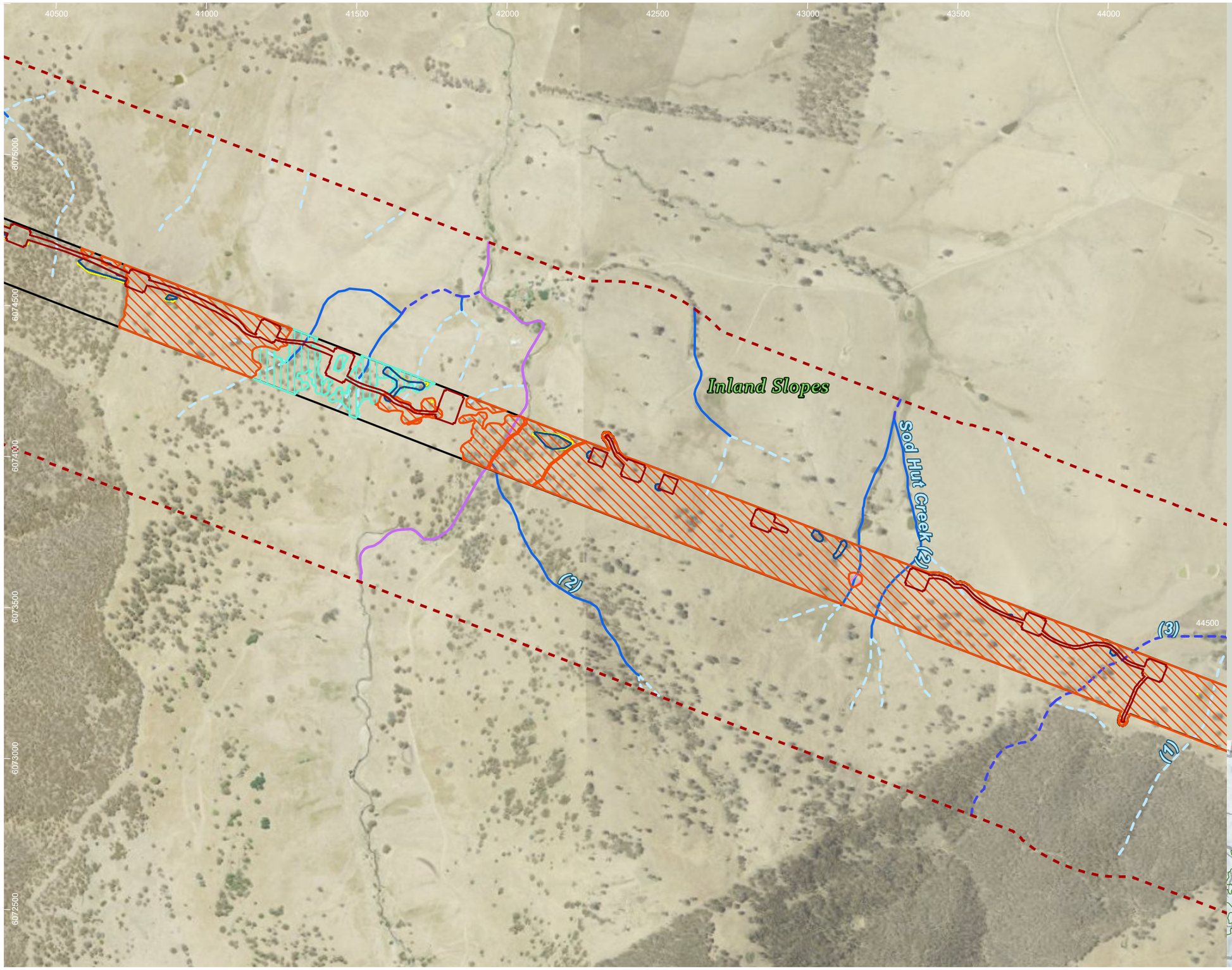


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

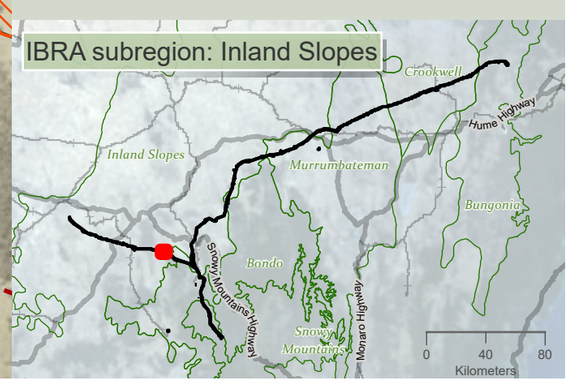
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus alligatrix subsp alligatrix
- Eucalyptus cannonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 17

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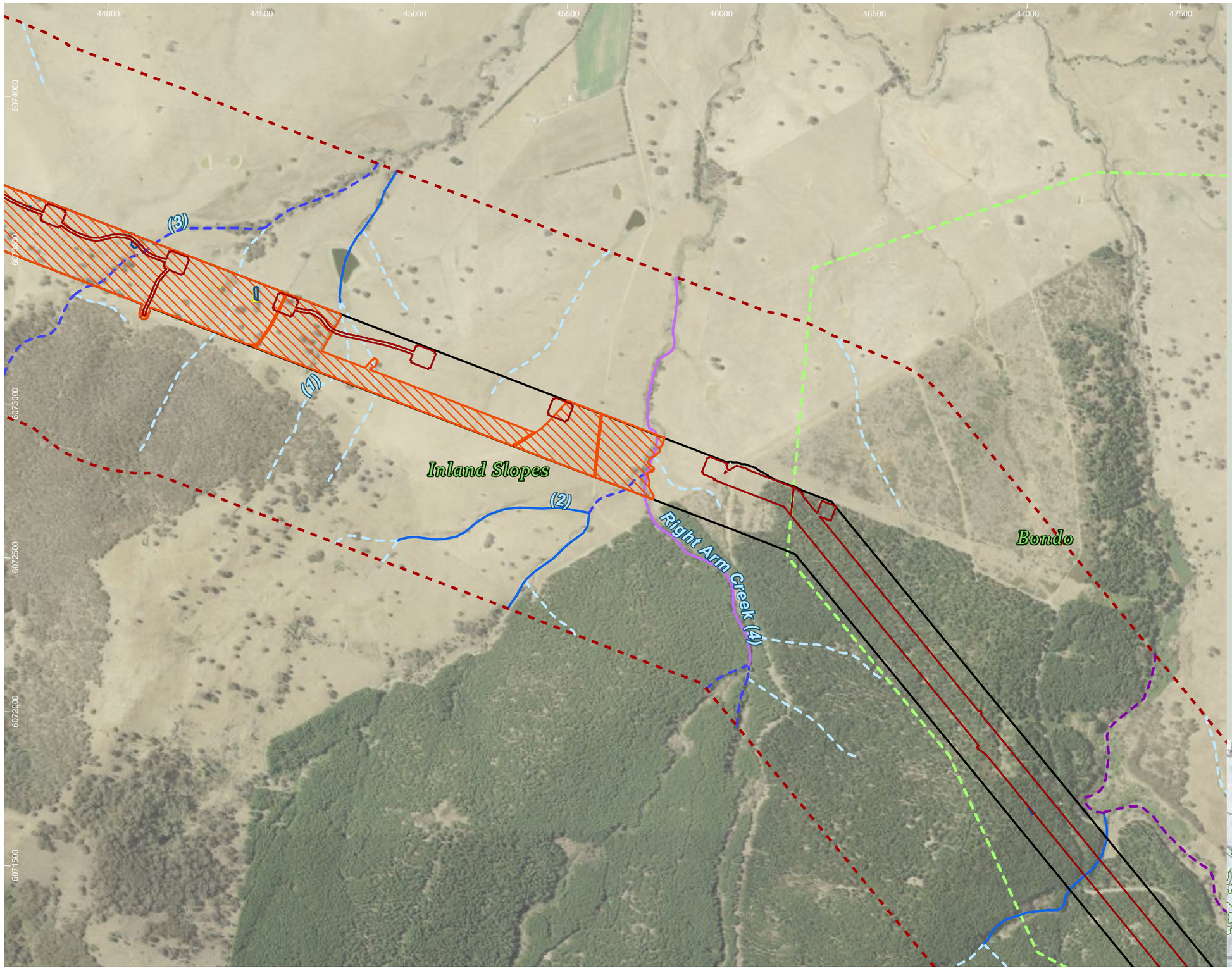


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

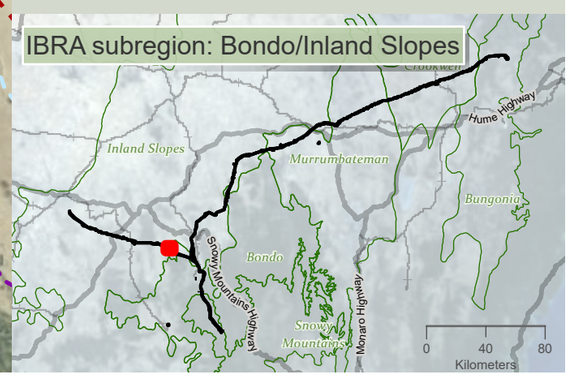
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- IBRA subregion

Tree species habitat

- Eucalyptus cannonii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 18

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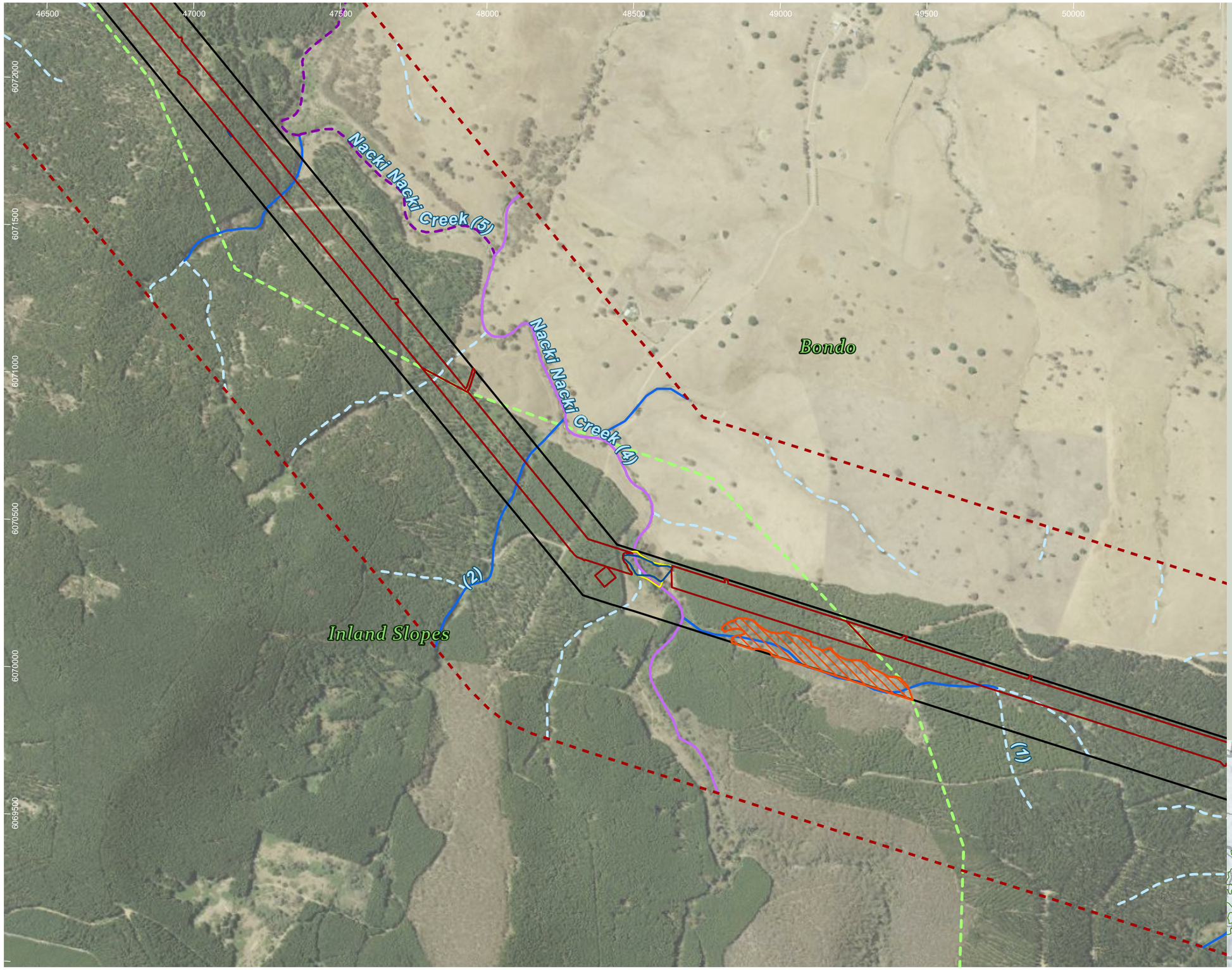


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

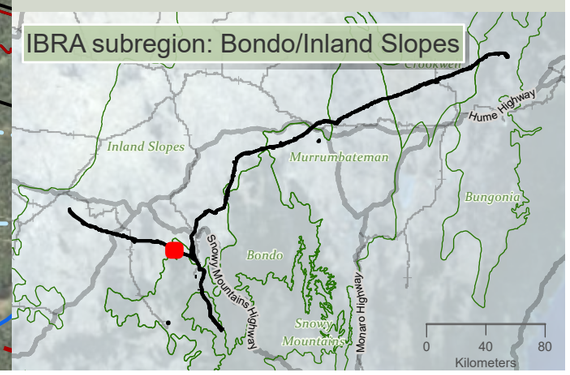
Strahler stream order

- 1
- 2
- 4
- 5

- IBRA subregion

Tree species habitat

- Eucalyptus cannonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 19

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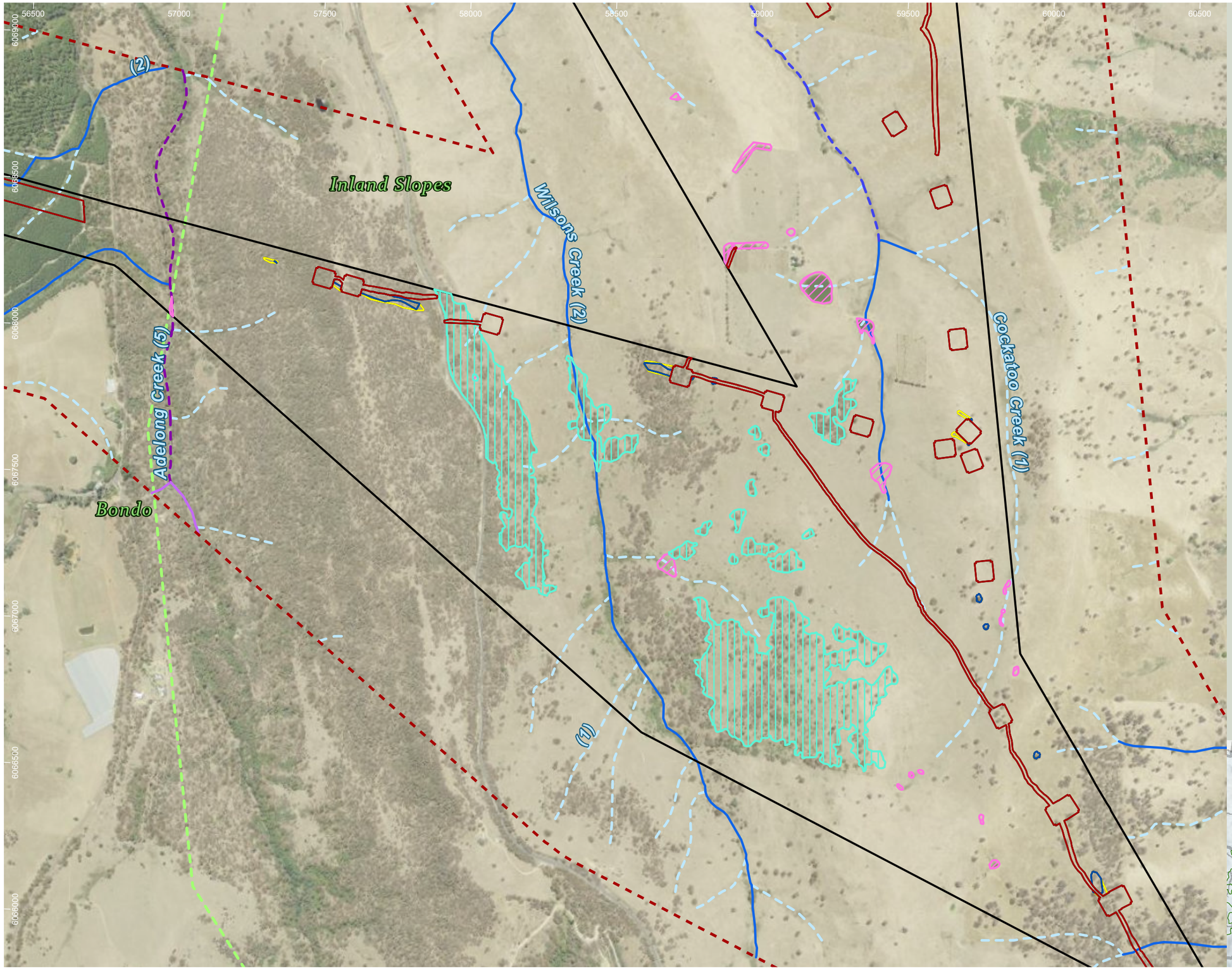


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

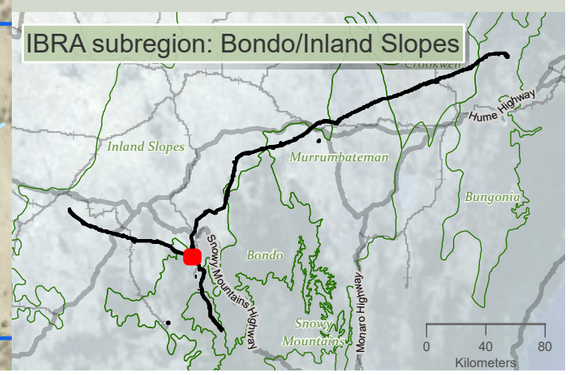
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus alligatrix subsp alligatrix



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 22

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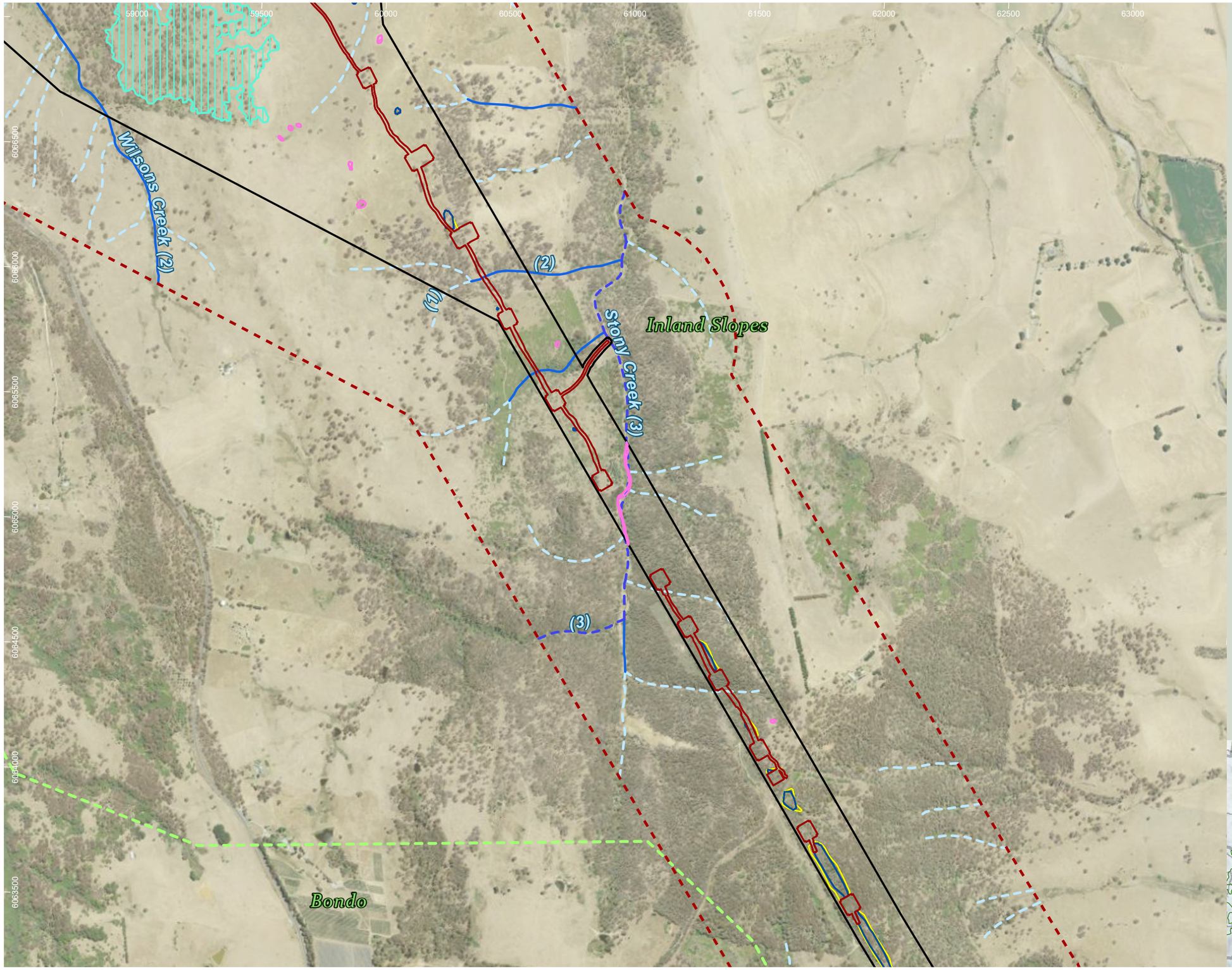


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

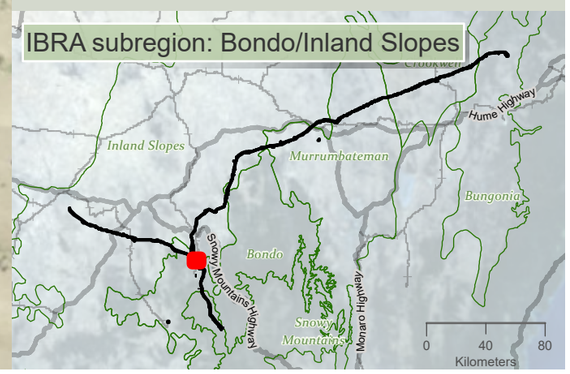
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus alligatrix subsp alligatrix



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niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 23

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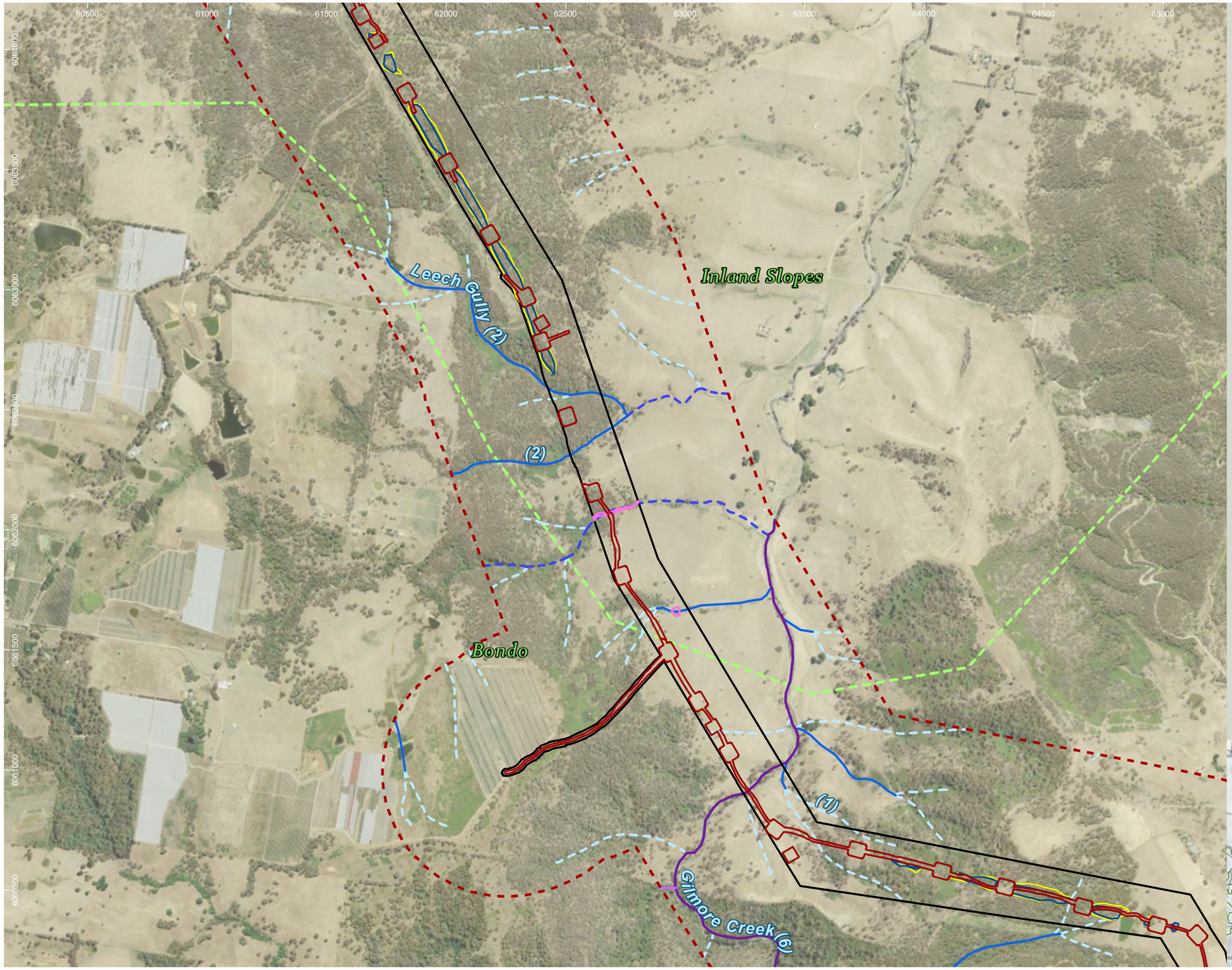


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

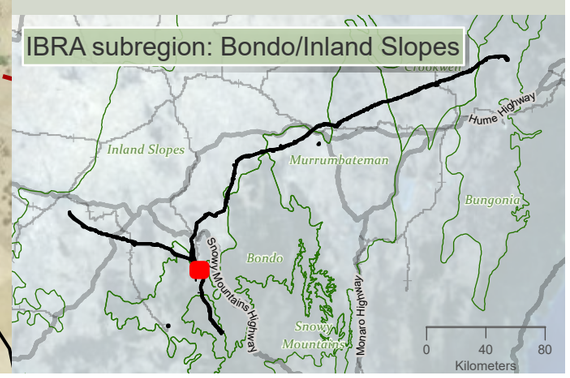
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 6
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 24

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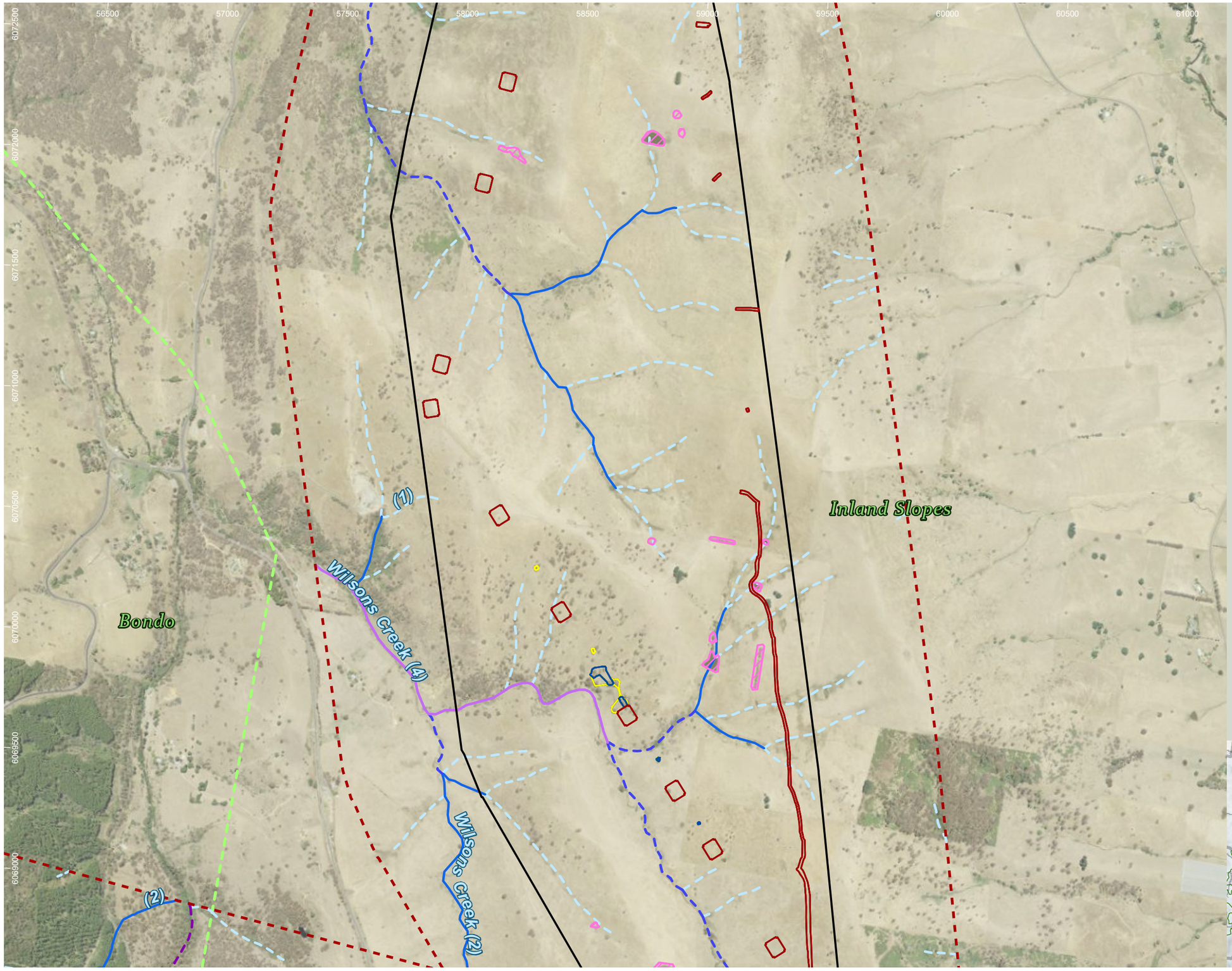


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

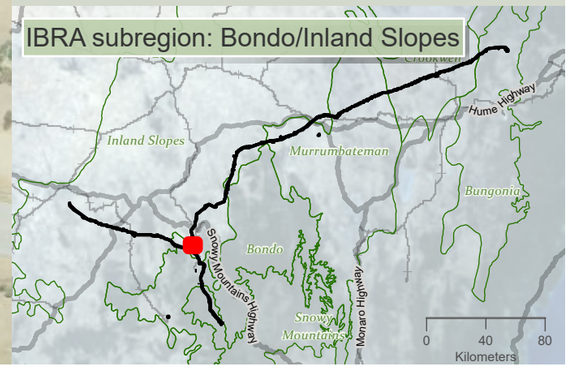
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 39

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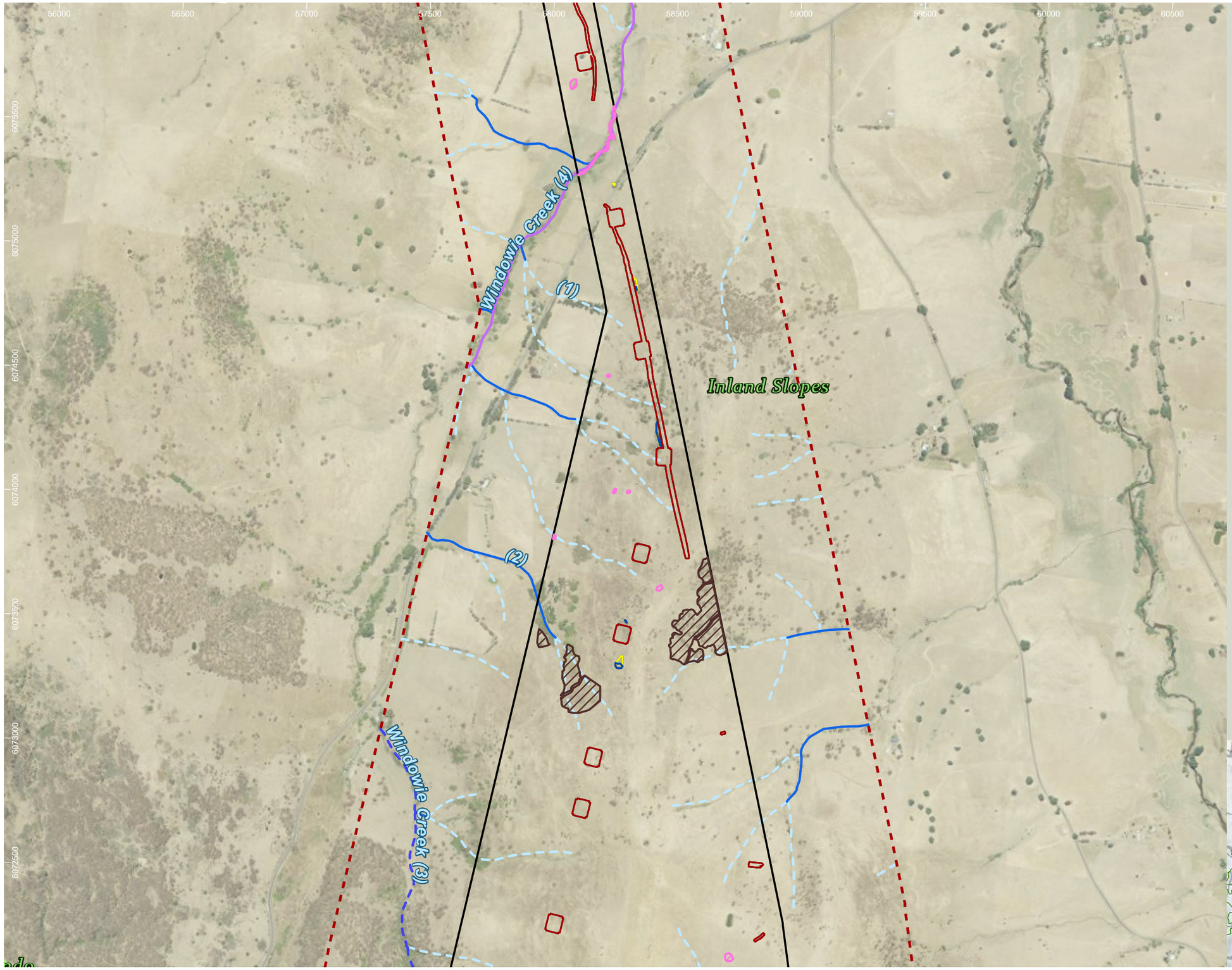


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

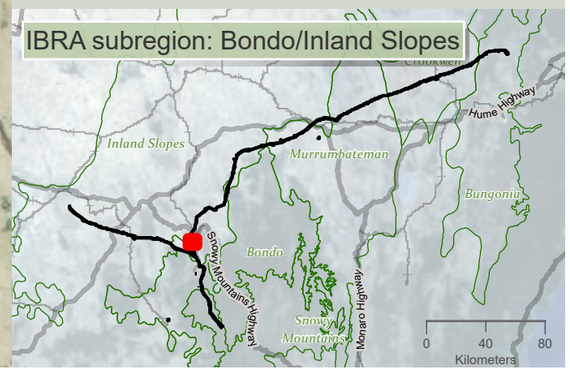
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus robertsonii subsp hemisphaerica



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 40

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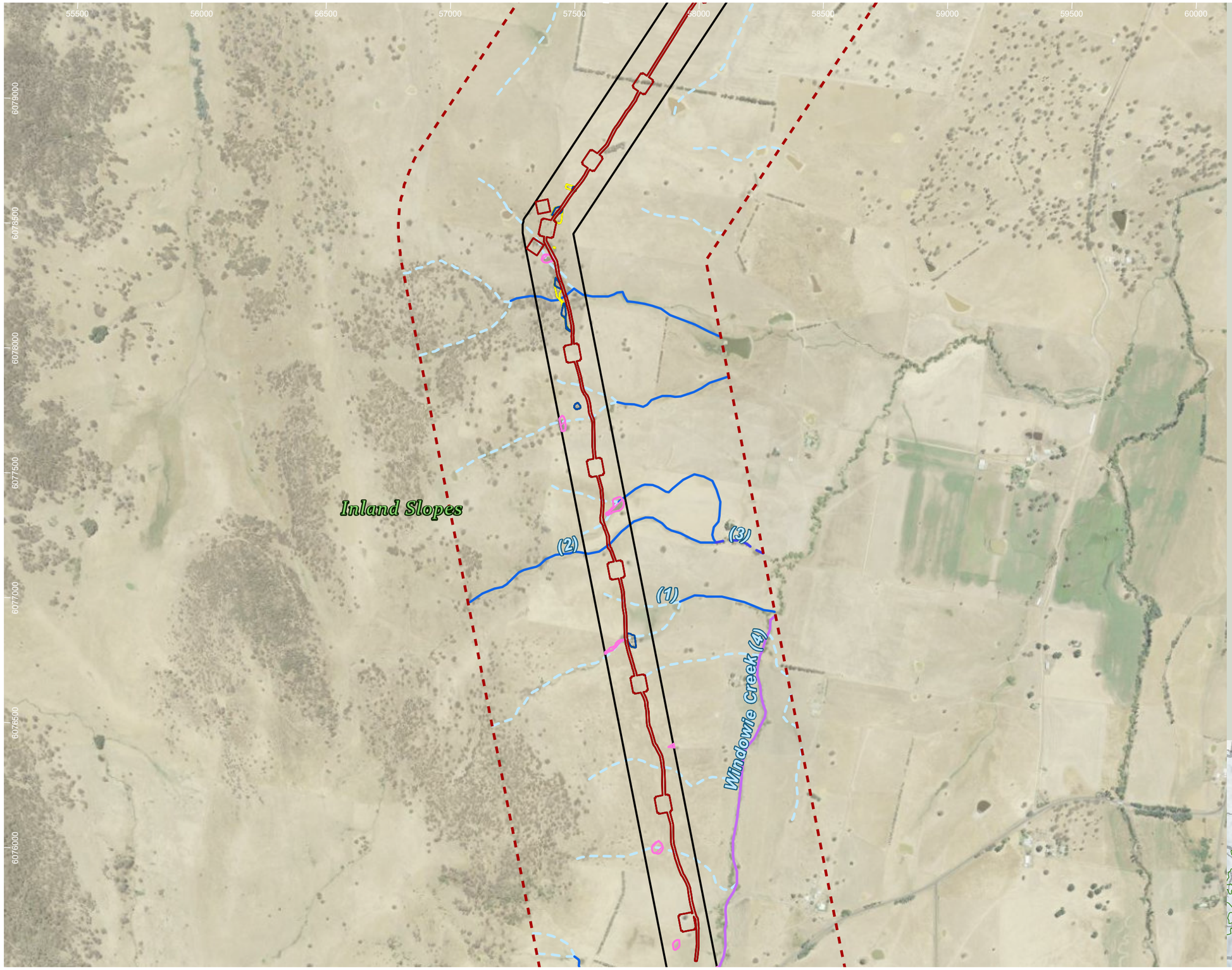


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

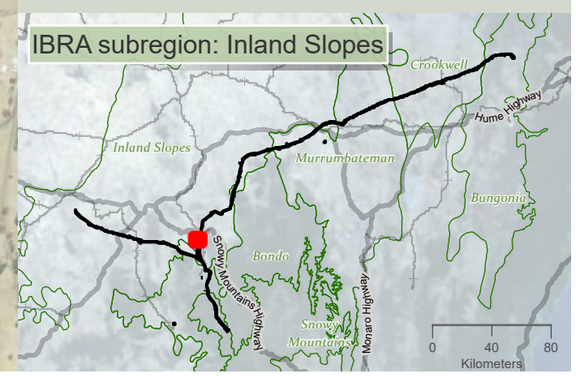
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 0
- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 41

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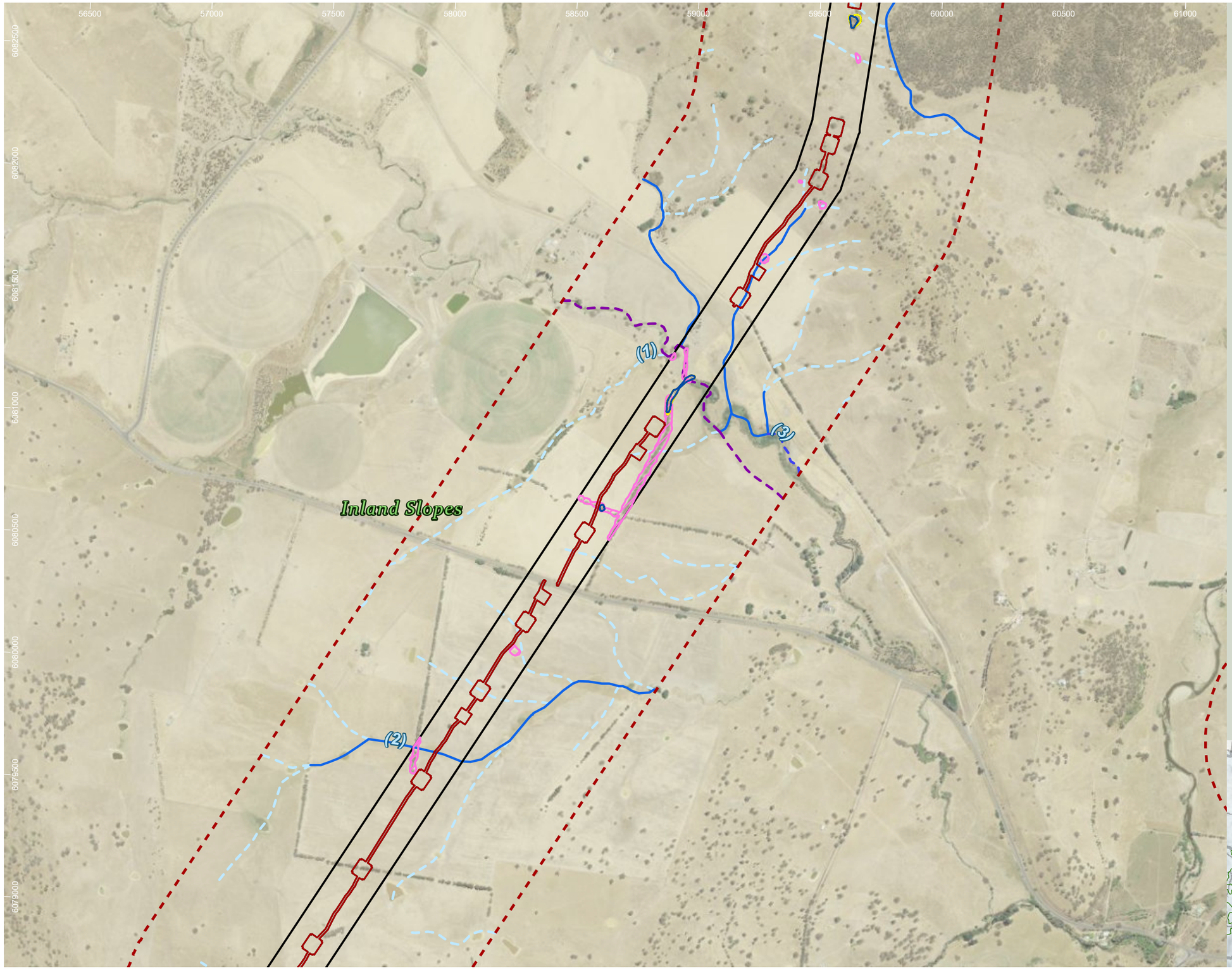


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

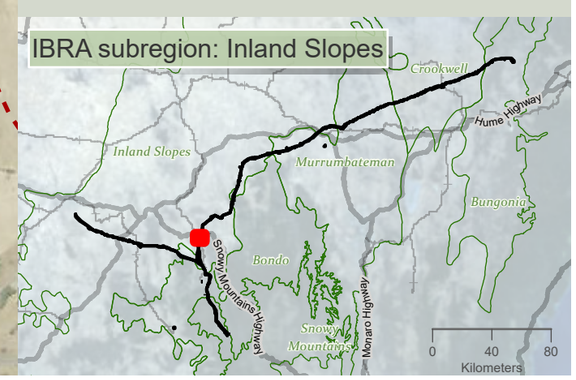
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDrive\Sync Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 42

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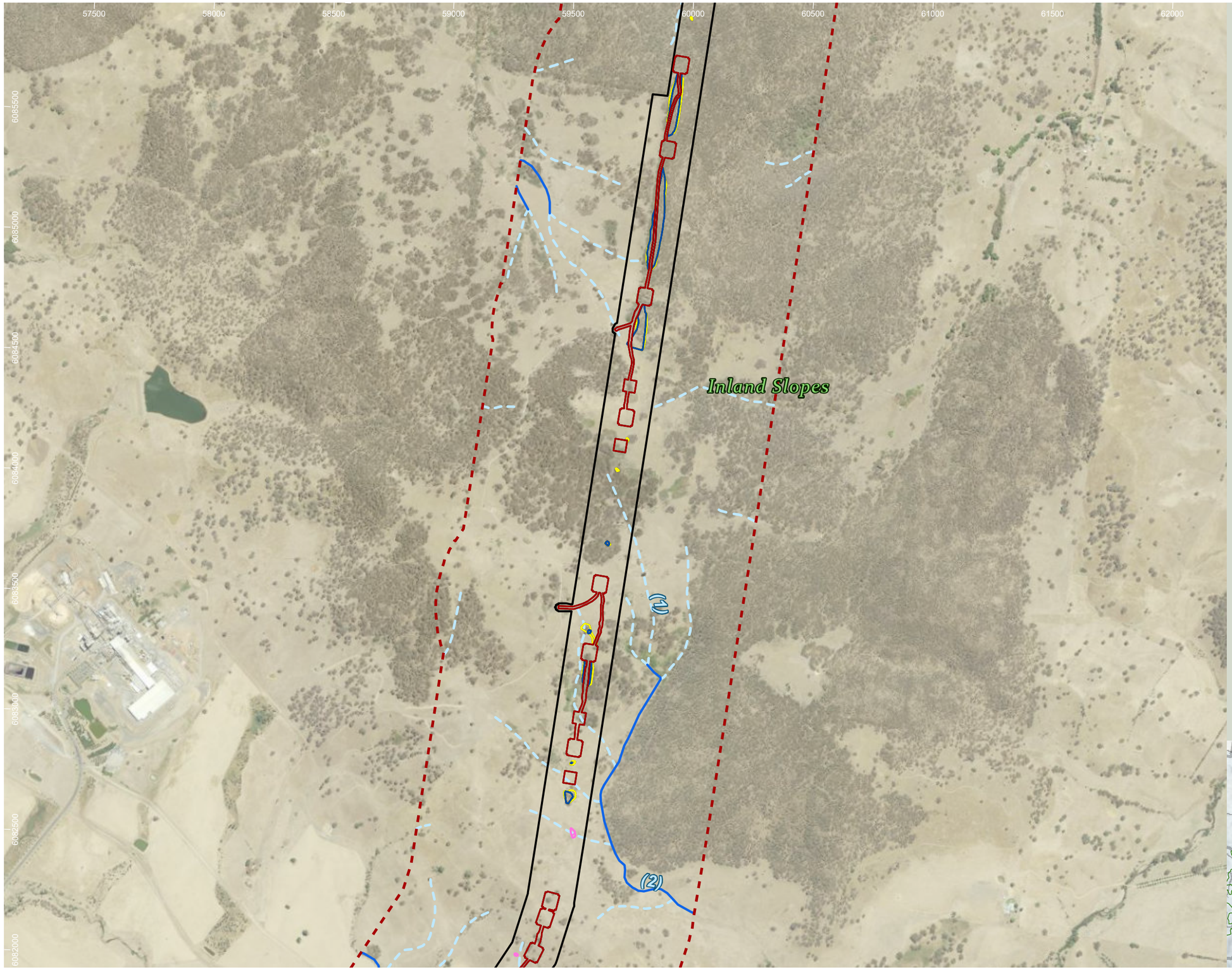


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

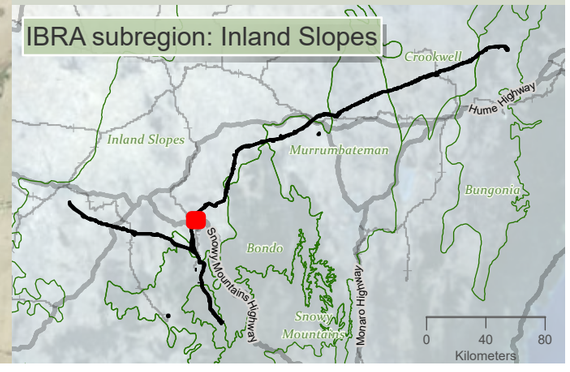
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 44

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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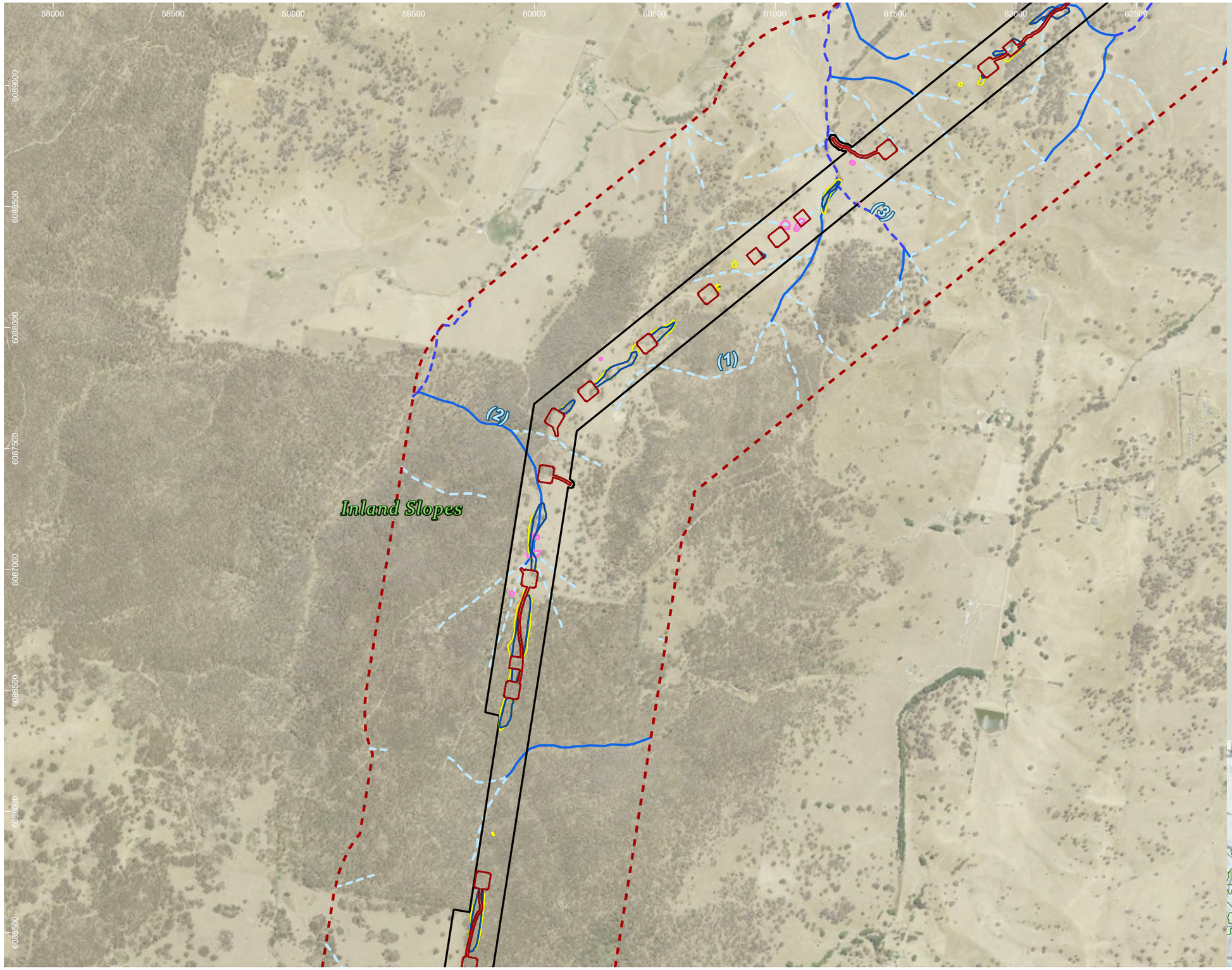


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

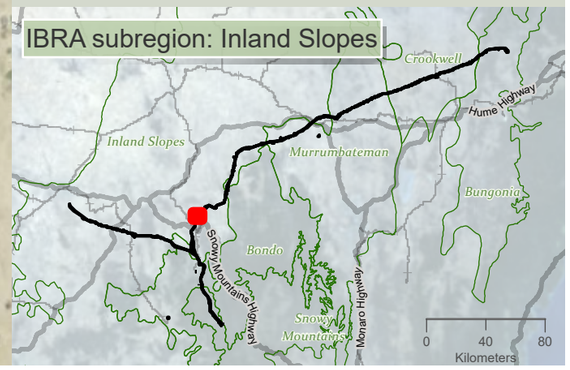
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 45

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61000 61500 62000 62500 63000 63500 64000 64500

6095000 6094000 6093000 6092000 6091000

Gocup Creek (4)

(1)

(3)

(2)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

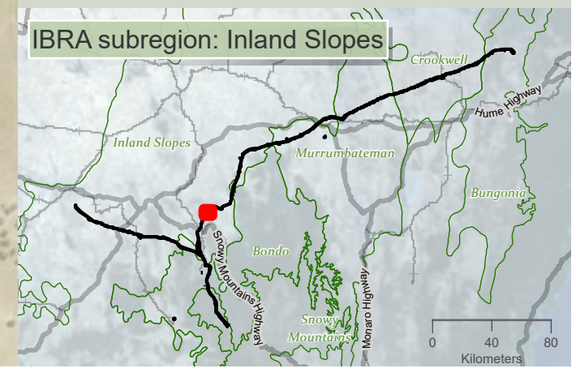
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 8

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 46

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63500 64000 64500 65000 65500 66000 66500 67000

6094000 6093500 6093000 6092500 6092000 6091500 6091000

(1) (2) (3) (4)

Inland Slopes

Tumut River (8)

Gocup Creek (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

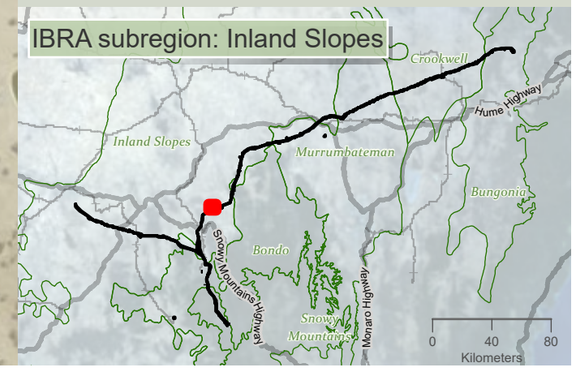
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5
- 8

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 47

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66500 67000 67500 68000 68500 69000 69500 70000

6094000 6093500 6093000 6092500 6092000 6091500

(1) (2) Inland Slopes Killimicat Creek (5)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

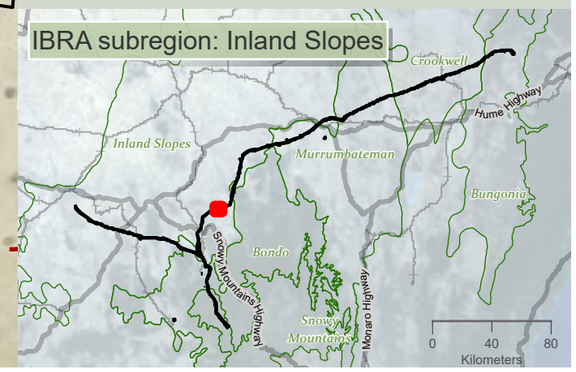
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 48

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70000 70500 71000 71500 72000 72500 73000 73500

6095000 6094500 6094000 6093500 6093000 6092500

Inland Slopes

Sawpit Gully (4)

Killimicat Creek (5)

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

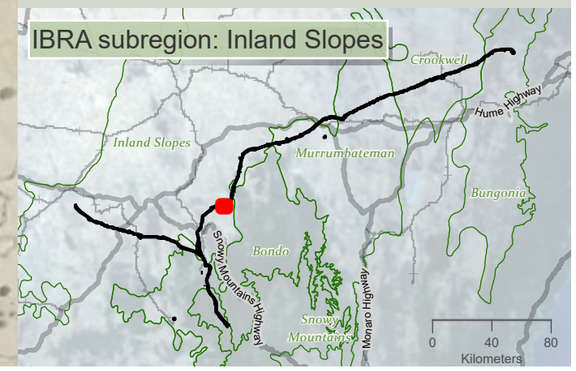
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 49

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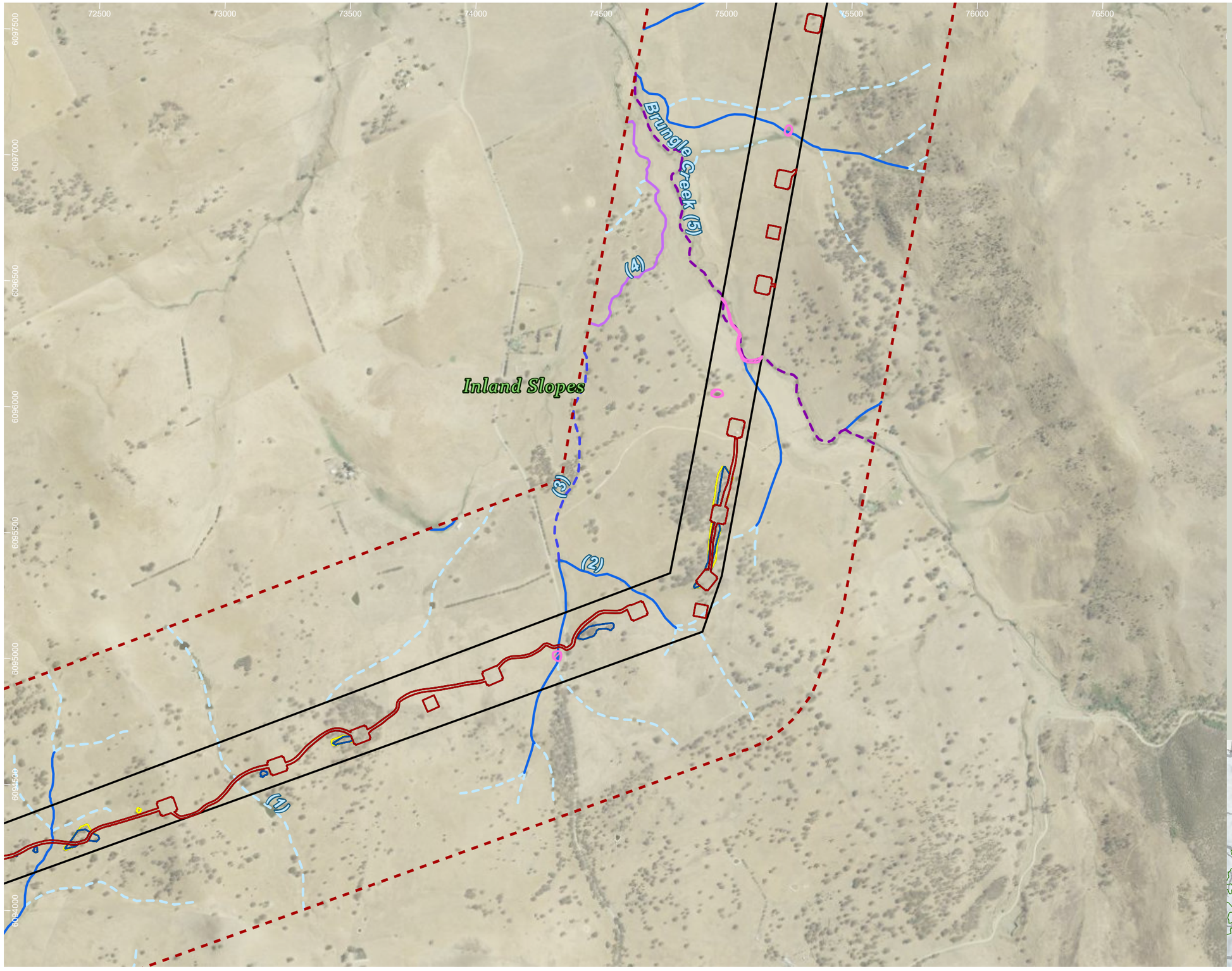


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

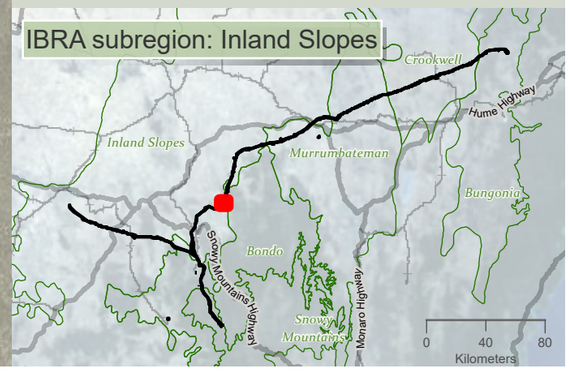
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT- BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 50

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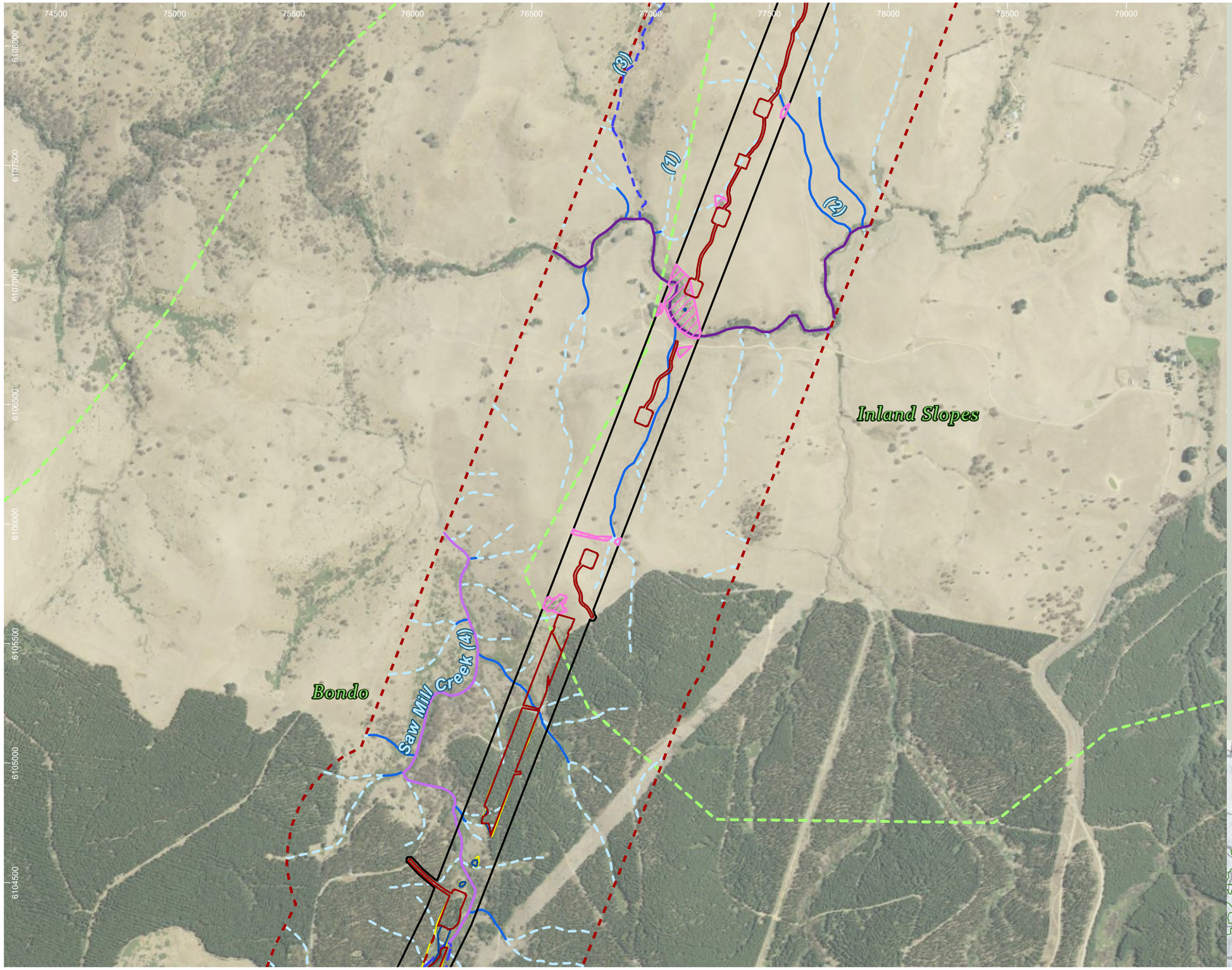


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

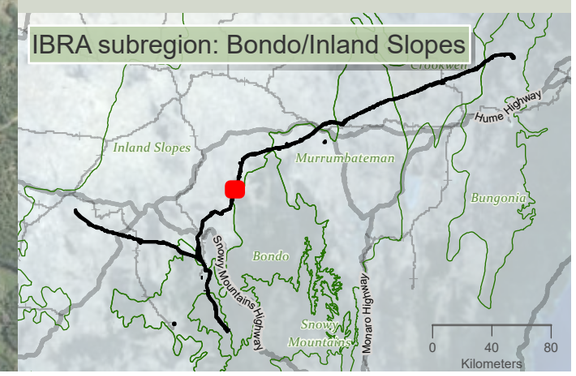
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 6
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 53

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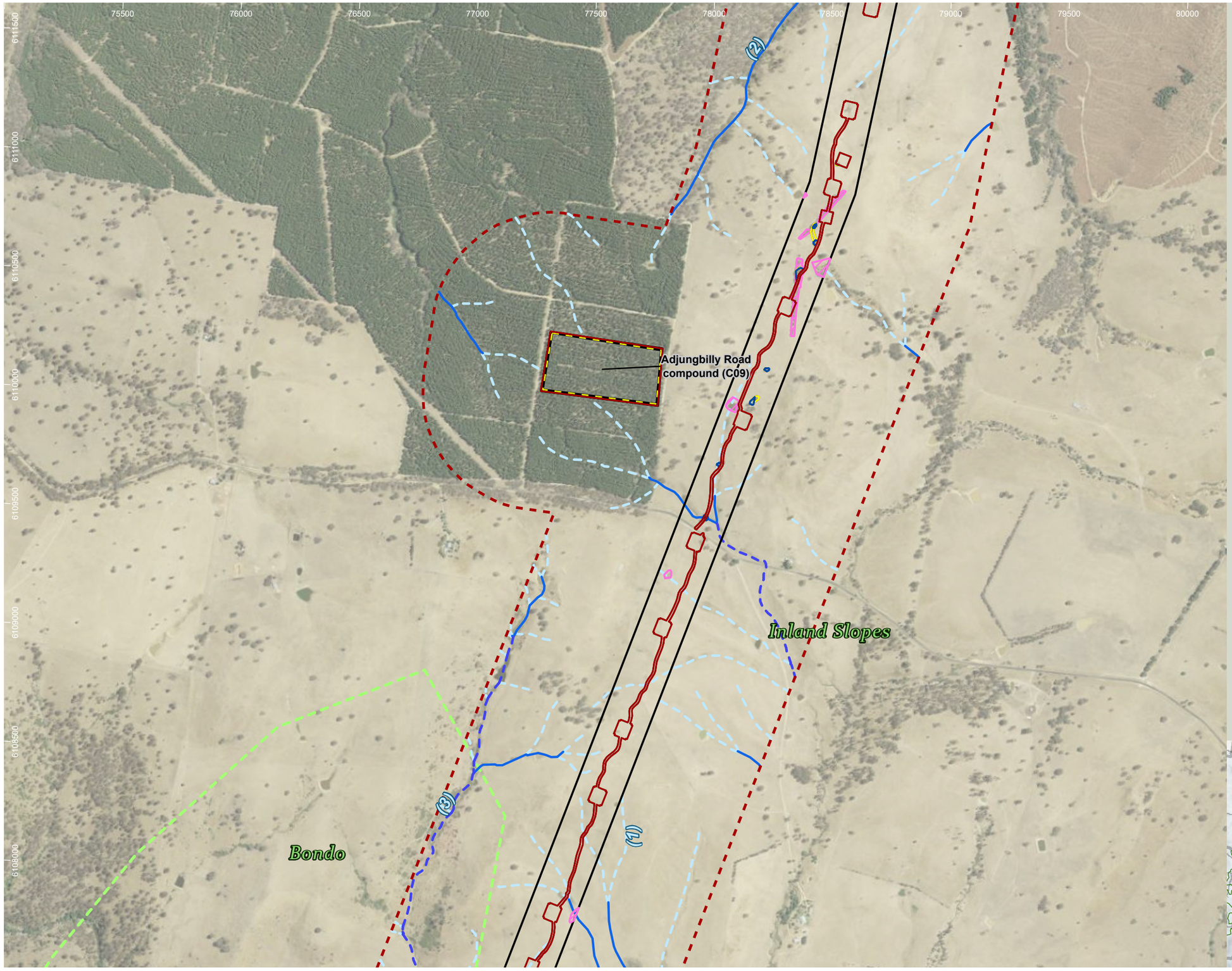


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

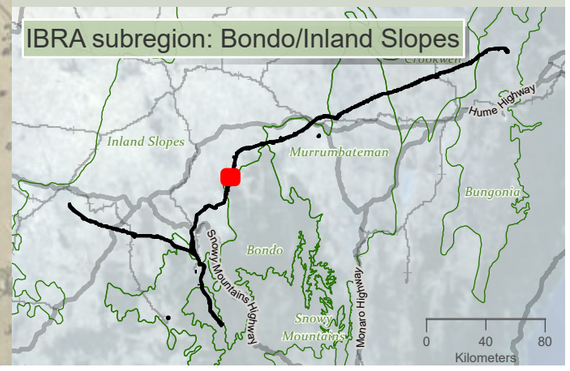
Strahler stream order

- 1
- 2
- 3

- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 54

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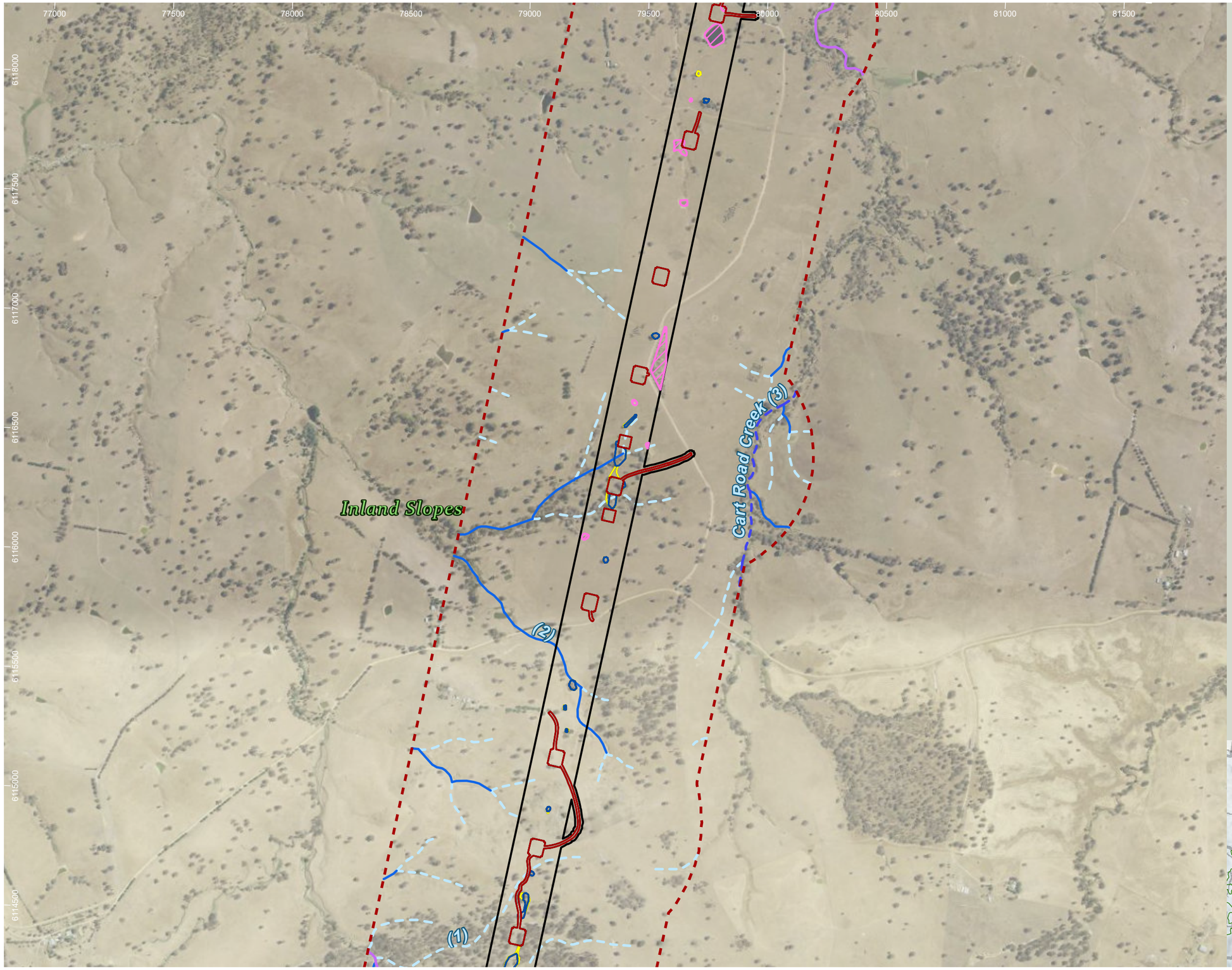


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

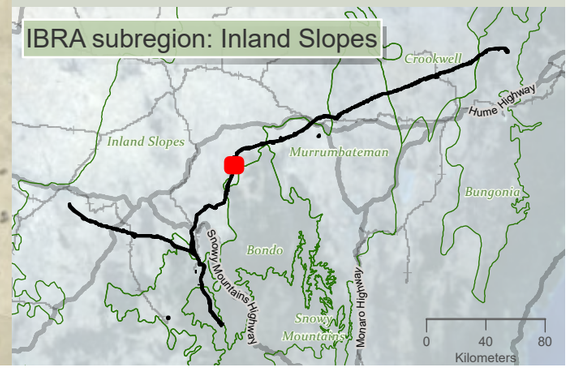
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 56

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77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

(1)

Oak Creek (5)

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

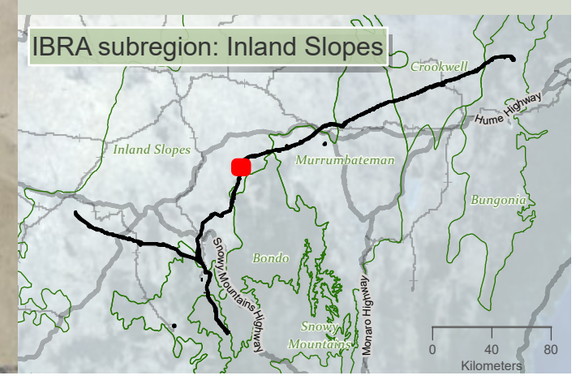
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 450
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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79000 79500 80000 80500 81000 81500 82000 82500 83000

6124500 6124000 6123500 6123000 6122500 6122000 6121500

Inland Slopes

(1)

(2)

Yellow Clay Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

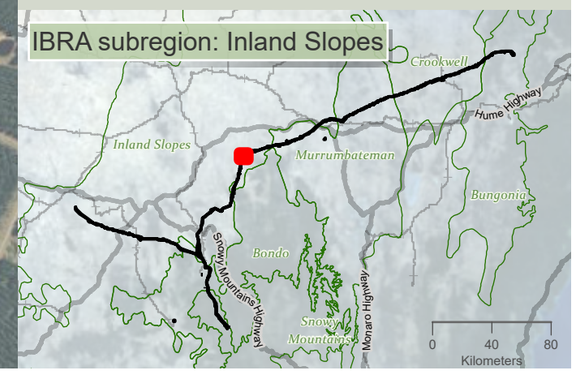
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 58

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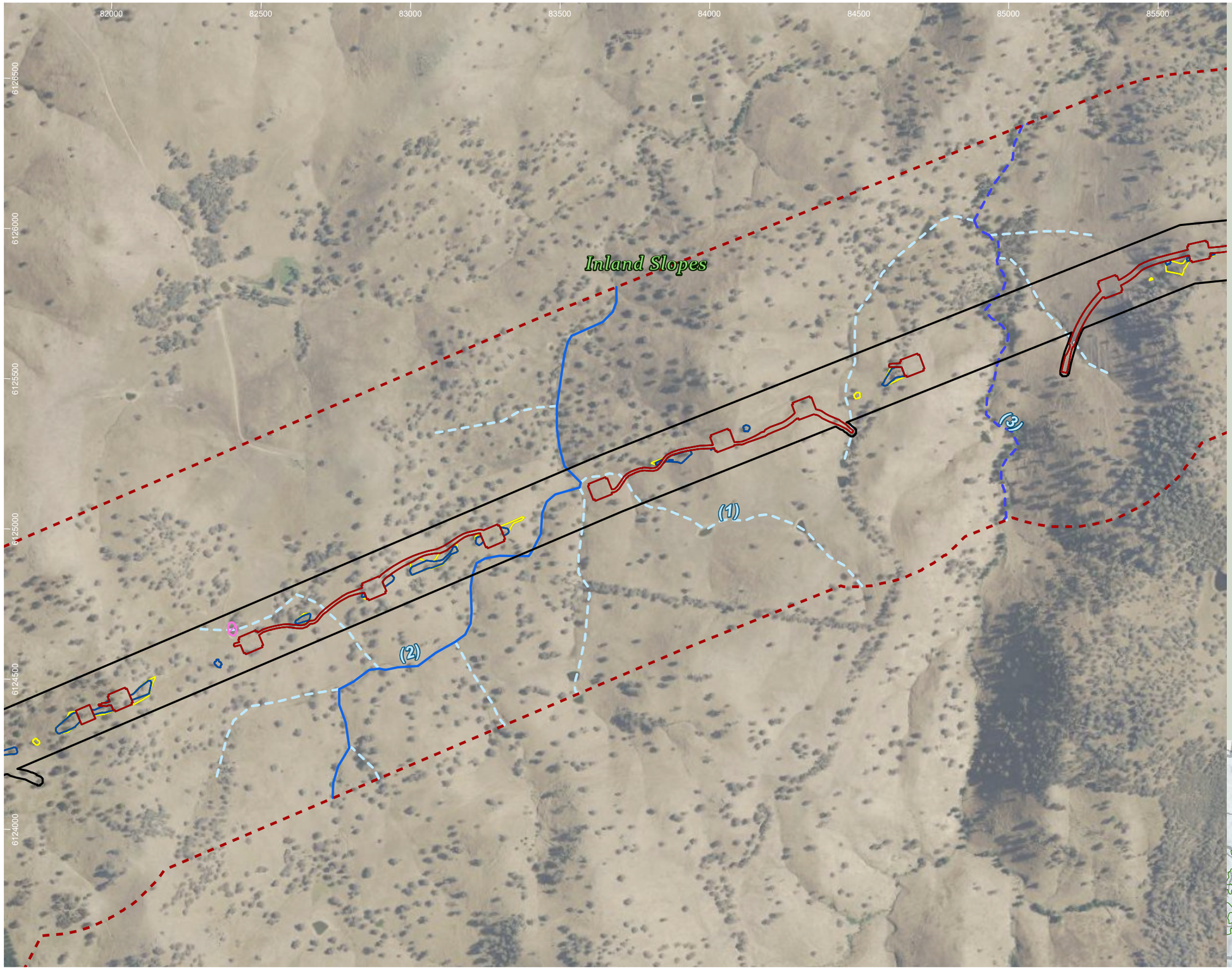


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

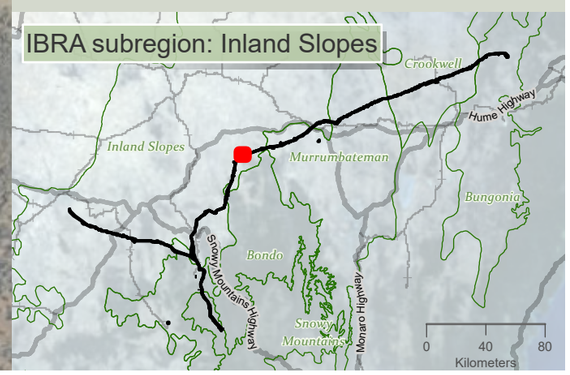
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 59

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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85500 86000 86500 87000 87500 88000 88500

6127500 6127000 6126500 6126000 6125500 6125000

Rocky Creek (2)

Inland Slopes

Dicks Gully (2)

(1) (2) (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

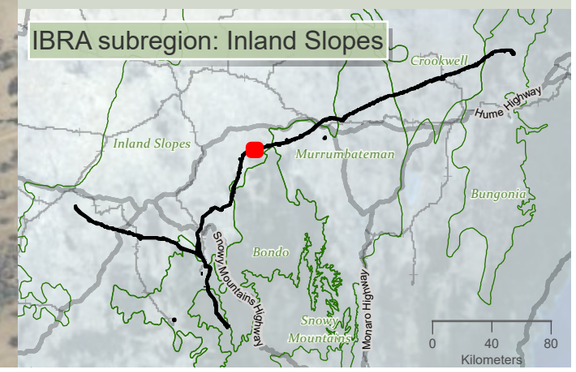
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 60

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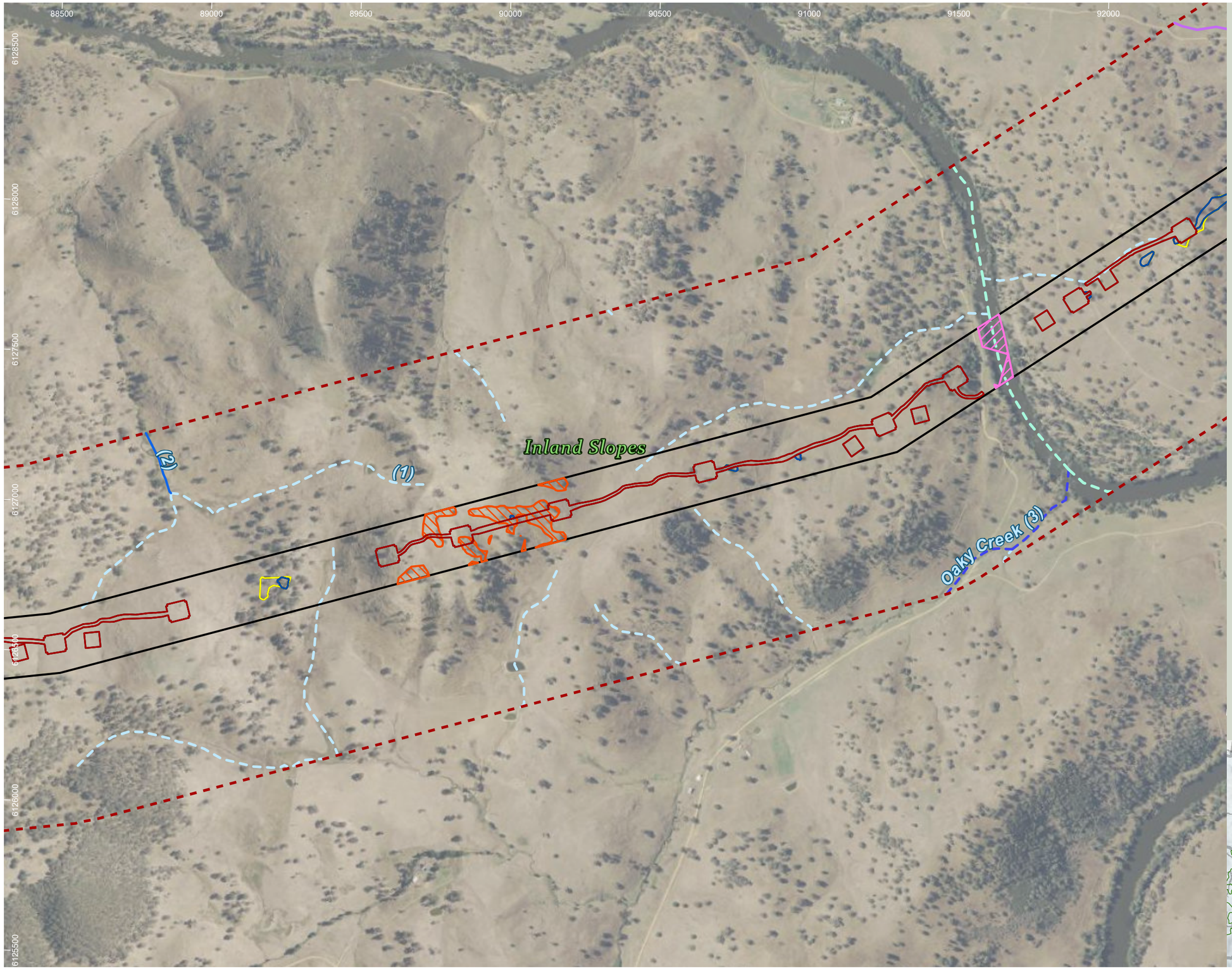


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

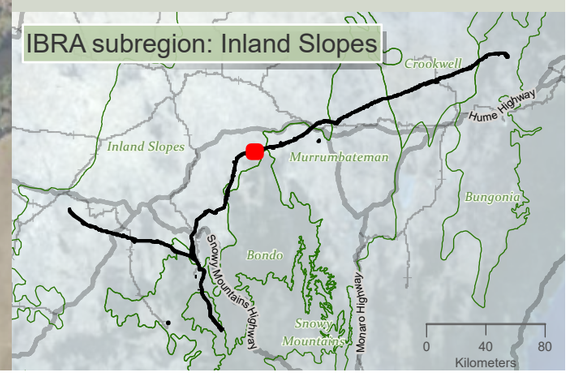
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 9

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus cannonii



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 61

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92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500 6127000

Oak Creek (4)

Murrumbidgee River (9)

(1)

(2)

Inland Slopes

Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

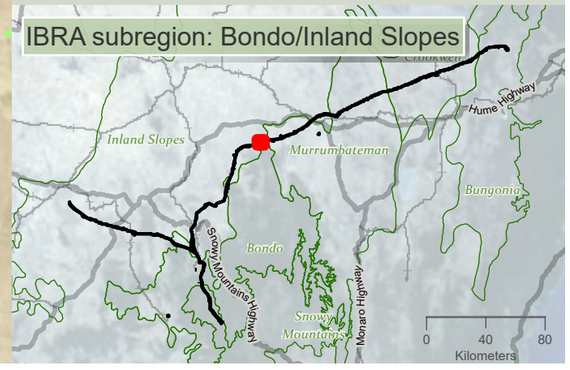
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 9
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 62

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95000 95500 96000 96500 97000 97500 98000 98500

6131000 6130500 6130000 6129500 6129000 6128500 6128000

Oak Creek (1)

Jugiong Creek (4)

(1) (2) (3)

Oak Creek (4)

Inland Slopes

Murrumbateman

Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

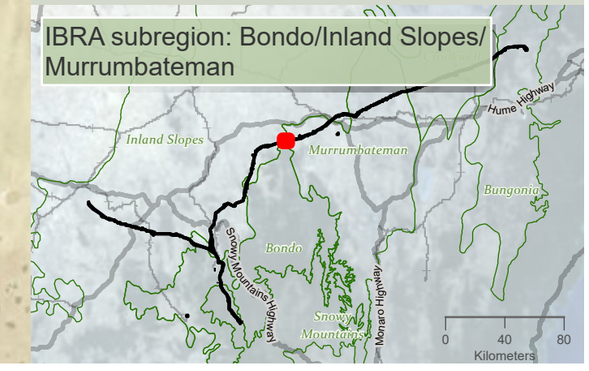
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 63

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98500 99000 99500 100000 100500 101000 101500 102000

6131000 6130500 6130000 6129500 6129000 6128500

(1)

(2)

Jugiong Creek (4)

Murrumbateman

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

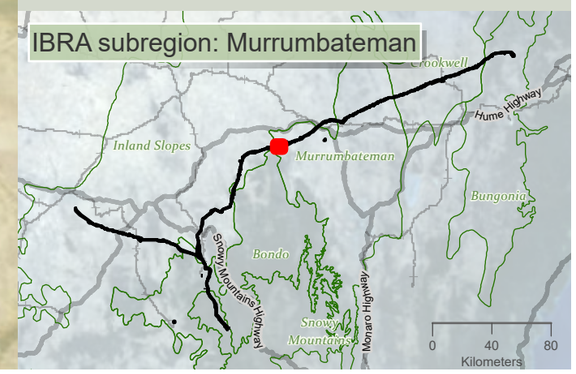
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 64

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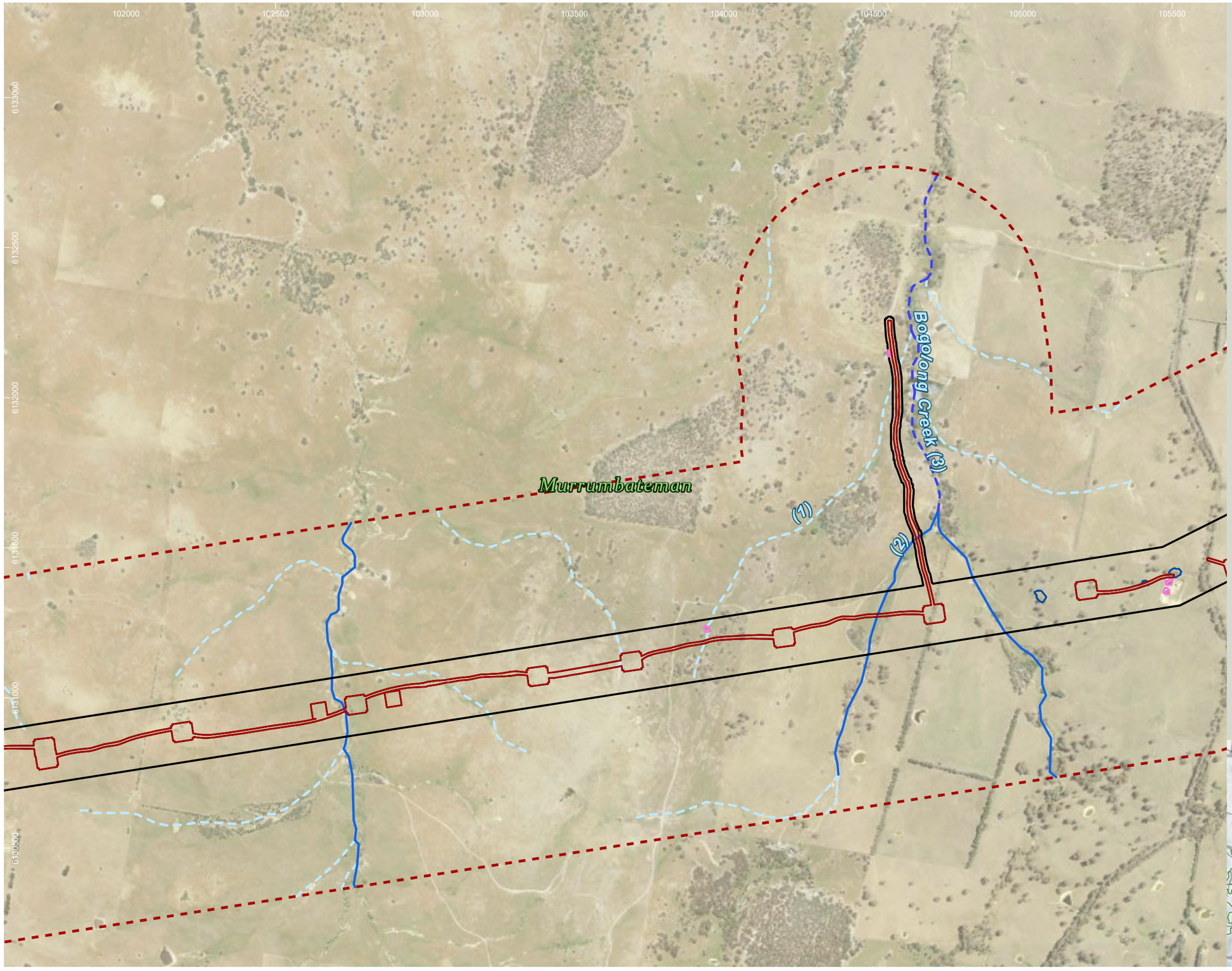


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

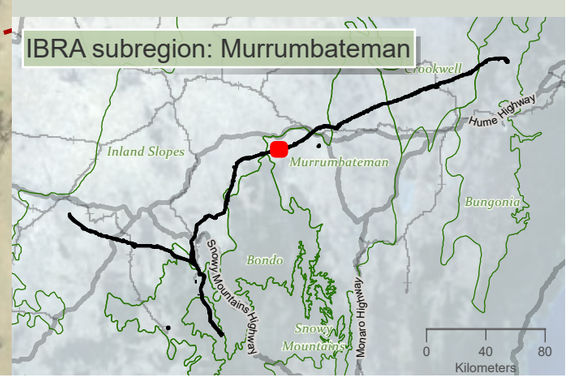
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 65

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105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Murrumbateman

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

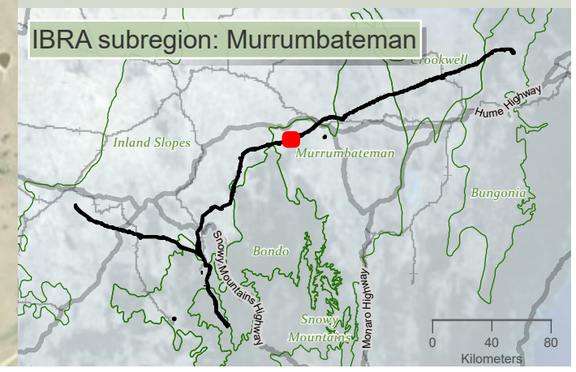
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 66

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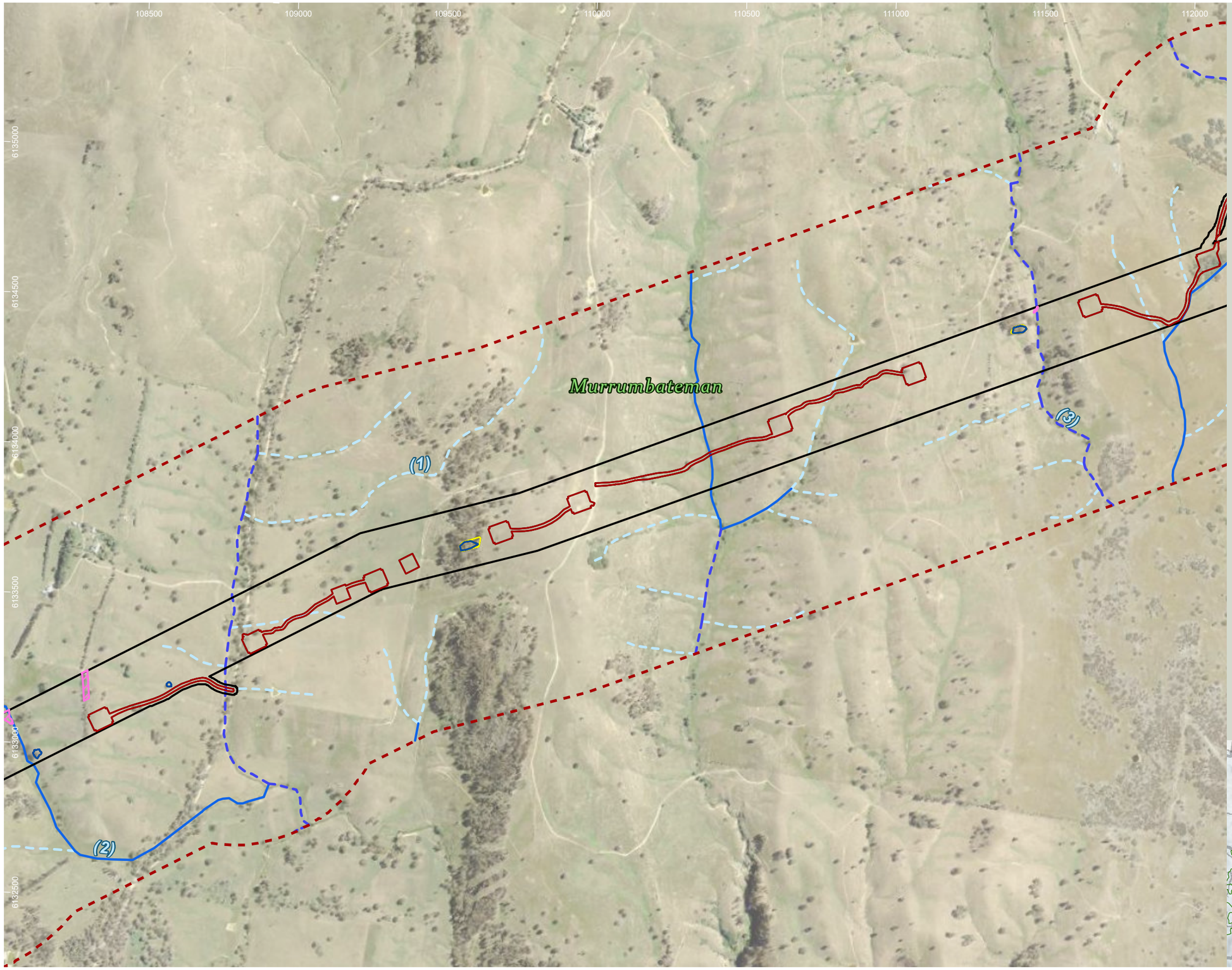


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

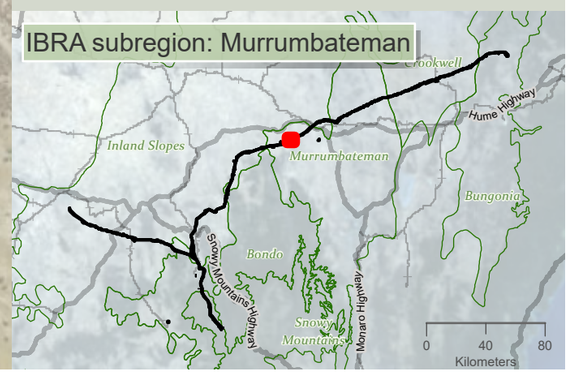
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 67

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111500 112000 112500 113000 113500 114000 114500 115000

6136500 6136000 6135500 6135000 6134500 6134000

Murrumbateman

Mccullums Creek (3)

(1)

(2)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

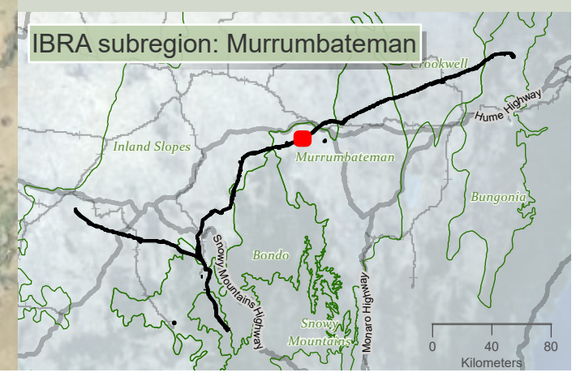
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 68

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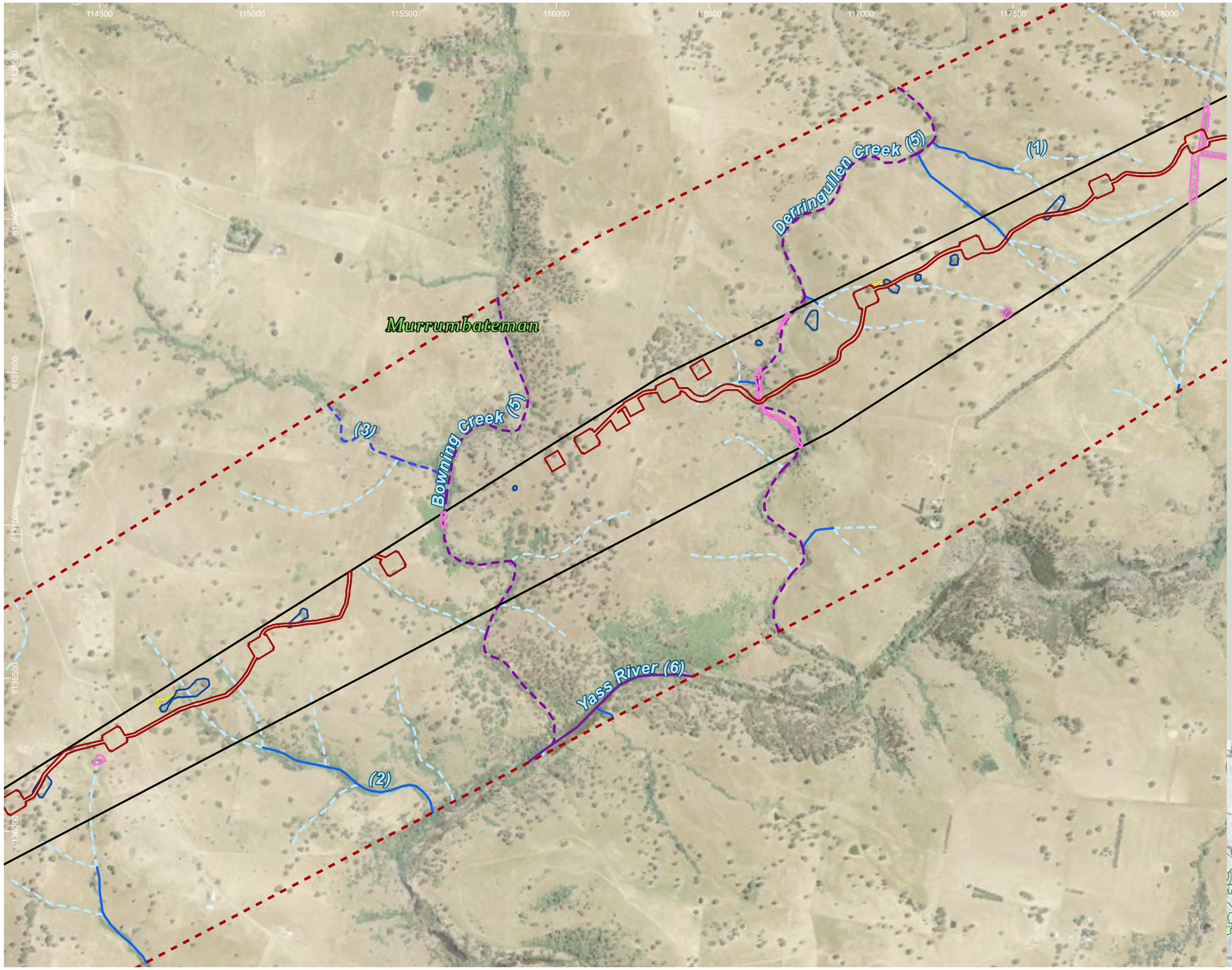


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

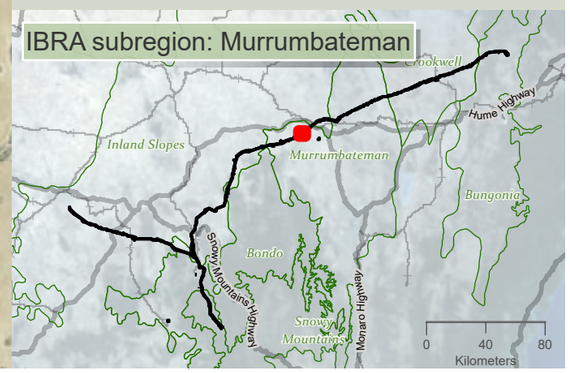
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5
- 6

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche9699 - Confidential Impact assessment SEC-EXT - BDAR_v2\a9699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 69

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

117000 117500 118000 118500 119000 119500 120000 120500 121000

6140500 6140000 6139500 6139000 6138500 6138000 6137500

(1) (2) (3)

Murrumbateman

Derringullen Creek

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

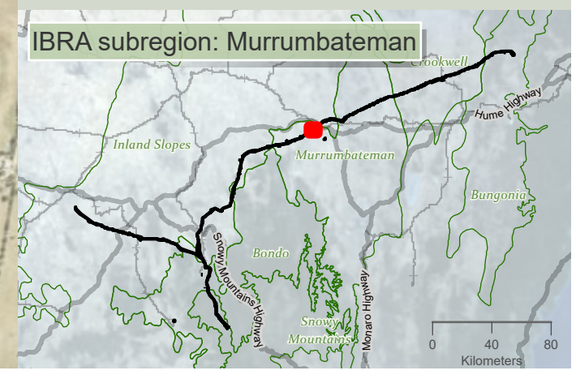
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 70

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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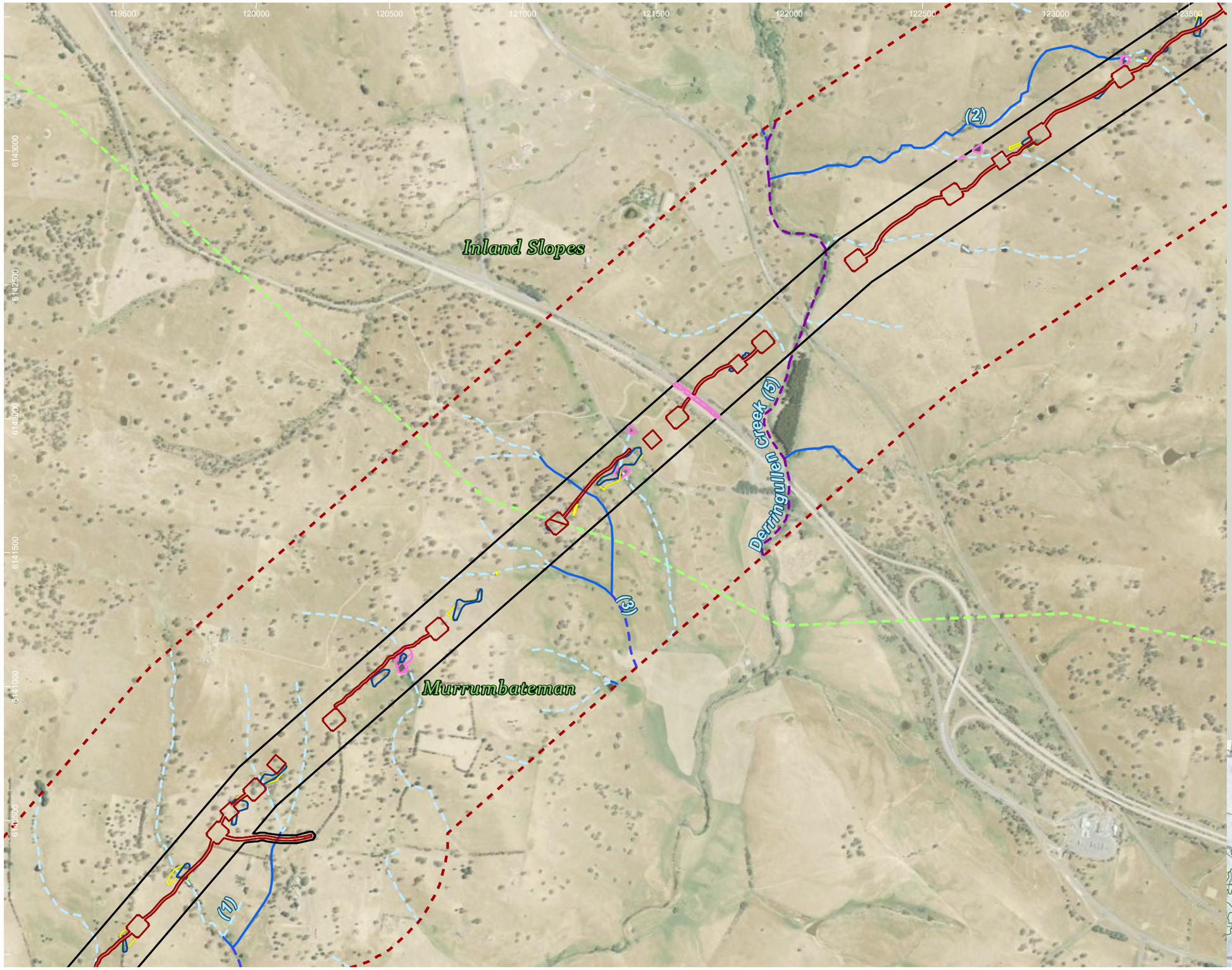


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

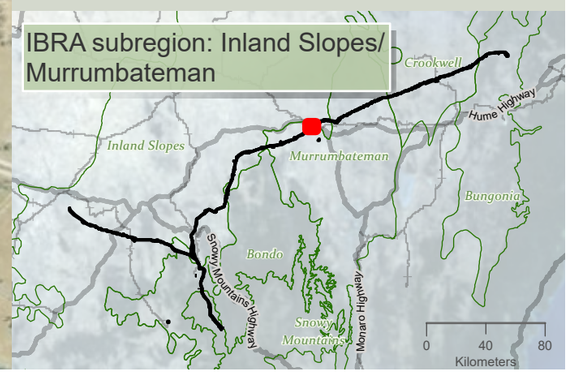
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 71

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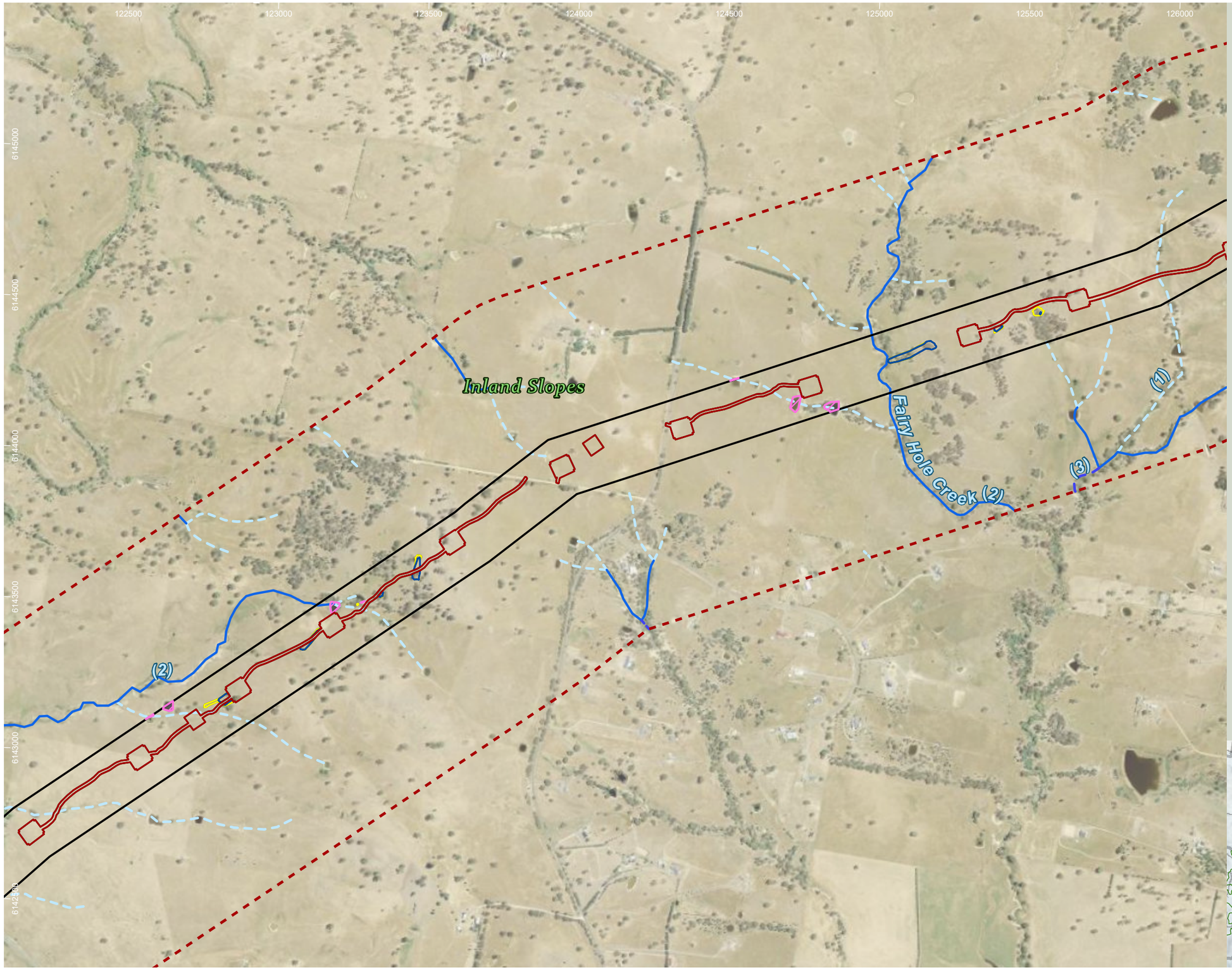


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

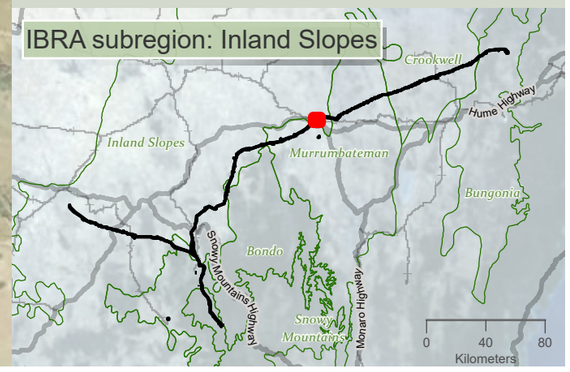
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 73

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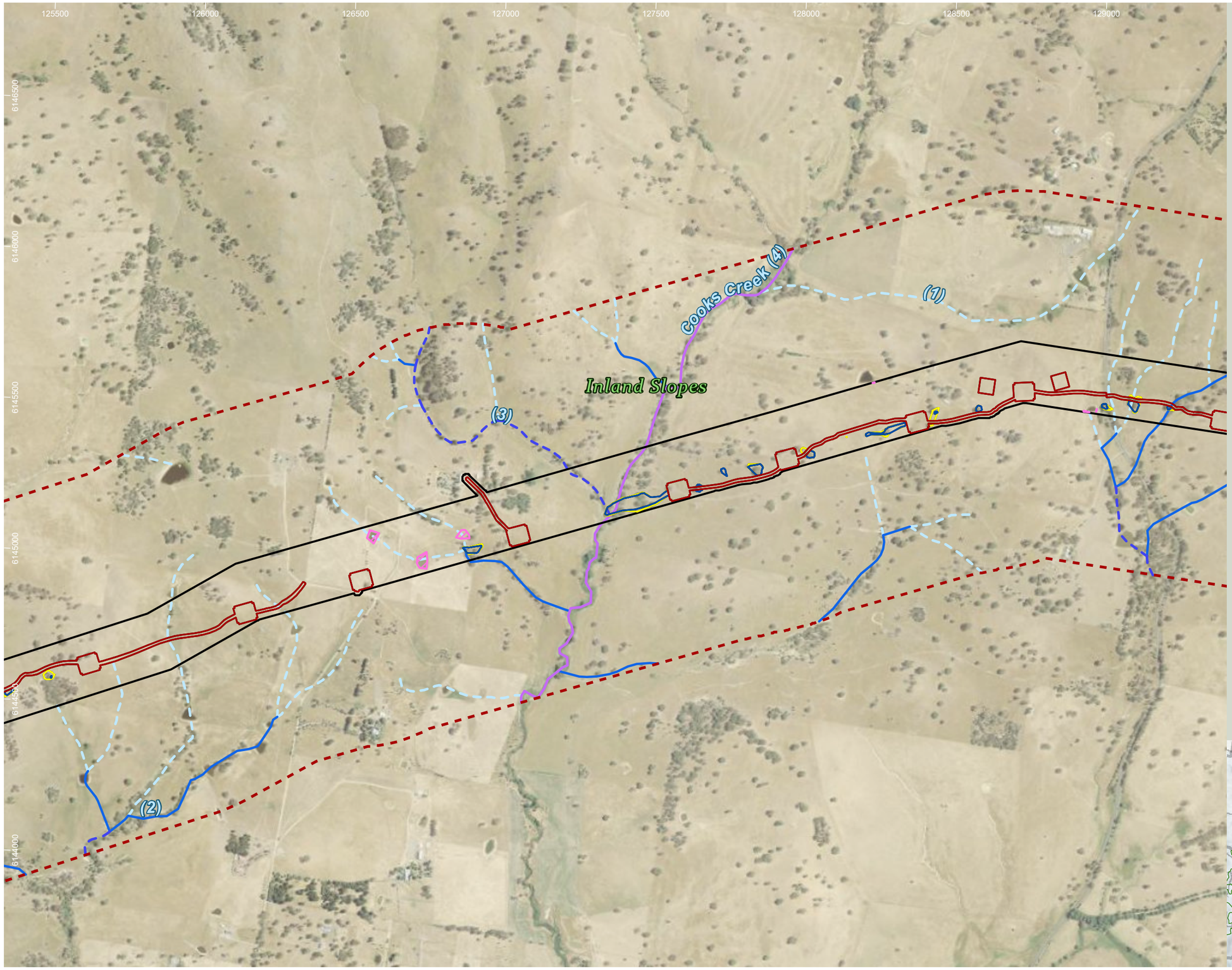


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

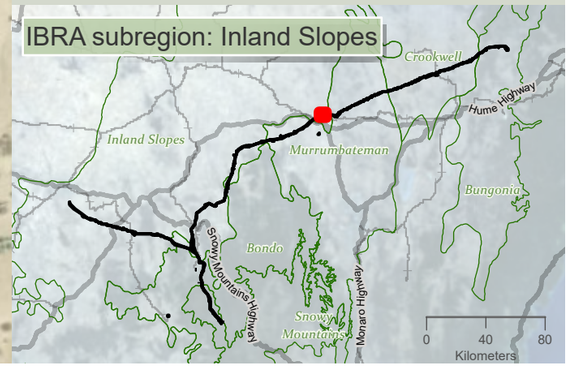
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 74

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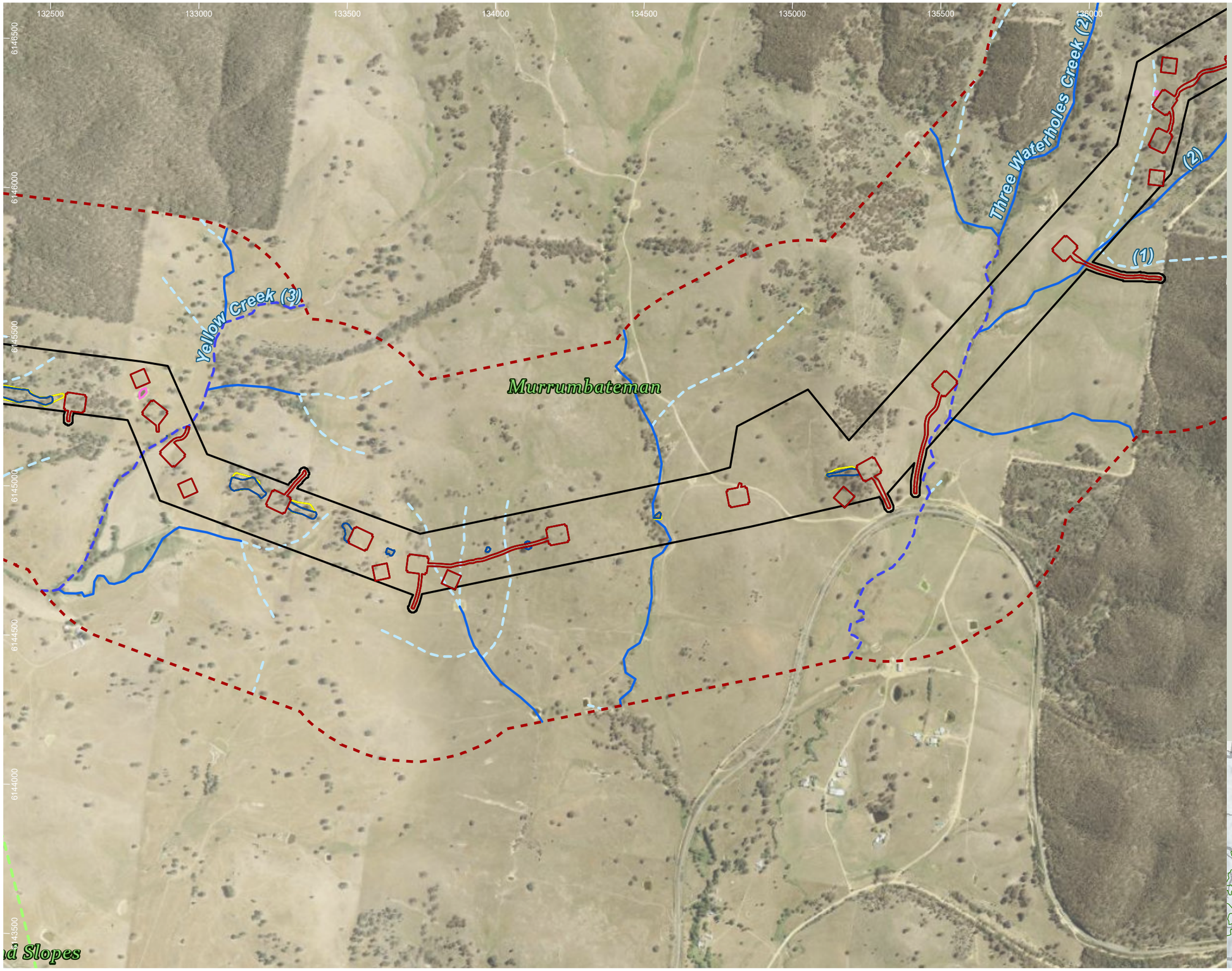


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

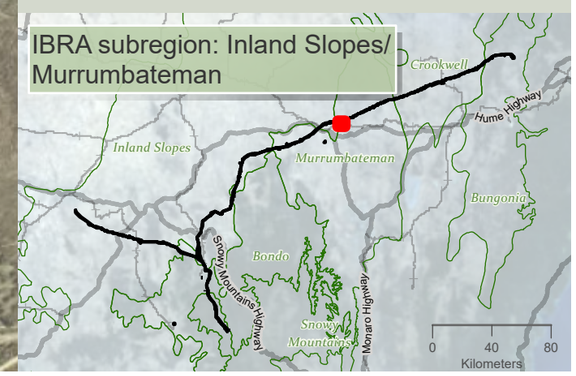
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 76

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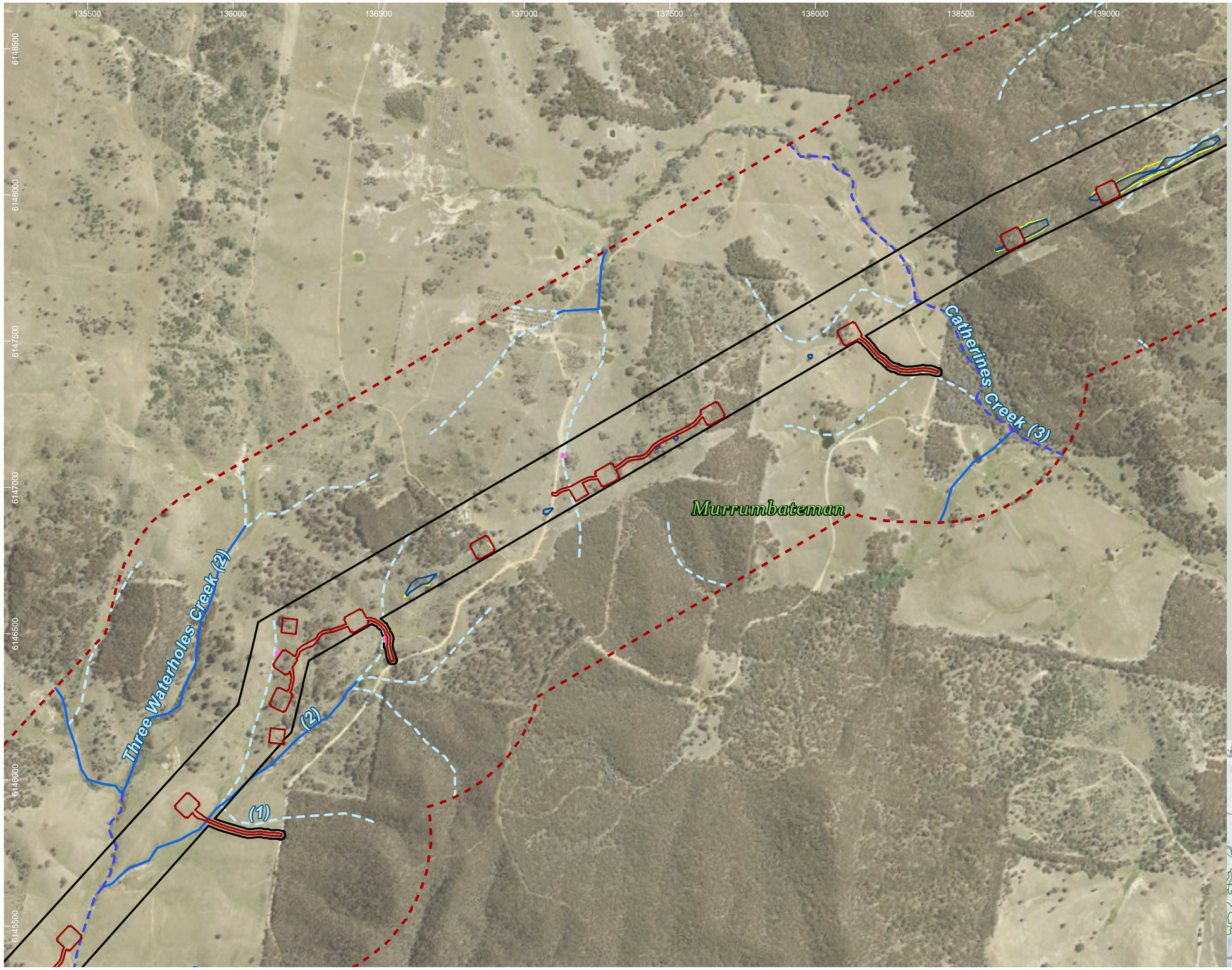


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

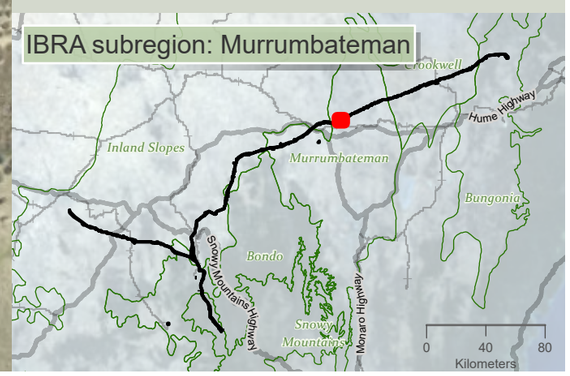
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 77

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138500 139000 139500 140000 140500 141000 141500 142000

6150000 6149500 6149000 6148500 6148000 6147500

Bunton Creek (3)

(1)

(2)

Murrumbateman

Catherines Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

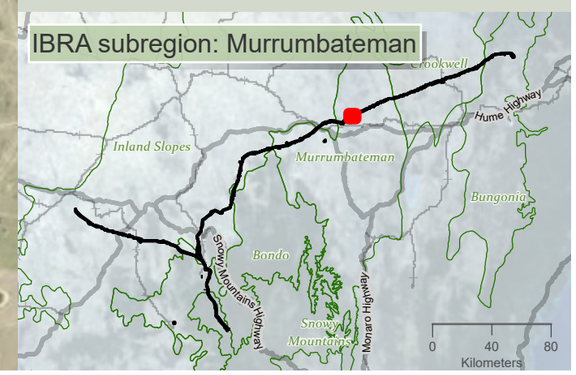
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 78

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141500 142000 142500 143000 143500 144000 144500 145000

6152000 6151500 6151000 6150500 6150000

Murrumbateman

Bunton Creek (3)

Felled Timber Creek (3)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

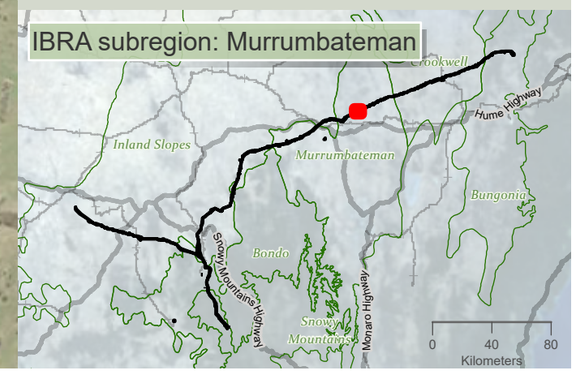
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 79

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699_Humelink_BDAR_Stage 2 Part B.aprx

144500 145000 145500 146000 146500 147000 147500 148000

6153500 6153000 6152500 6152000 6151000

Murrumbateman

Jerrawa Creek (5)

Felled Timber Creek (3)

(1) (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

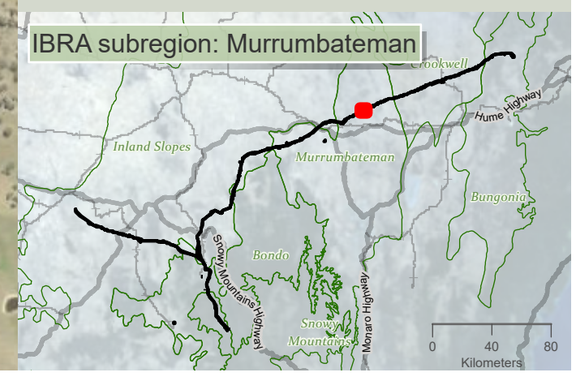
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 80

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148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Murrumbateman

Sams Creek (2)

Jerrawa Creek (5)

(1)

(2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

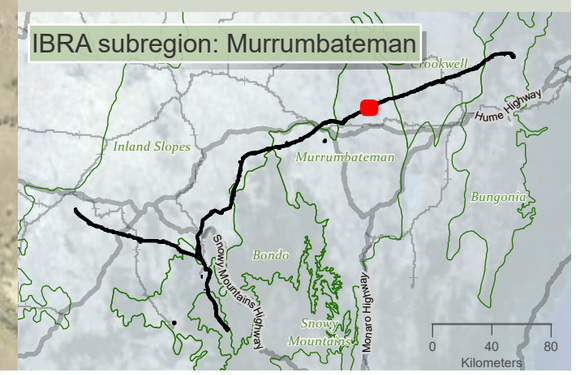
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 81

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151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

(1)

Merrill Creek (4)

Lachlan River (6)

Murrumbateman

Dowlings Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

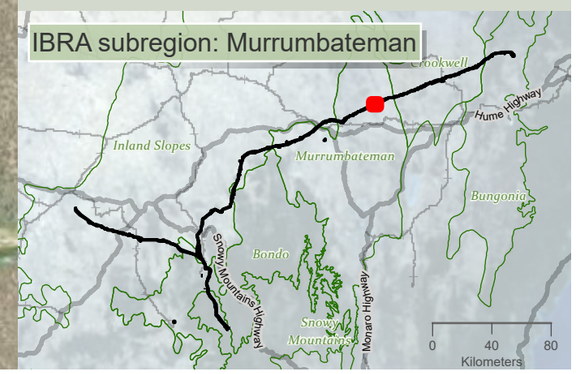
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 4
- 6

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 82

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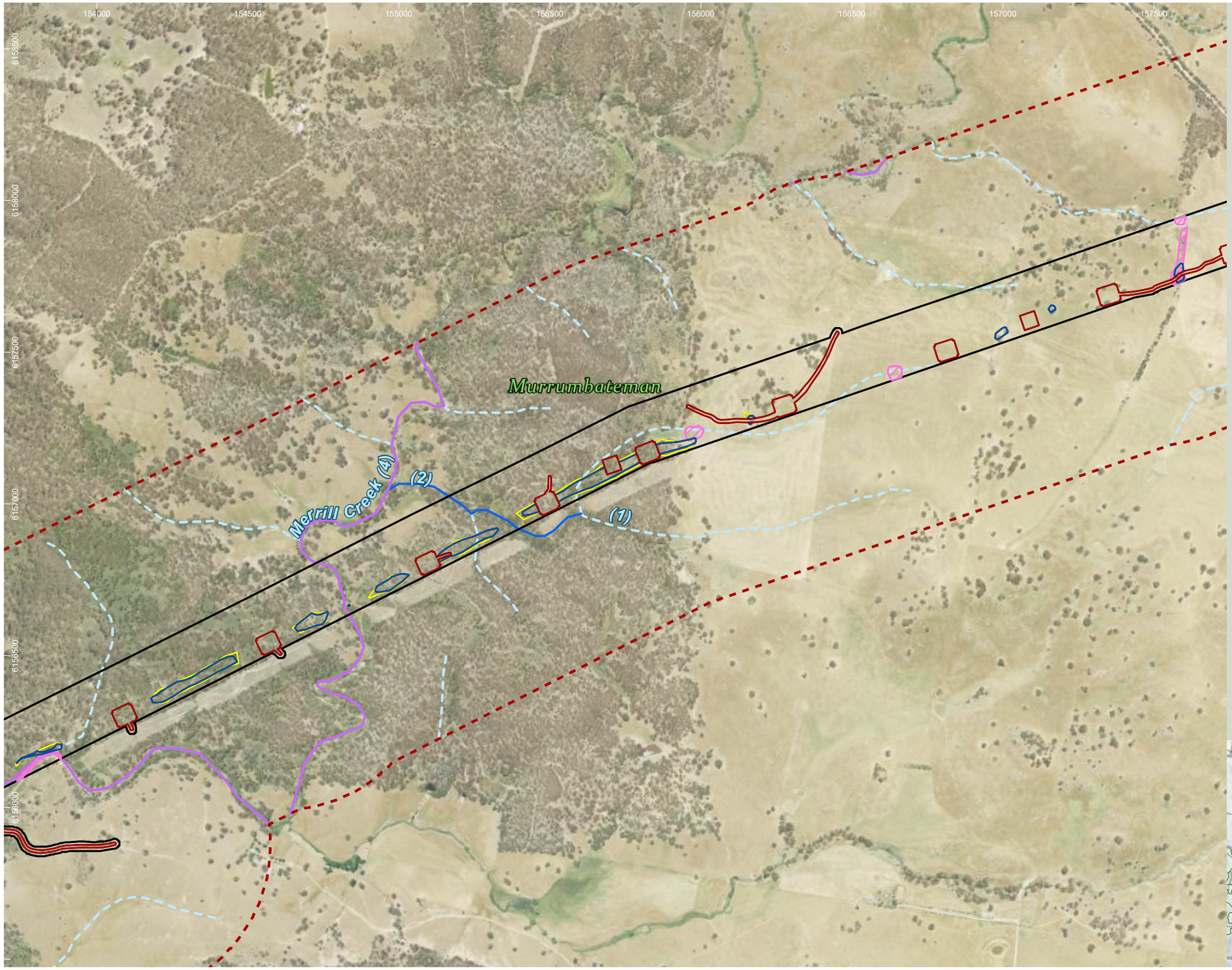
Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

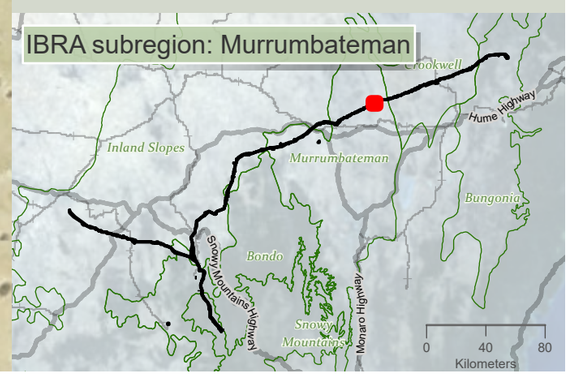
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 N 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 83

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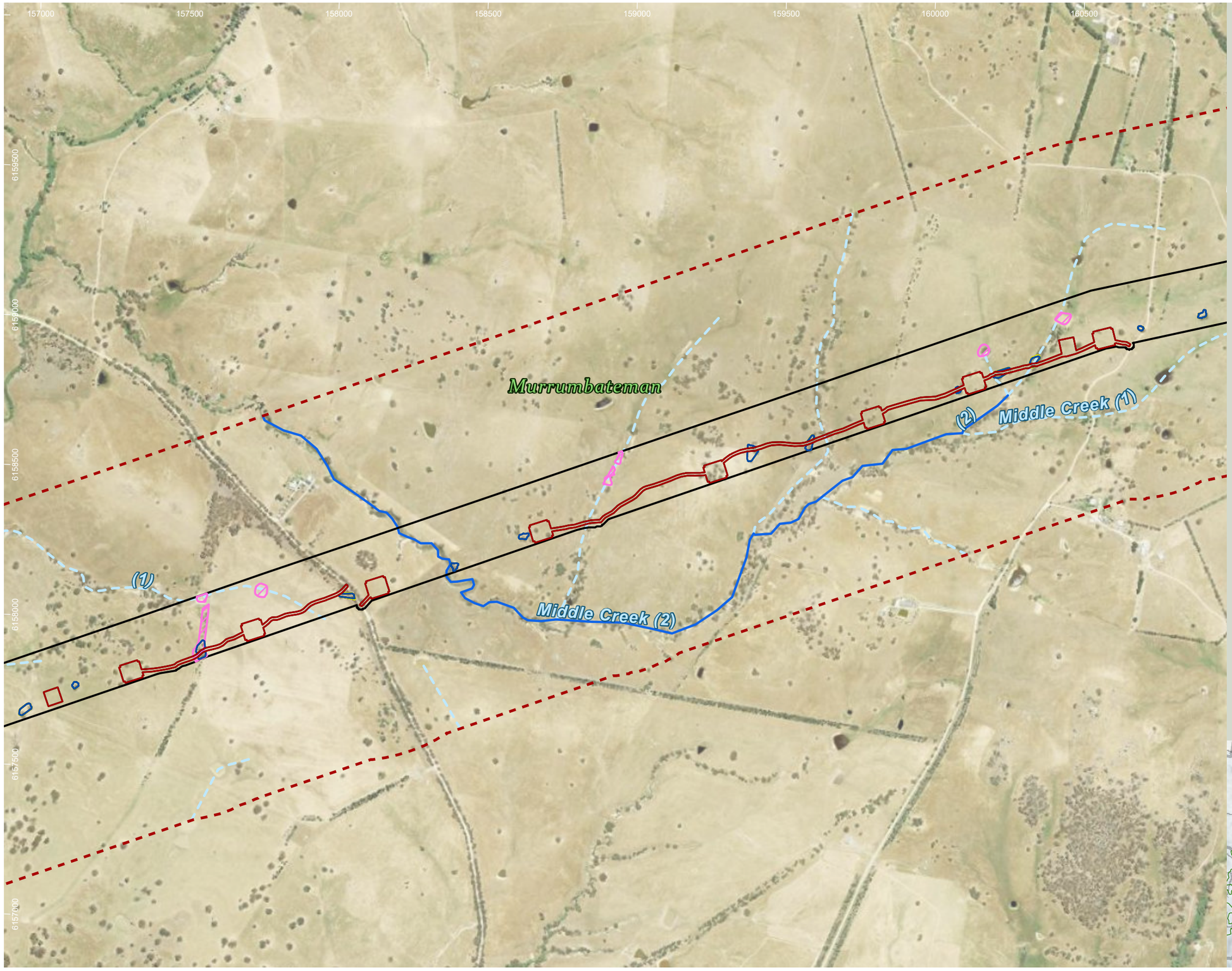


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

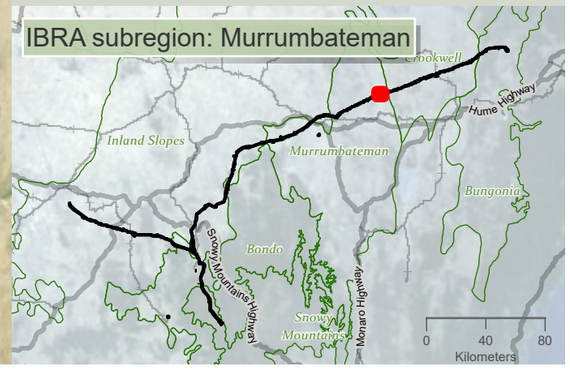
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 84

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160500 161000 161500 162000 162500 163000 163500 164000

6159000 6158500 6158000

Crookwell

Murrumbateman

(1)

(2)

Merrill Creek (2)

Middle Creek (1)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

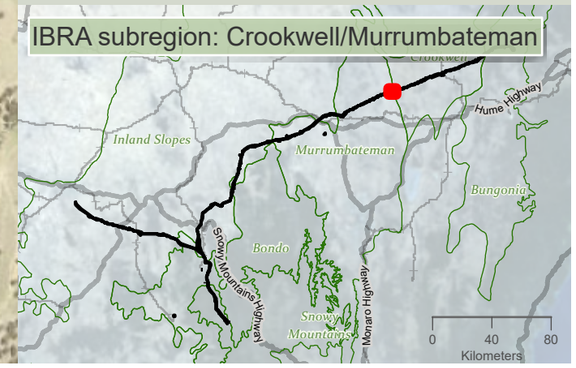
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 85

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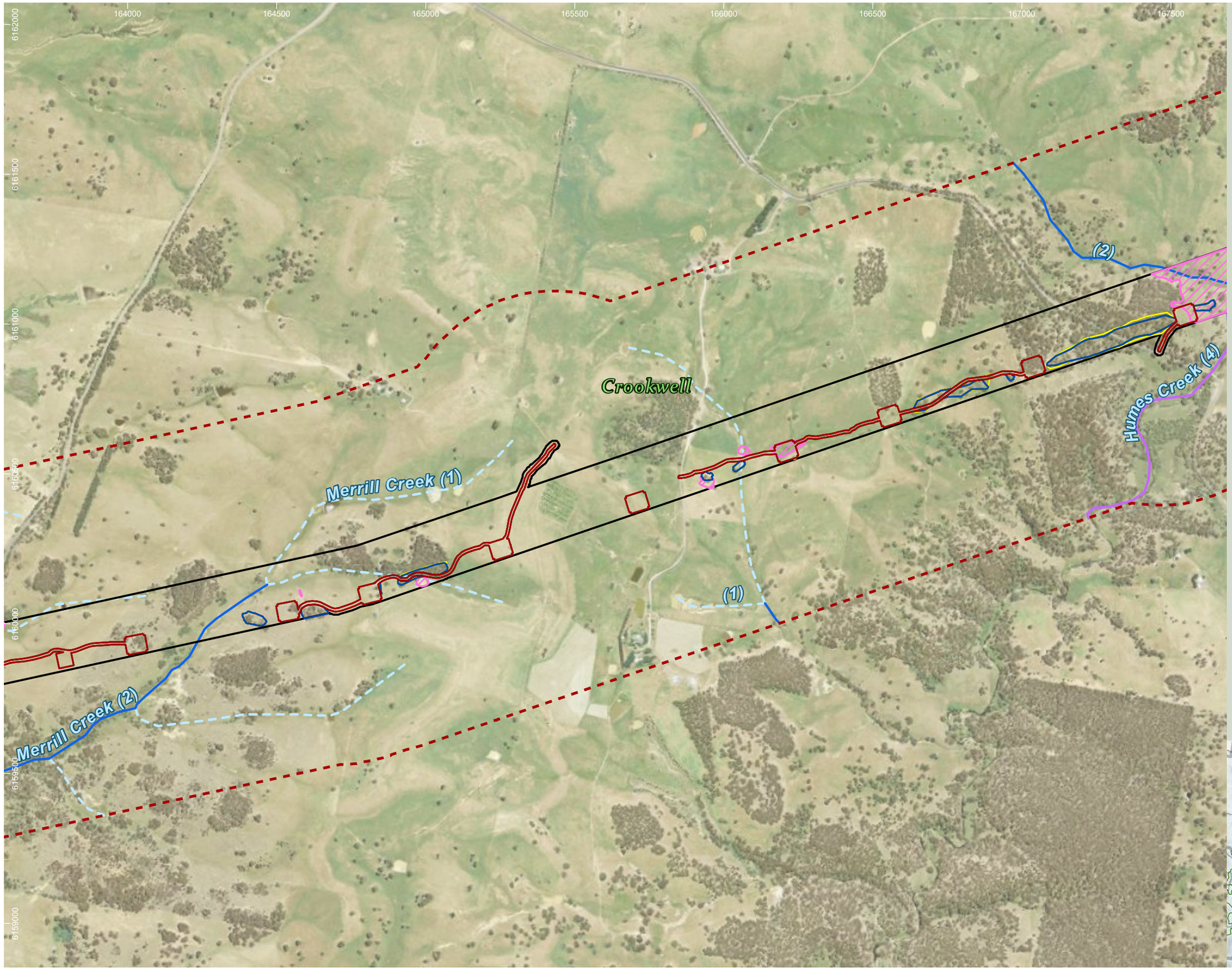


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

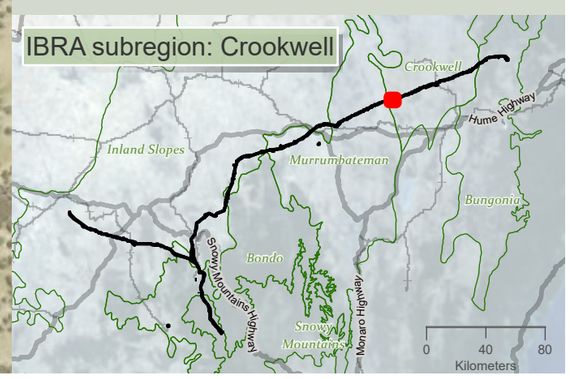
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 86

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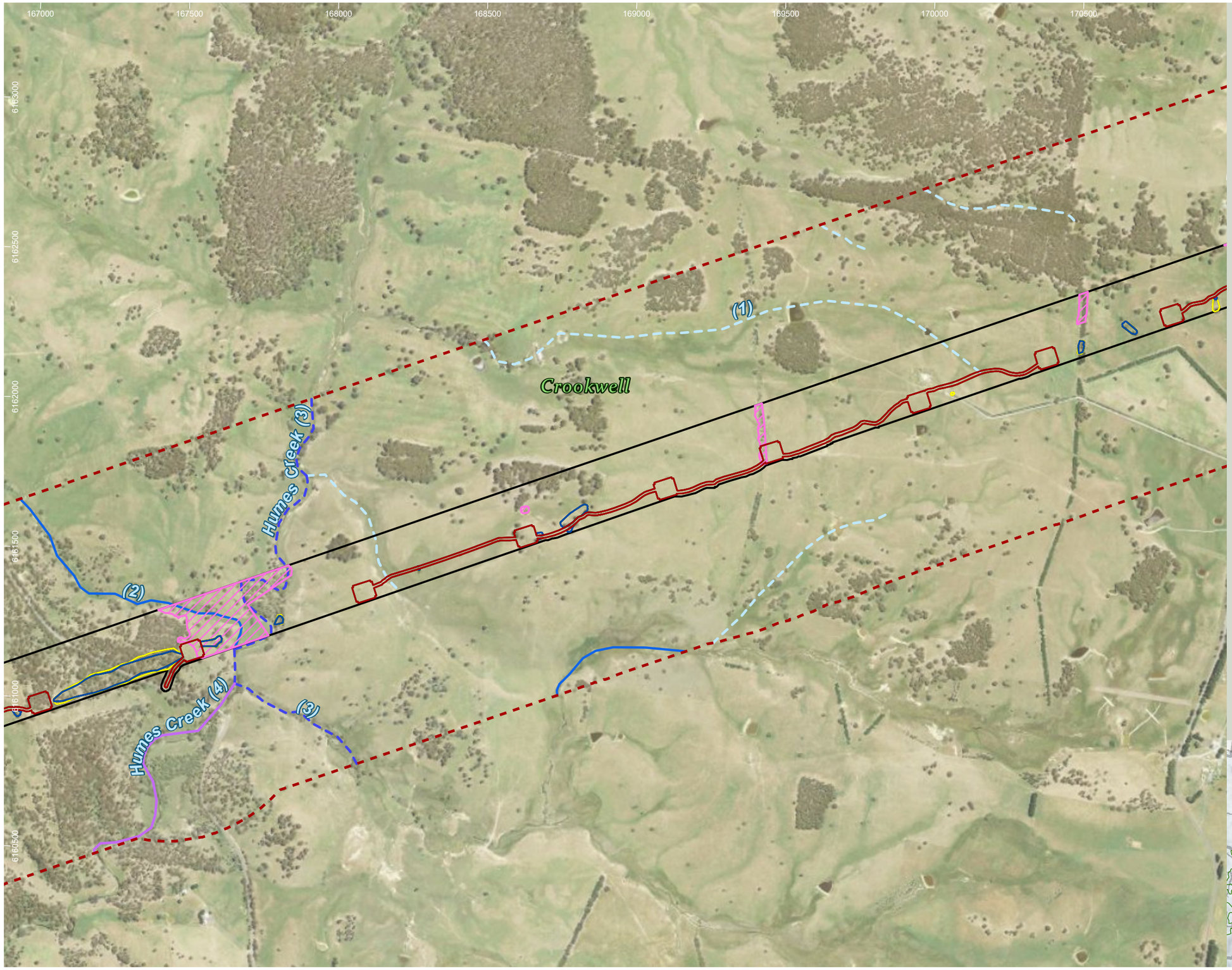


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

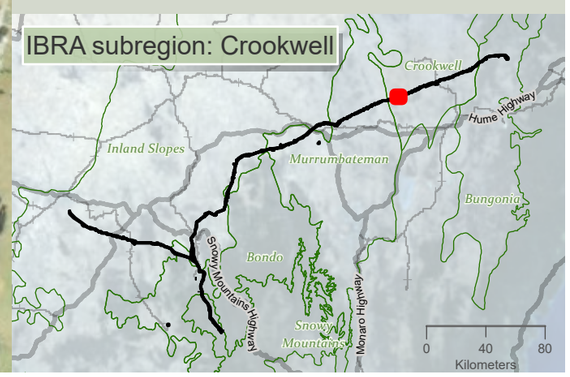
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



Drawn by: MathewZajaczkowski; Last updated: 18/08/2023; File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 87

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170500 171000 171500 172000 172500 173000 173500 174000

6164500 6164000 6163500 6163000 6162500 6162000 6161500

Crookwell

(1)

Gurrundah Creek (2)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

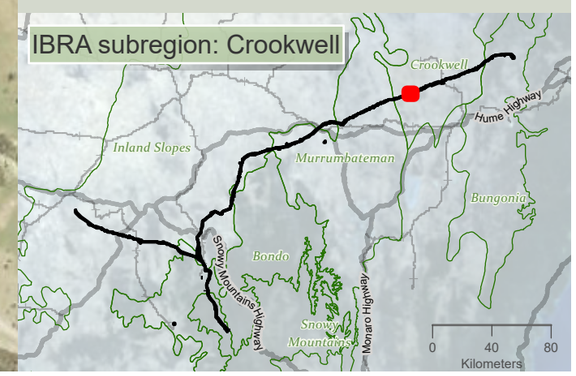
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 88

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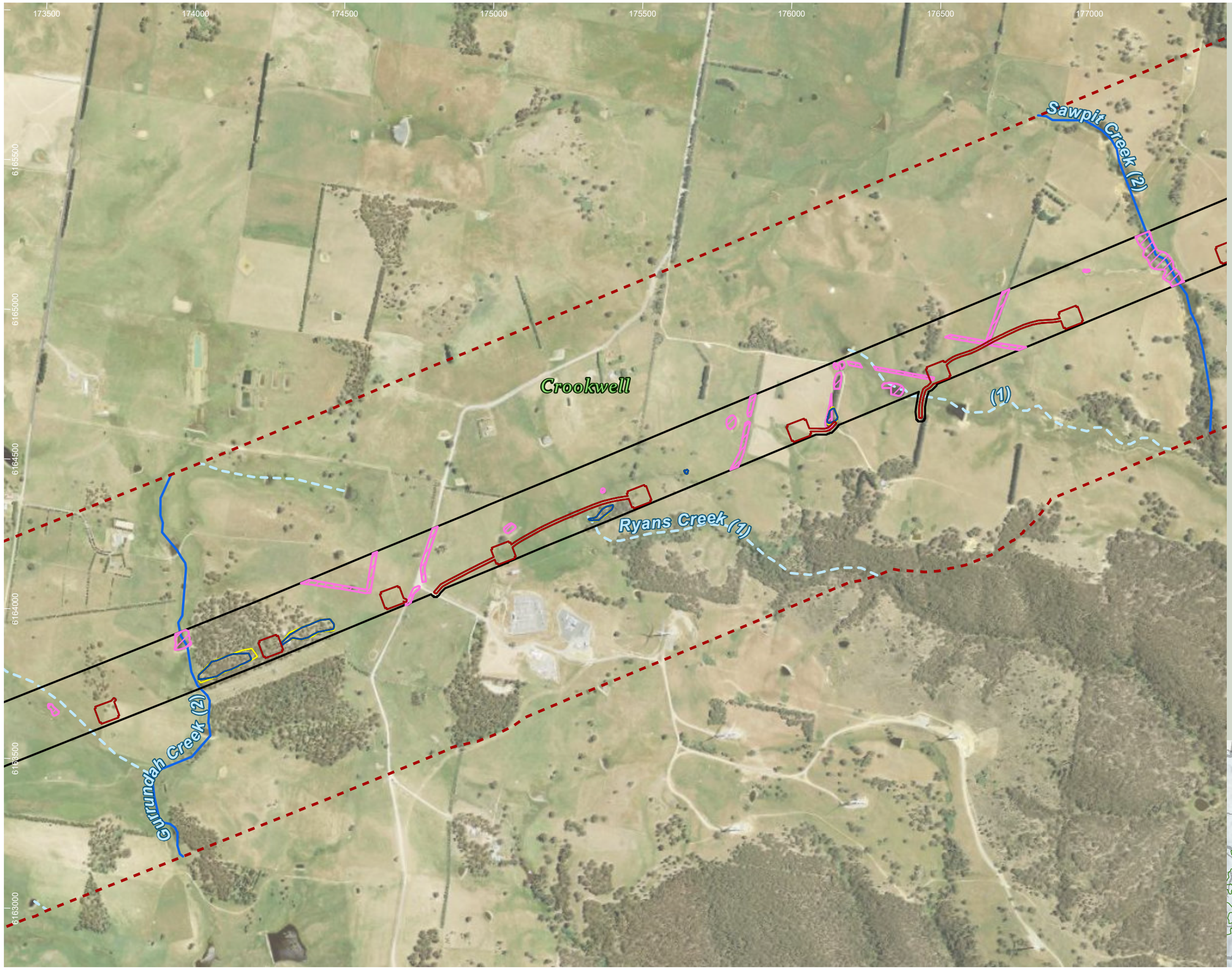


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

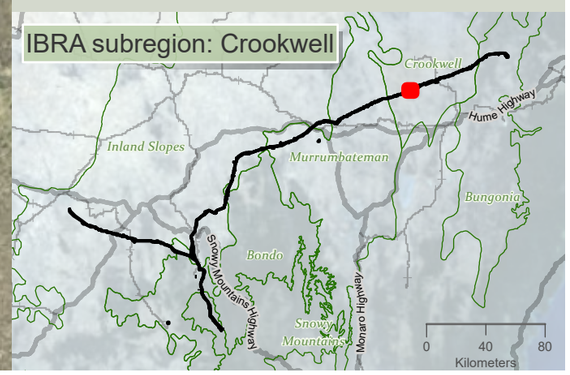
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 89

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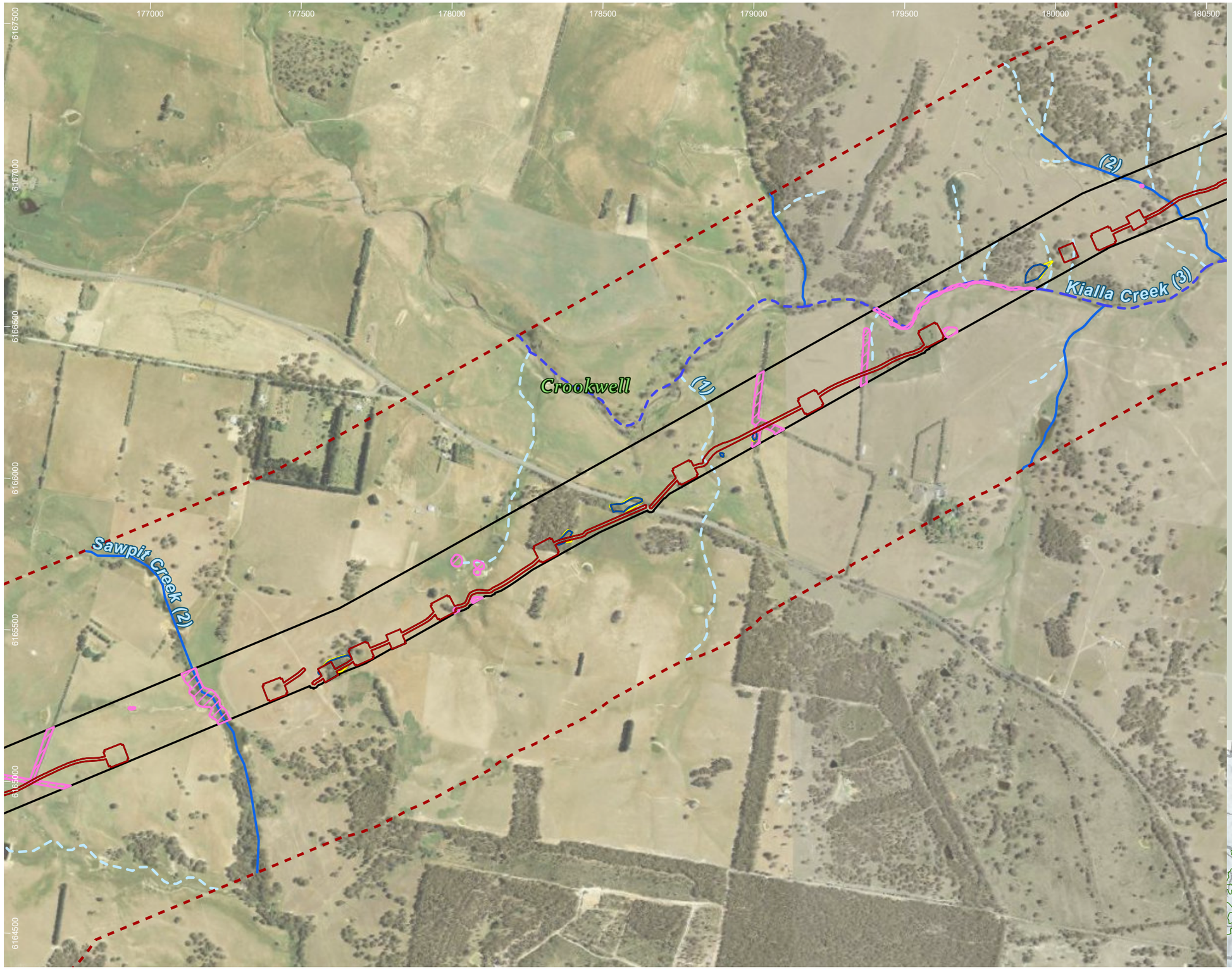


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

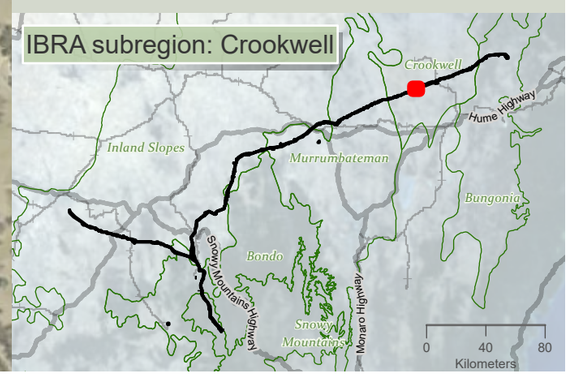
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 90

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180000 180500 181000 181500 182000 182500 183000 183500

6169000 6168500 6168000 6167500 6167000 6166500

Back Creek (2)

Back Creek (3)

Crookwell

(1)

(2)

Kialla Creek (3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

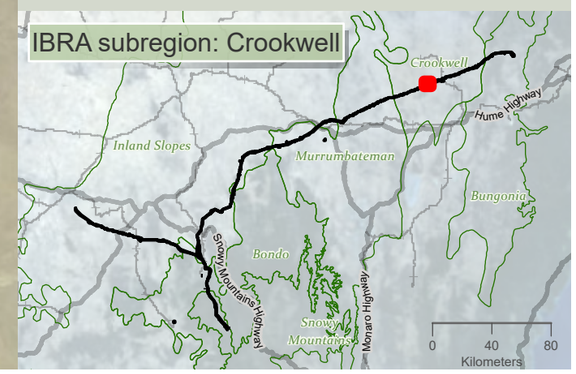
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 91

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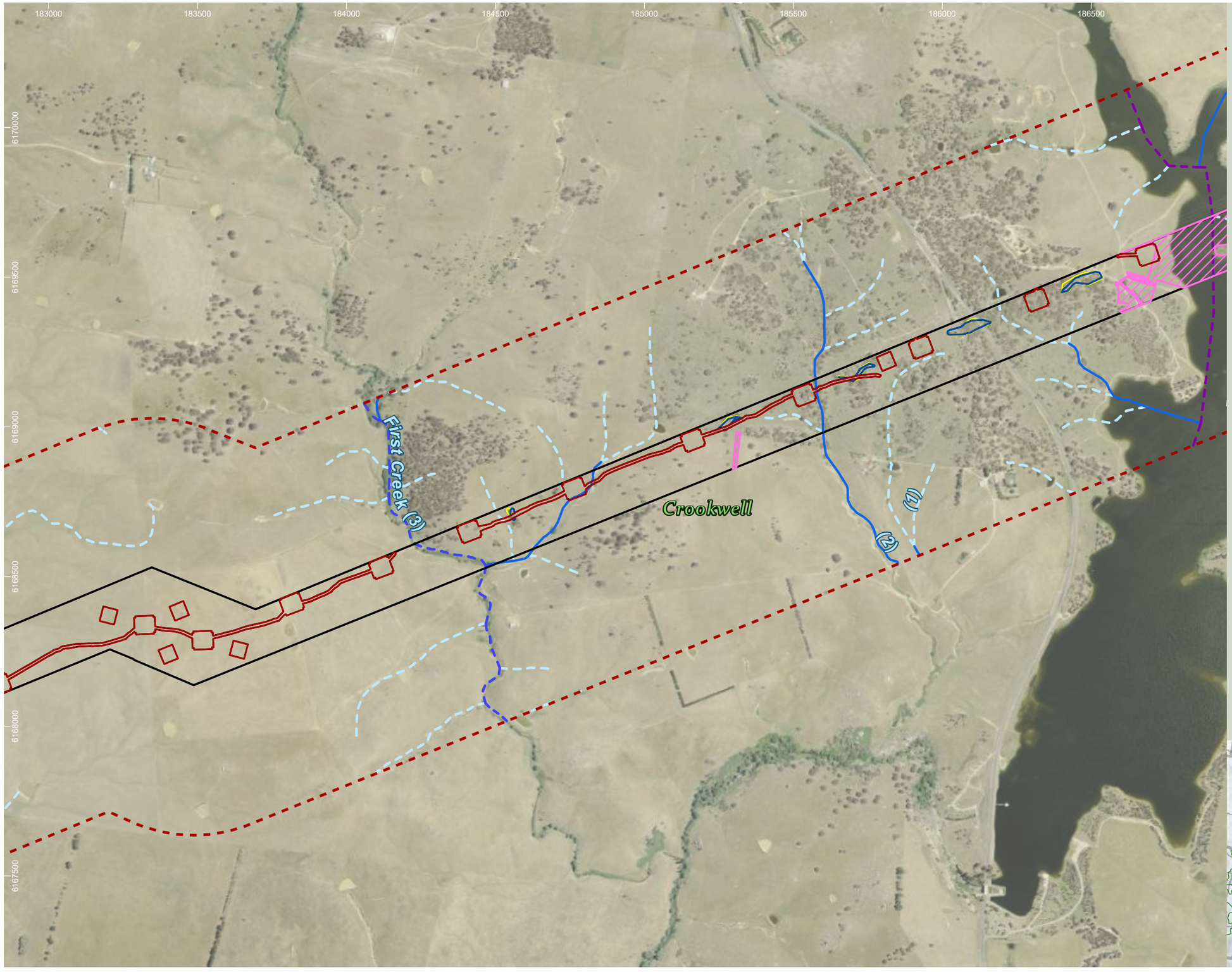


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

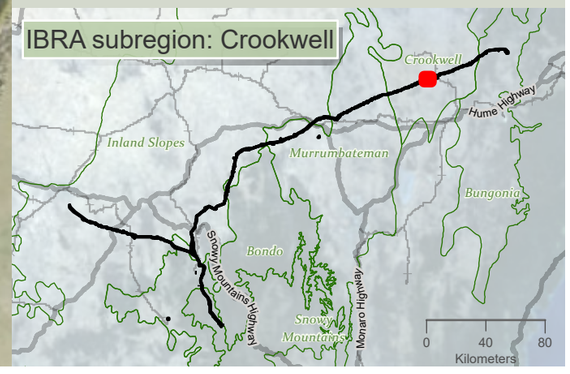
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 92

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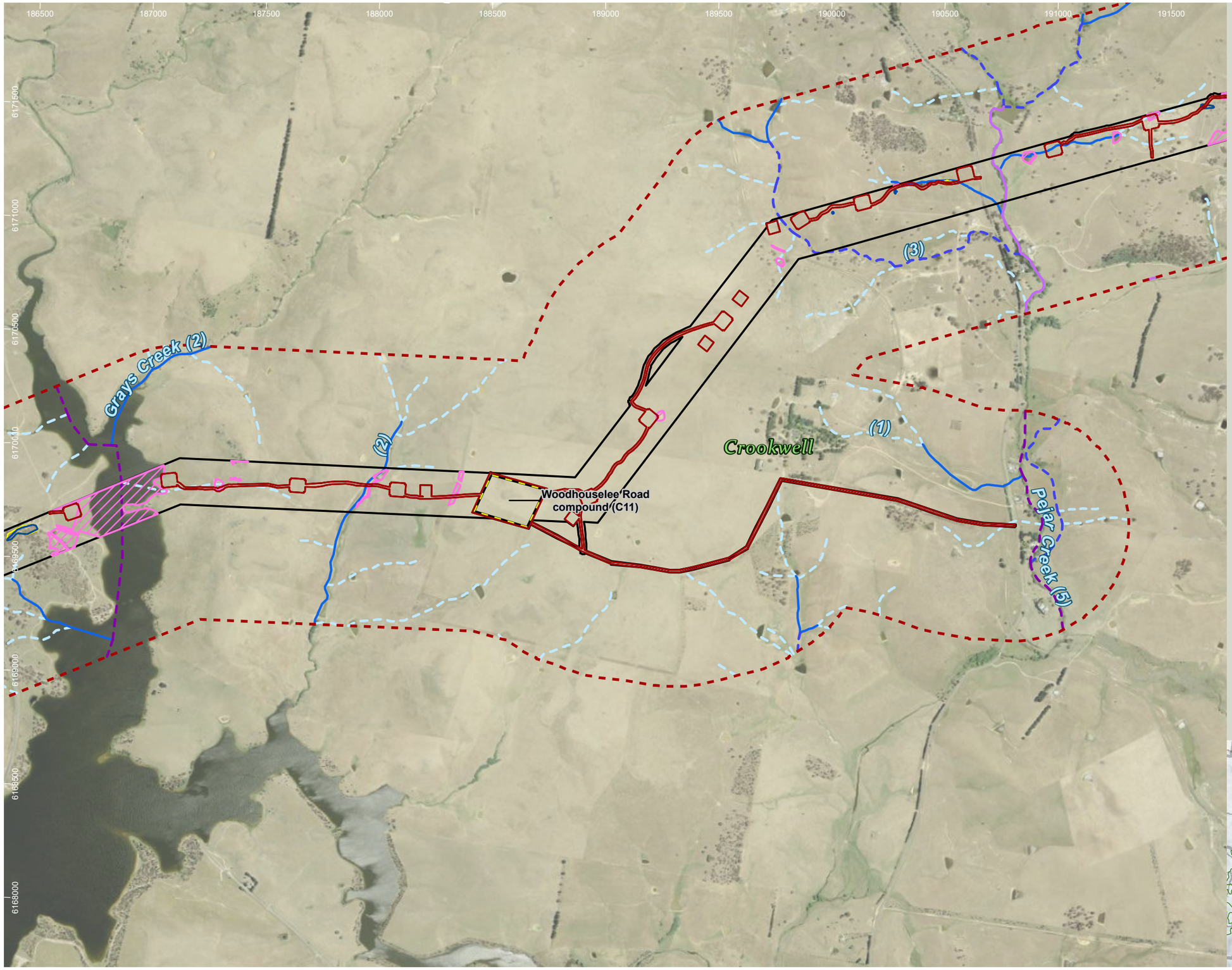
Drawn by: MatthewZajaczkowski | Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

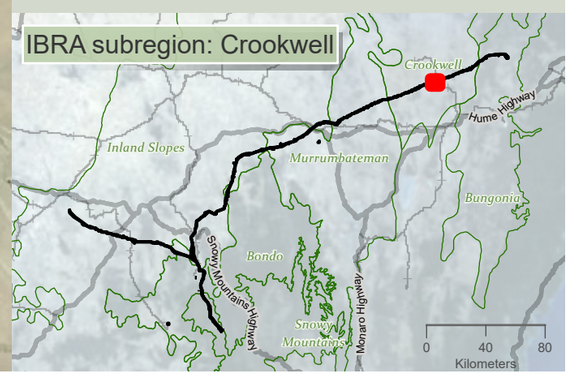
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



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niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 93

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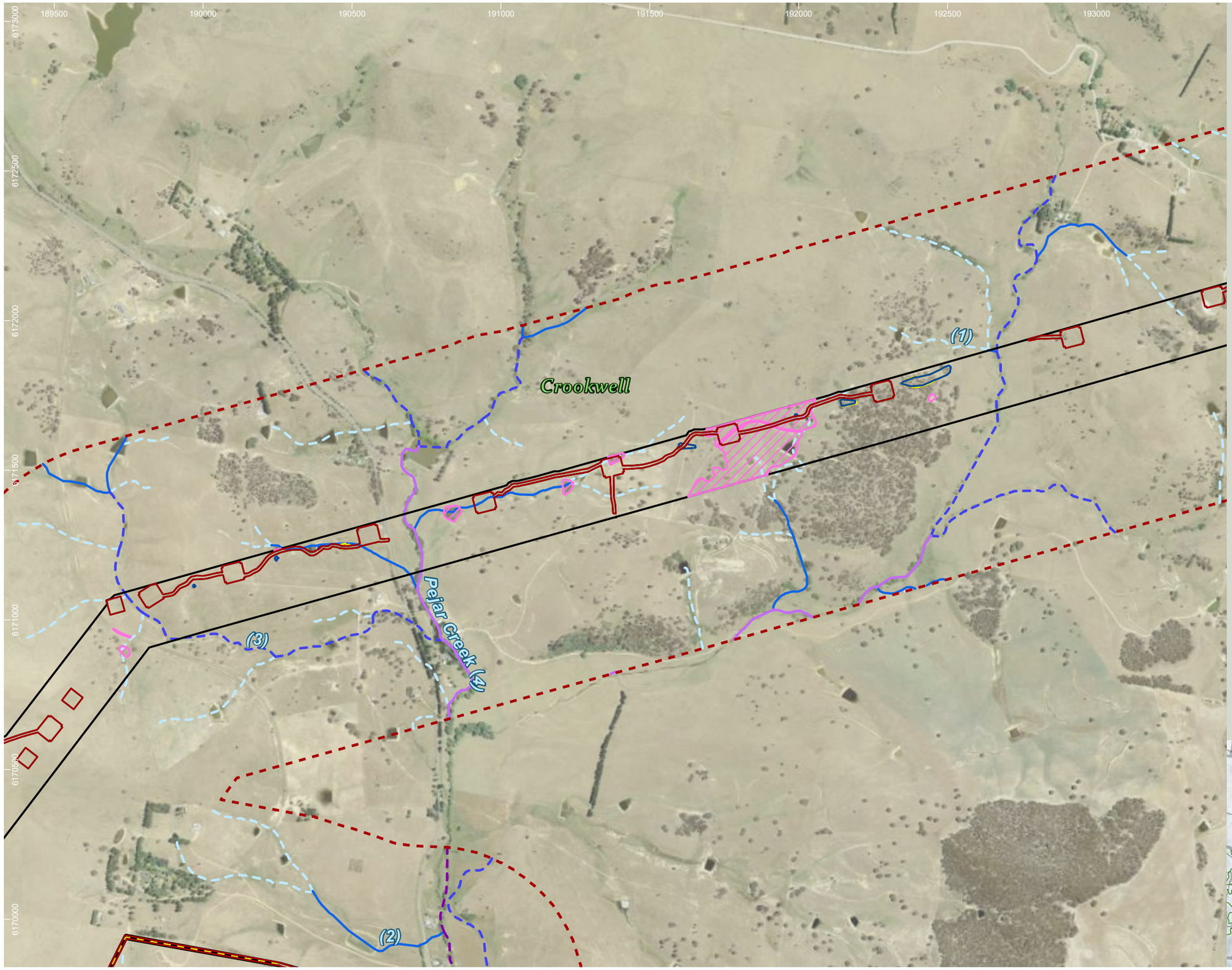


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

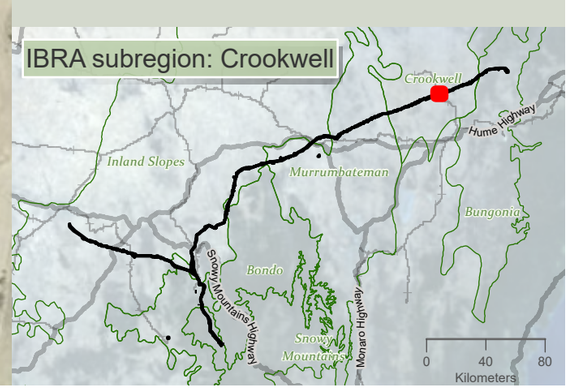
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata



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niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 94

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193000 193500 194000 194600 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

(3) (2) (1)

Melamalong Creek (7)

Crookwell

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

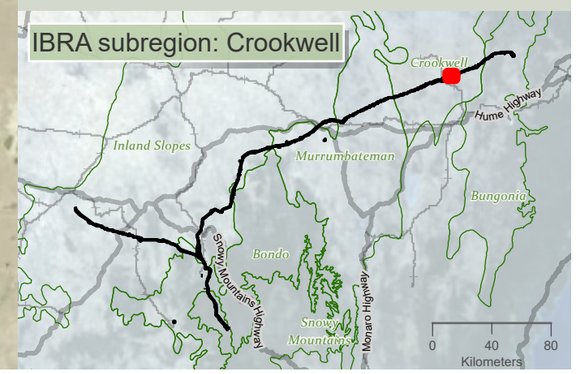
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 95

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196000 196500 197000 197500 198000 198500 199000 199500

6175000 6174500 6174000 6173500 6173000 6172500

Tarlo River (5)

Crookwell

(2)

(3)

Sawpit Gully (3)

(1)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

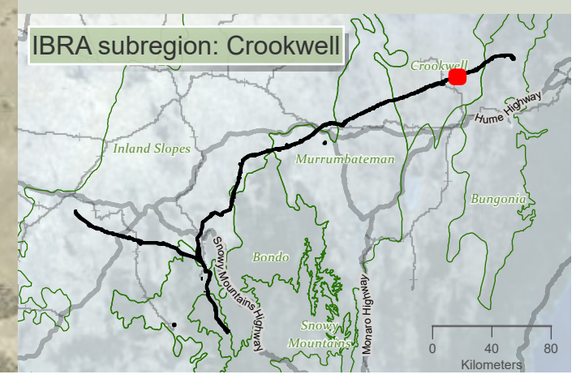
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 5

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus robertsonii subsp hemisphaerica



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 96

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199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Crookwell

Turrallo Creek (5)

Tarlo River (5)

(1) (2) (3) (4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

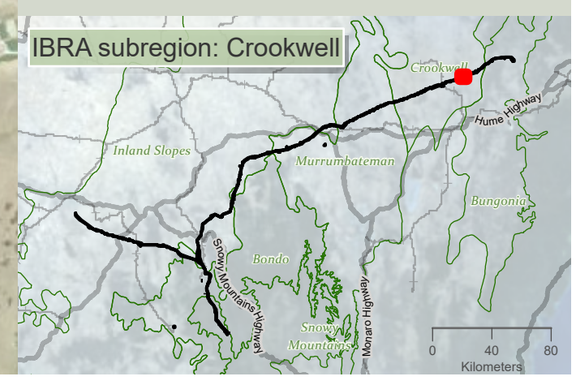
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4
- 5

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus robertsonii subsp hemisphaerica



niche Environment and Heritage

0 400
m
N
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

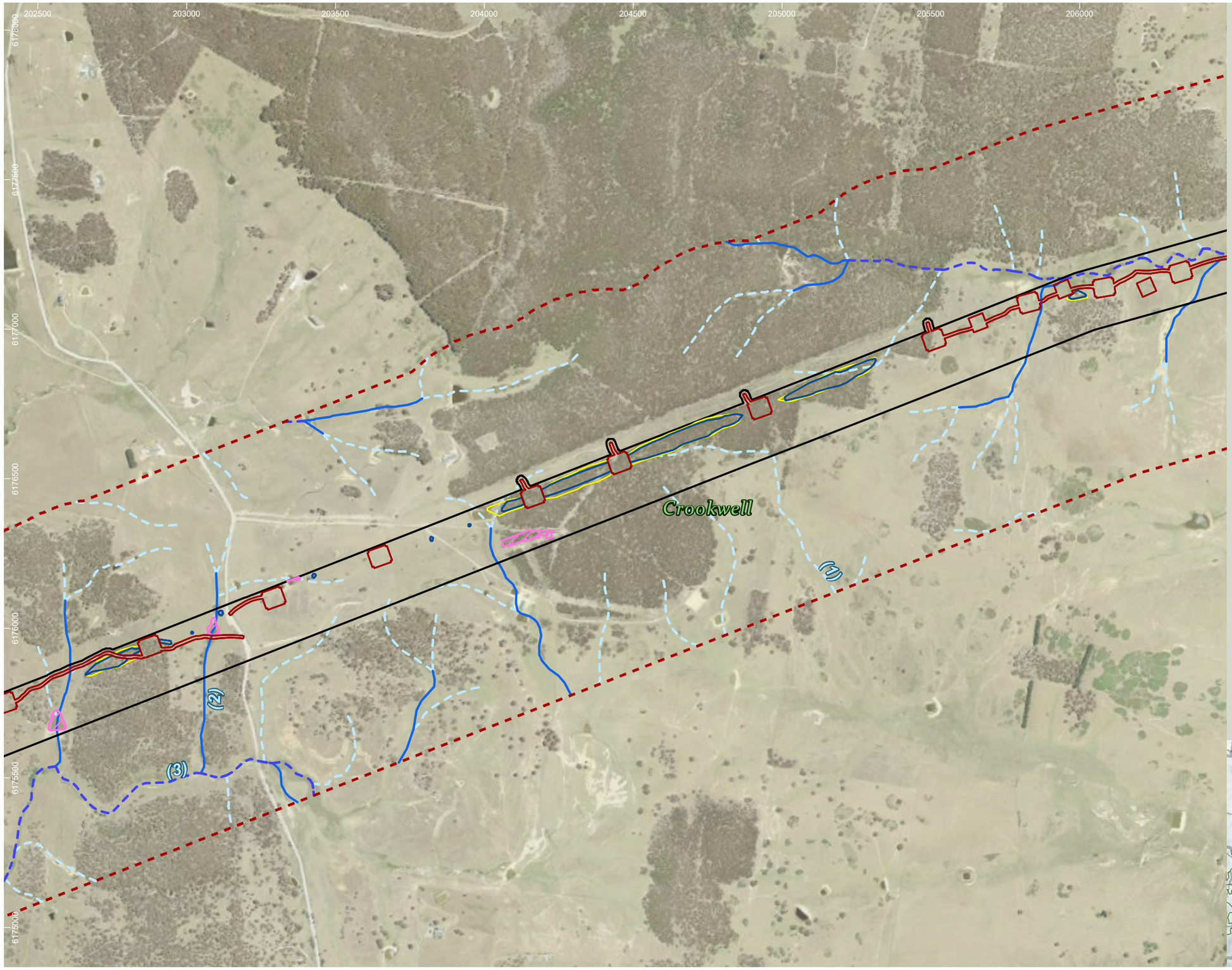
Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 97

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

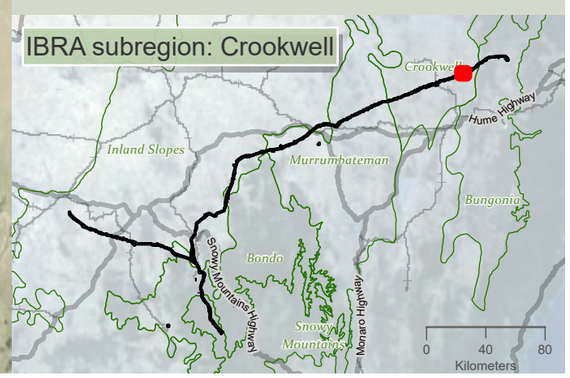
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Cowpers Creek (3)

Crookwell

(2)

Myrtle Creek (4)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

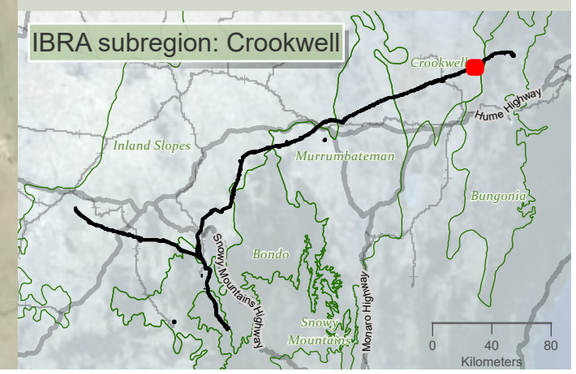
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 99

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Crookwell

(1) (2) (3) A

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

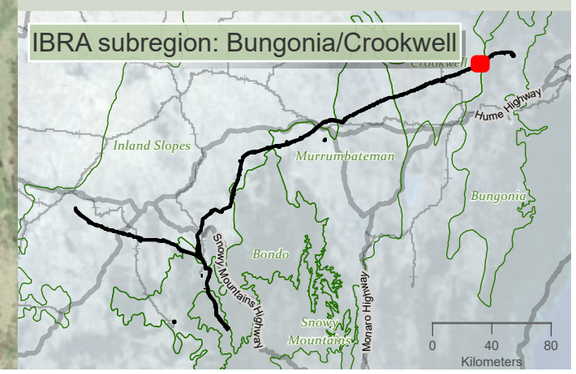
- Total Clearing Zone

Strahler stream order

- 1
- 2
- 3
- 4
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 100

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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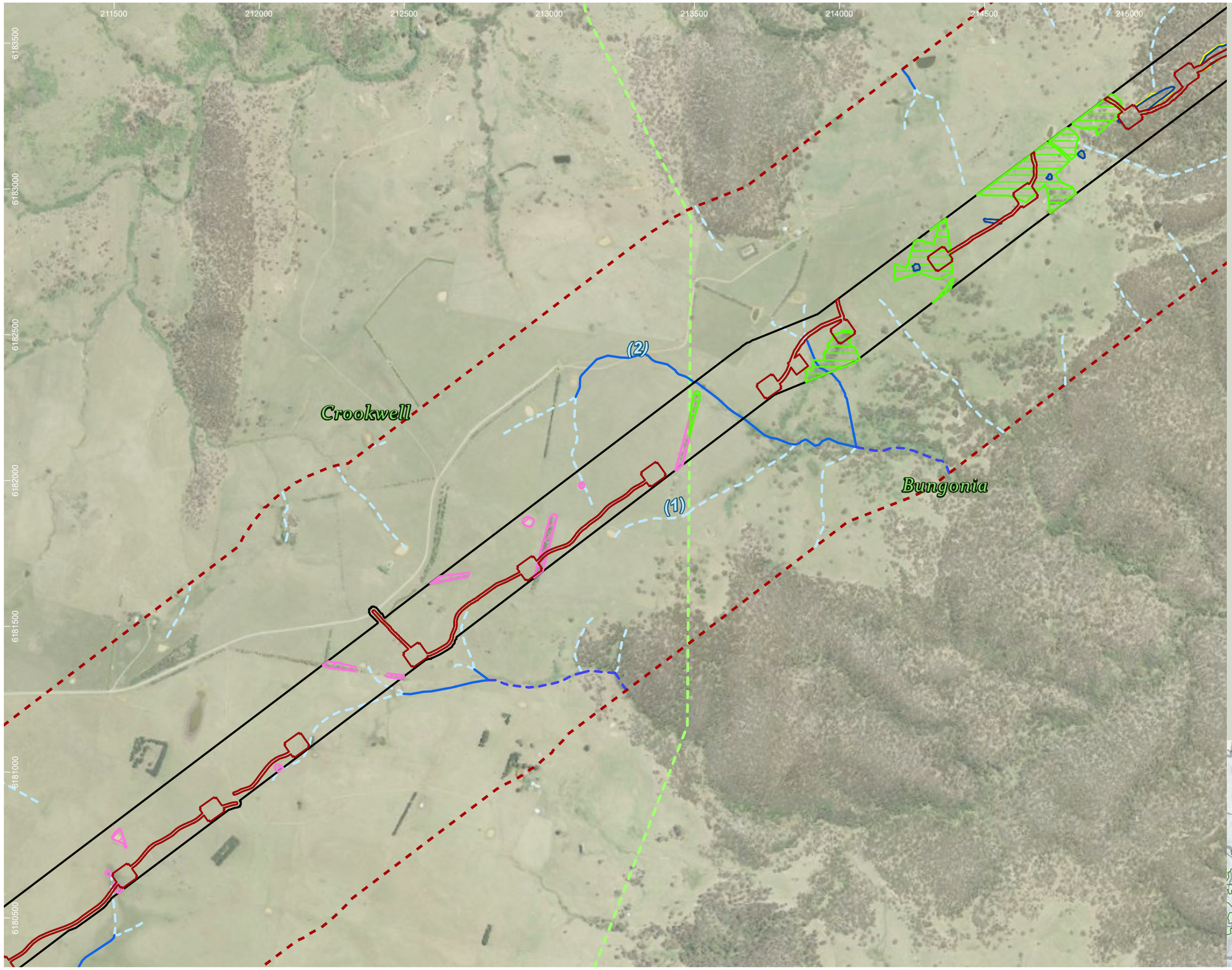


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

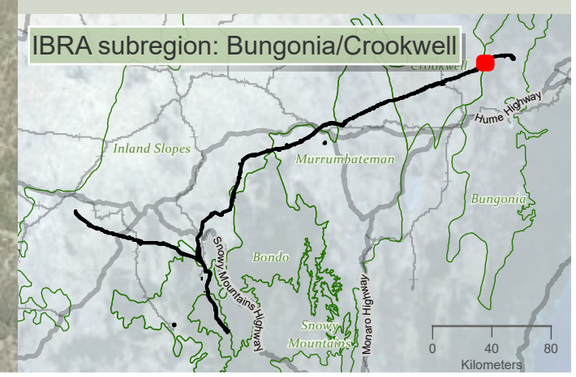
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- IBRA subregion

Tree species habitat

- Eucalyptus aggregata
- Eucalyptus macarthurii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 101

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski; Last updated: 18/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

214000 214500 215000 215500 216000 216500 217000 217500 218000

6185500 6185000 6184500 6184000 6183500 6183000 6182500

(4) (2) (3) (1) (4)

Kerrawary Creek

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

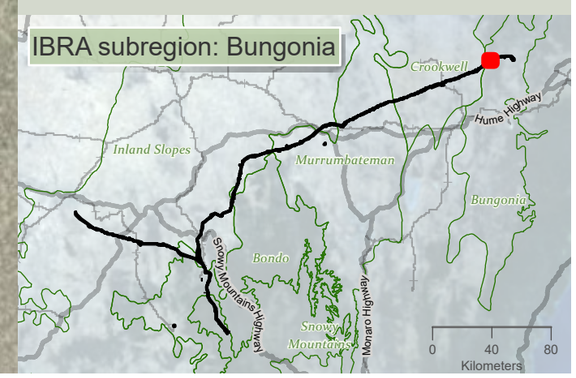
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus macarthurii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 102

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

217500 218000 218500 219000 219500 220000 220500 221000

6187000 6186500 6186000 6185500 6185000 6184500

Bannaby Creek (3)

(1)

Bungonia

(2)

(3)

(4)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

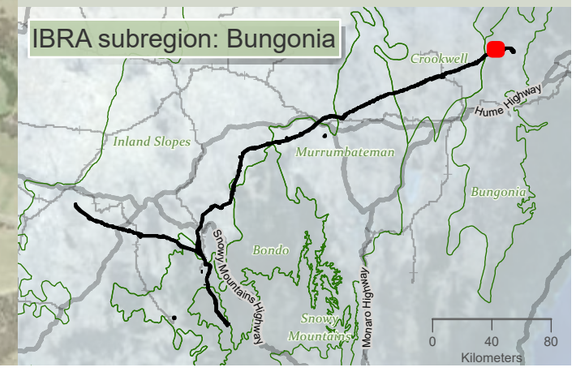
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus macarthurii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 103

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Drawn by: MathewZajaczkowski Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

221000 221500 222000 222500 223000 223500 224000

6187500 6187000 6186500 6186000 6185500 6185000

Bungonia

Connors Creek (4)

Wills Gully (1)

Bannaby Creek (4)

(1)

(2)

(3)

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

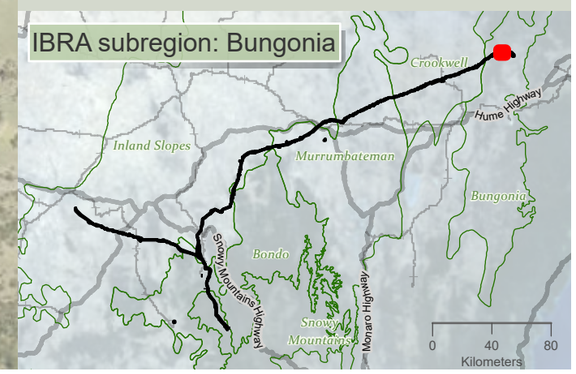
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus macarthurii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 104

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 18/09/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

224500 225000 225500 226000 226500 227000 227500

6188000 6187500 6187000 6186500 6186000 6185500

(4) (3) (1) (2)

Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

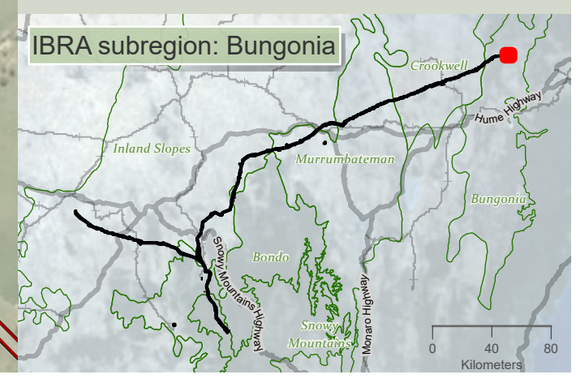
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Strahler stream order

- 1
- 2
- 3
- 4

Tree species habitat

- Eucalyptus macarthurii



Drawn by: MatthewZajaczkowski; Last updated: 18/08/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part B.aprx

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 105

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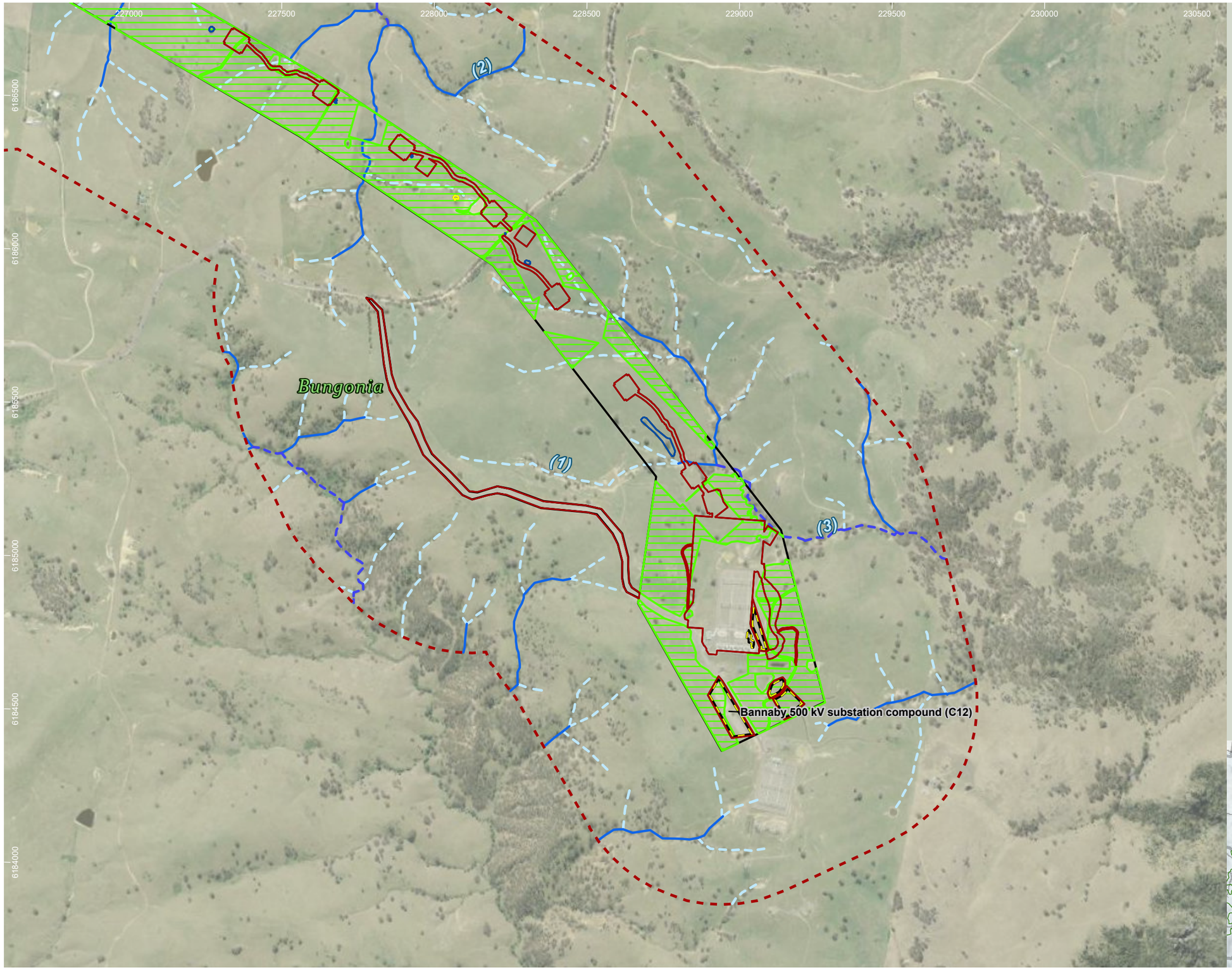


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

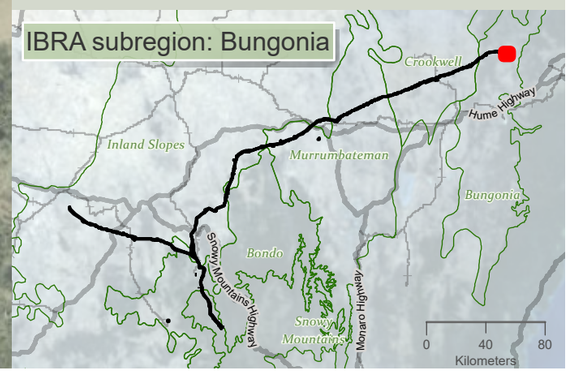
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone
- Proposed construction compounds

Strahler stream order

- 1
- 2
- 3

Tree species habitat

- Eucalyptus macarthurii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Tree species habitat

HumeLink BDAR

Figure 13-13 map reference 106

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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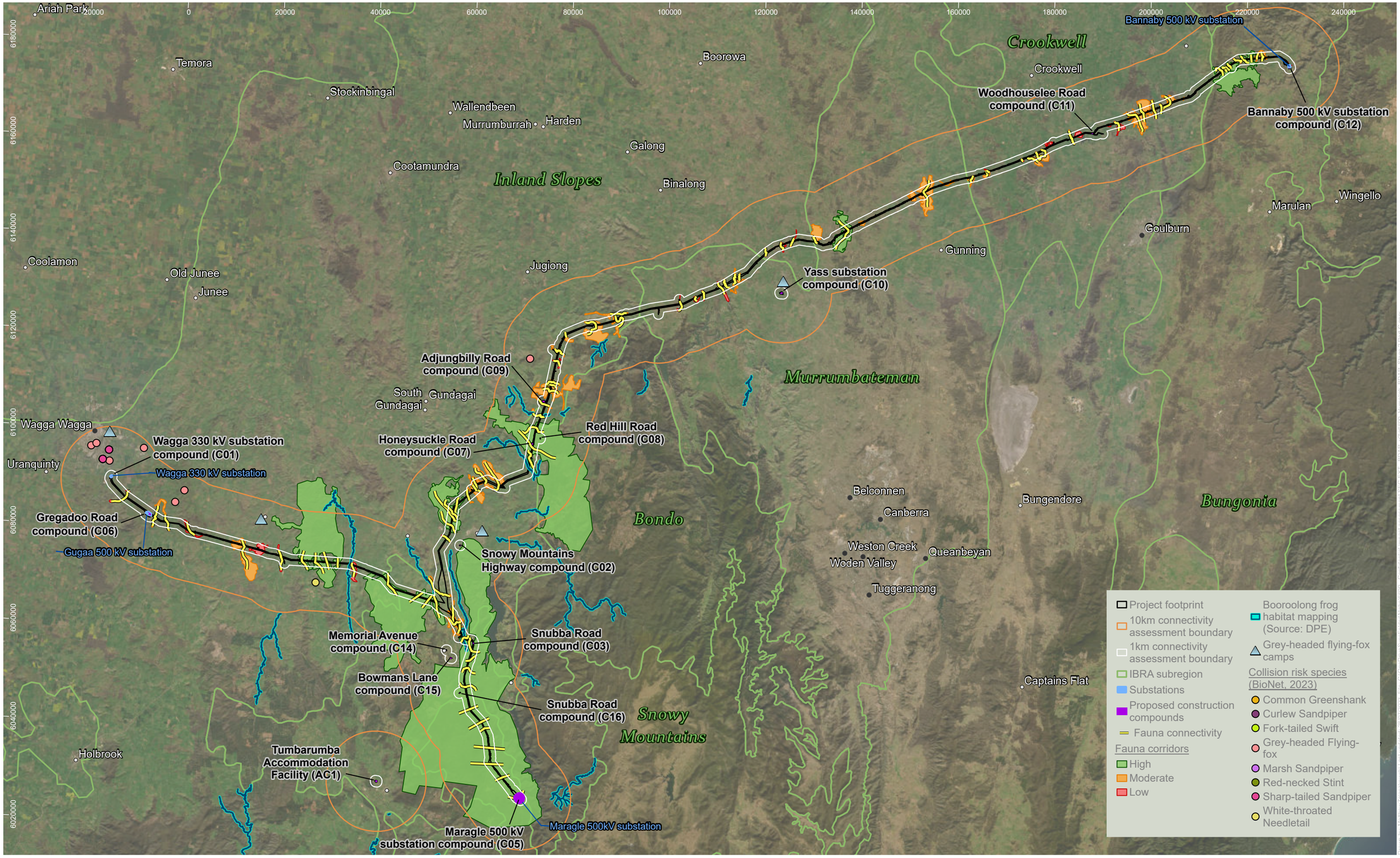


niche Environment and Heritage

0 20
Kilometers
WGS 1984 Web Mercator

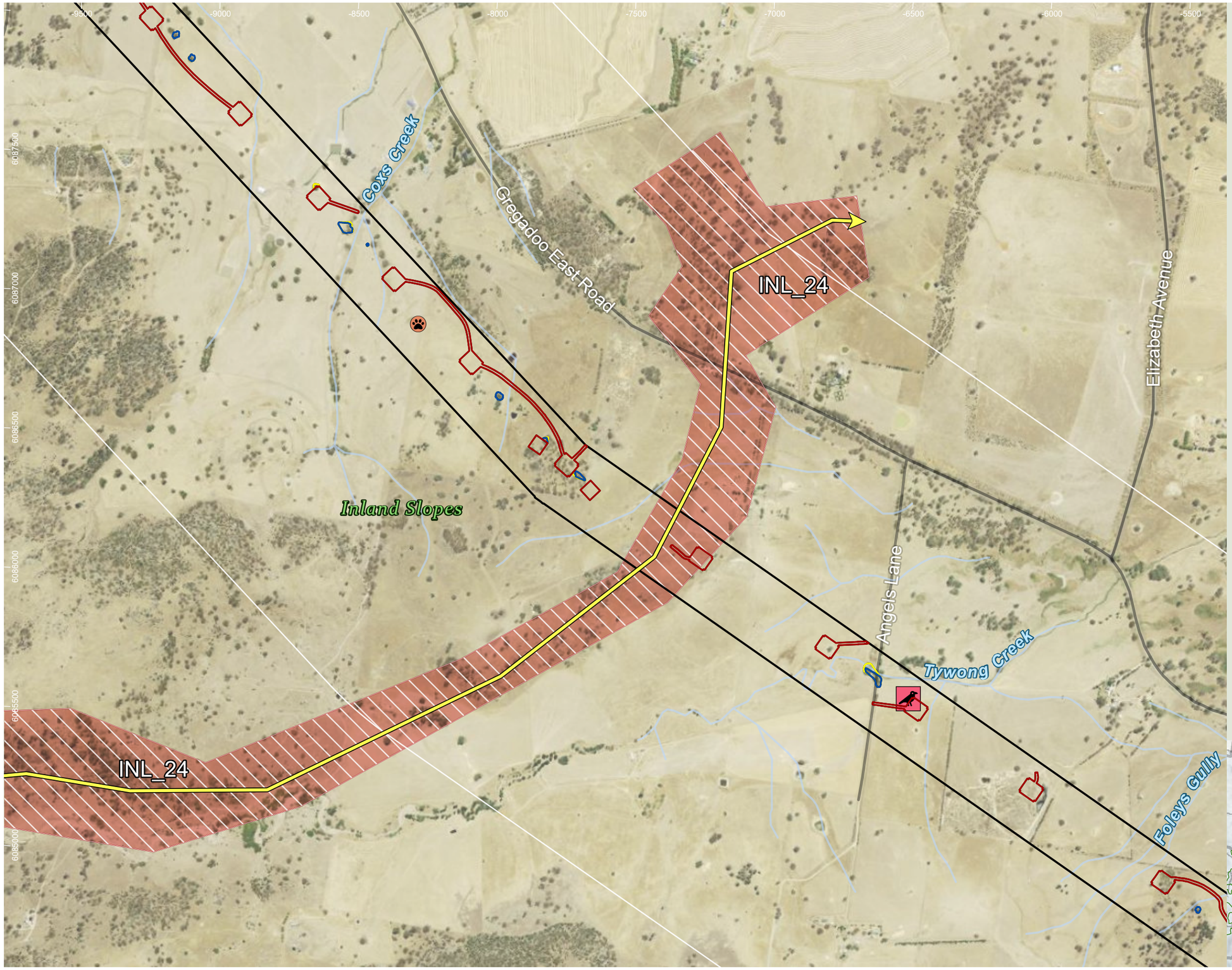
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity overview

HumeLink BDAR

Figure 13-14

World Imagery: Earthstar Geographics | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

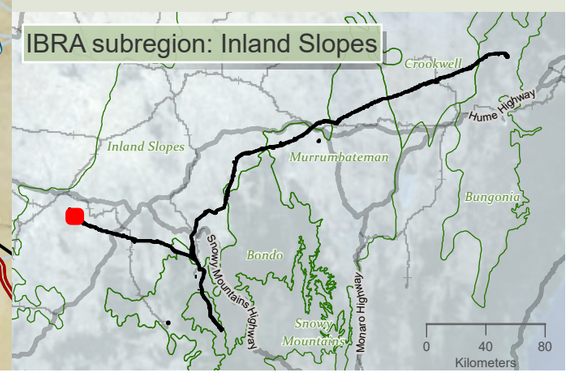
Aves

- Little Eagle (Hieraaetus morphnoides) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Koala (Phascolarctos cinereus) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 2

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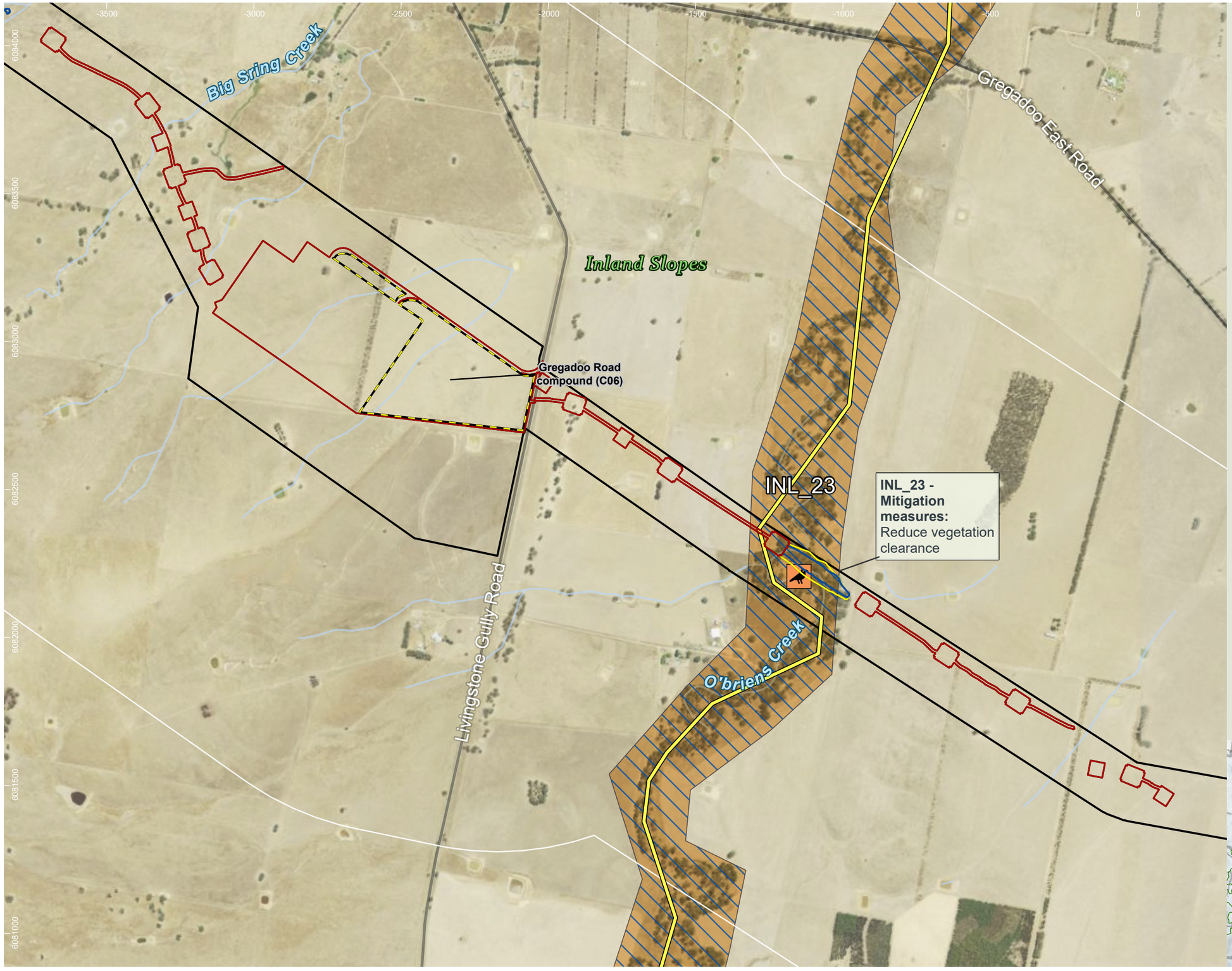
Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

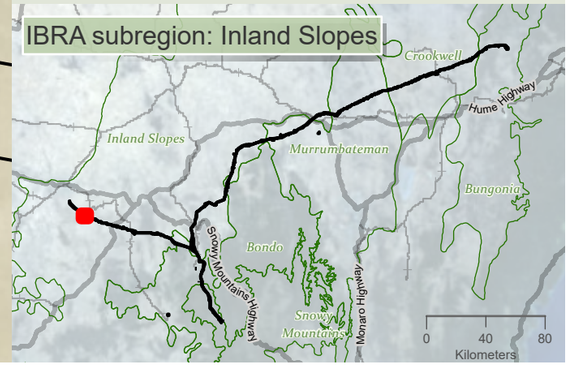
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 4

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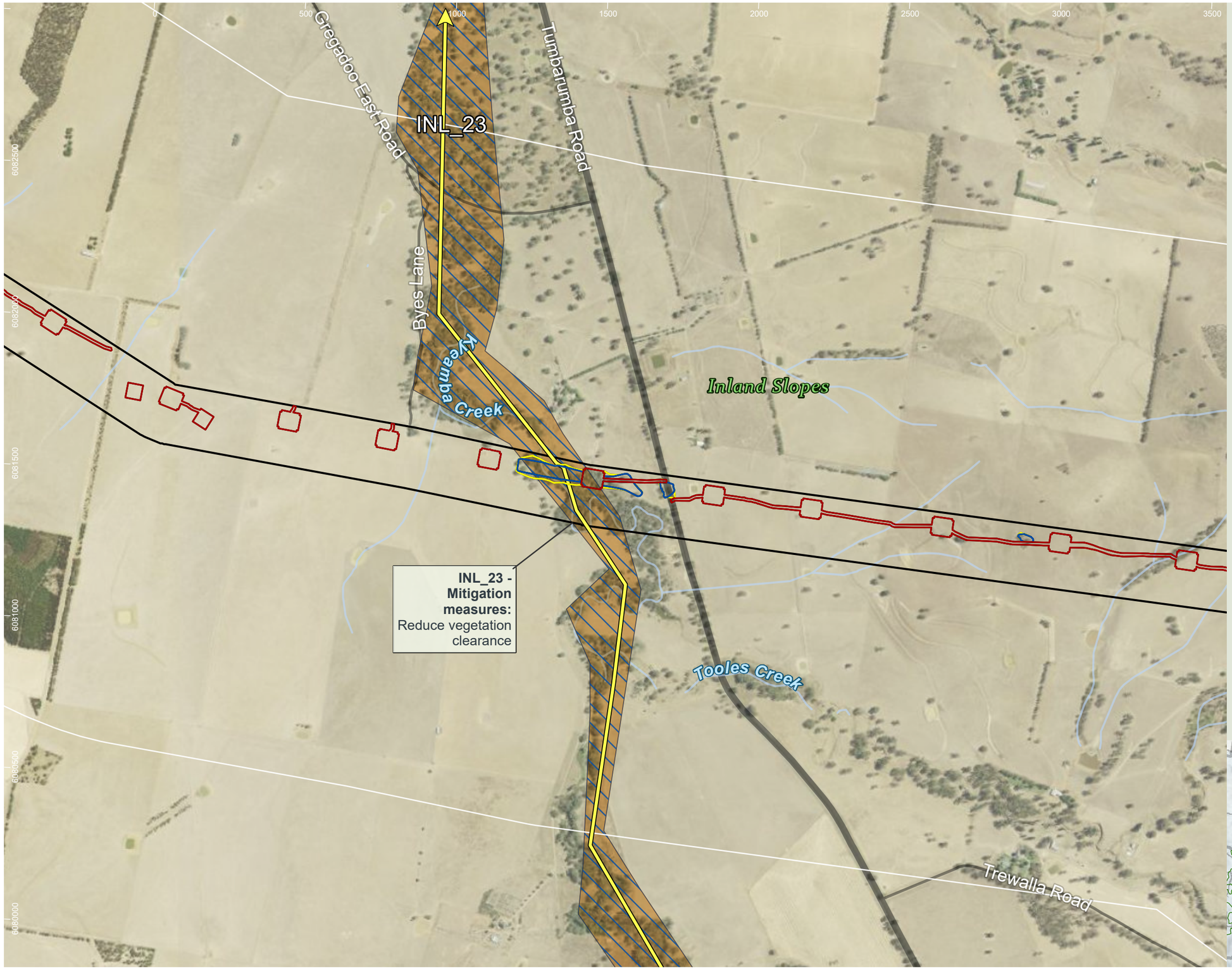
Drawn by: MatthewZajaczkowski Last updated: 10/8/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

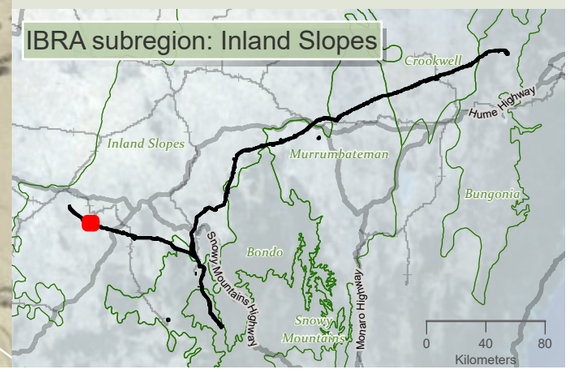
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

Fauna corridors - existing connectivity

- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 5

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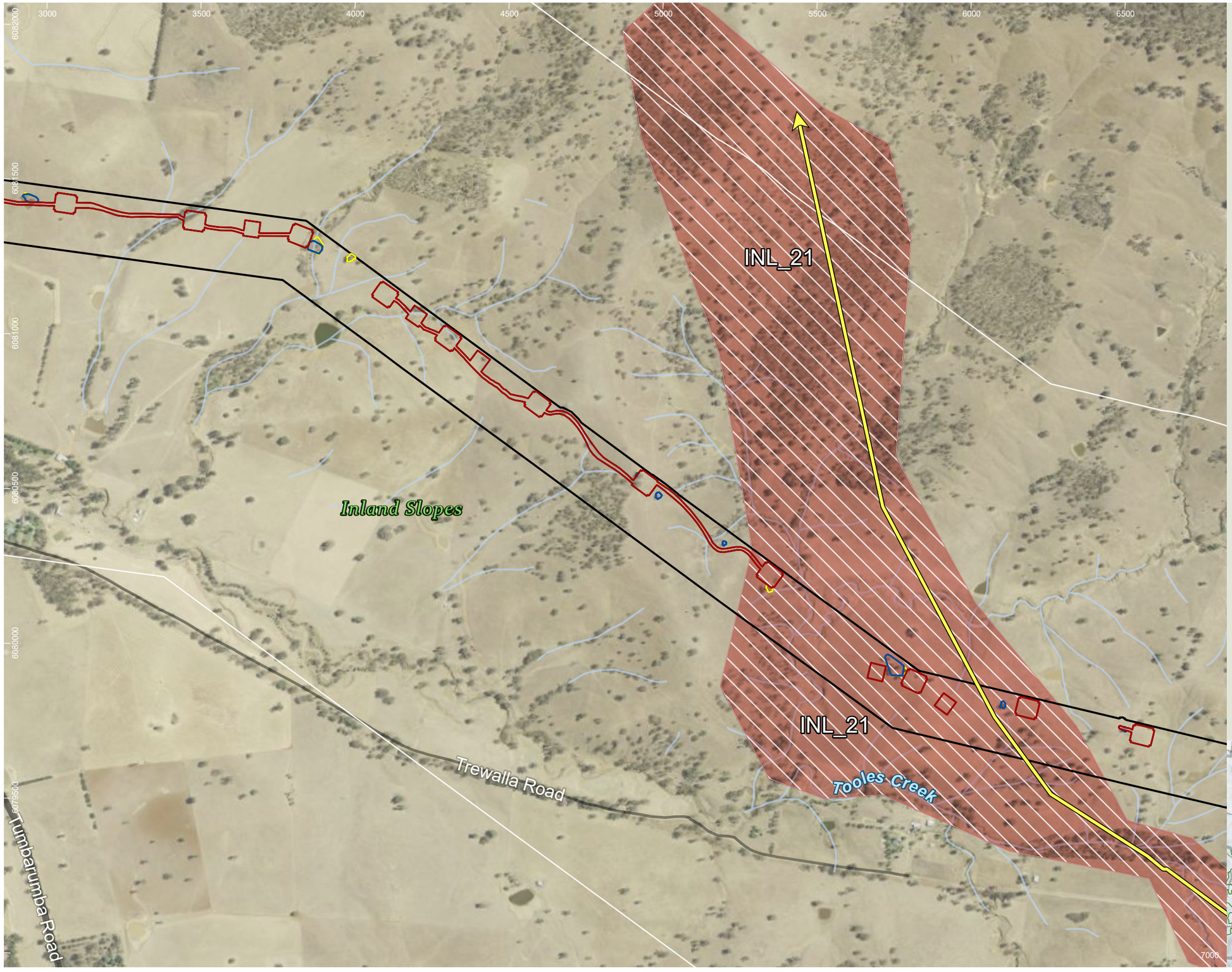


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

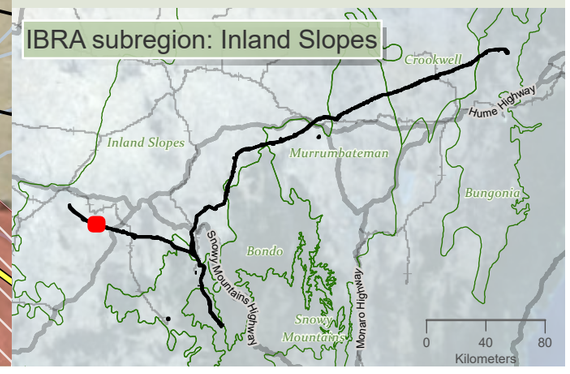
- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 6

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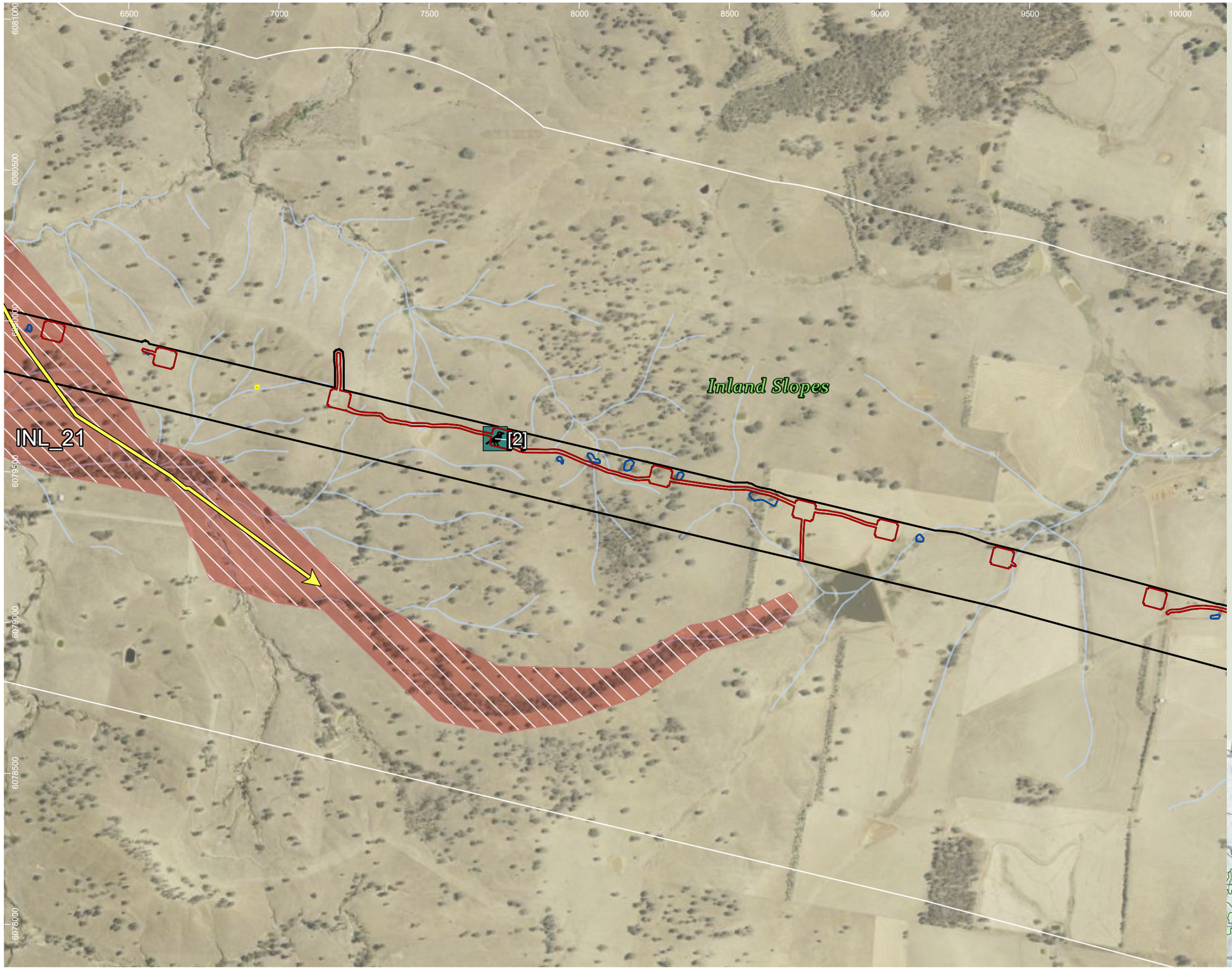


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

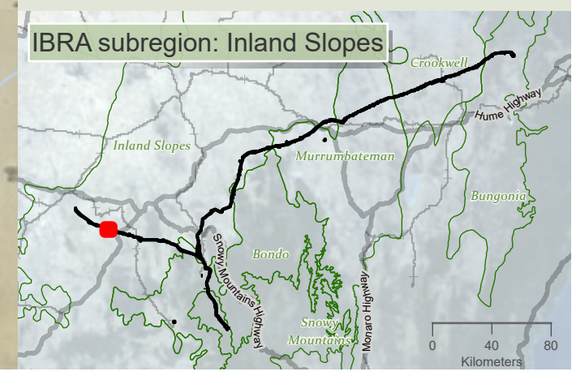
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Grey-crowned Babbler (eastern subspecies) (Pomatostomus temporalis temporalis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Superb Parrot (Polytelis swainsonii) (1)



Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 7

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13000 13500 14000 14500 15000 15500 16000 16500 17000

6079500 6079000 6078500 6078000 6077500 6077000 6076600

Keajura Road

Keajura Creek

Hume Highway

Inland Slopes

INL_20

INL_20 - Mitigation measures: Design and installation of ground refugia (creation and re-use of timber/logs as habitat) | Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

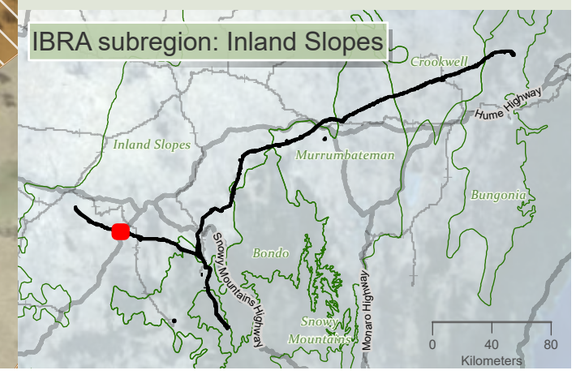
- Moderate

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Flame Robin (Petroica phoenicea) (1)

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 9

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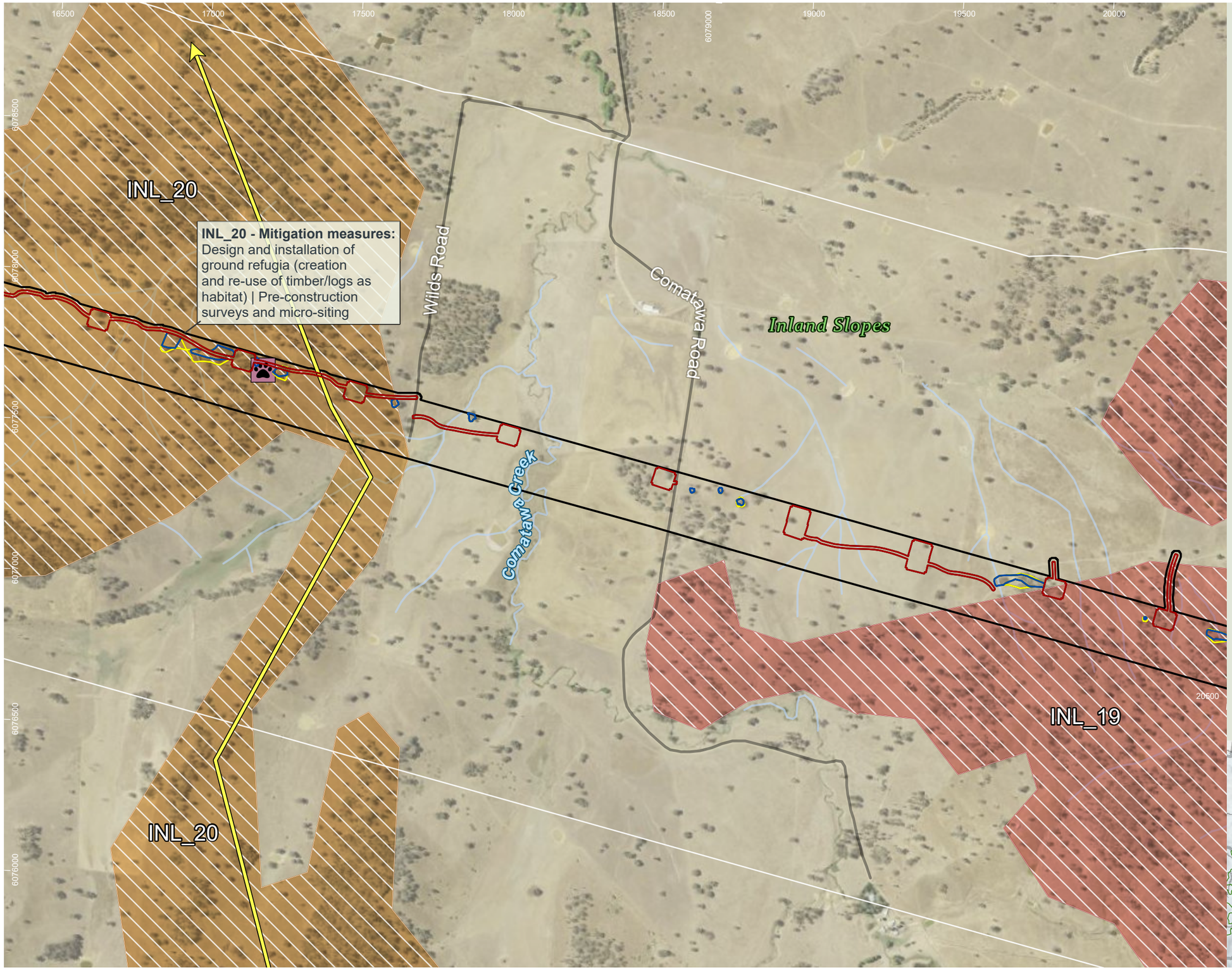


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

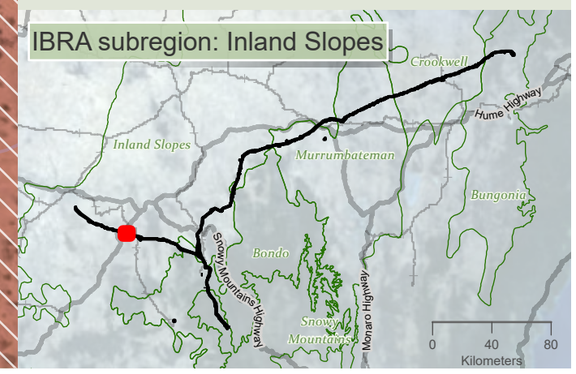
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 10

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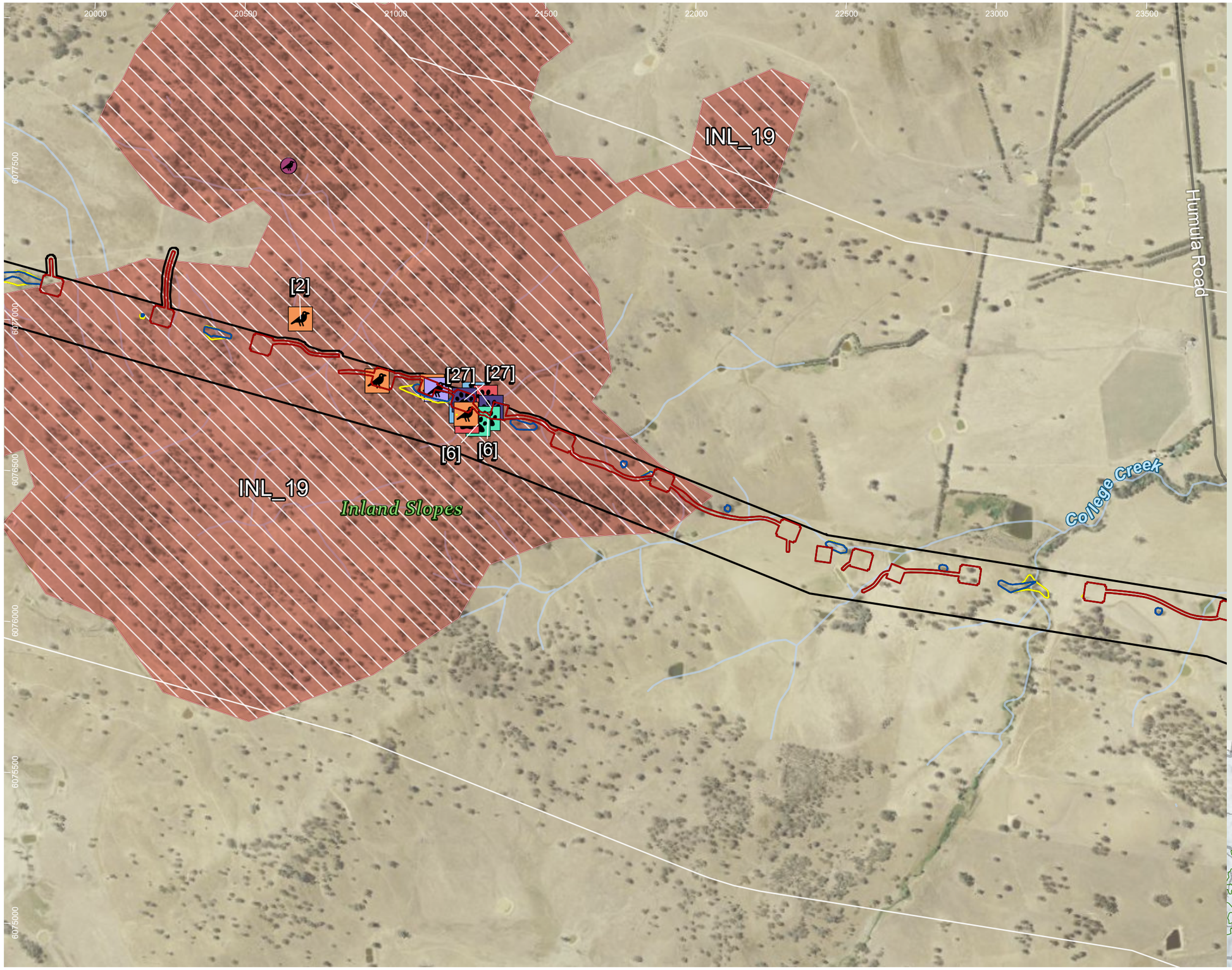


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (4)
- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Southern Myotis (Myotis macropus) (2)
- Squirrel Glider (Petaurus norfolcensis) (1)

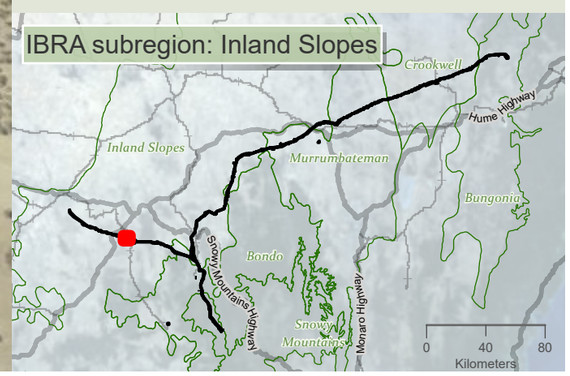
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black-chinned Honeyeater (eastern subspecies) (Melithreptus gularis gularis) (3)
- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (15)
- Diamond Firetail (Stagonopleura guttata) (3)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (4)
- Flame Robin (Petroica phoenicea) (2)
- Grey-crowned Babbler (eastern subspecies) (Pomatostomus temporalis temporalis) (1)
- Hooded Robin (south-eastern form) (Melanodryas cucullata cucullata) (6)
- Scarlet Robin (Petroica boodang) (2)
- Speckled Warbler (Chthonicola sagittata) (3)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)
- Squirrel Glider in the Wagga Wagga Local Government Area (Petaurus norfolcensis) (1)



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 11

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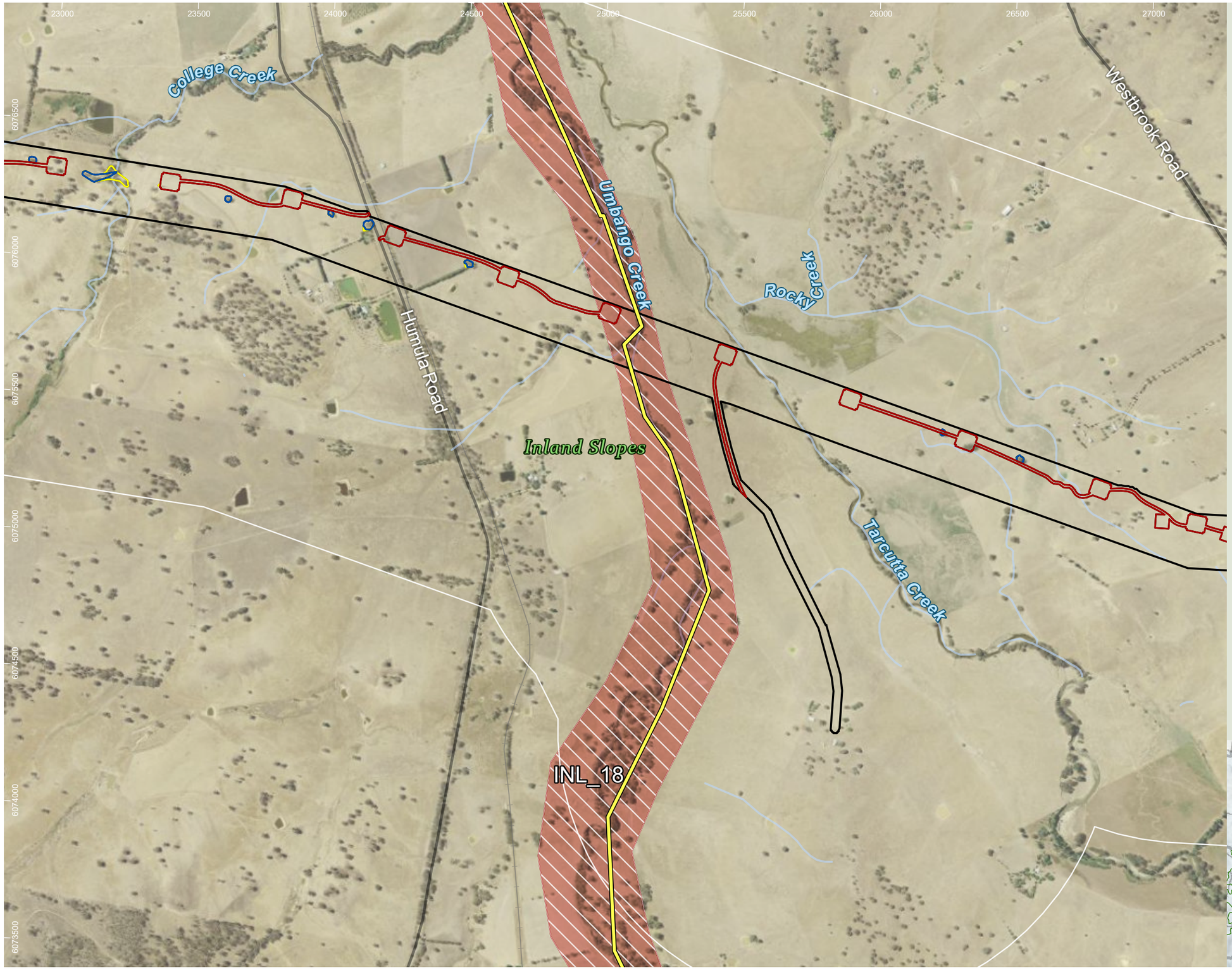


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

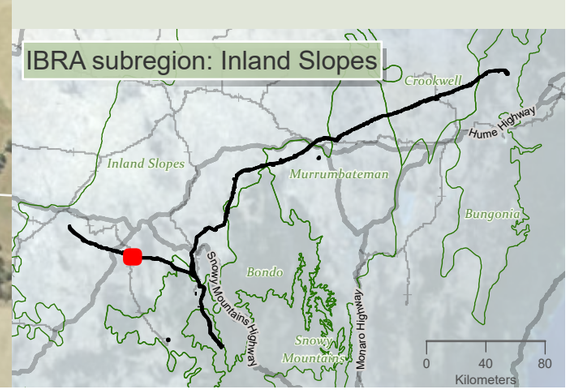
- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 12

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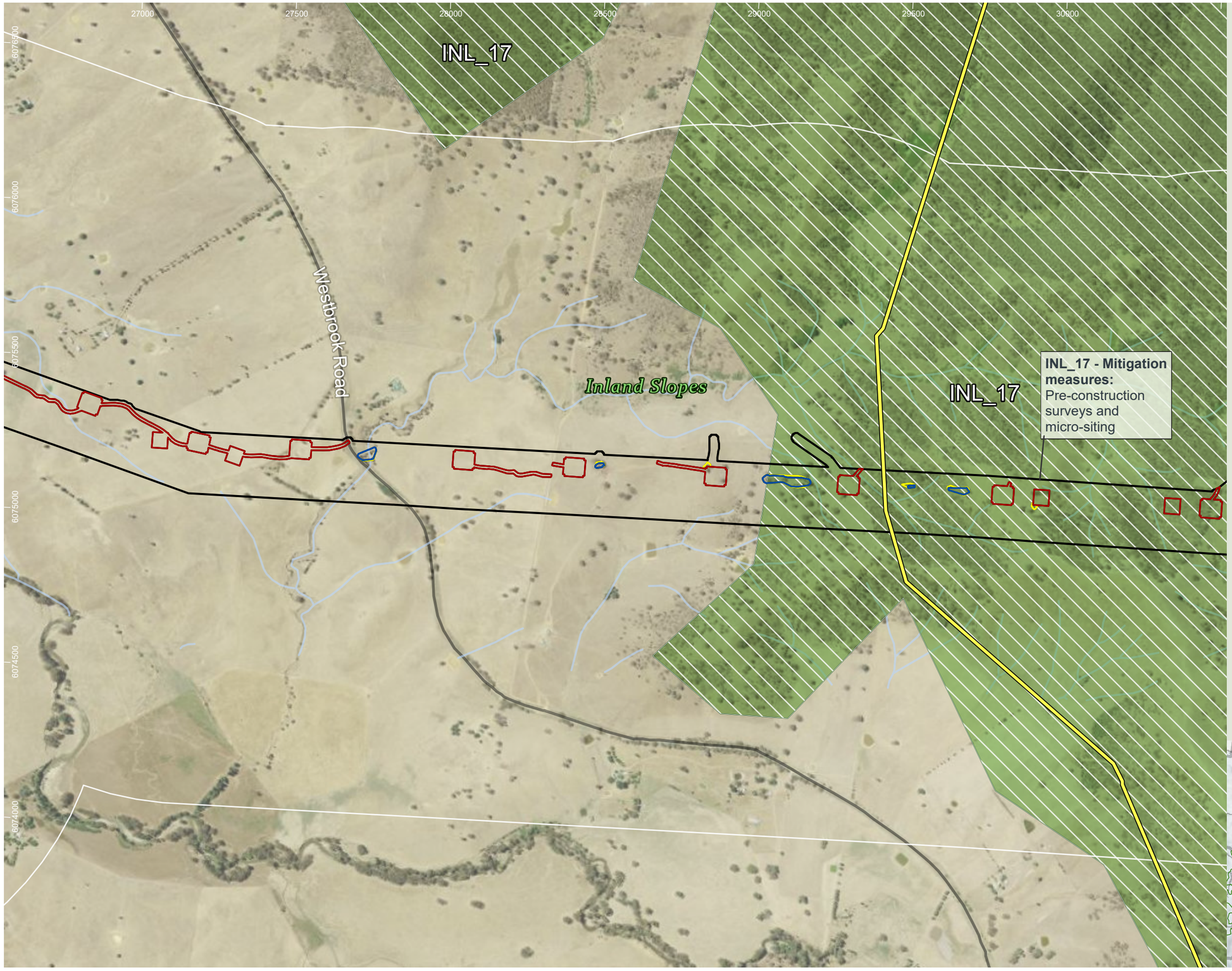


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

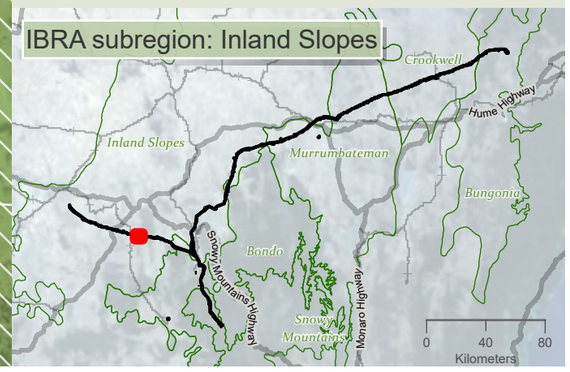
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 350 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 13

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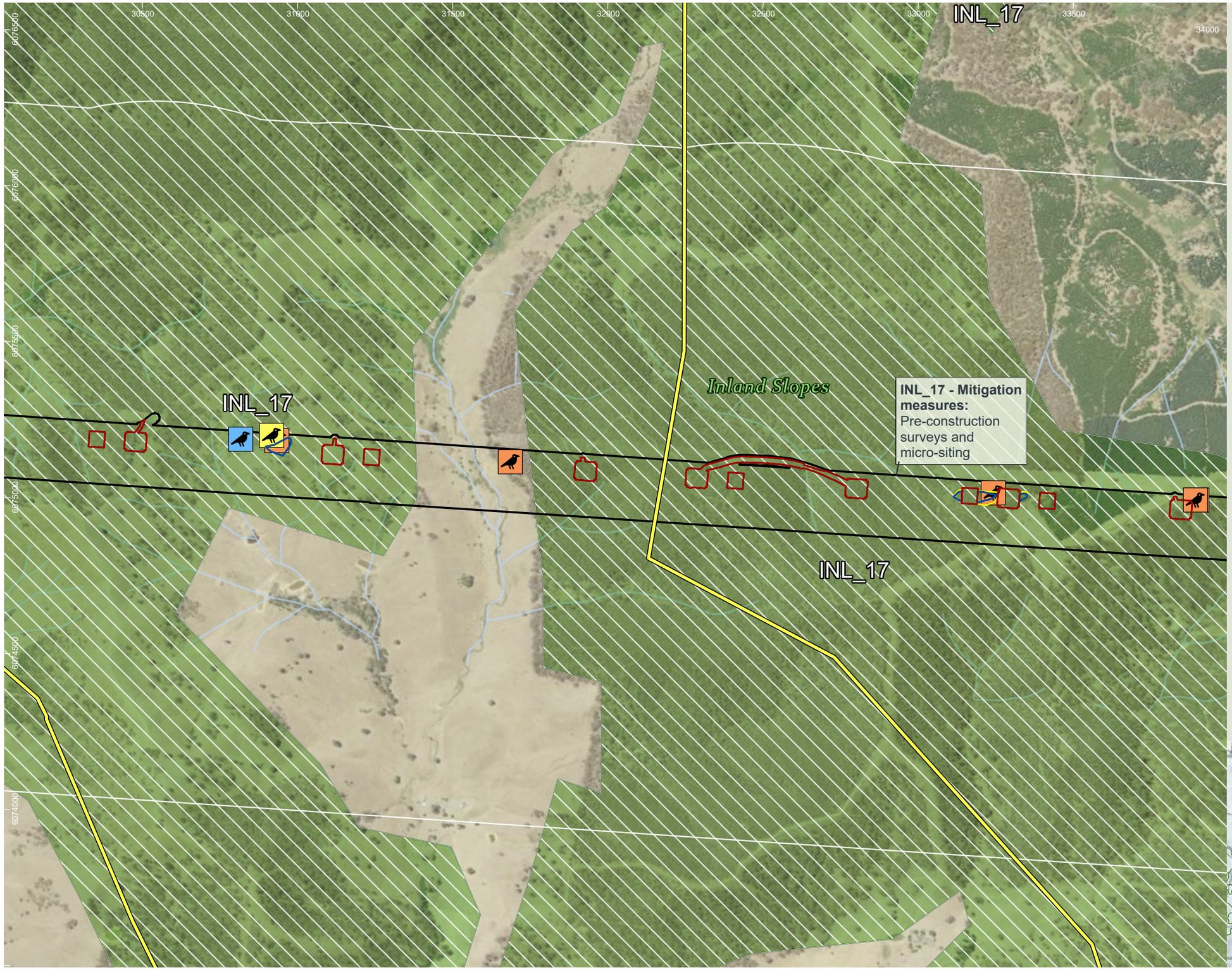


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

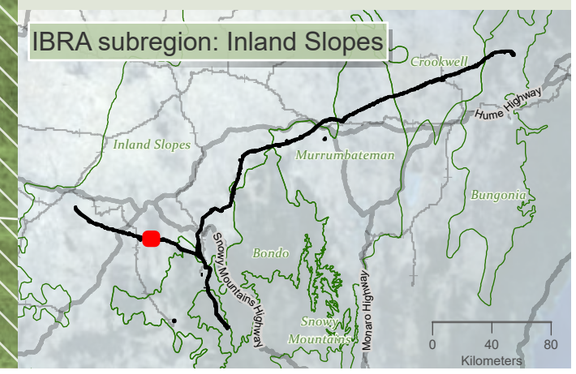
Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (5)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 14

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6073500

Inland Slopes

Turners Creek

Galvins Creek

INL_17

INL_17

INL_17 - Mitigation measures:
Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

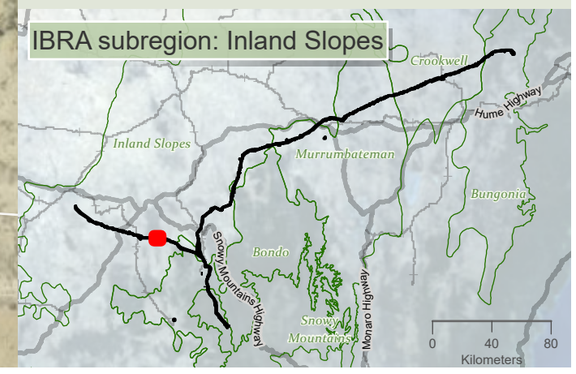
- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)

IBRA subregion: Inland Slopes



0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 15

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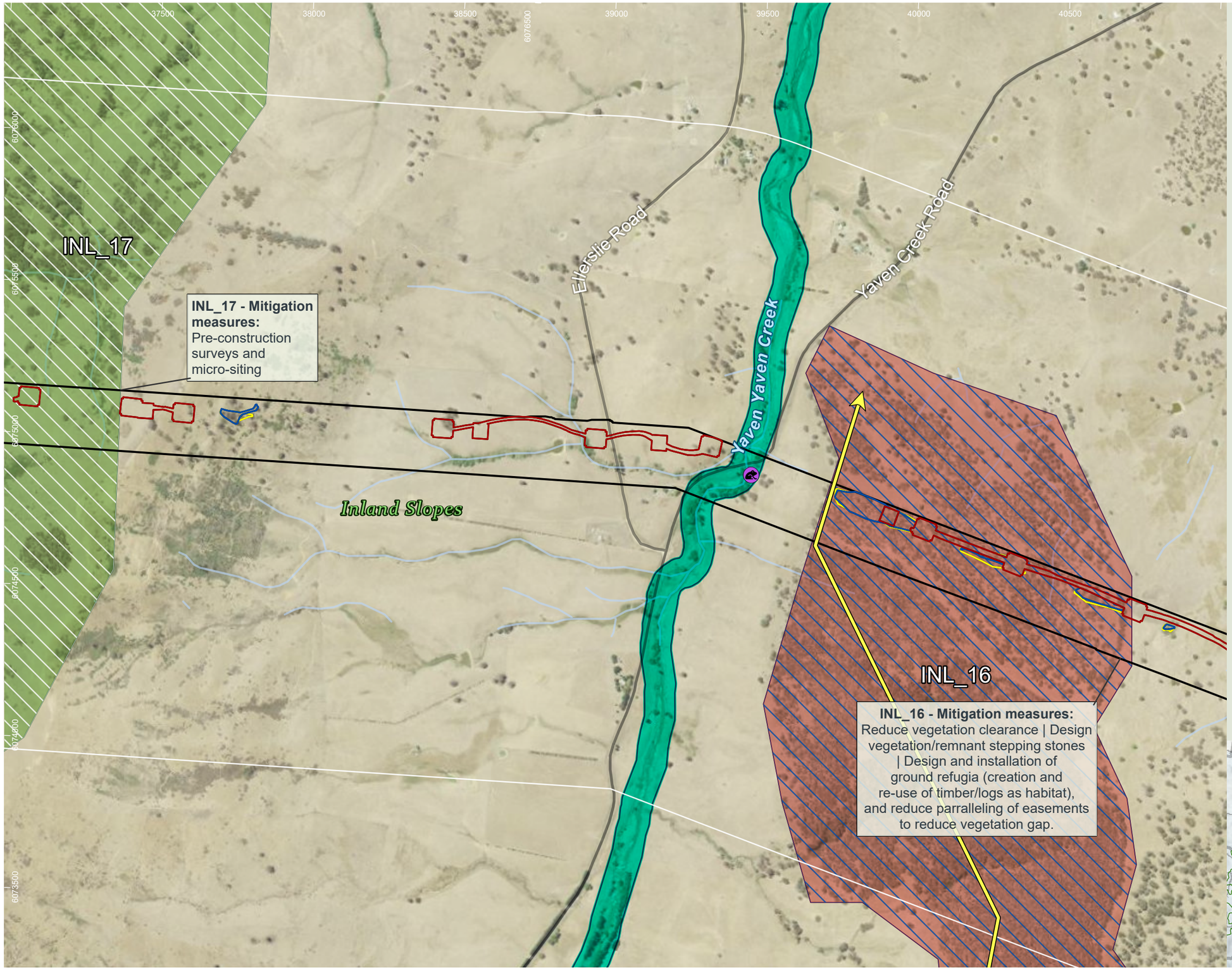


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

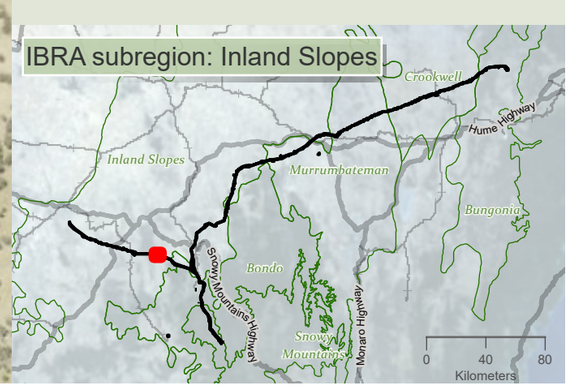
Fauna corridors - existing connectivity

- High
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Amphibia

- Booroolong Frog (Litoria booroolongensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 16

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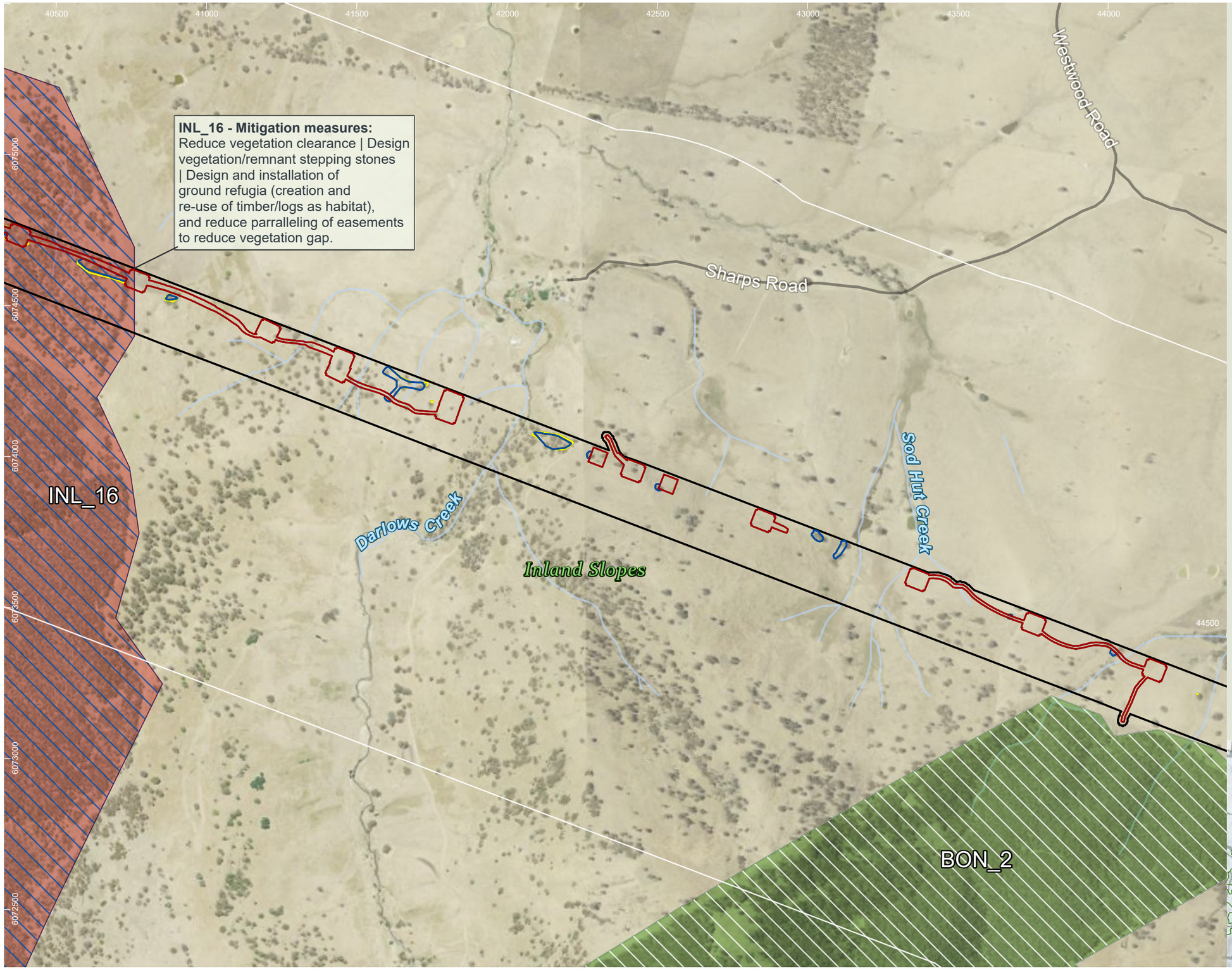


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

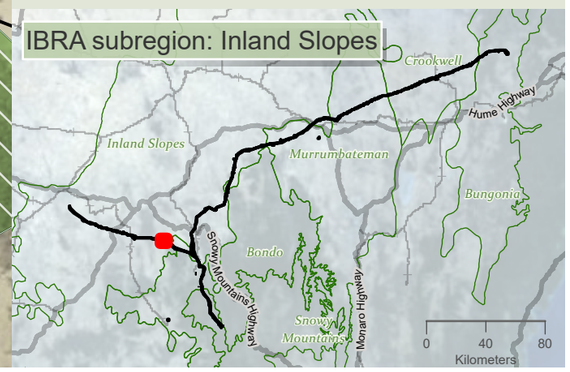
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 17

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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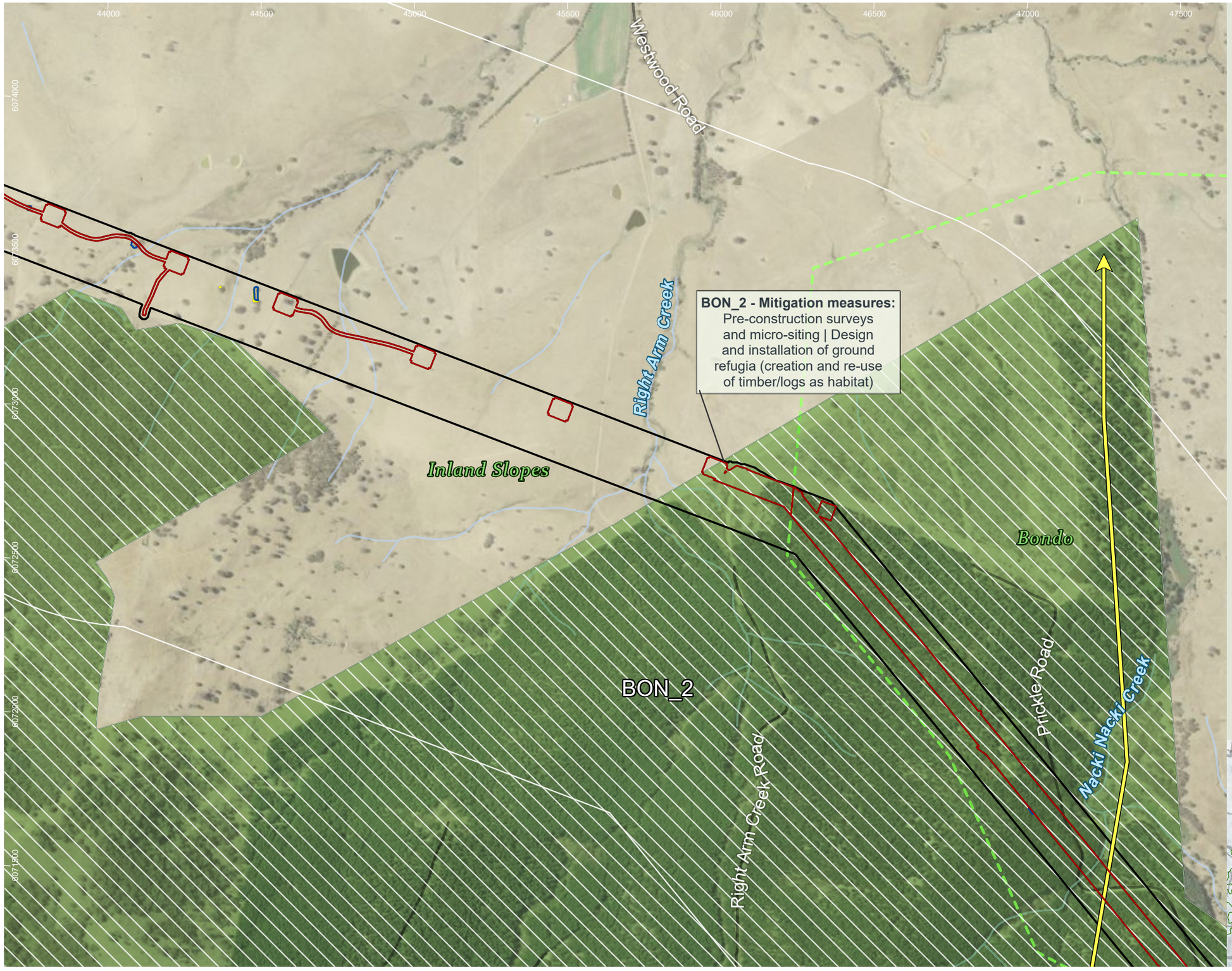


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

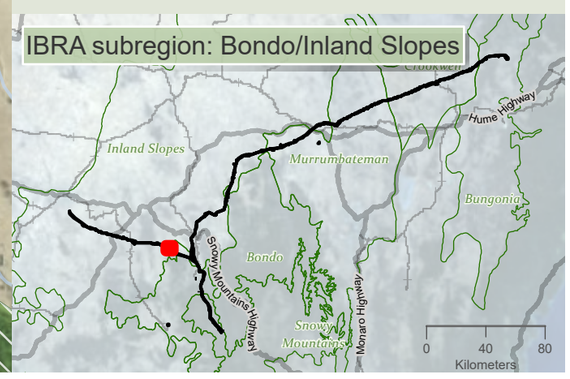
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 18

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46500 47000 47500 48000 48500 49000 49500 50000

6072000 6071500 6071000 6070500 6070000 6069500

BON_2 - Mitigation measures:
Pre-construction surveys and micro-siting | Design and installation of ground refugia (creation and re-use of timber/logs as habitat)

Back Nacki Creek Road

Bondo

Prickle Road

Nacki Nacki Creek

BON_2

Inland Slopes

Sharps Creek Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

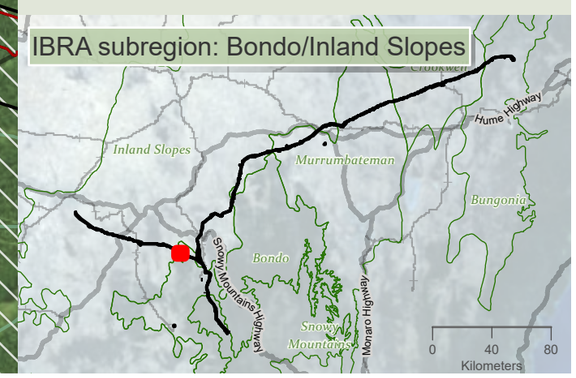
Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 19

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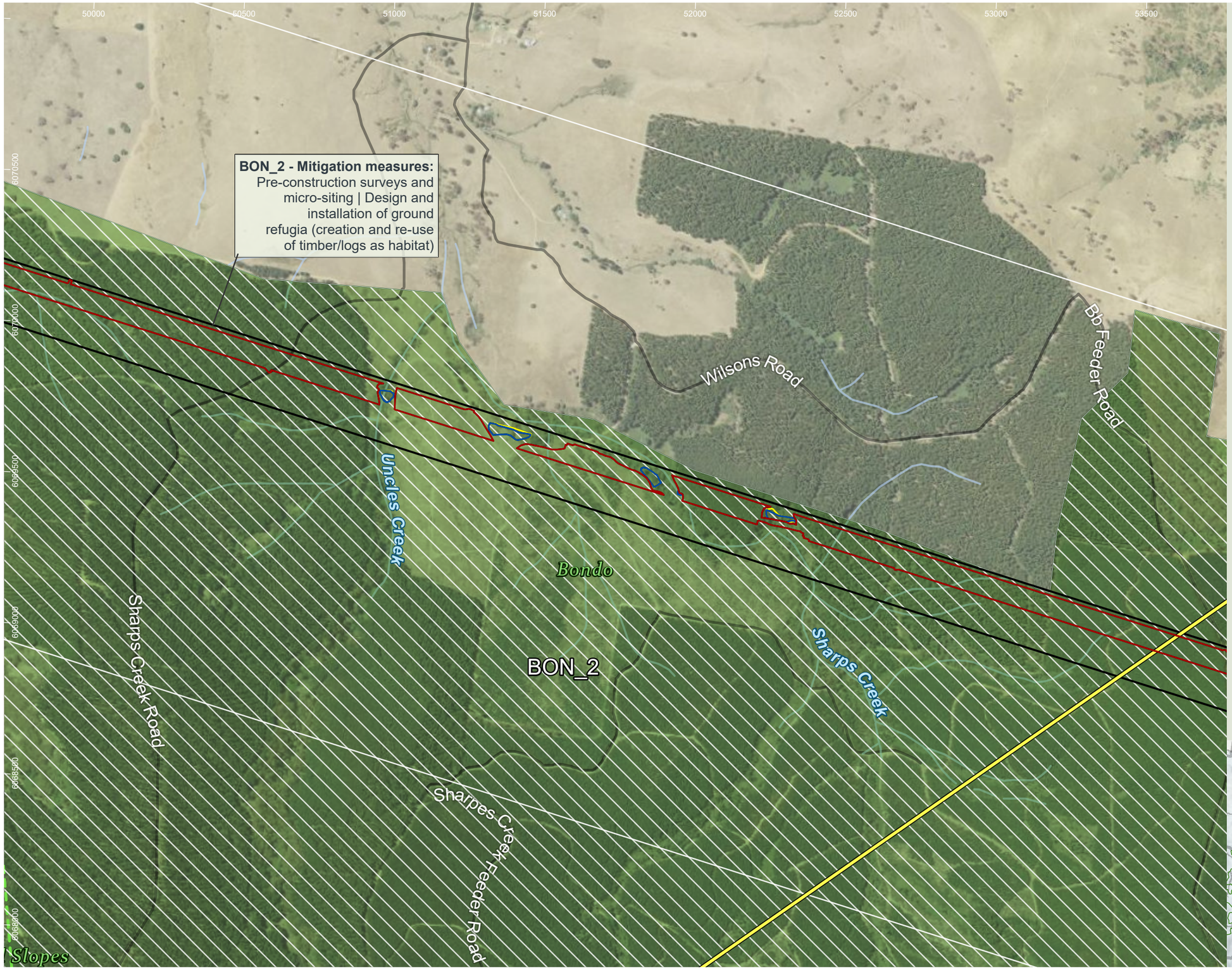


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

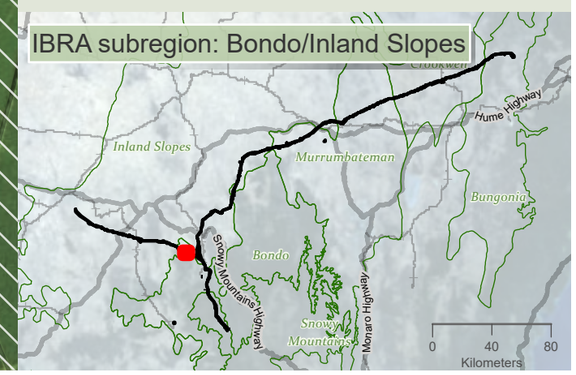
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 20

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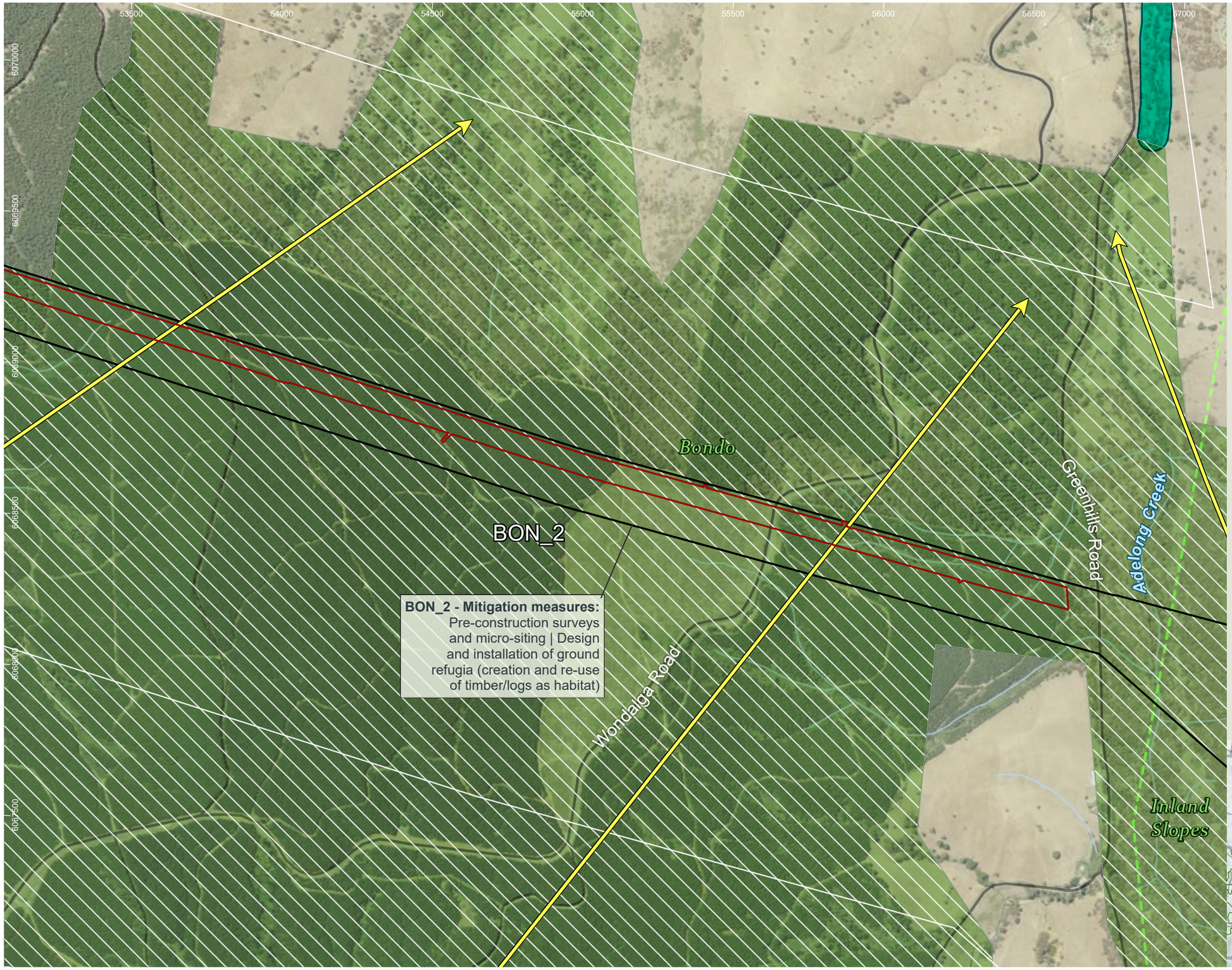


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway

Transport

Road

- Minor road

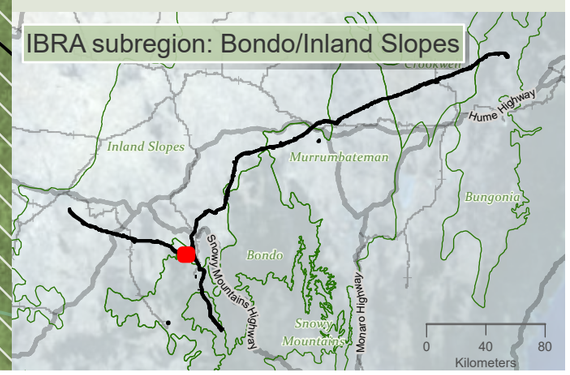
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 21

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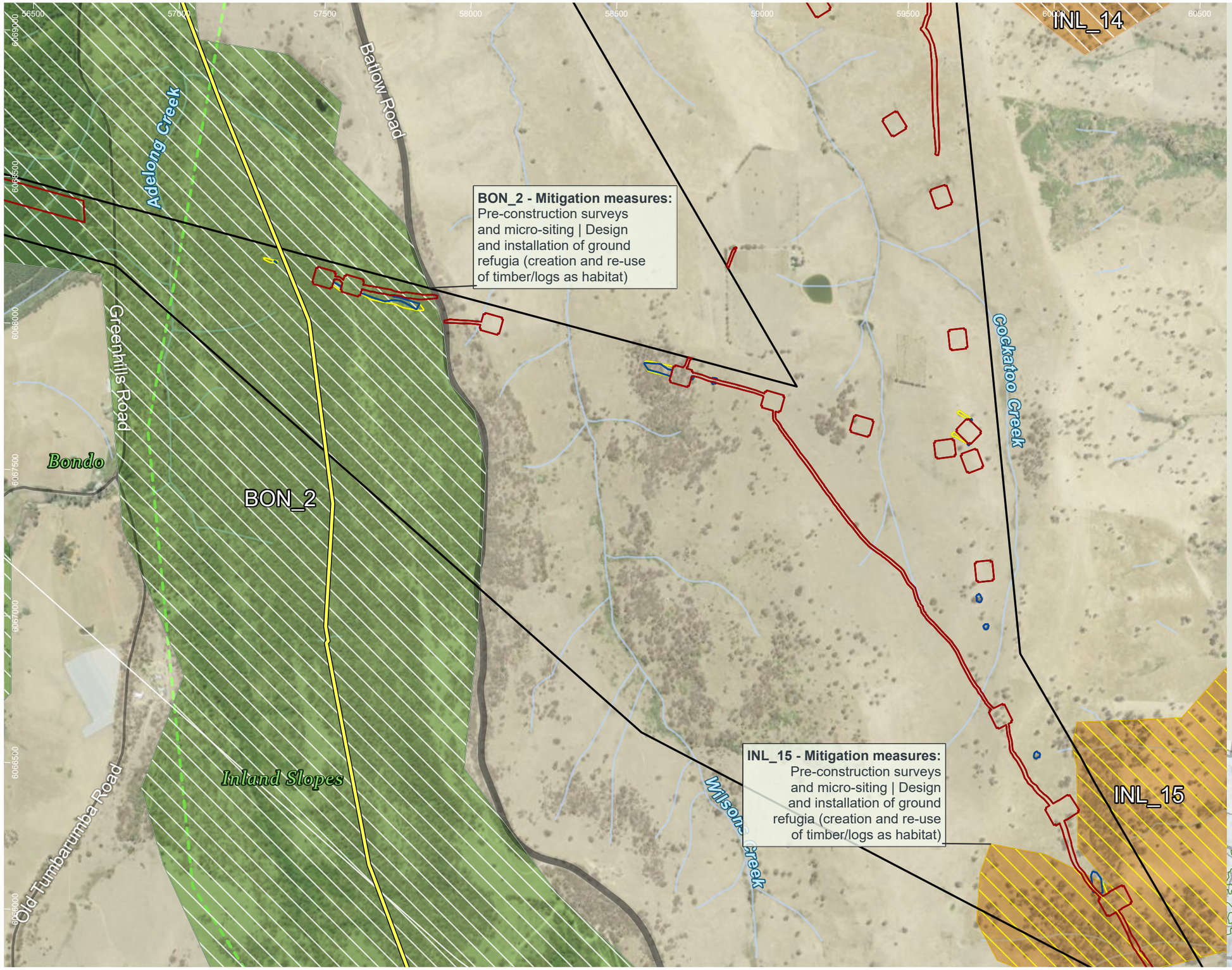


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

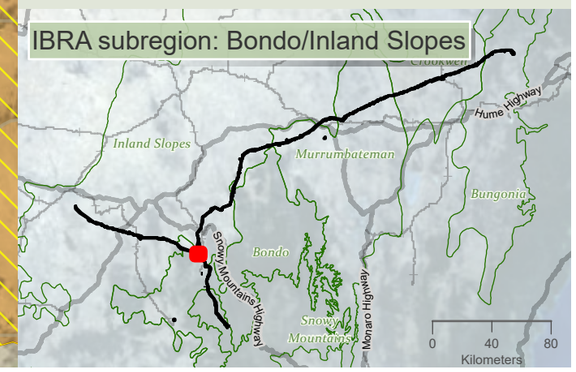
- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 22

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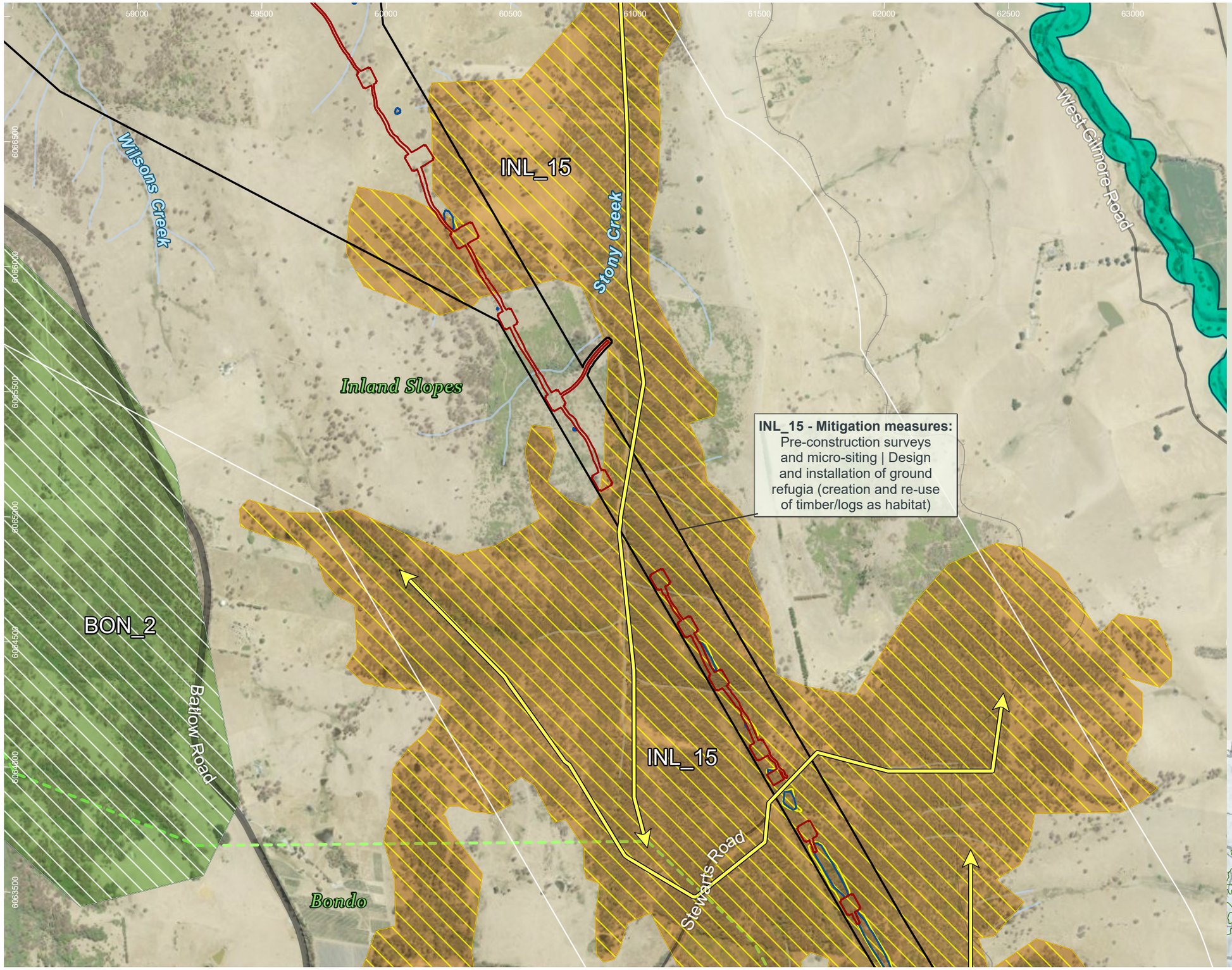


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

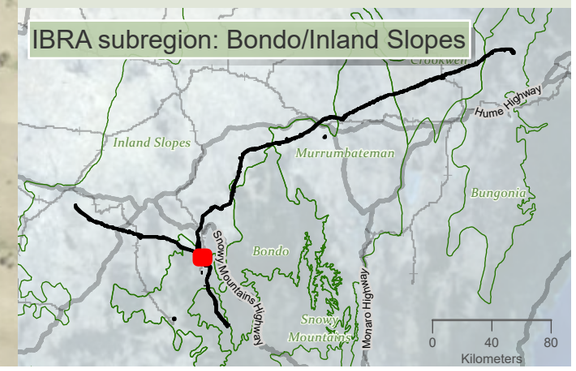
- Major road
- Minor road
- Rail
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 23

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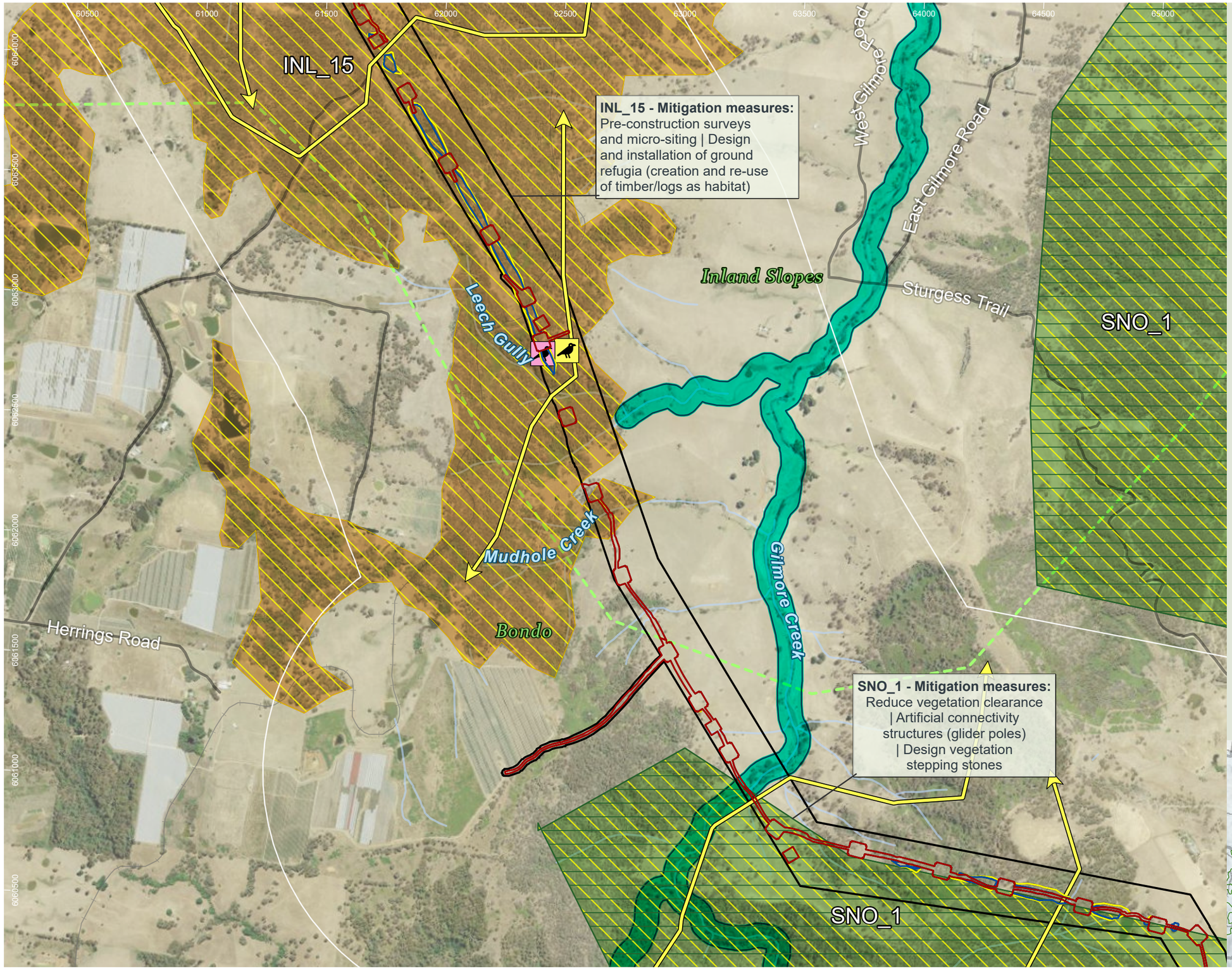


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

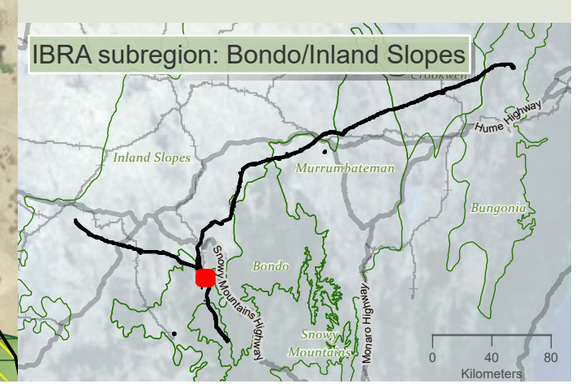
Fauna corridors - existing connectivity

- High
- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Speckled Warbler (Chthonicola sagittata) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 24

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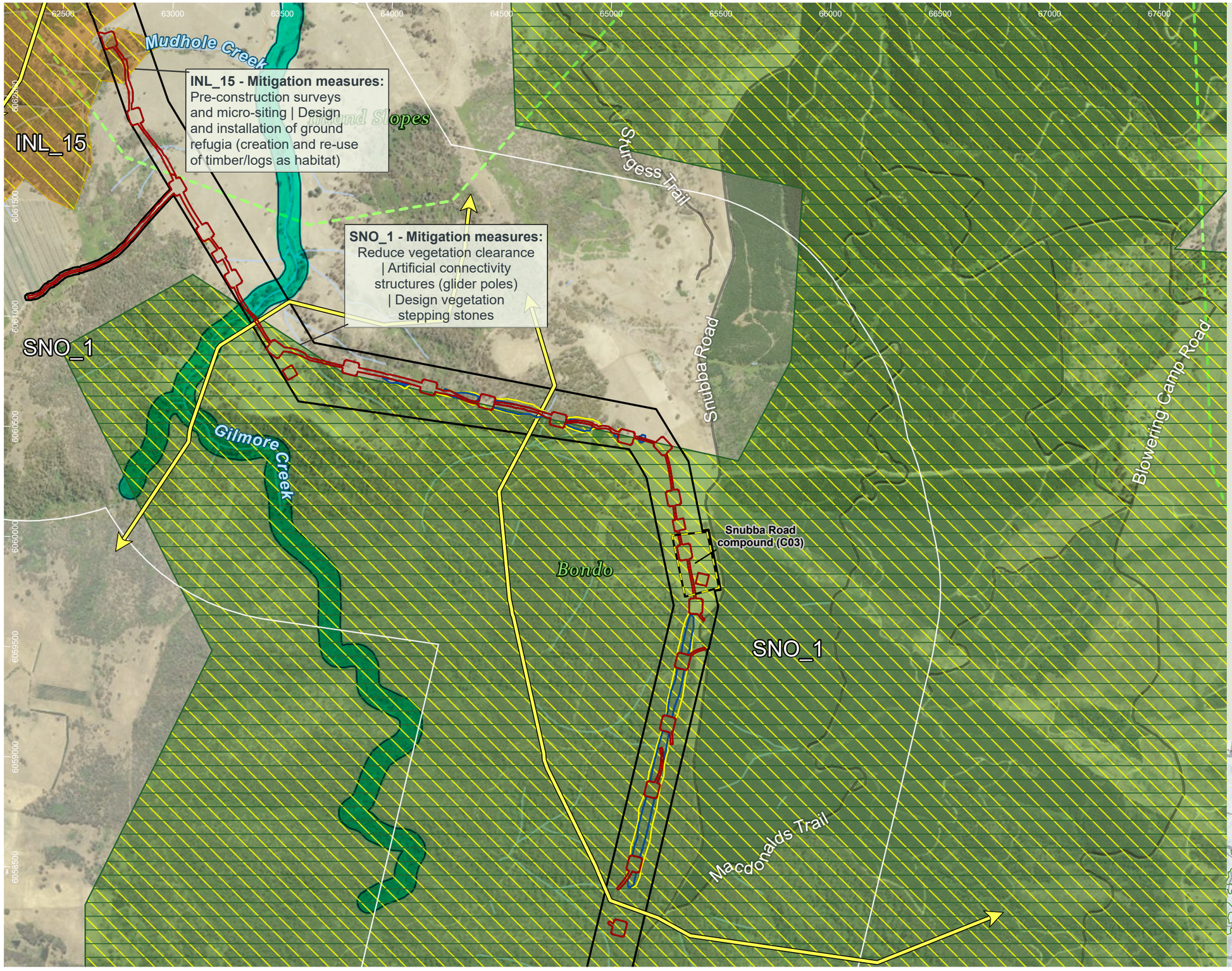


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

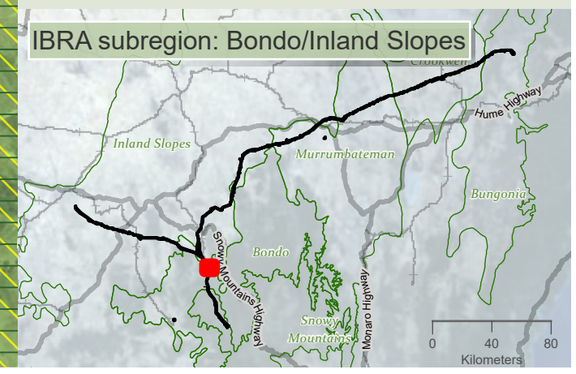
- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 25

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Towns and cities

- Town

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

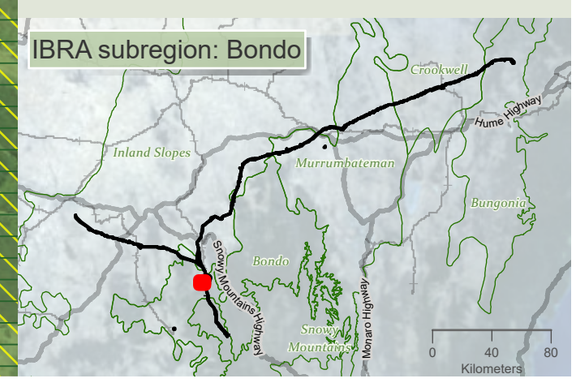
Fauna corridors - existing connectivity

- High

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Spotted-tailed Quoll (Dasyurus maculatus) (4)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 27

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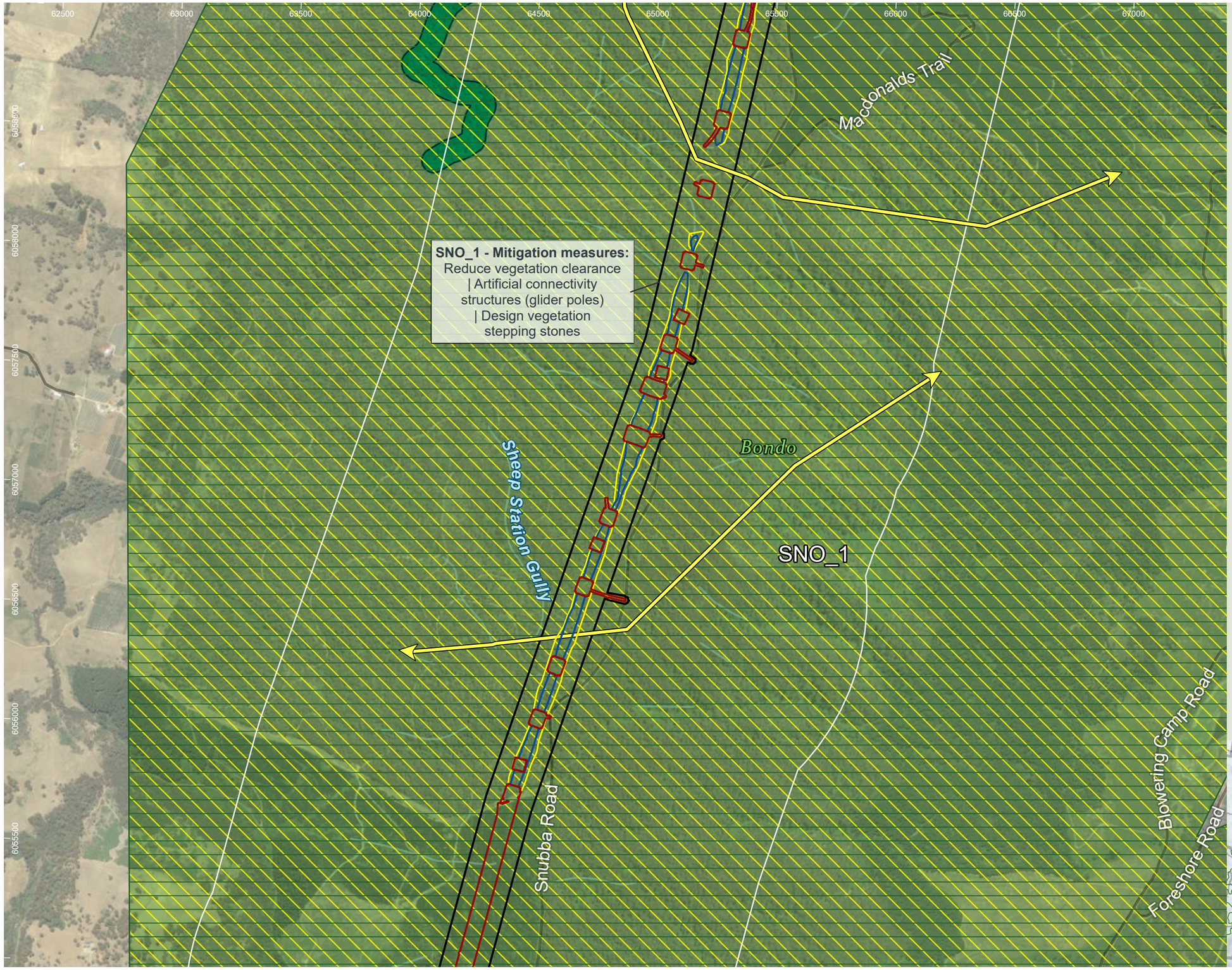


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

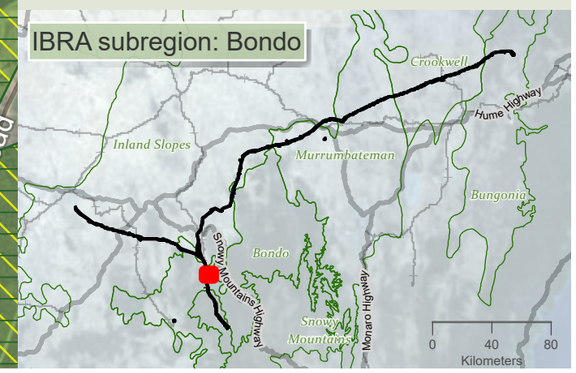
- Moderate

Fauna corridors - existing connectivity

- High

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (4)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 28

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

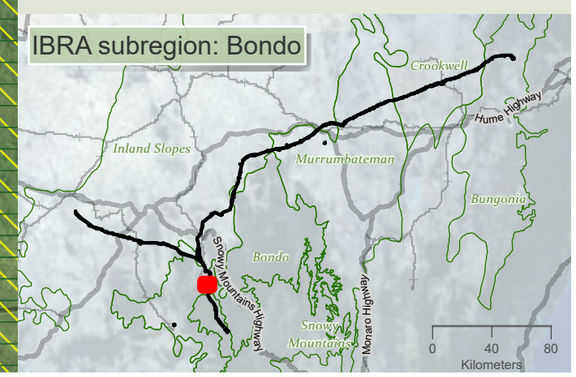
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans) (10)
- Yellow-bellied Glider (Petaurus australis) (3)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 29

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans) (5)
- Yellow-bellied Glider (Petaurus australis) (2)

Threatened fauna species - Forestry (no. of records)

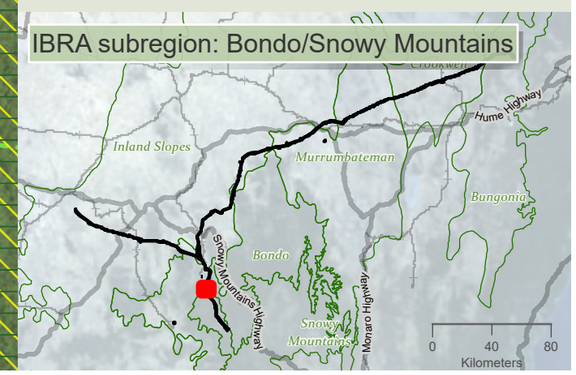
Mammalia

- Yellow-bellied Glider (Petaurus australis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Greater Glider (Petauroides volans) (5)
- Yellow-bellied Glider (Petaurus australis) (3)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (3)



niche Environment and Heritage

0 N 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 30

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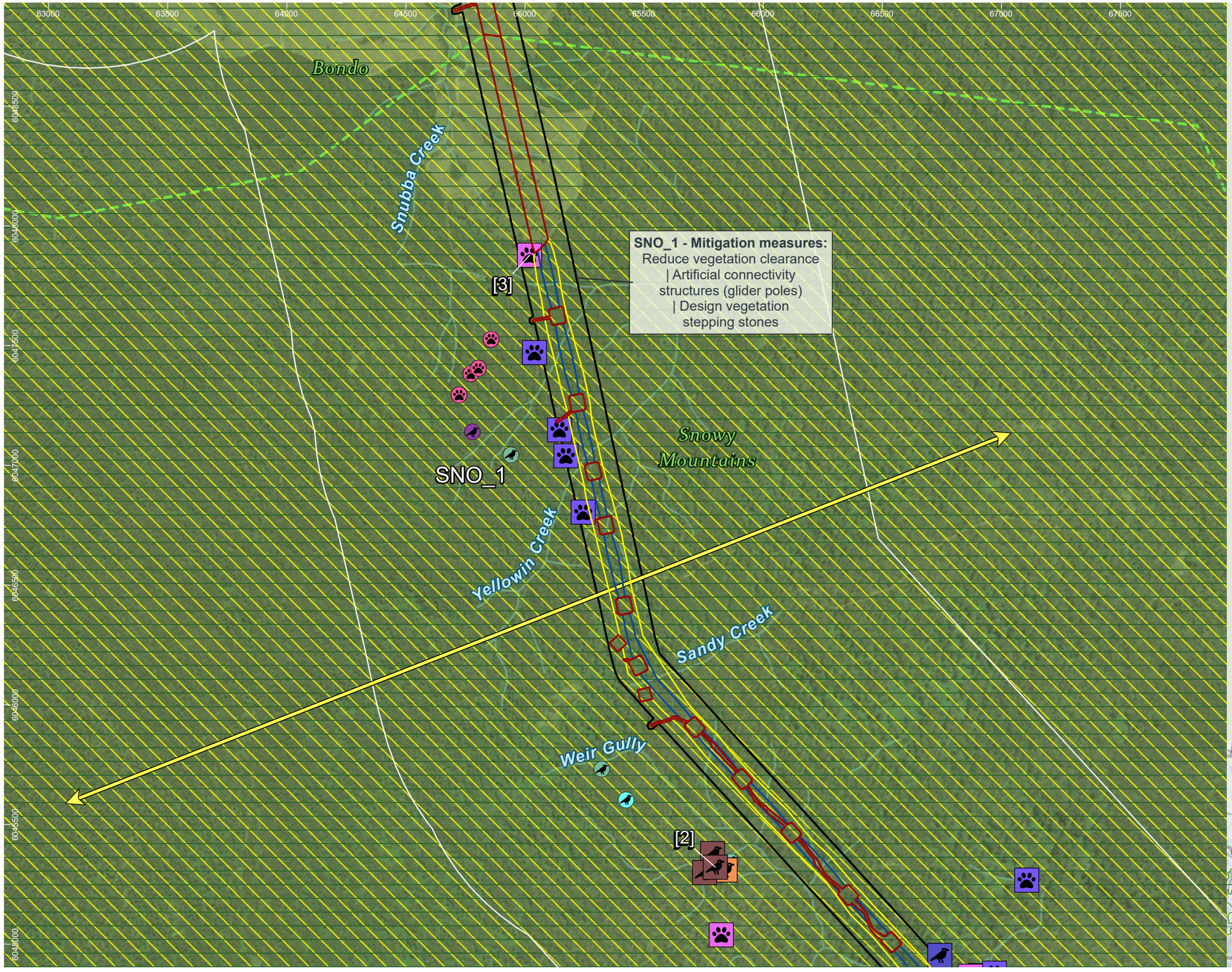


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (3)
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Greater Glider (Petauroides volans) (4)
- Yellow-bellied Glider (Petaurus australis) (7)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

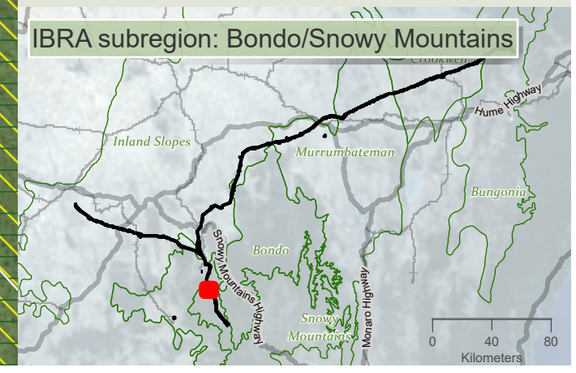
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (3)
- Pilotbird (Pycnoptilus floccosus) (1)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (4)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

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Figure 13-15 map reference 31

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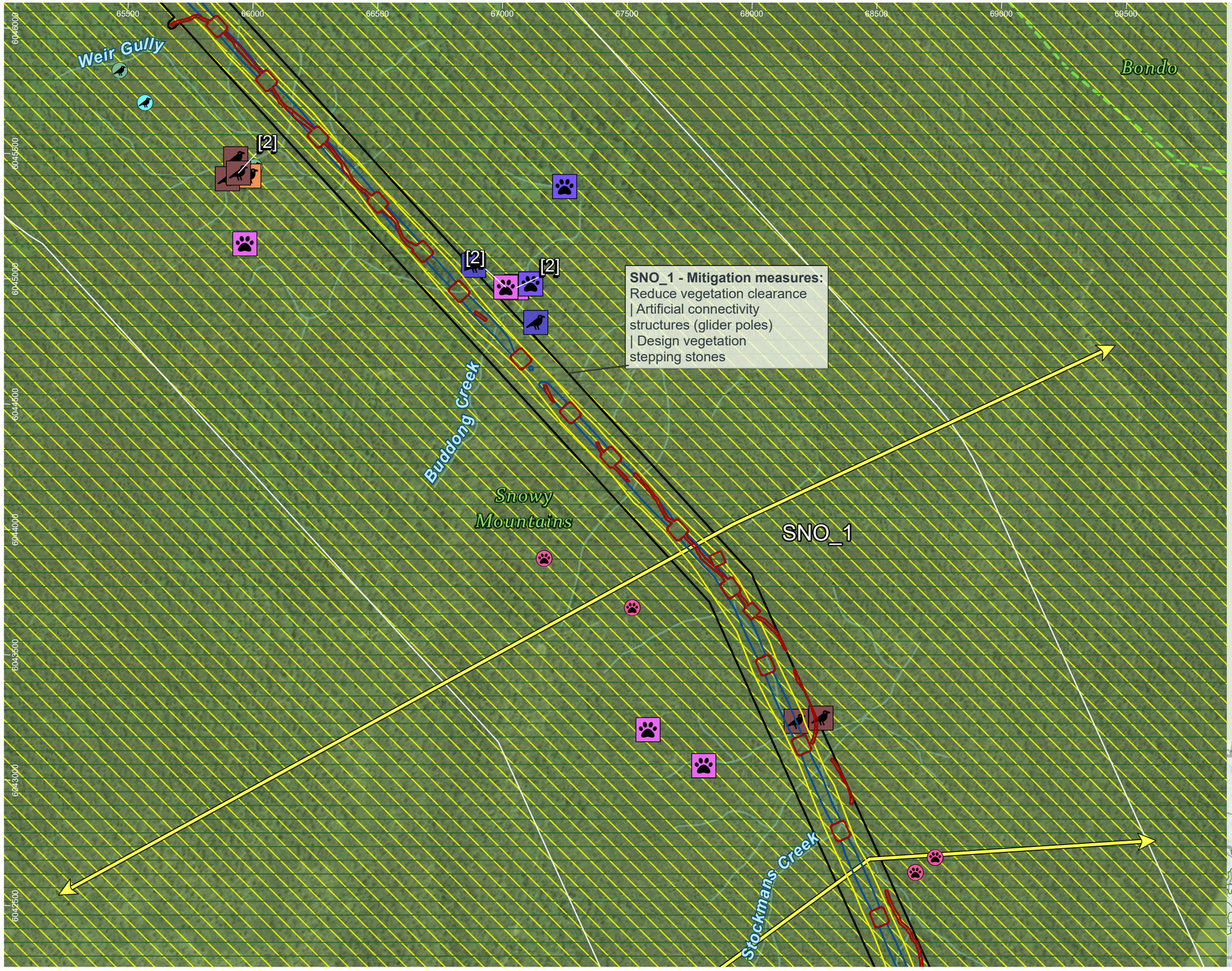


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (5)
- Olive Whistler (Pachycephala olivacea) (2)

Mammalia

- Greater Glider (Petauroides volans) (5)
- Yellow-bellied Glider (Petaurus australis) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

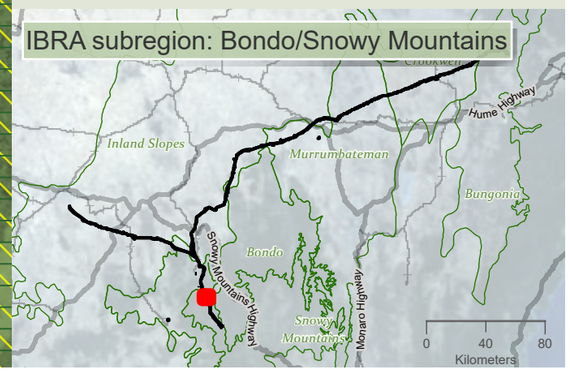
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (2)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (4)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (5)



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0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 32

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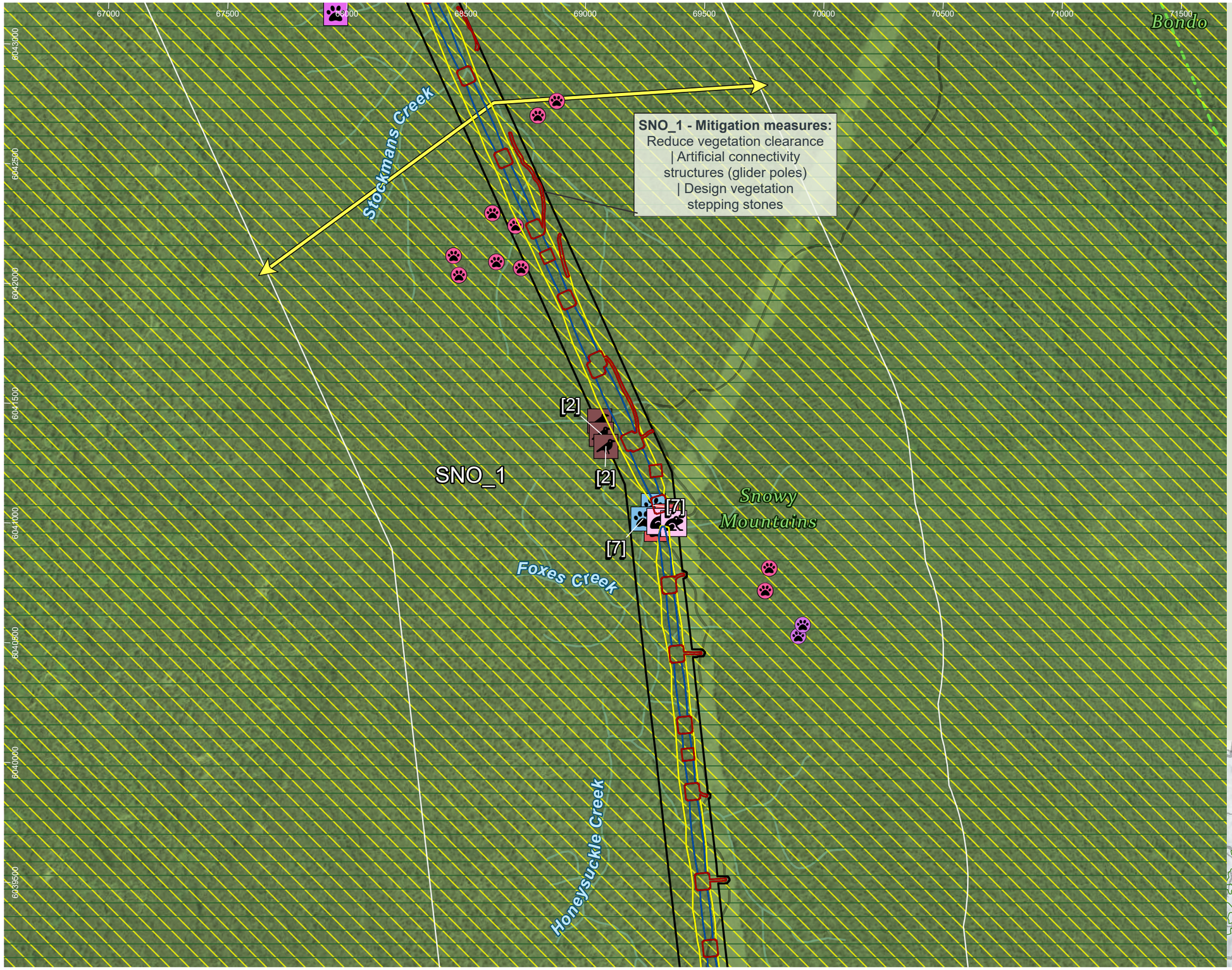


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (2)

Aves

- Flame Robin (Petroica phoenicea) (3)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Greater Glider (Petauroides volans) (1)

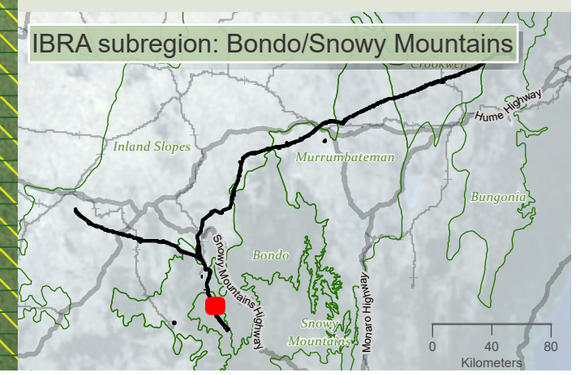
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Greater Glider (Petauroides volans) (2)
- Yellow-bellied Glider (Petaurus australis) (11)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (11)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 33

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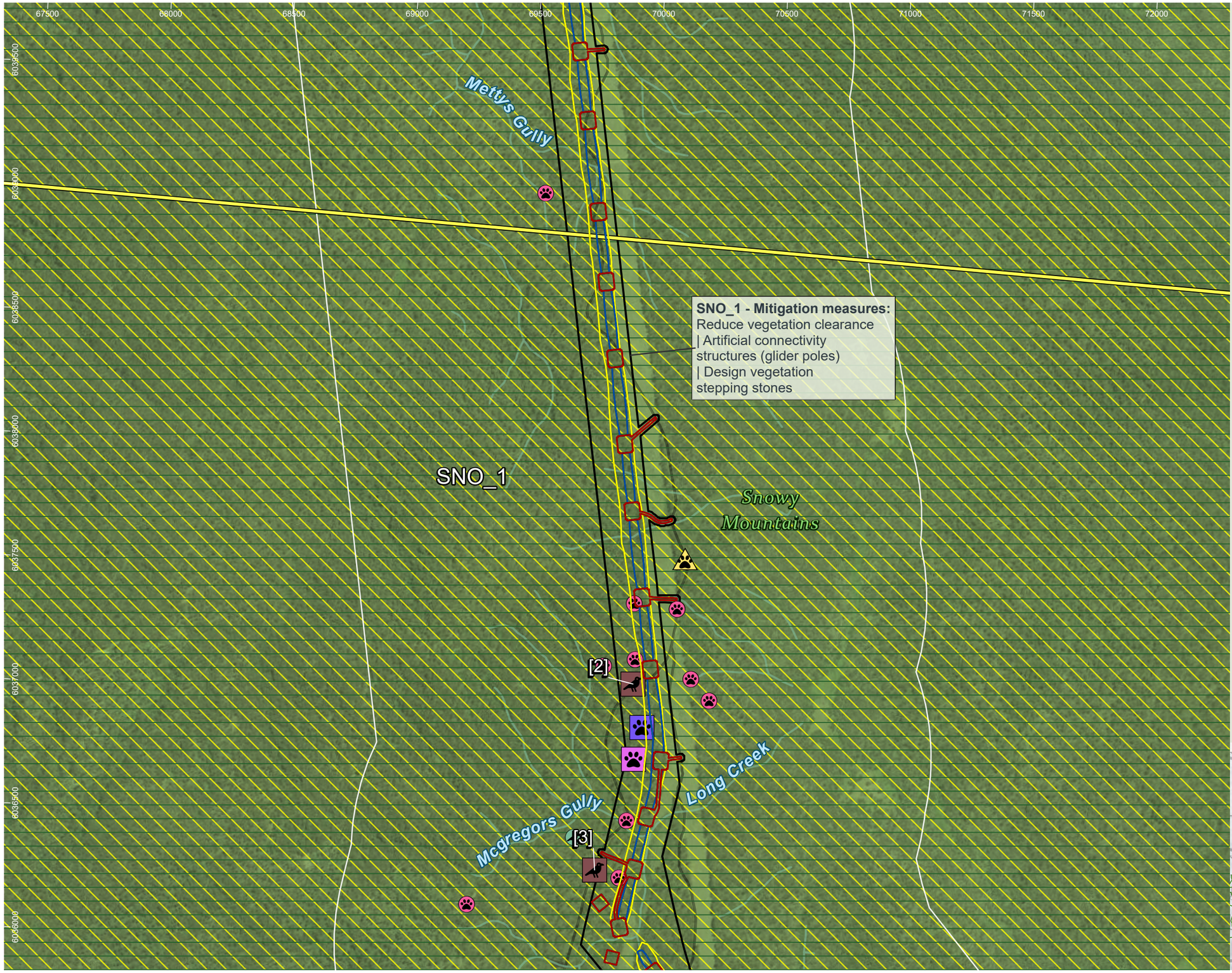


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (2)

Mammalia

- Greater Glider (Petauroides volans) (1)
- Yellow-bellied Glider (Petaurus australis) (1)

Threatened fauna species - Forestry (no. of records)

Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

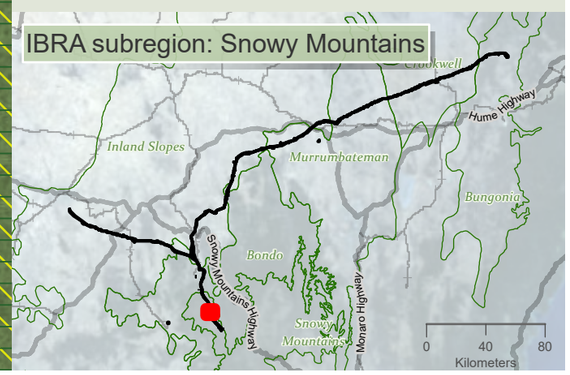
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (11)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (11)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (6)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

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Figure 13-15 map reference 34

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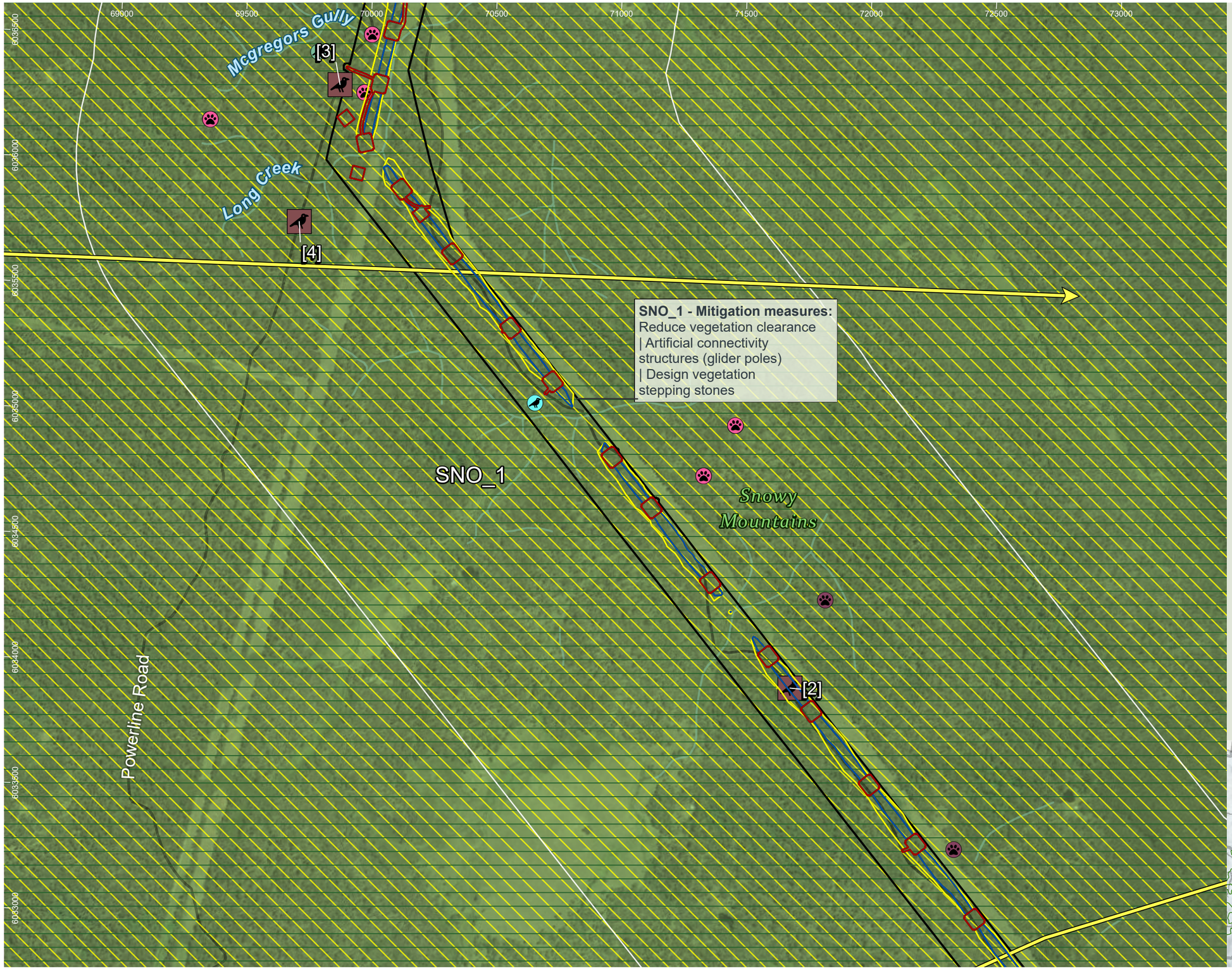


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

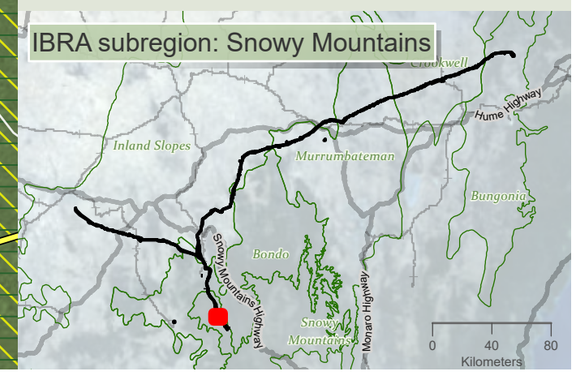
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Spotted-tailed Quoll (Dasyurus maculatus) (2)
- Yellow-bellied Glider (Petaurus australis) (5)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (5)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Barking Owl (Ninox connivens) (1)
- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

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Figure 13-15 map reference 36

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71000 71500 72000 72500 73000 73500 74000 74500 75000 75500

6033500 6032500 6031500 6030500 6029500 6028500 6027500 6026500

Bondo

Snowy Mountains

East Bago Powerline Road

Plain Creek

SNO_1

[2] [21] [5] [2] [10] [21] [21] [2]

SNO_1 - Mitigation measures:
Reduce vegetation clearance | Artificial connectivity structures (glider poles) | Design vegetation stepping stones

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (4)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Squirrel Glider (Petaurus norfolcensis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Flame Robin (Petroica phoenicea) (1)

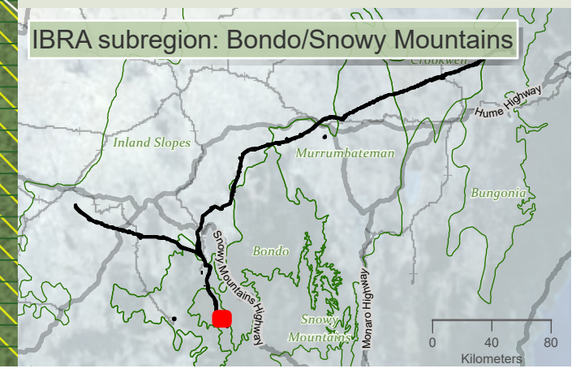
Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)
- Greater Glider (Petauroides volans) (3)
- Spotted-tailed Quoll (Dasyurus maculatus) (3)
- Squirrel Glider (Petaurus norfolcensis) (4)
- Yellow-bellied Glider (Petaurus australis) (15)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (15)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Barking Owl (Ninox connivens) (1)
- Gang-gang Cockatoo (Callocephalon fimbriatum) (8)

IBRA subregion: Bondo/Snowy Mountains



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 37

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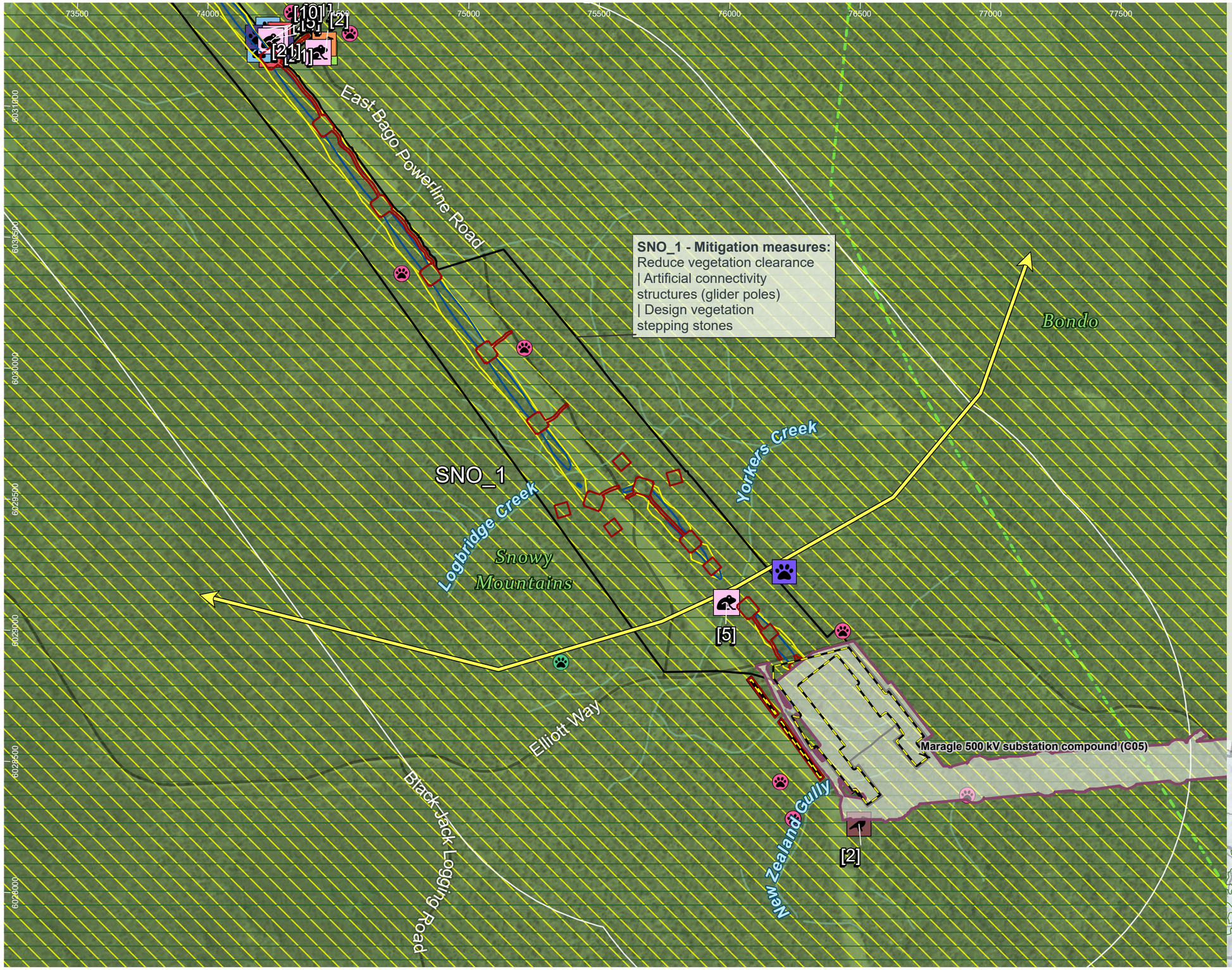


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (4)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Yellow-bellied Glider (Petaurus australis) (1)

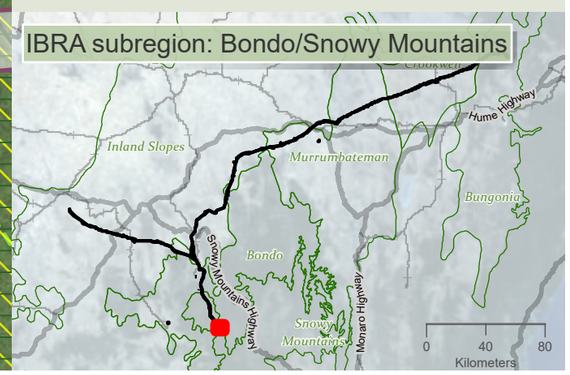
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)
- Yellow-bellied Glider (Petaurus australis) (9)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (9)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (12)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 38

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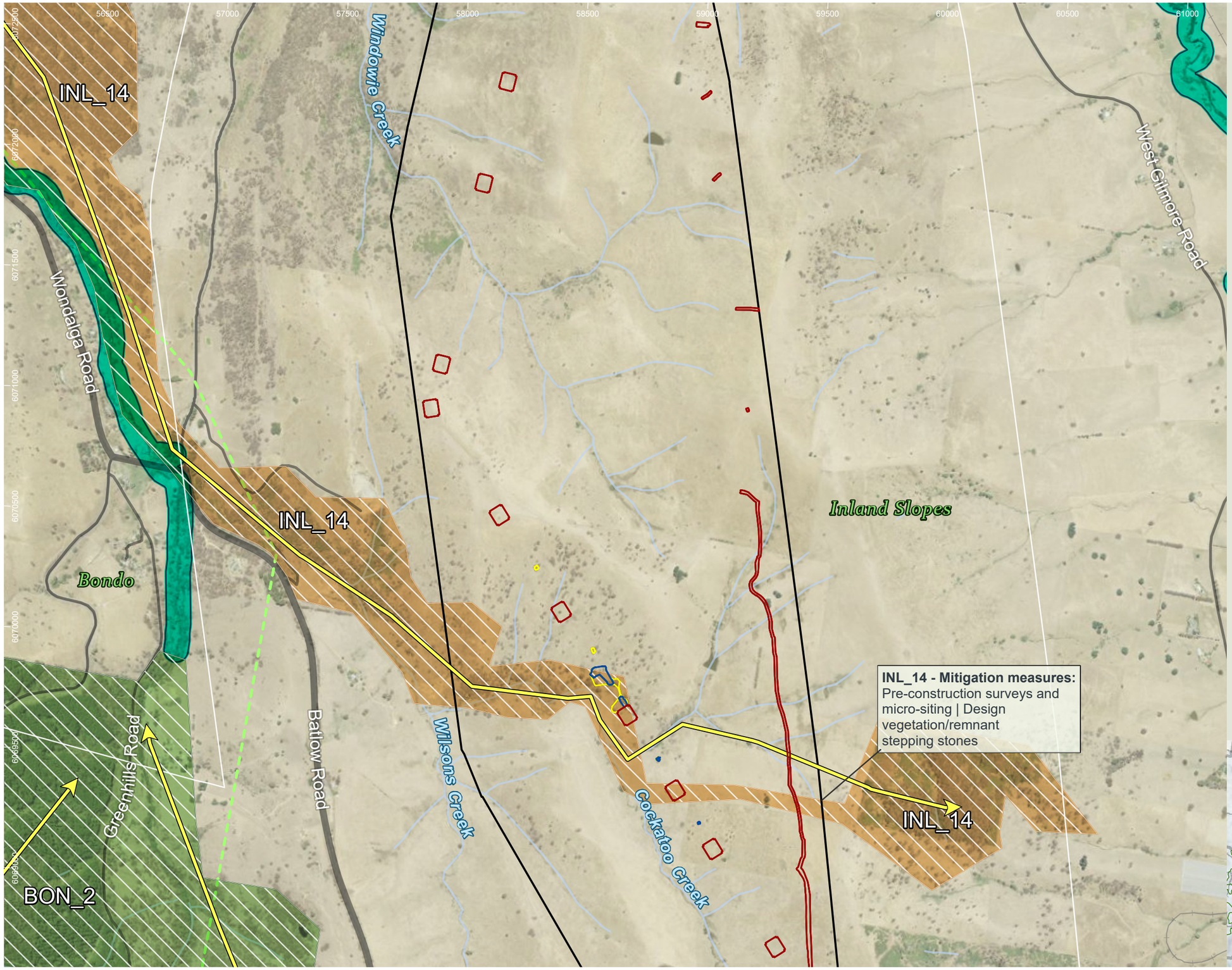


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail

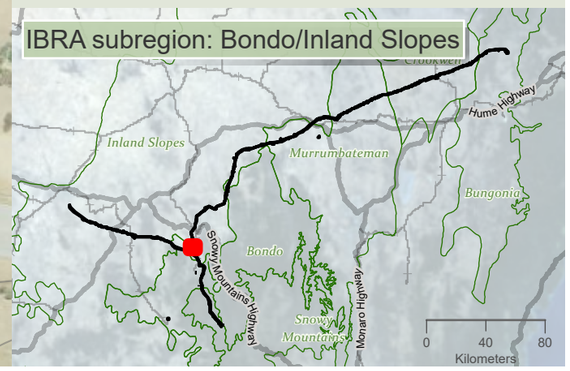
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 39

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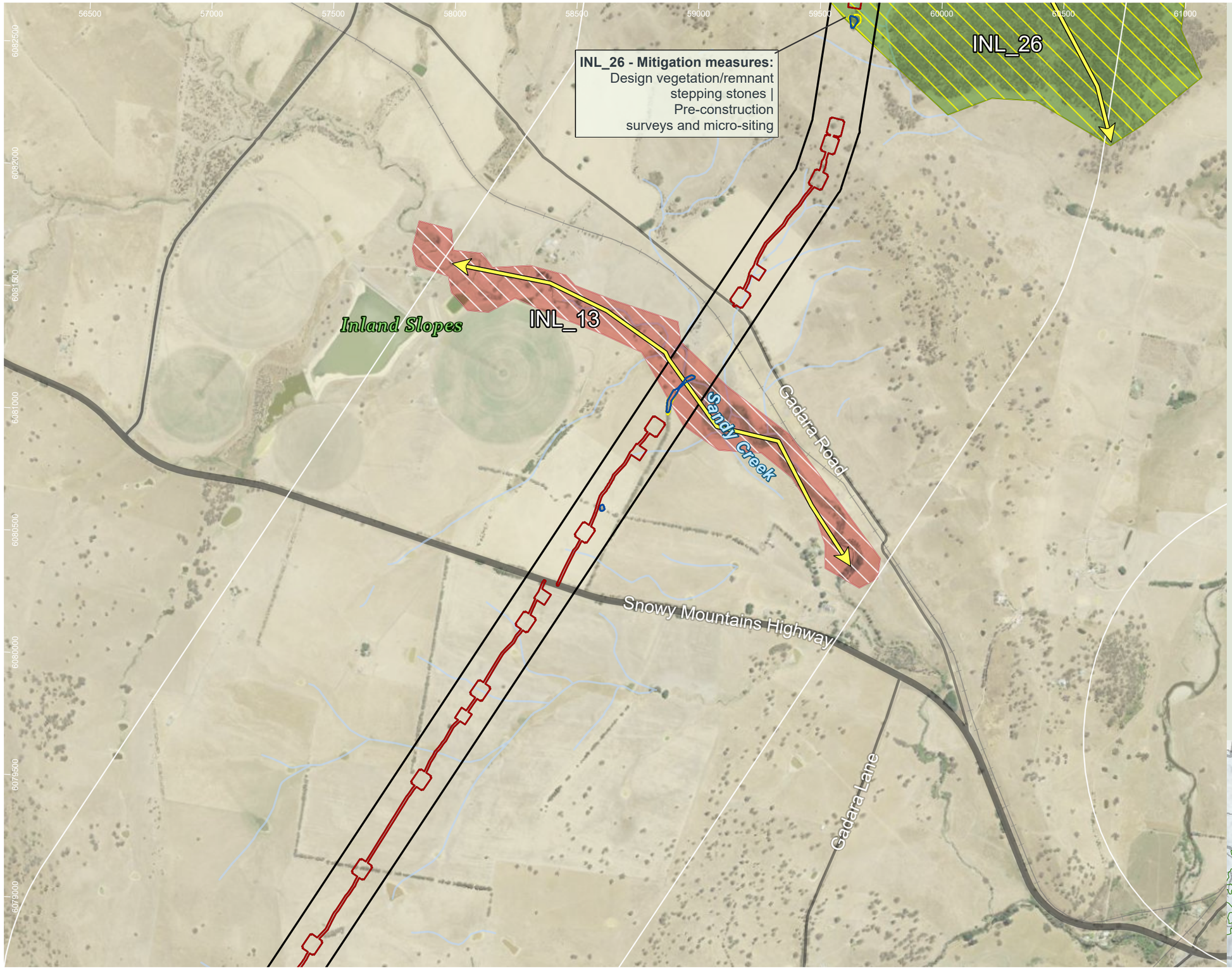
Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail

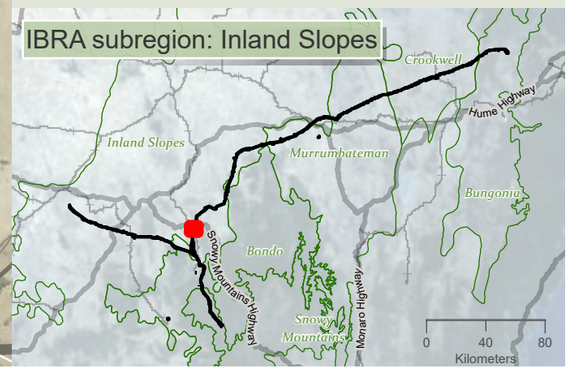
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 42

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway

Transport

Road

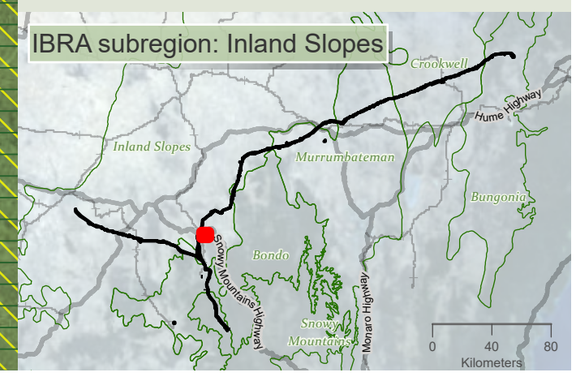
- Major road
- Minor road
- Rail
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 43

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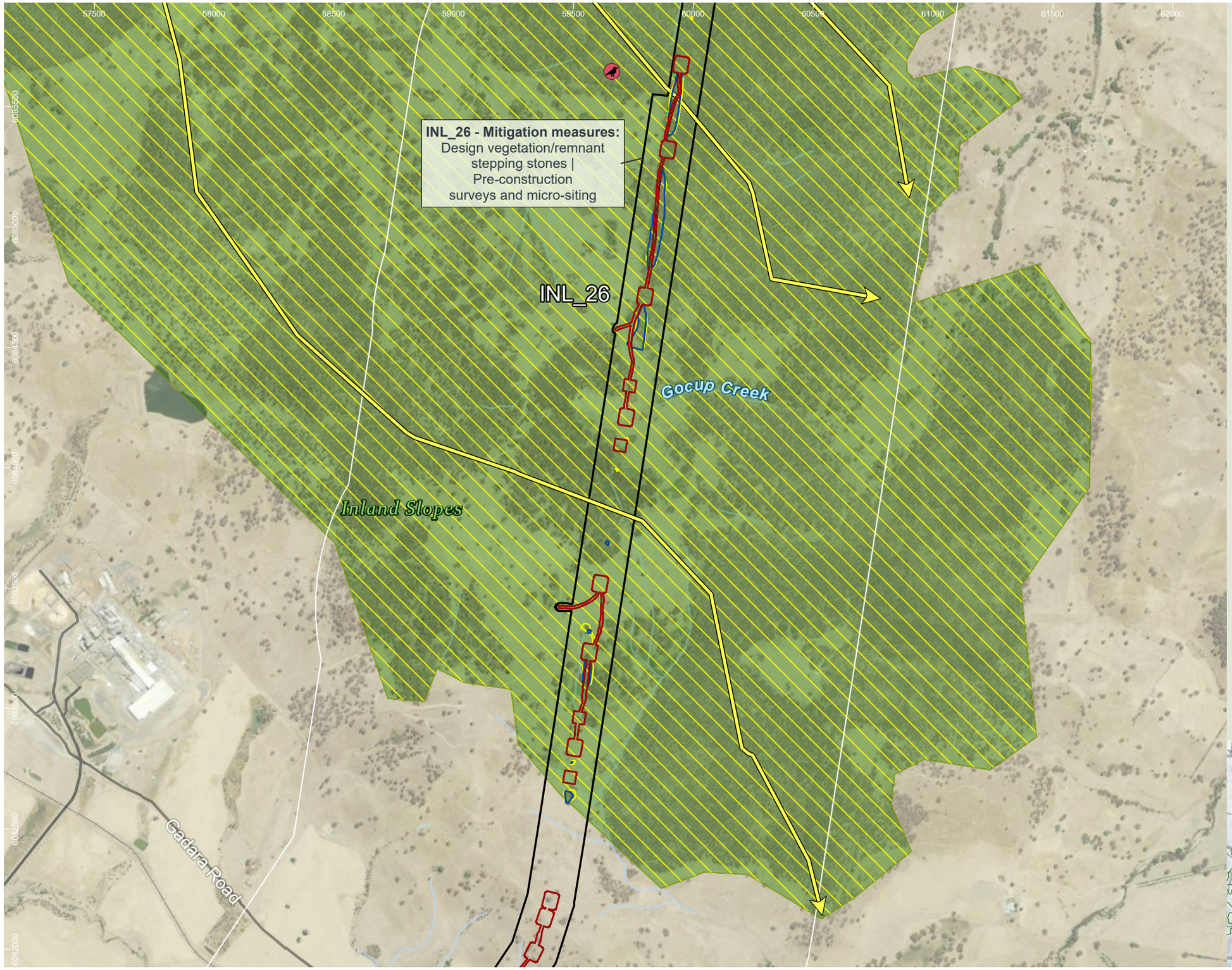


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

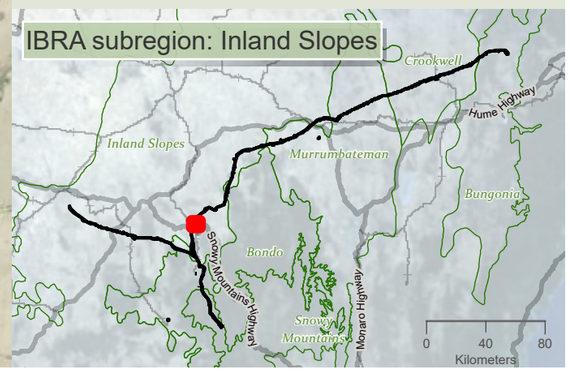
Fauna corridors - existing connectivity

- High

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Scarlet Robin (Petroica boodang) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 44

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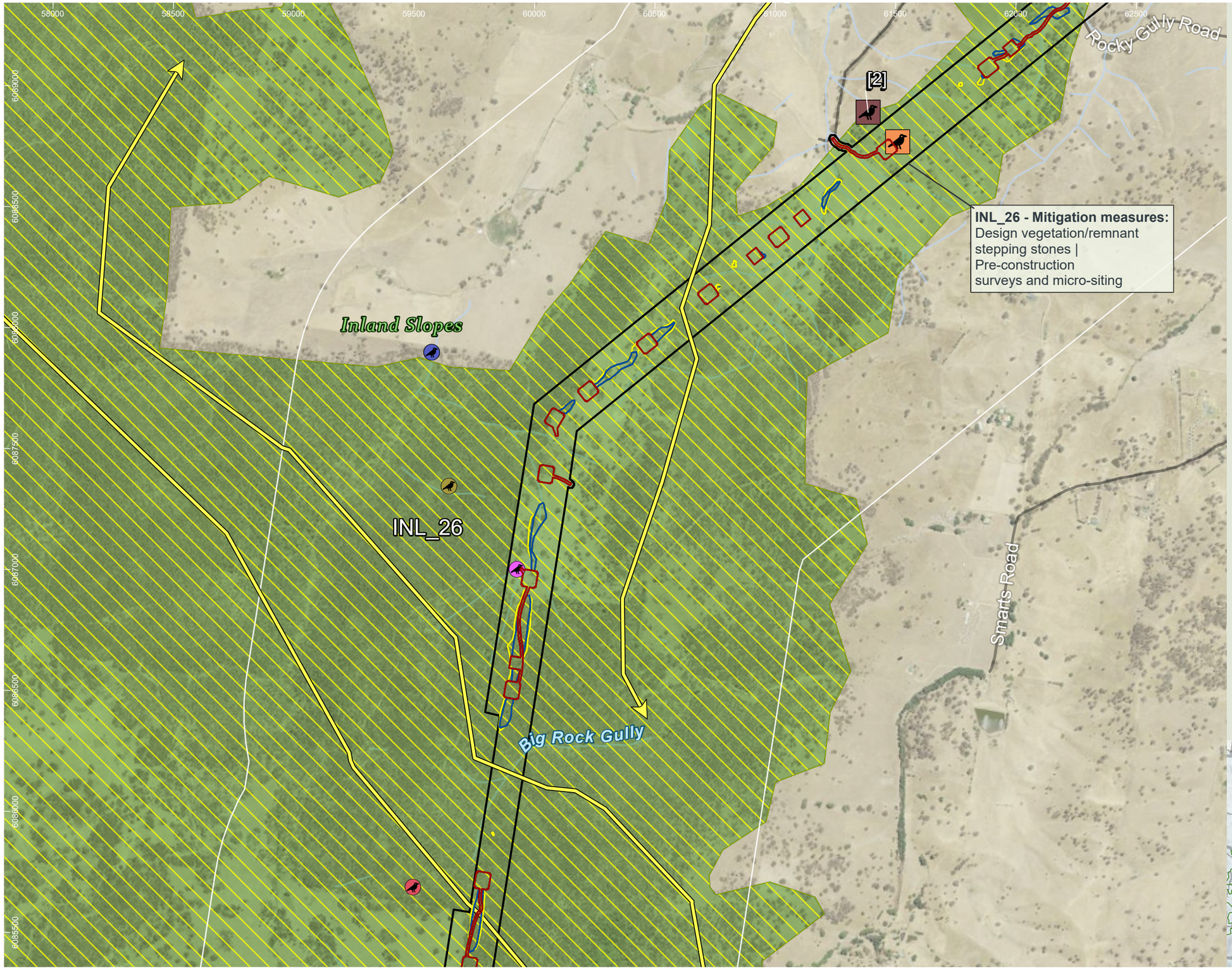


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

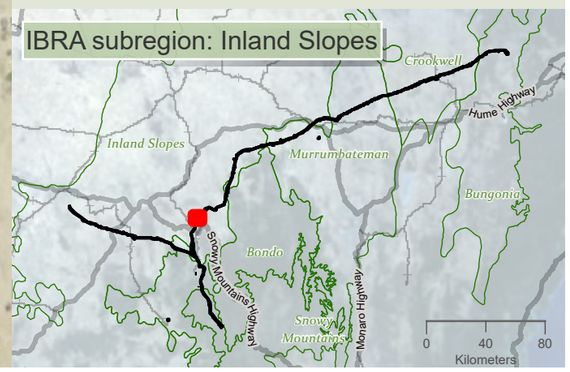
Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Scarlet Robin (Petroica boodang) (1)
- Speckled Warbler (Chthonicola sagittata) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 45

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61000 61500 62000 62500 63000 63500 64000 64500

6091500 6091000 6090500 6090000 6089500 6089000 6088500

INL_26

Inland Slopes

Meadow Creek Road

Gocup Road

INL_11

Gocup Creek

Tumut River

[2]

INL_26

Rocky Gully Road

Gocup Farms Road

INL_26 - Mitigation measures:
Design vegetation/remnant stepping stones |
Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

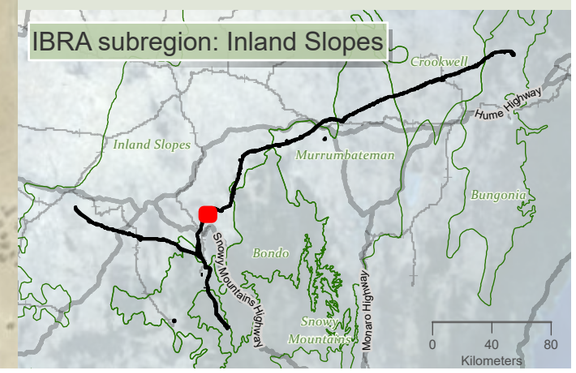
- High
- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 46

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63500 64000 64500 65000 66000 66500 67000

6094000 6093500 6093000 6092500 6092000 6091500 6091000

INL_10 - Mitigation measures:
Pre-construction surveys and micro-siting | Design and installation of ground refugia (creation and re-use of timber/logs as habitat)

INL_10

INL_10

INL_11

INL_11

Inland Slopes

Tumut River

Gocup Creek

Cockatoo Road

Brungle Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

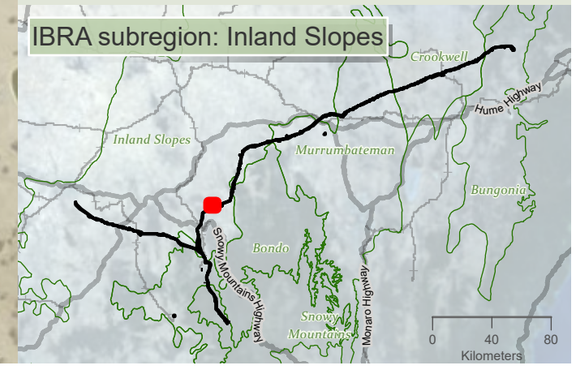
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 47

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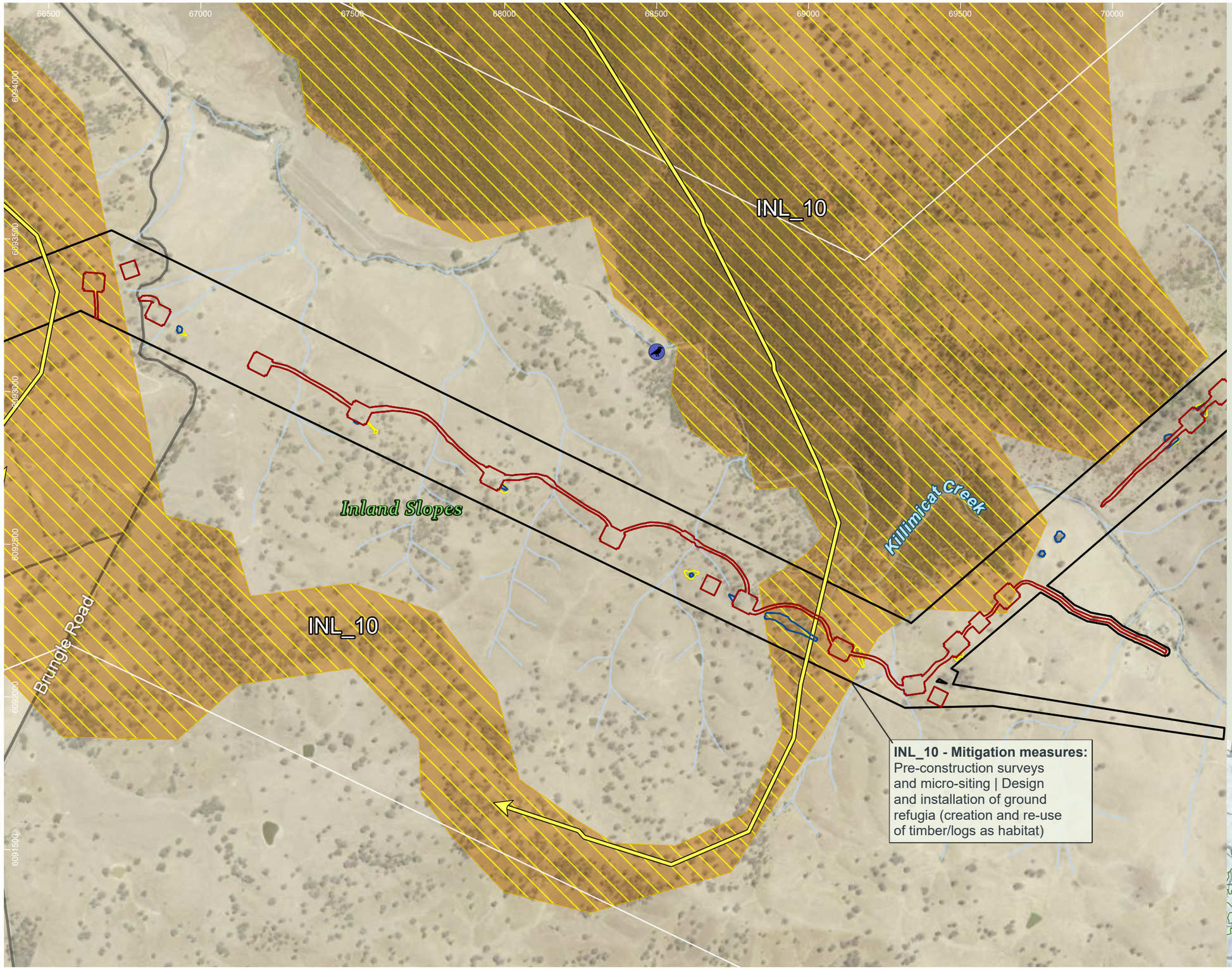


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

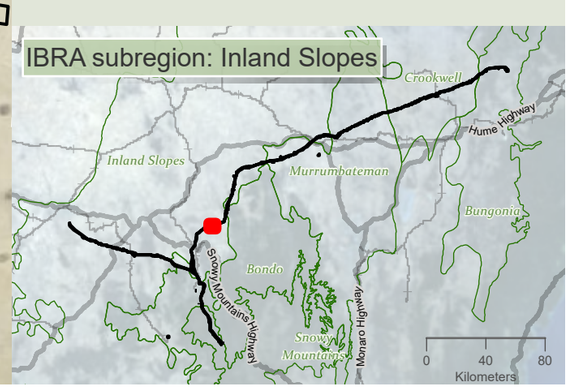
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 48

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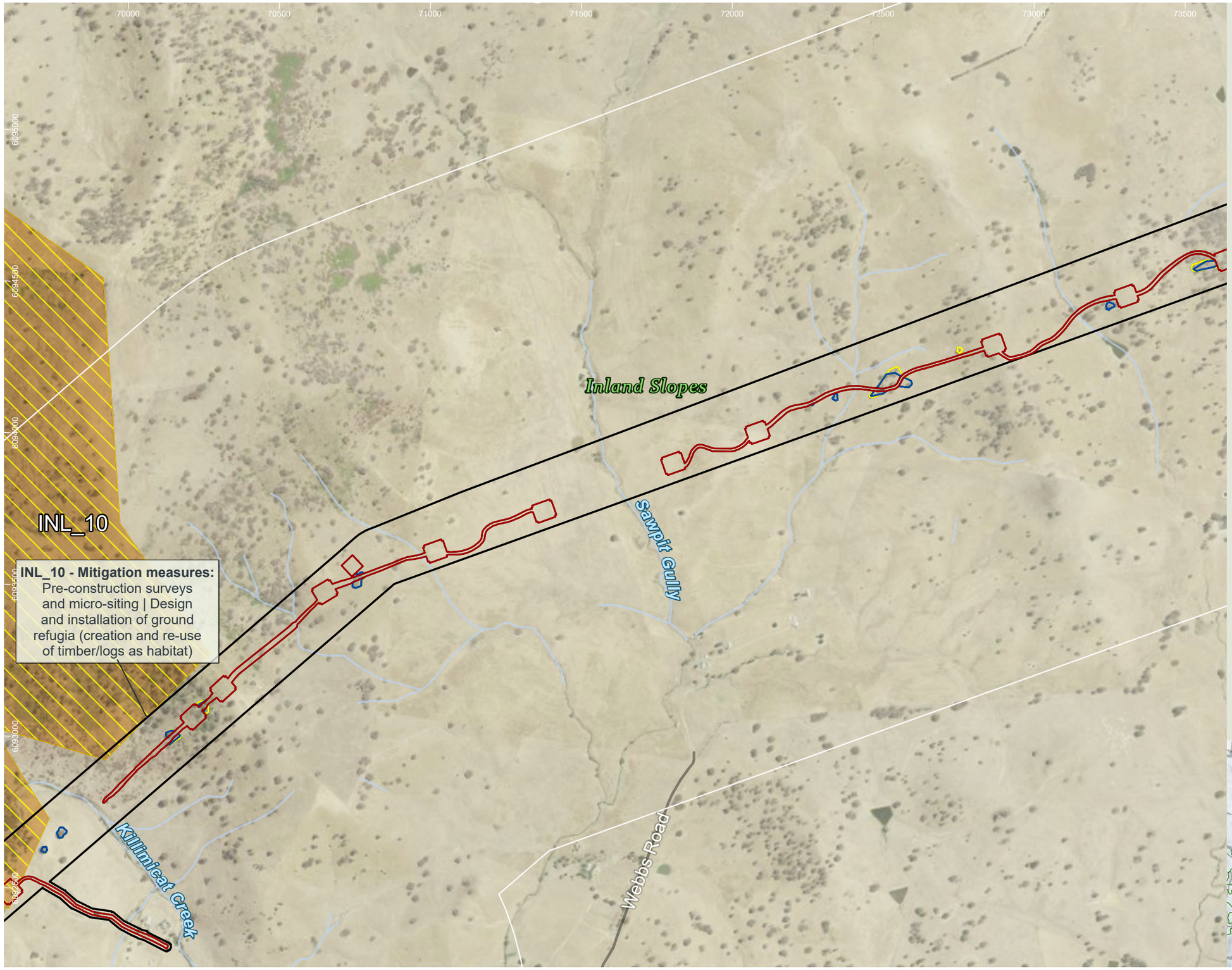


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

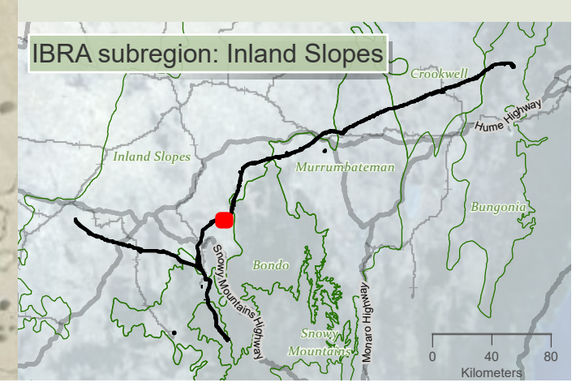
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 49

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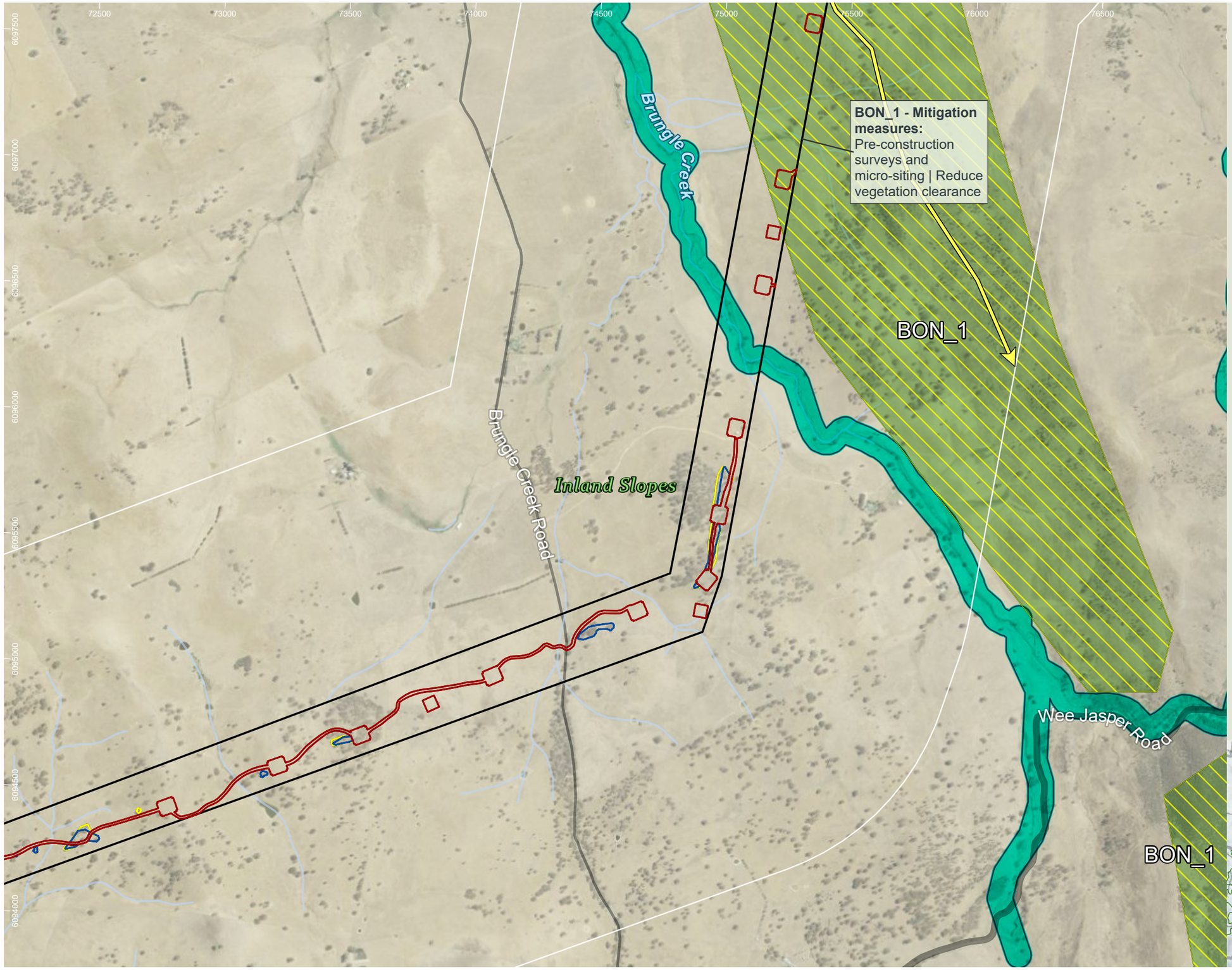
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx - Confidential



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

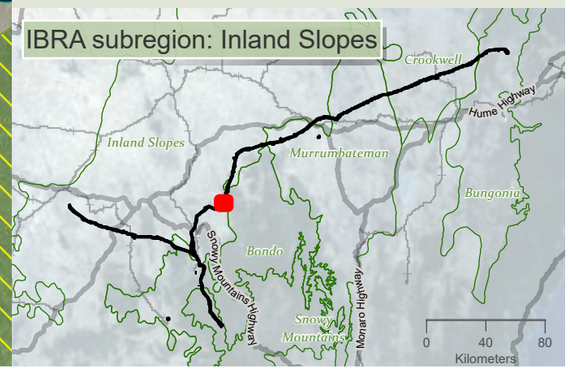
- Major road
- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 50

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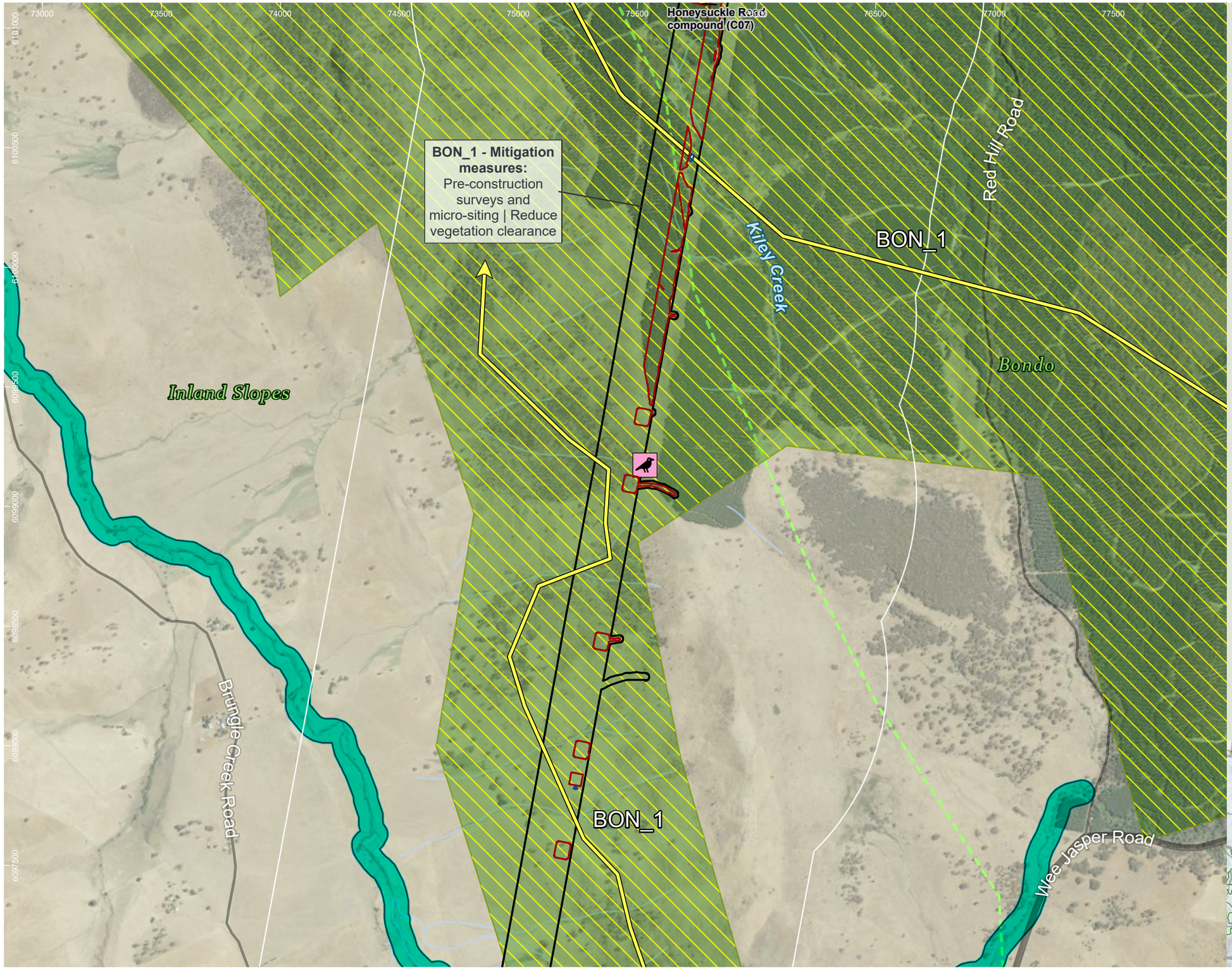


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

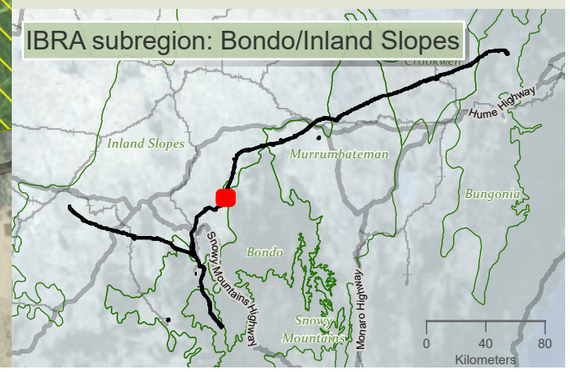
Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Speckled Warbler (Chthonicola sagittata) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 51

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

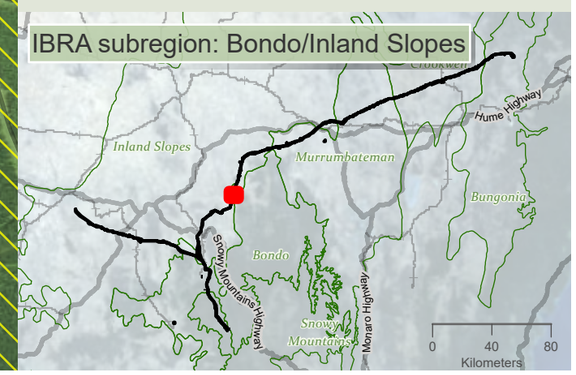
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (5)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 52

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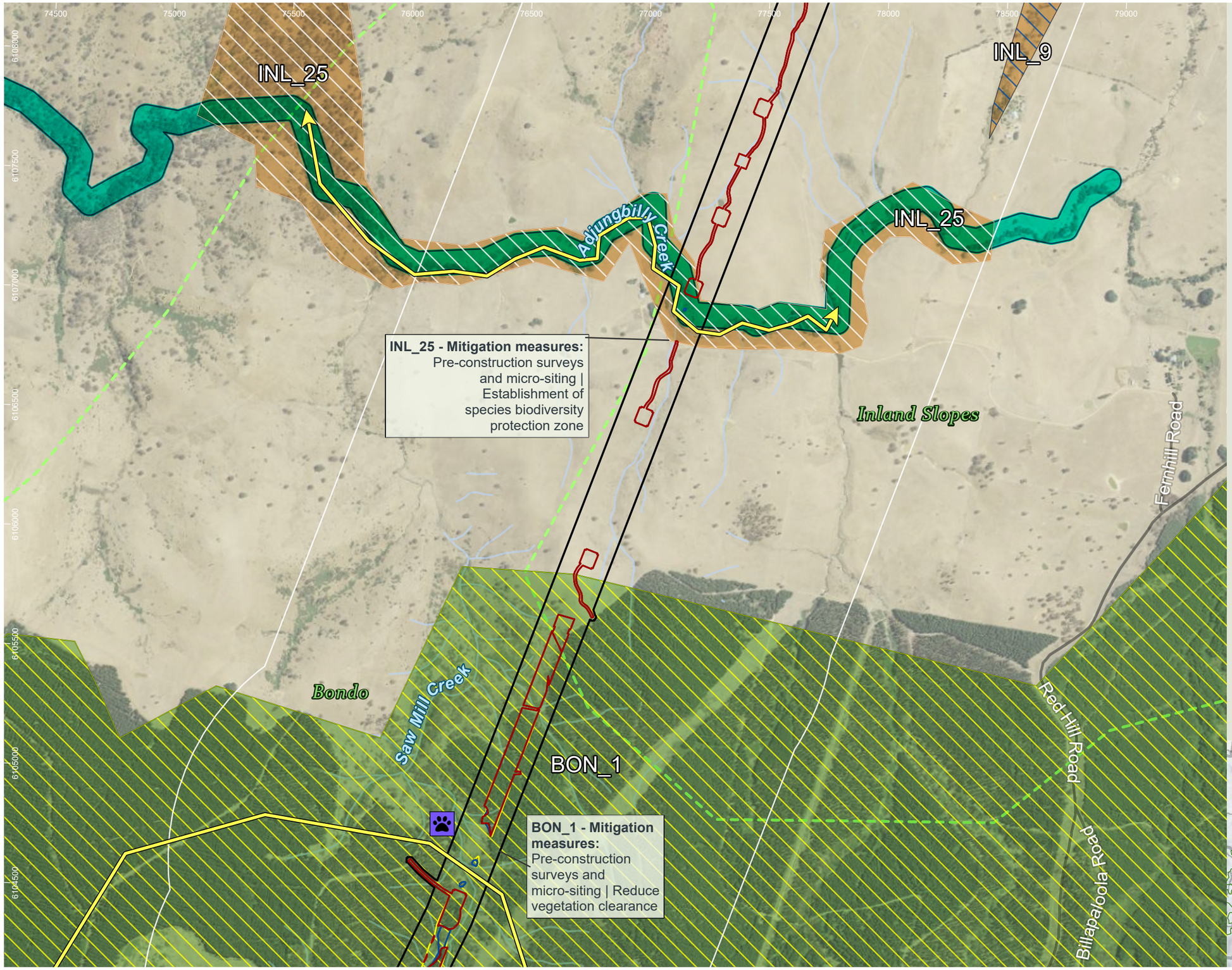


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate

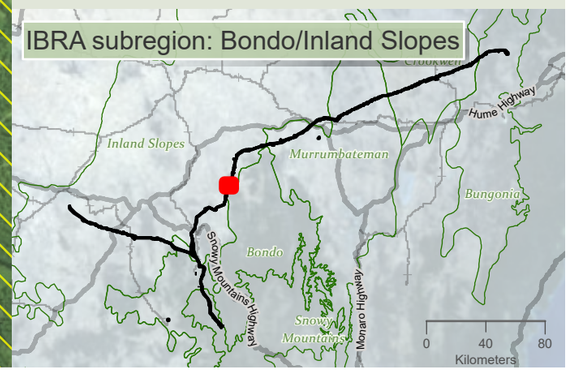
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Yellow-bellied Glider (Petaurus australis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 53

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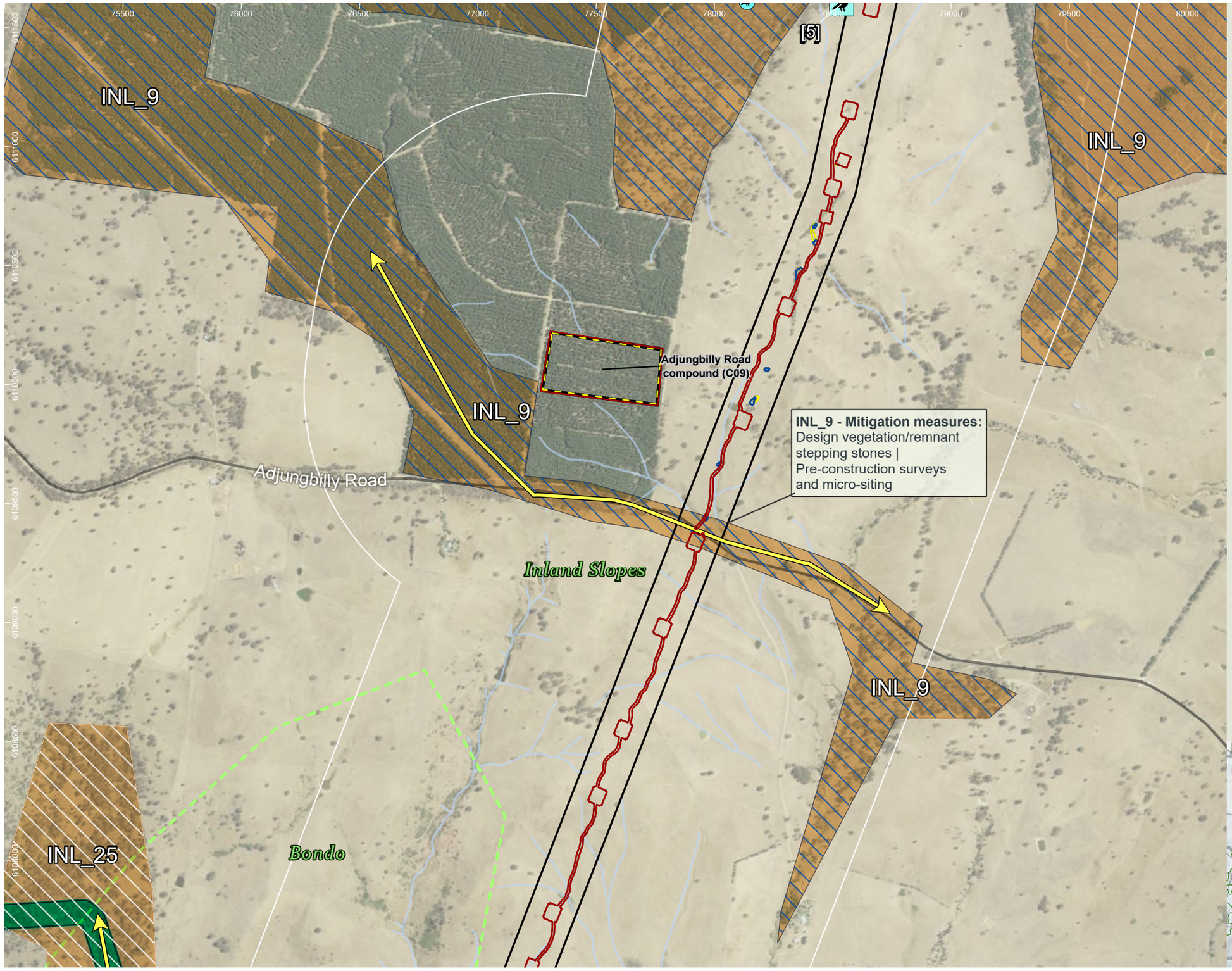


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

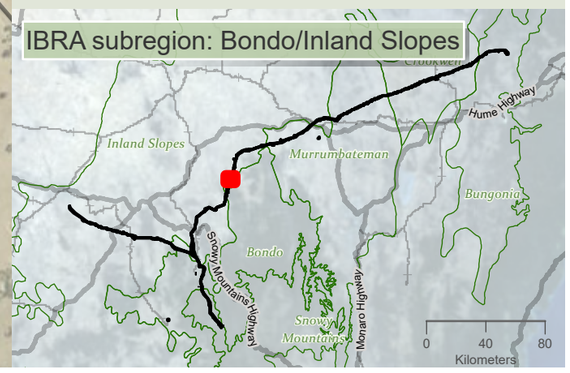
Aves

- Scarlet Robin (Petroica boodang) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Flame Robin (Petroica phoenicea) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 54

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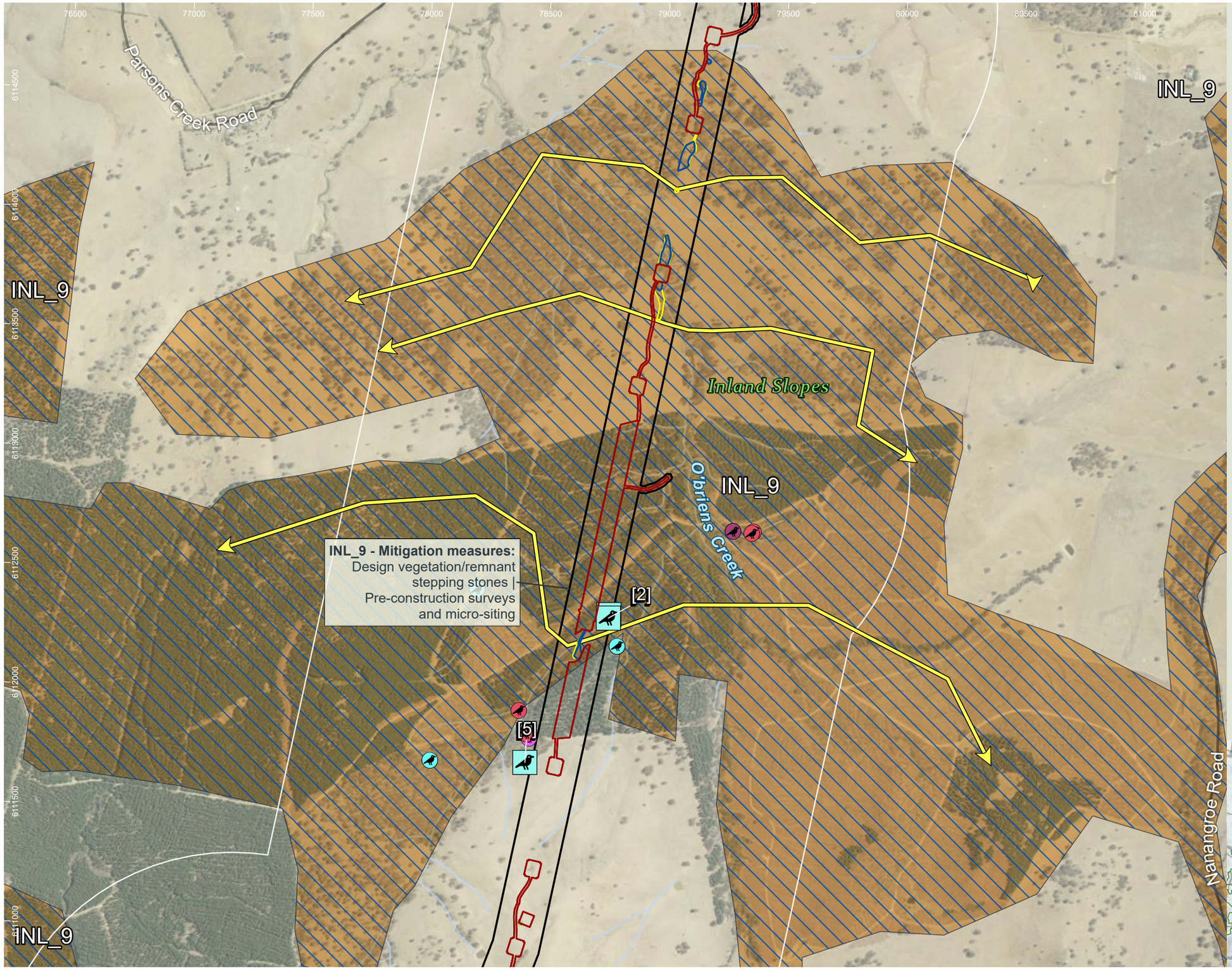


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (3)

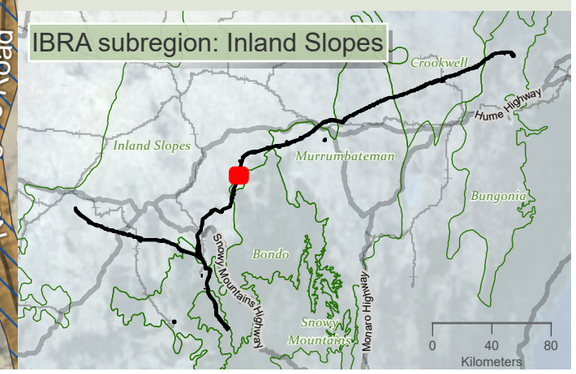
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (1)
- Flame Robin (Petroica phoenicea) (5)
- Scarlet Robin (Petroica boodang) (9)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)
- Powerful Owl (Ninox strenua) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 55

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77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

INL_8

INL_9

INL_9

O'briens Gully

Cart Road Creek

Inland Slopes

Parsons Creek Road

INL_9 - Mitigation measures:
Design vegetation/remnant stepping stones |
Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

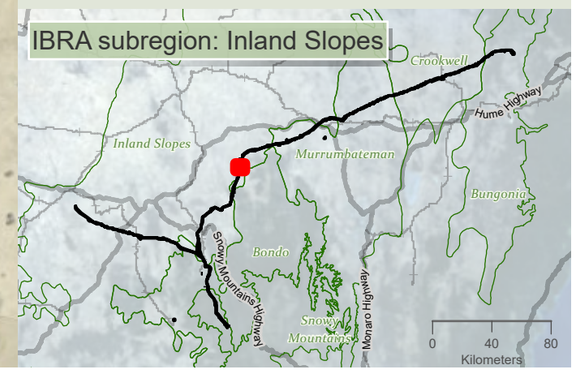
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (4)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)



Niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 56

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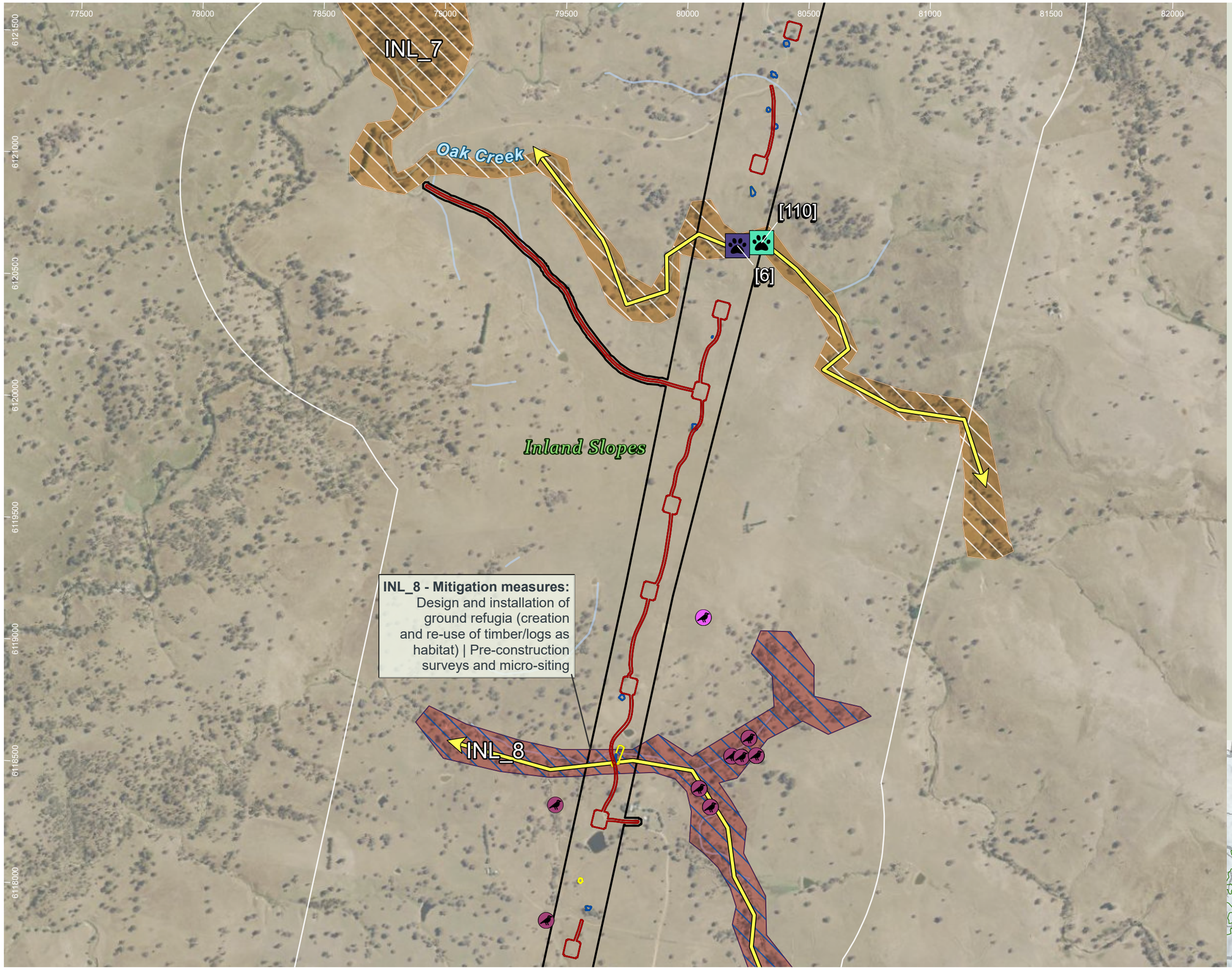


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)
- Southern Myotis (Myotis macropus) (1)

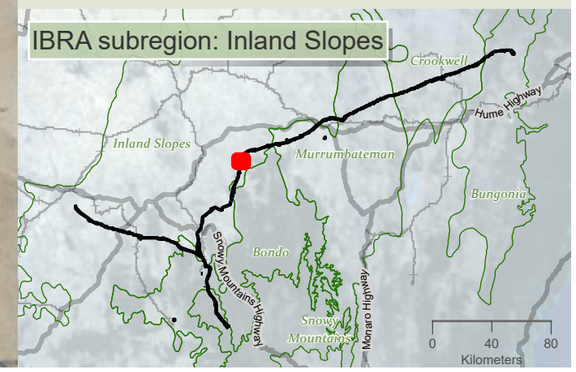
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (20)
- Diamond Firetail (Stagonopleura guttata) (13)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (13)
- Scarlet Robin (Petroica boodang) (1)
- Speckled Warbler (Chthonicola sagittata) (1)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)
- Southern Myotis (Myotis macropus) (1)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 57

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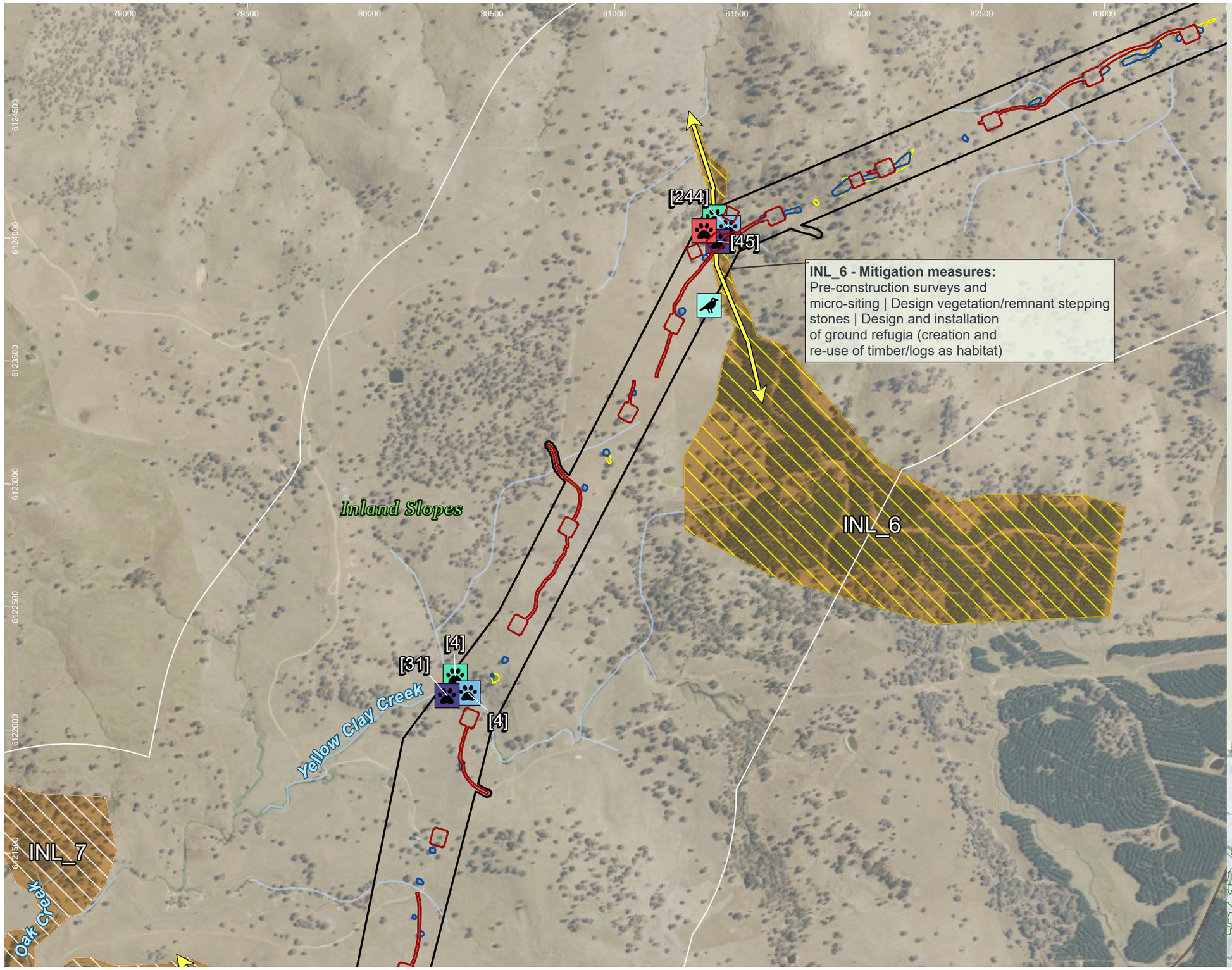


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

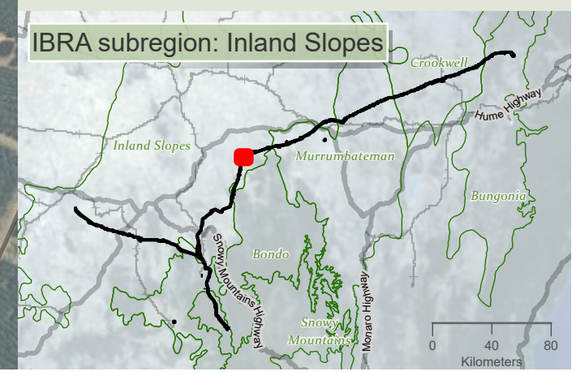
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (1)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 58

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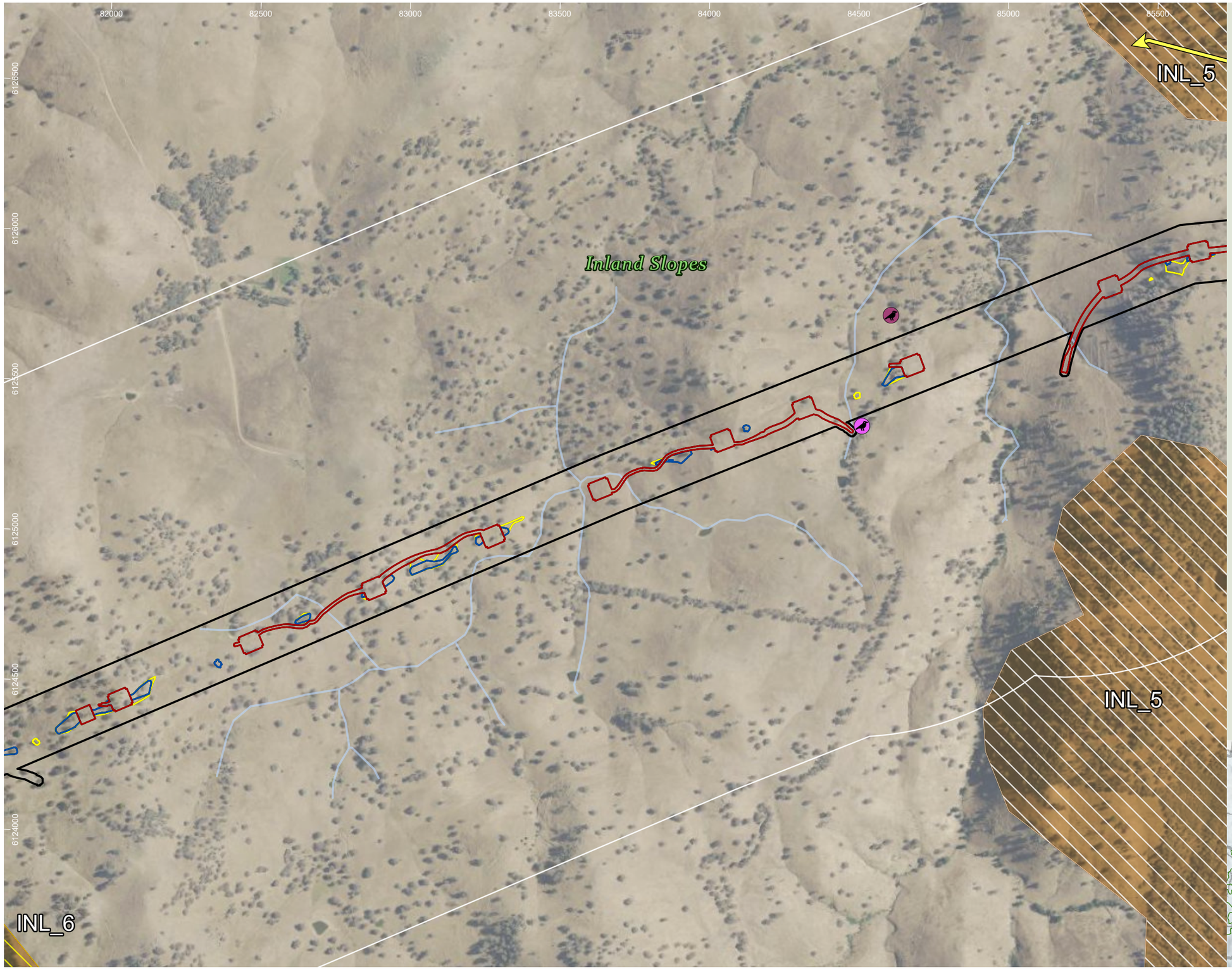
Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\s6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

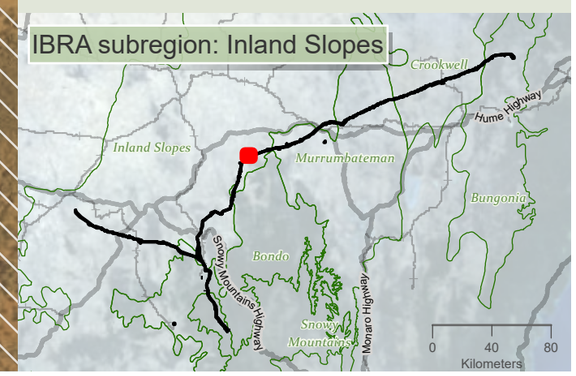
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Diamond Firetail (Stagonopleura guttata) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 59

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85500 86000 86500 87000 87500 88000 88500

6127500 6127000 6126500 6126000 6125500 6125000

Inland Slopes

Rocky Creek

Dicks Gully

[2]

[6]

INL_5

INL_5

Nanangroe Road

INL_5 - Mitigation measures:
Pre-construction surveys and micro-siting | Design and installation of ground refugia (creation and re-use of timber/logs as habitat)

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

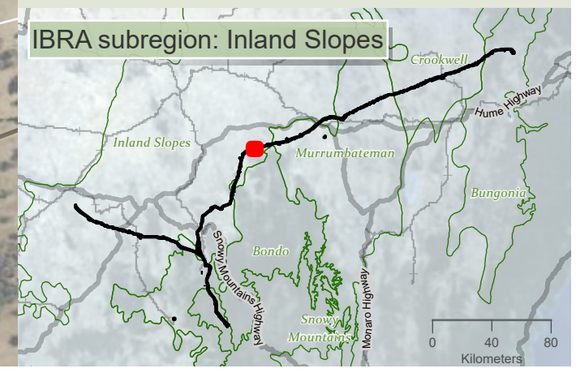
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Flame Robin (Petroica phoenicea) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black-chinned Honeyeater (eastern subspecies) (Melithreptus gularis gularis) (1)
- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (40)
- Diamond Firetail (Stagonopleura guttata) (8)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (8)
- Hooded Robin (south-eastern form) (Melanodryas cucullata cucullata) (1)
- Scarlet Robin (Petroica boodang) (4)
- Speckled Warbler (Chthonicola sagittata) (3)
- Varied Sittella (Daphoenositta chrysoptera) (5)

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 60

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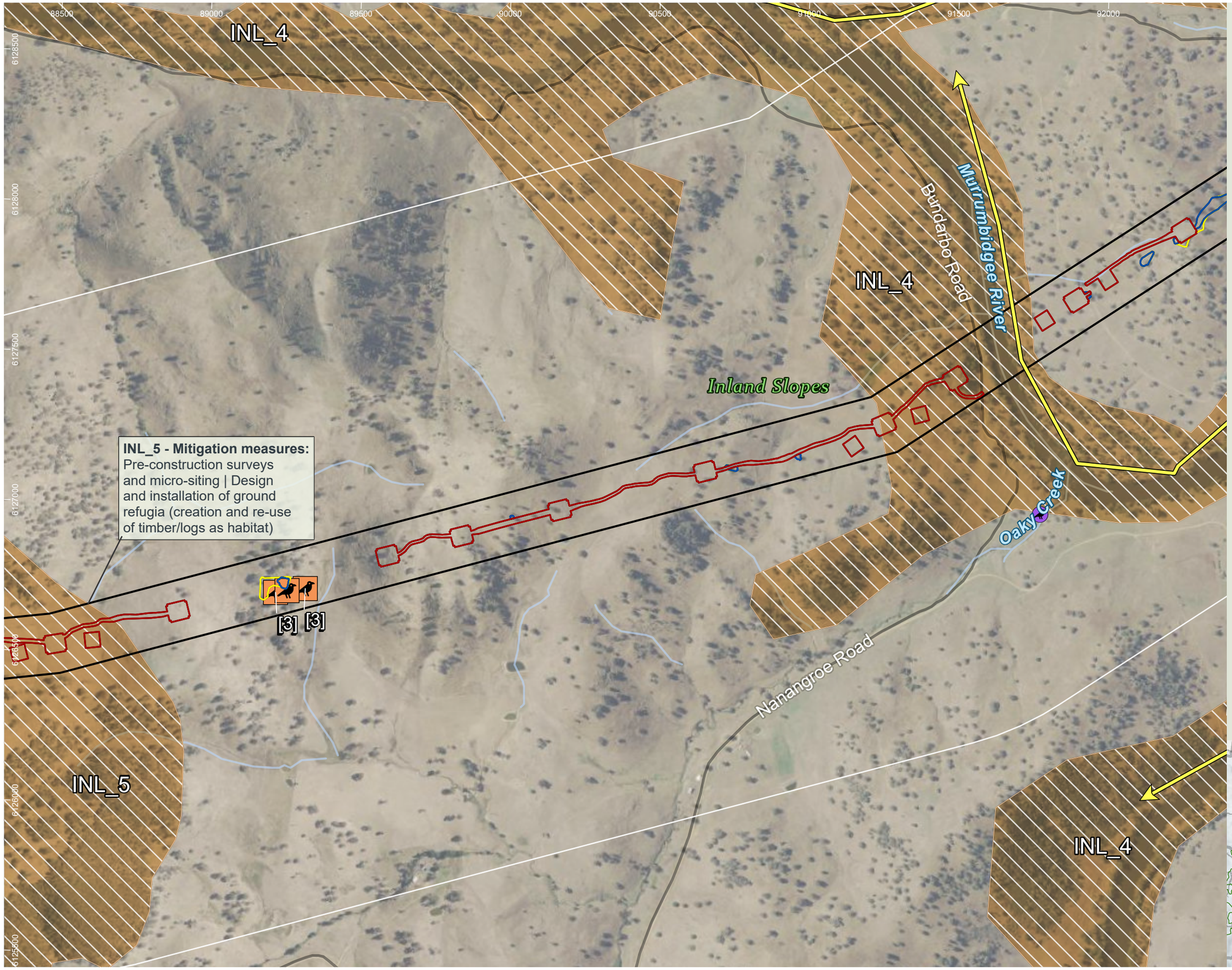


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

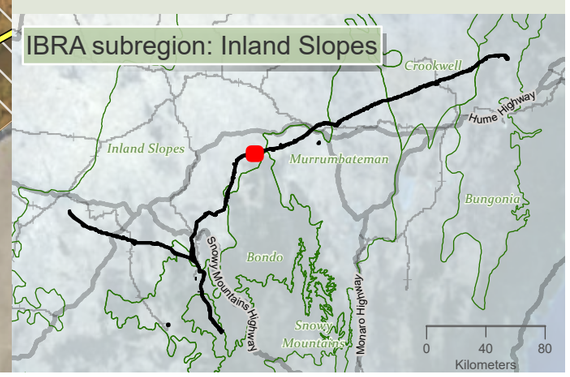
Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 61

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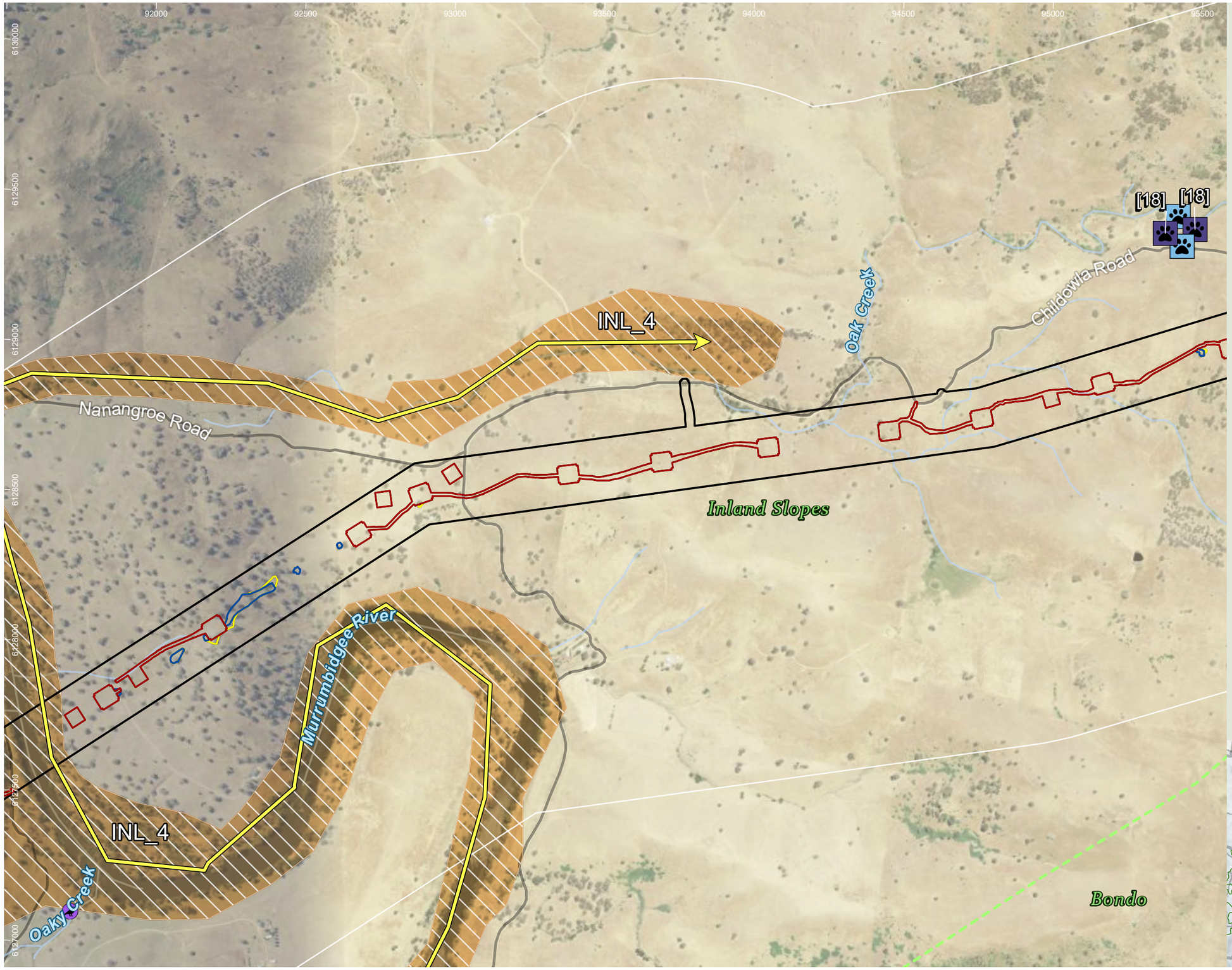


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

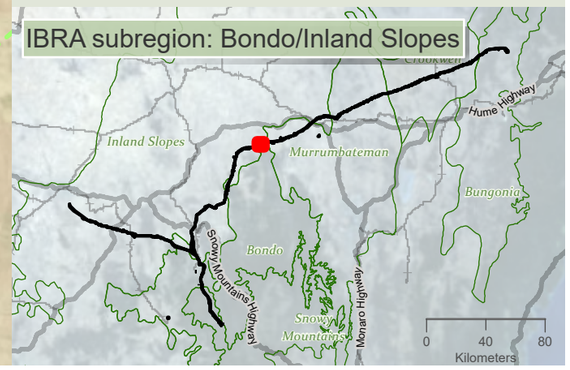
Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 62

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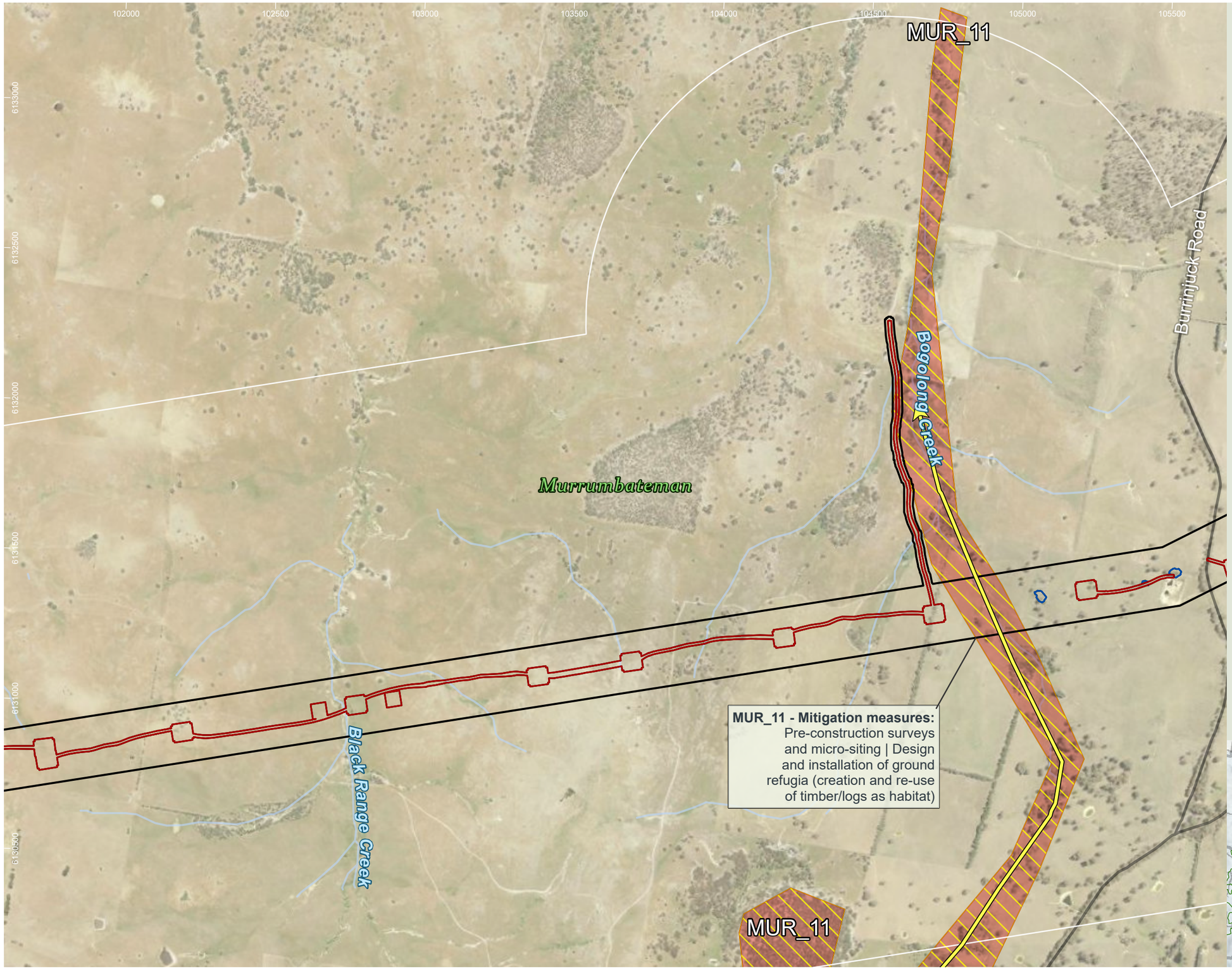


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

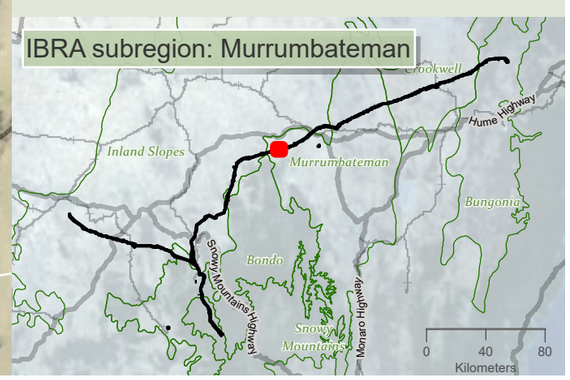
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 65

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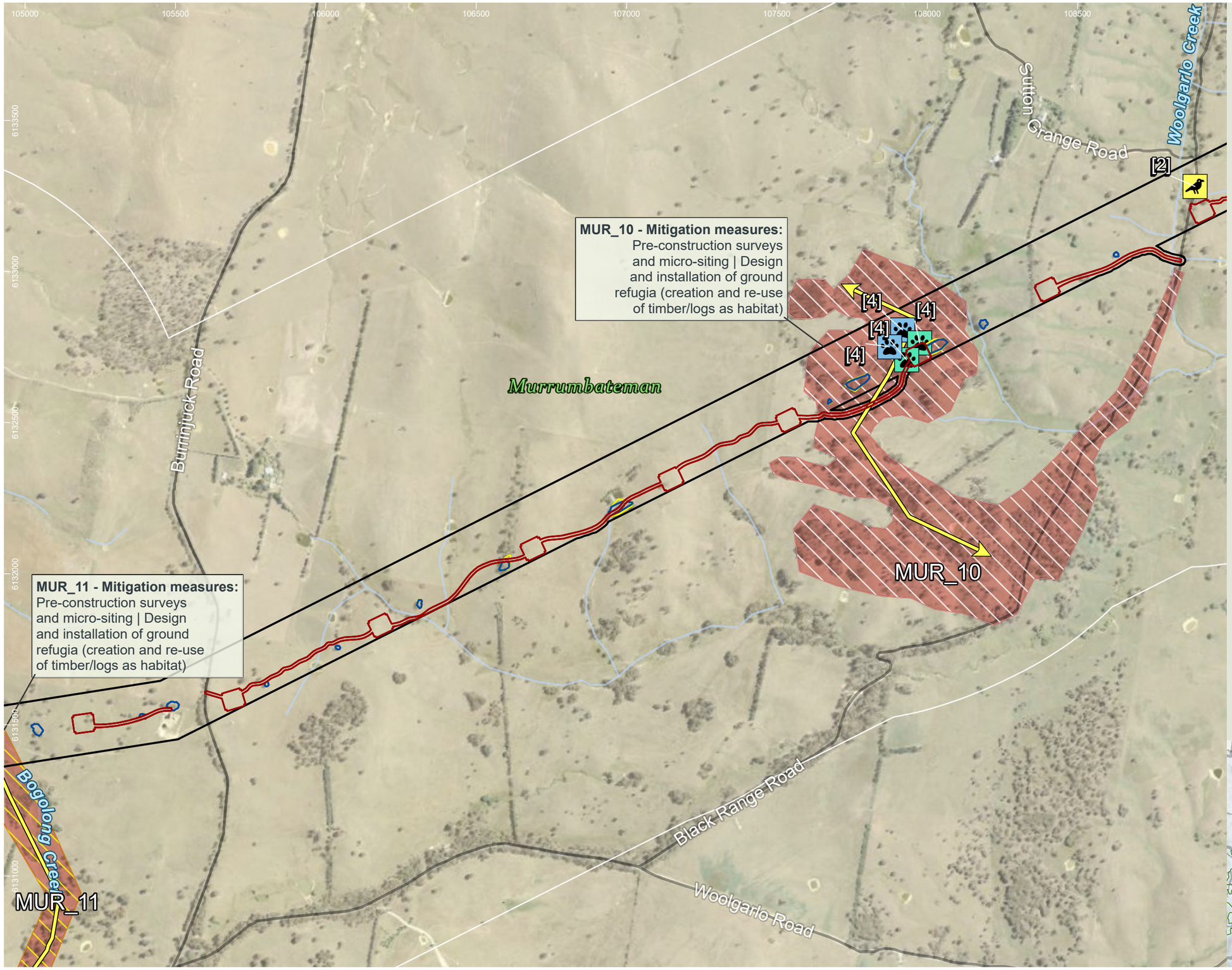


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

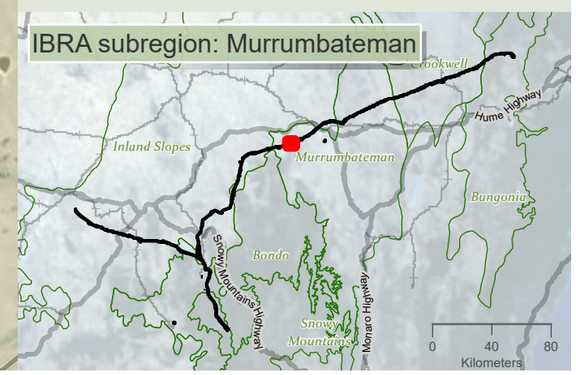
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Southern Myotis (Myotis macropus) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 66

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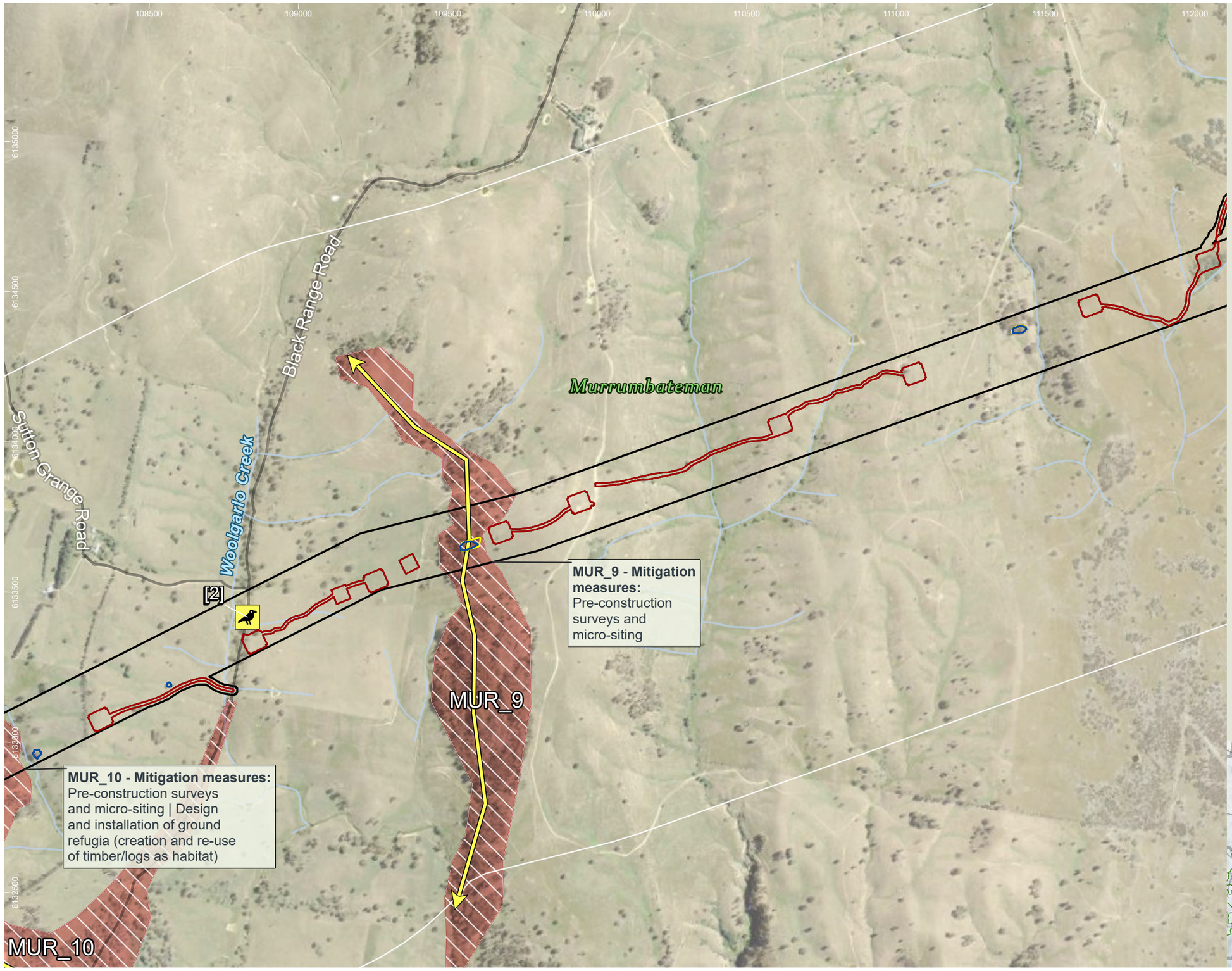


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

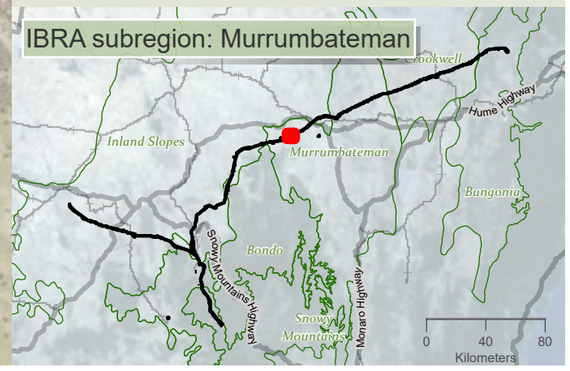
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 67

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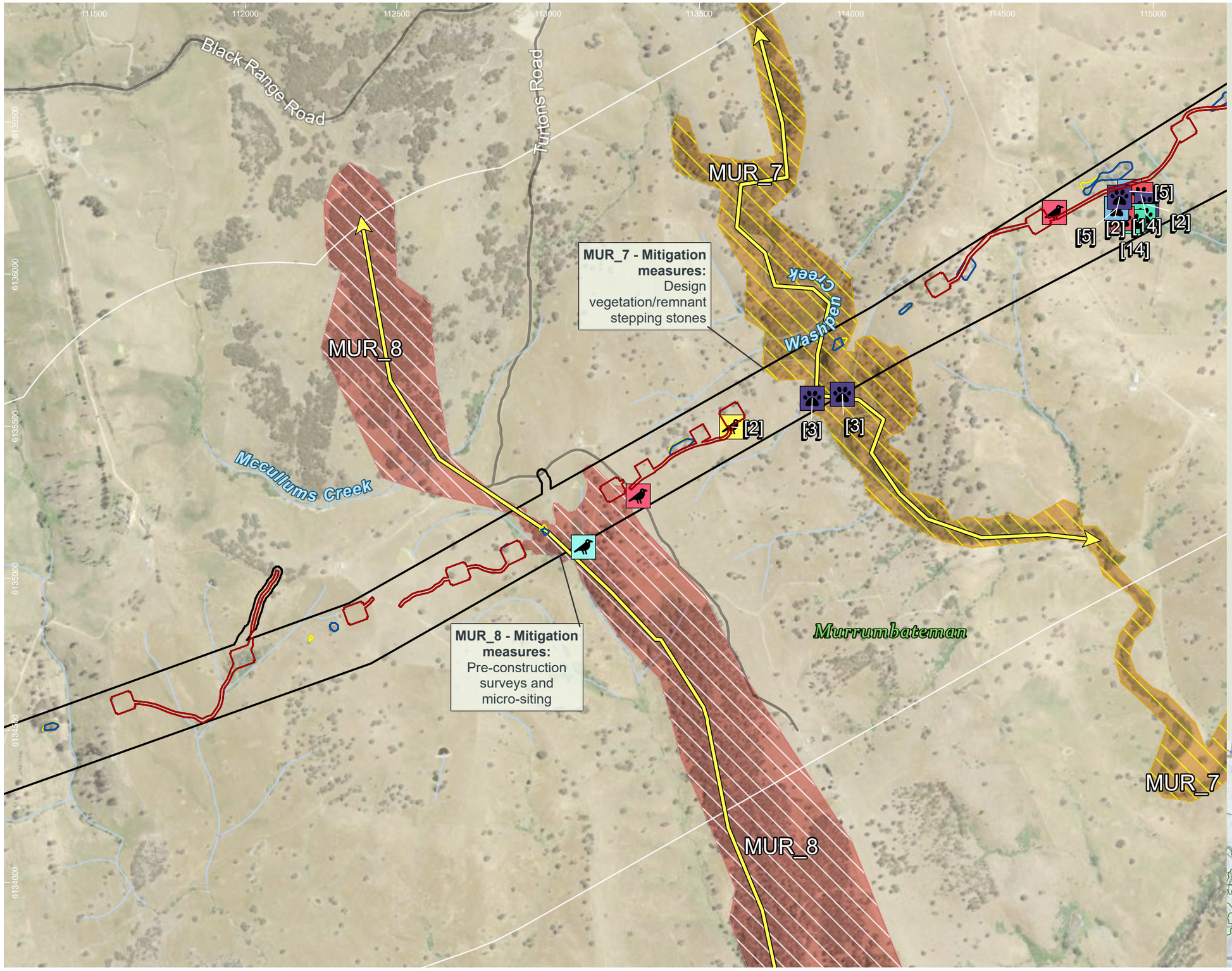


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low

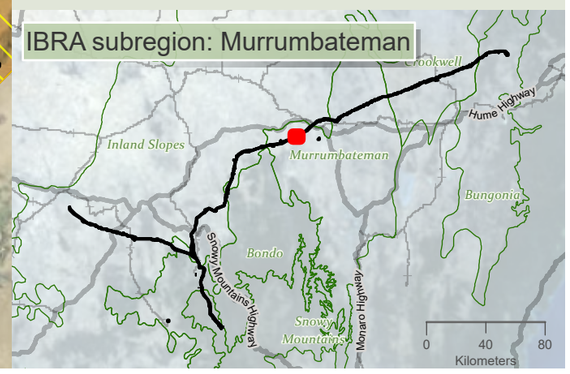
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Little Eagle (Hieraaetus morphnoides) (2)
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (4)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 68

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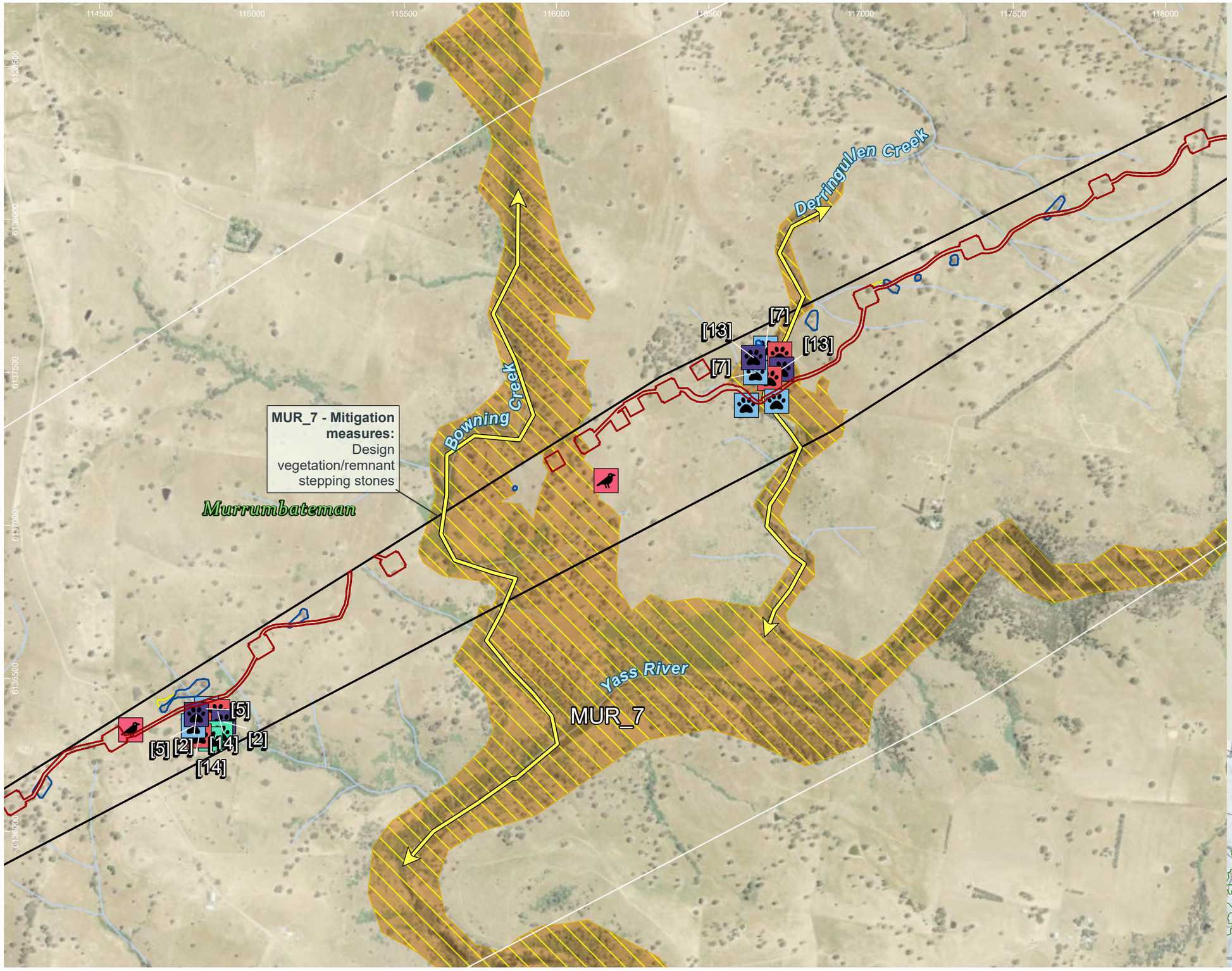


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

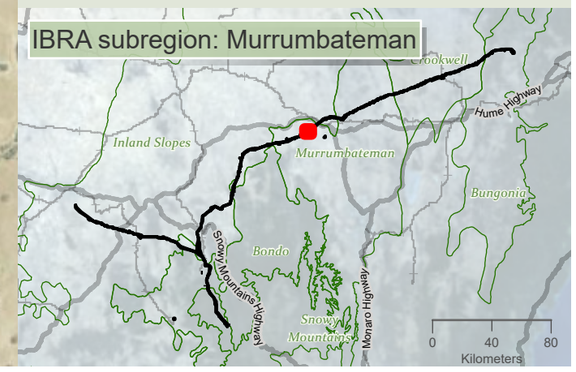
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides) (2)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (6)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (4)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (4)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 69

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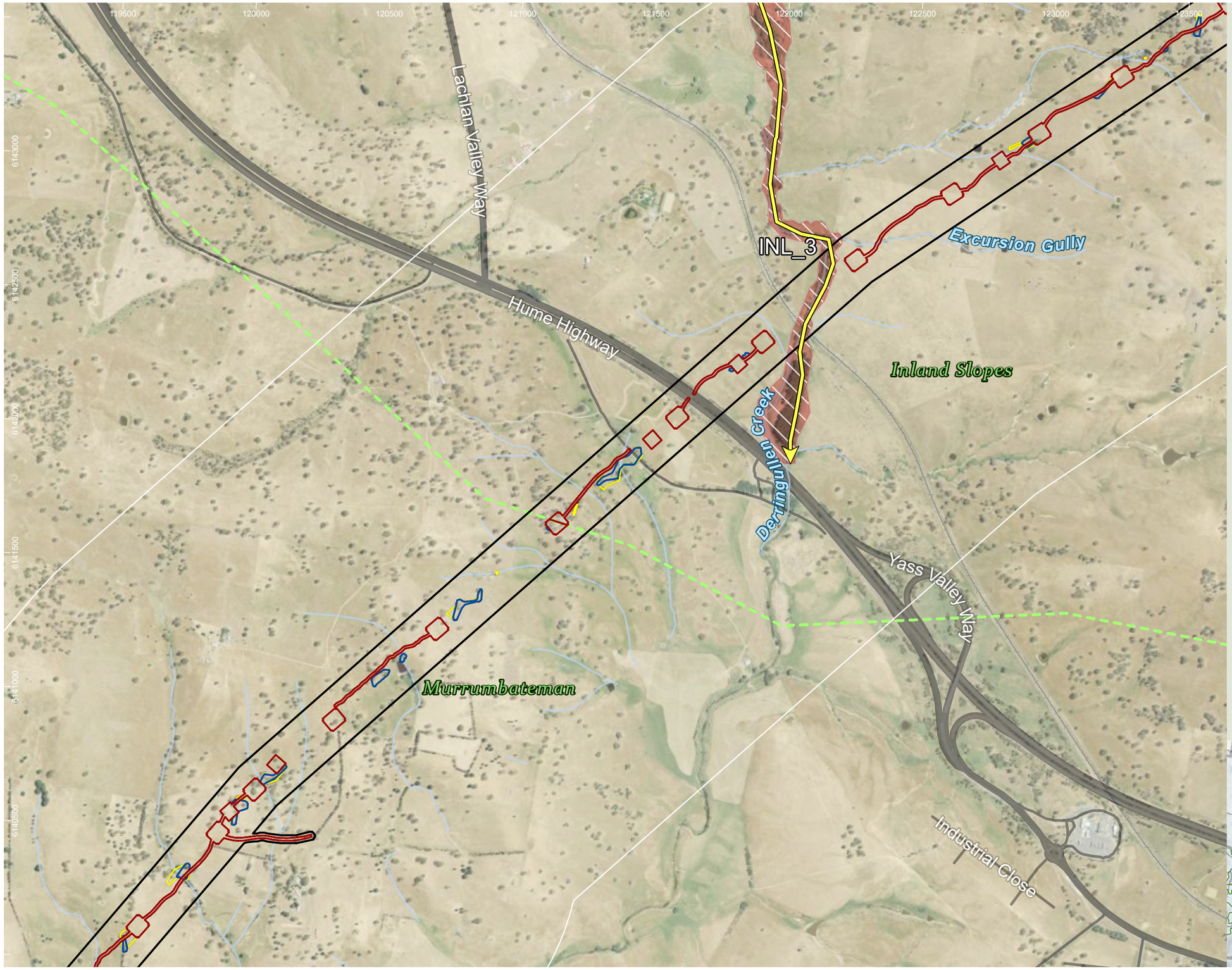

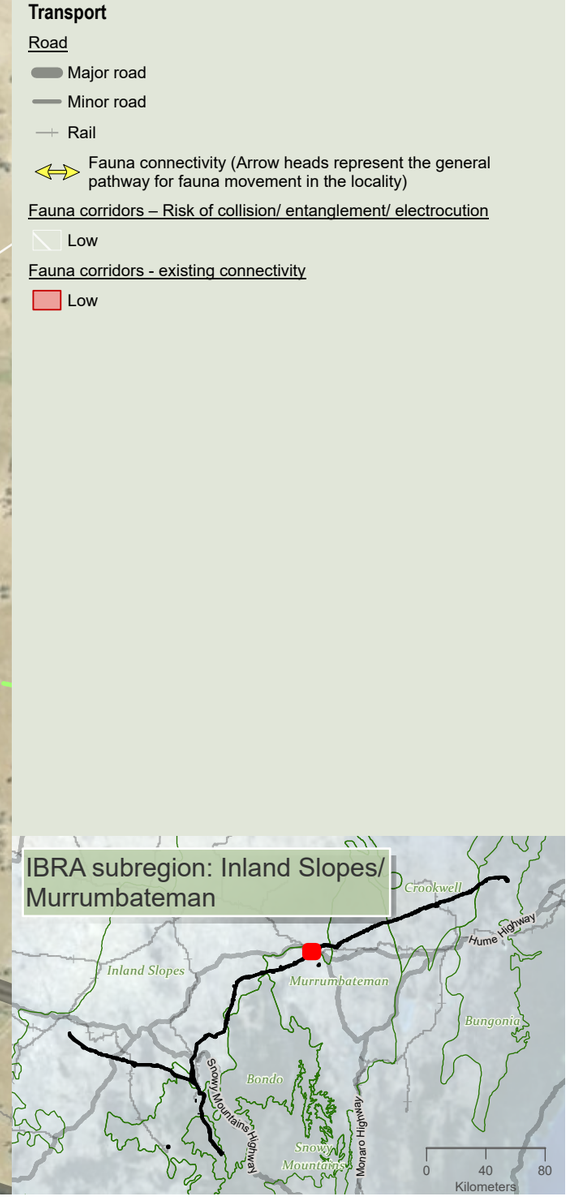

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 71

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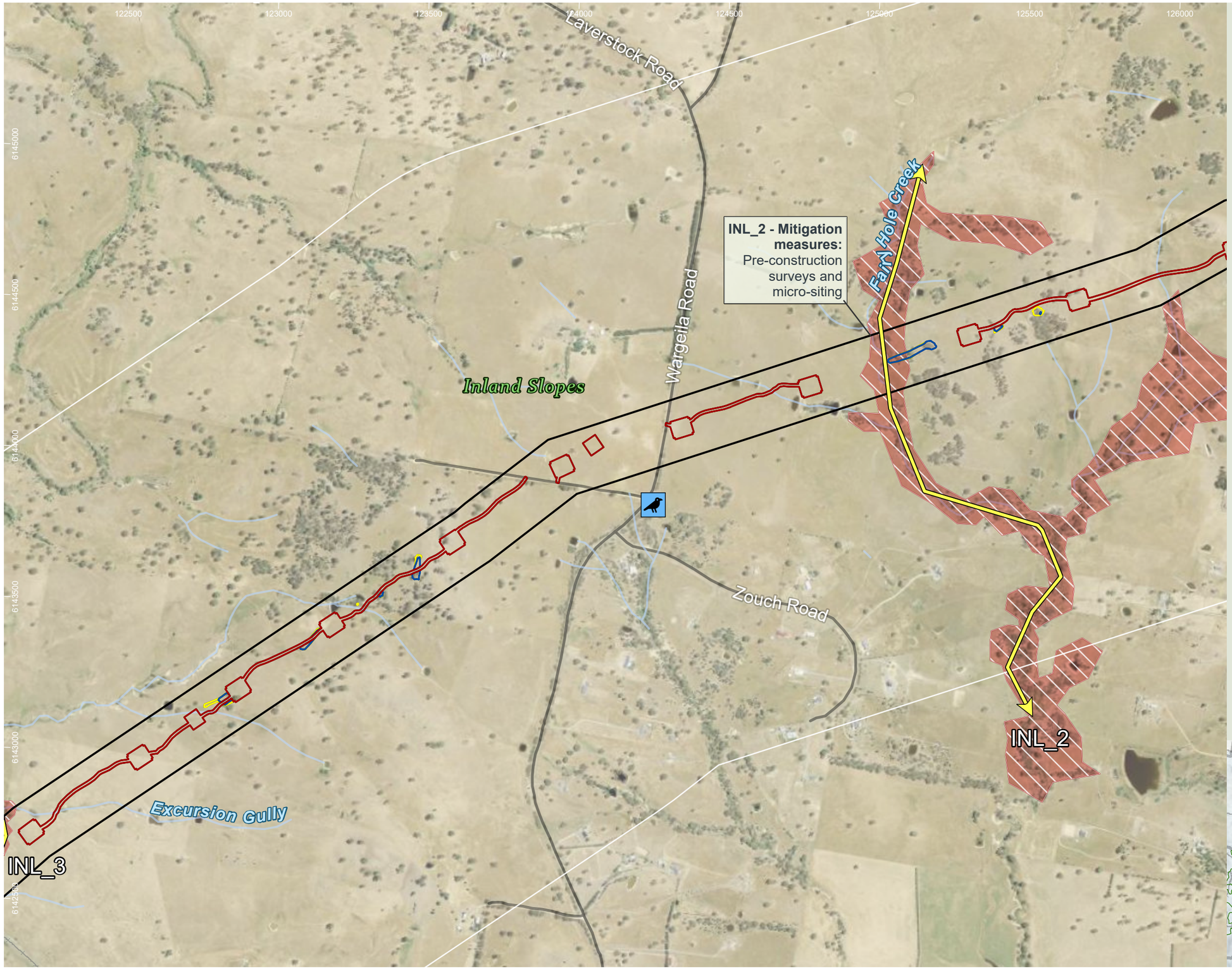


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

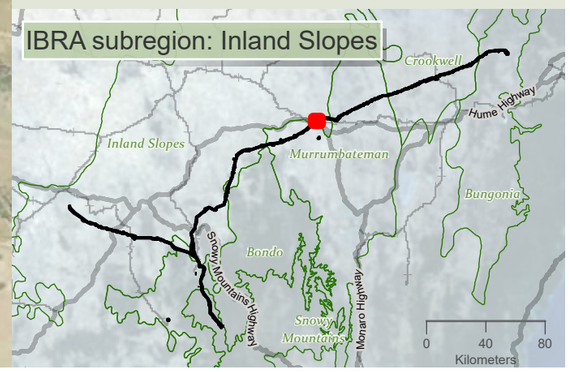
Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 73

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125500 126000 126500 127000 127500 128000 128500 129000

6146500 6146000 6145500 6145000 6144500 6144000

INL_1

INL_1 - Mitigation measures: Pre-construction surveys and micro-siting | Design and installation of ground refugia (creation and re-use of timber/logs as habitat)

Cooks Creek

Cooks Hill Road

Inland Slopes

INL_2

INL_2 - Mitigation measures: Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

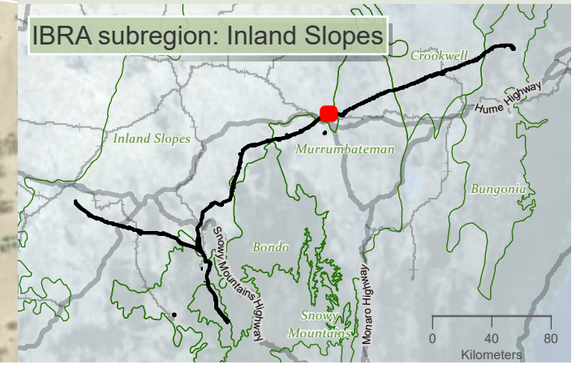
- Low

Fauna corridors - existing connectivity

- Low

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Superb Parrot (Polytelis swainsonii) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 74

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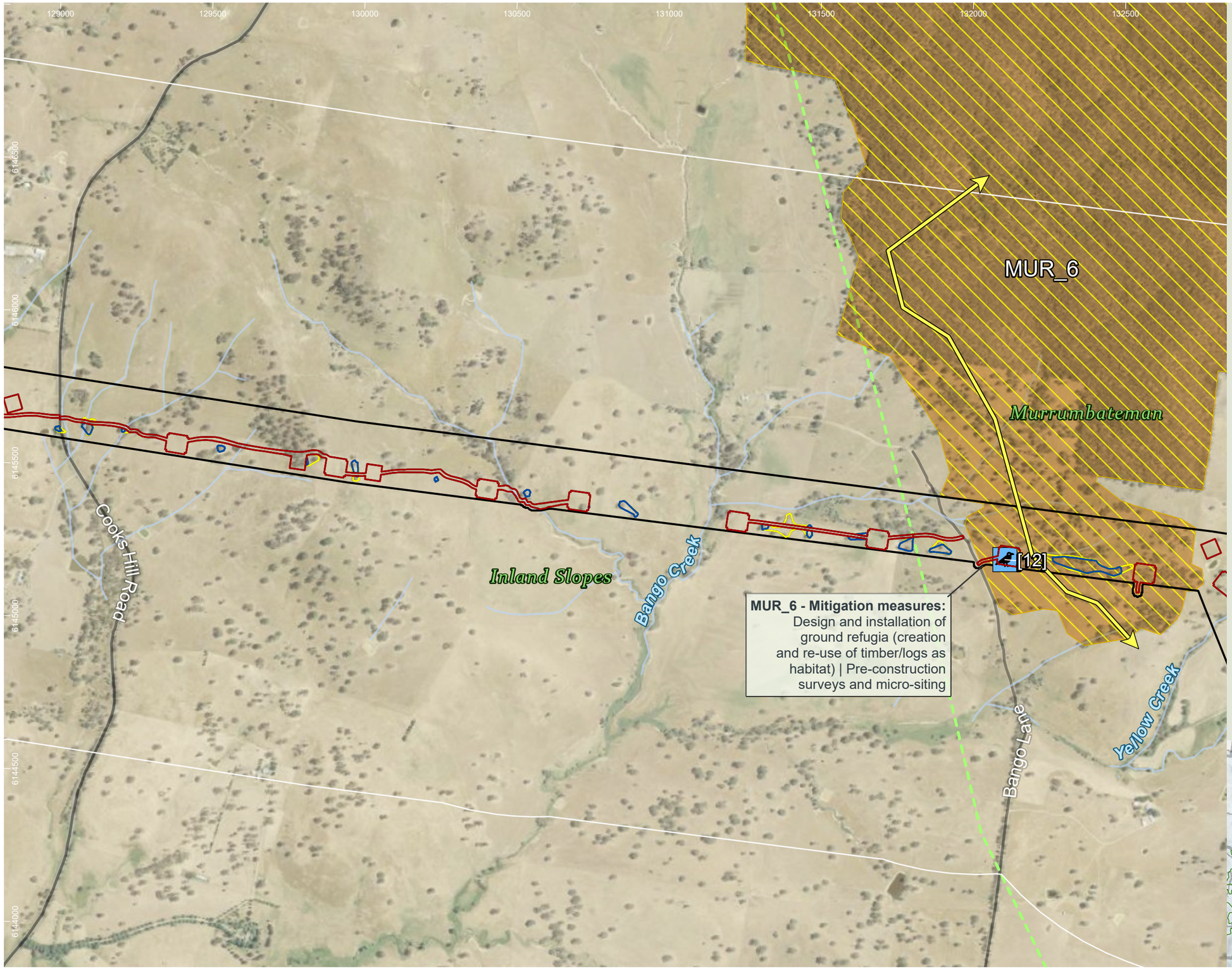


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

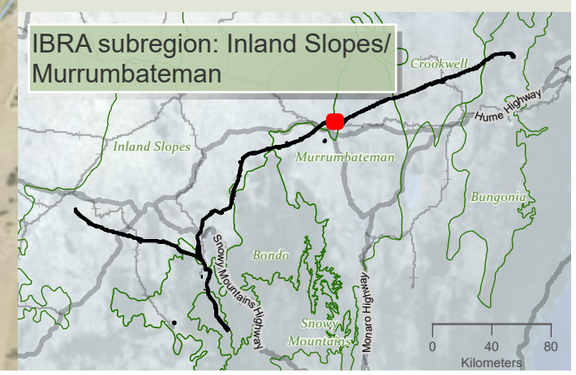
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)
- Superb Parrot (Polytelis swainsonii) (1)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 75

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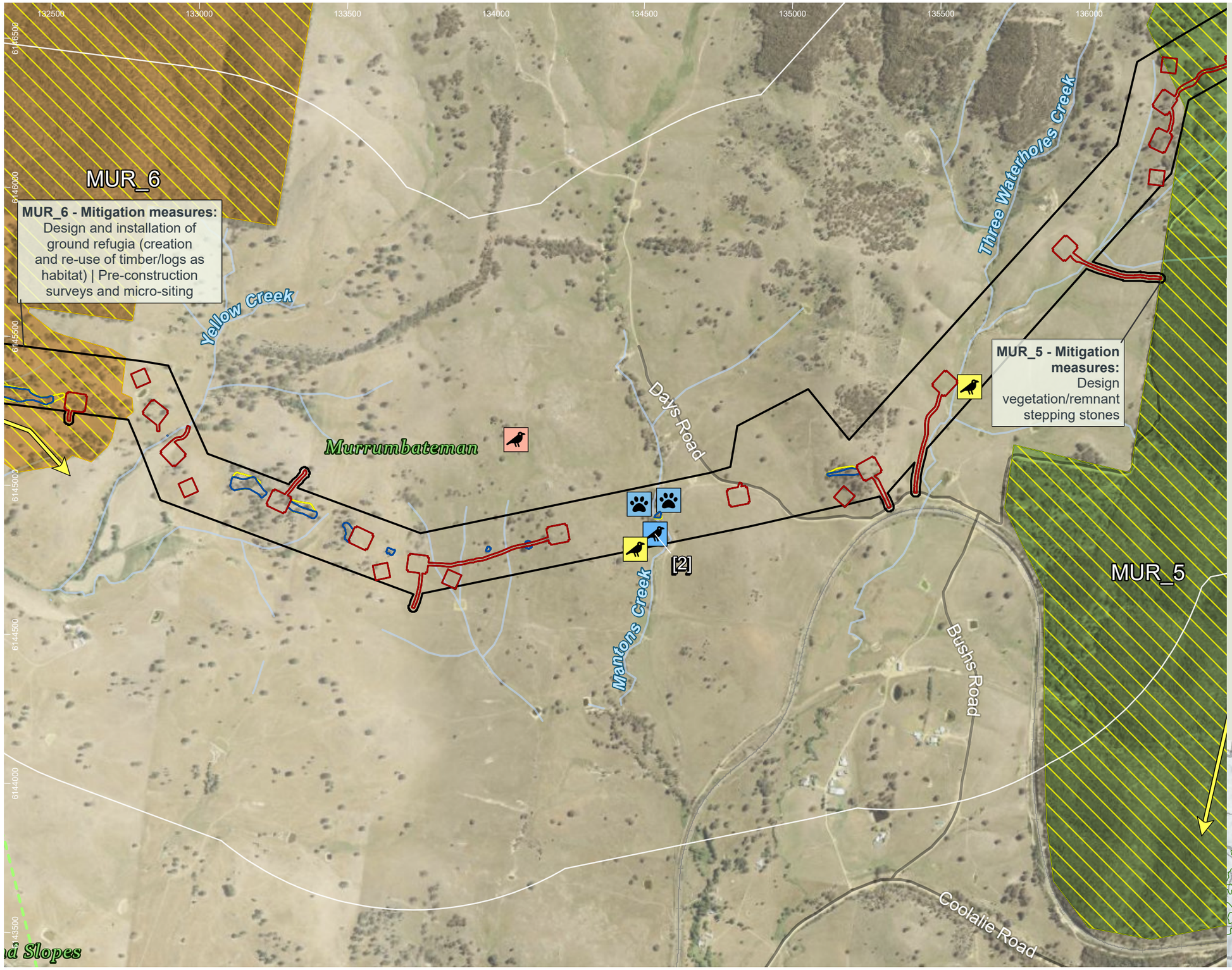


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

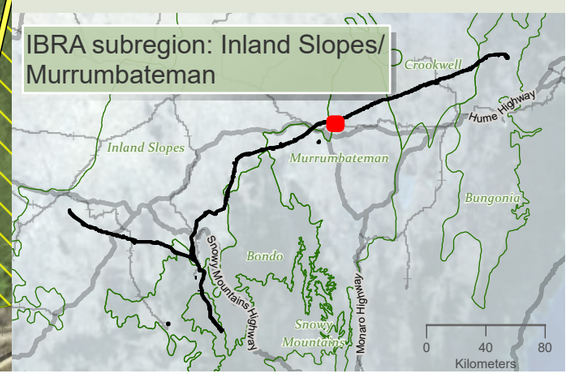
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Spotted Harrier (Circus assimilis) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 76

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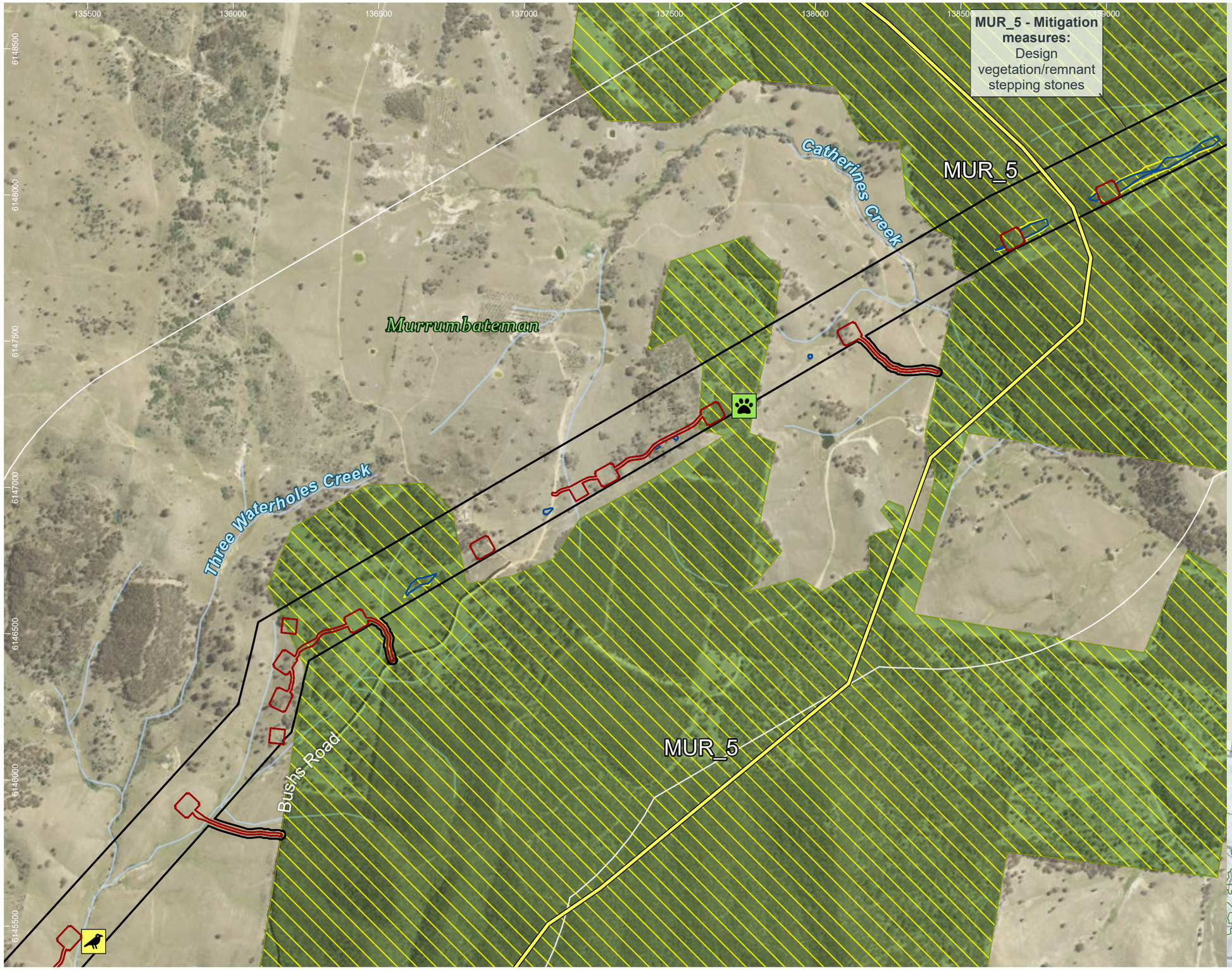
mpact assessment SEC-EXT - BDAR_v2\s6699_Humelink_BDAR_Stage 2 Part C - Confidential i



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

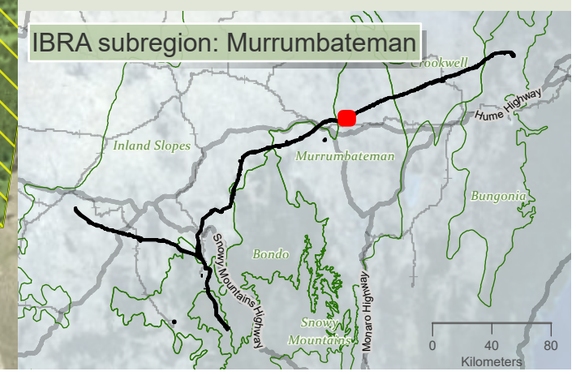
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Mammalia

- Eastern Pygmy-possum (Cercartetus nanus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 77

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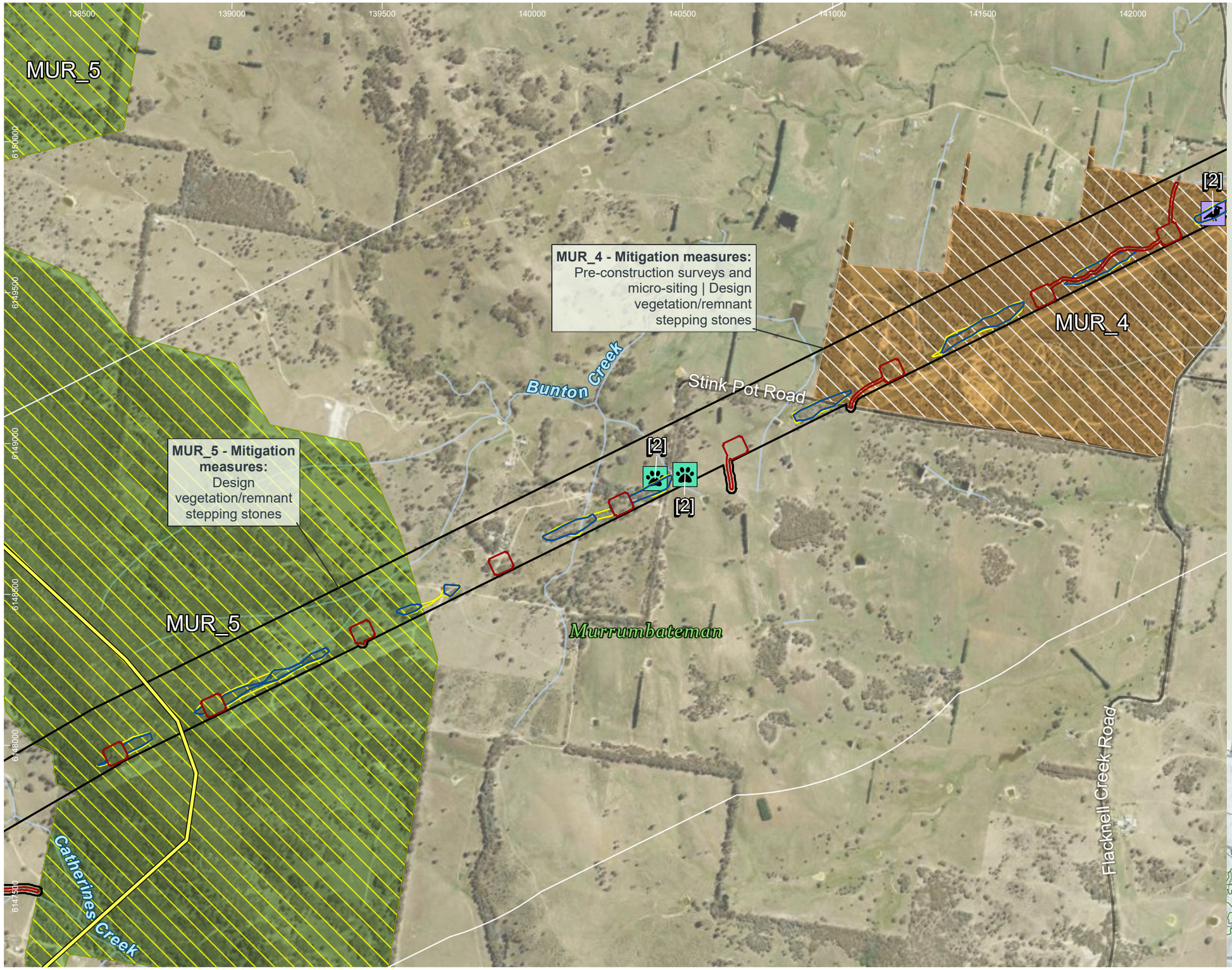


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate

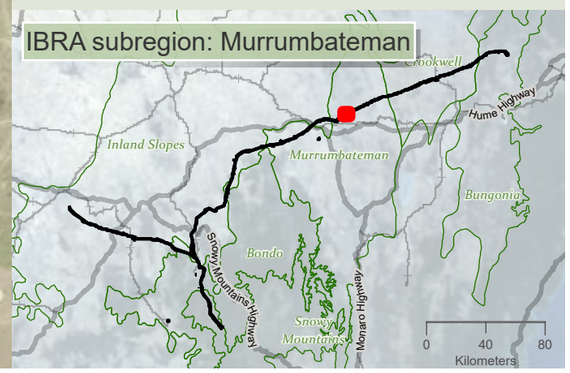
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 78

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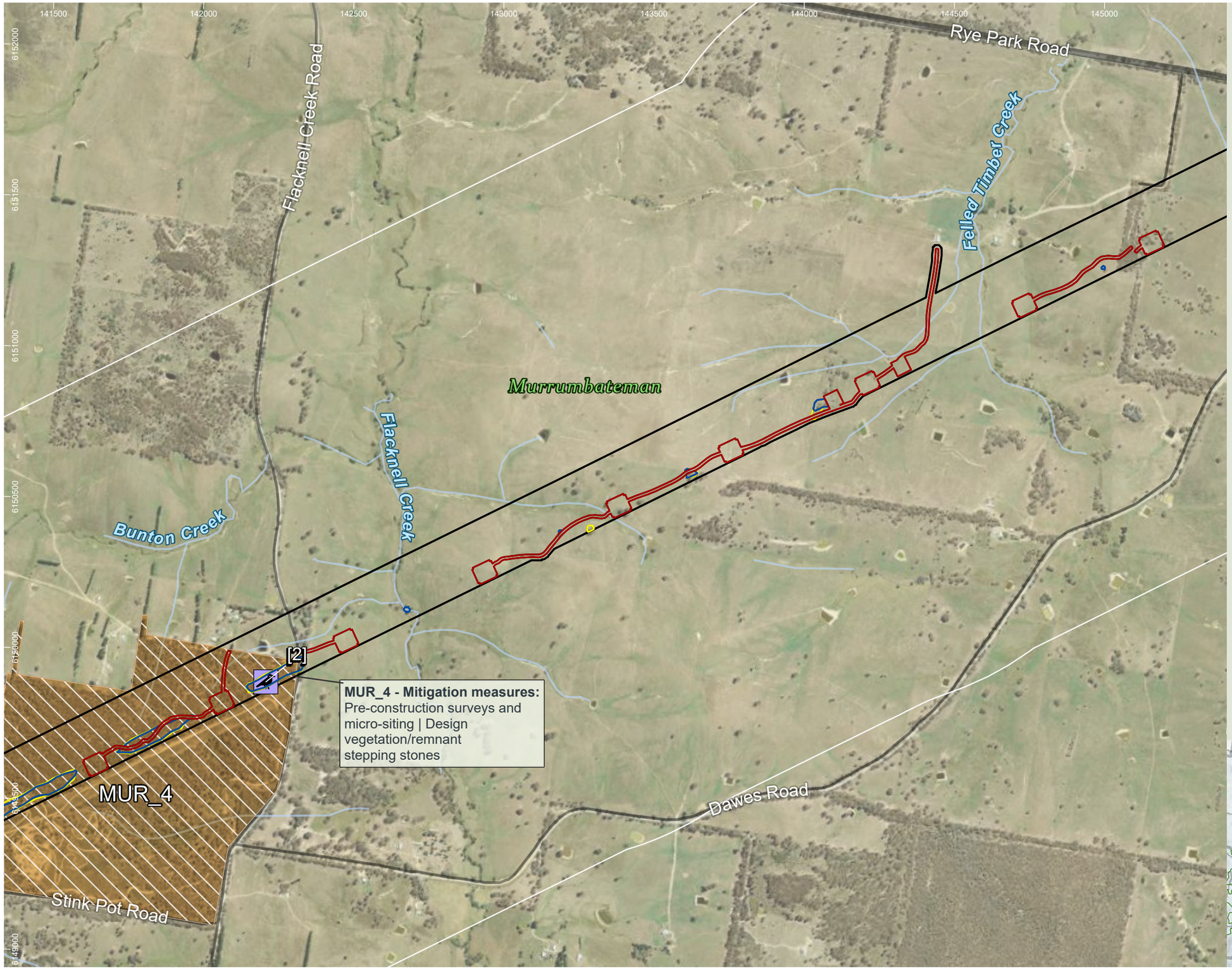


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

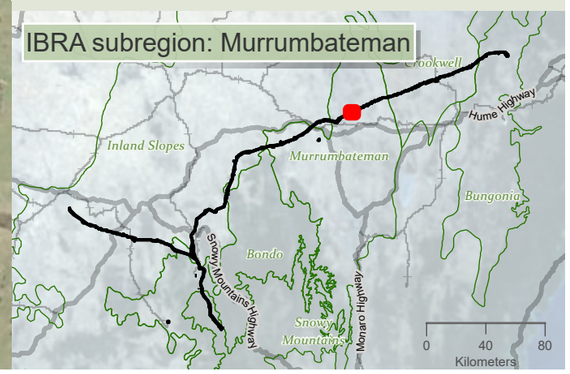
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 79

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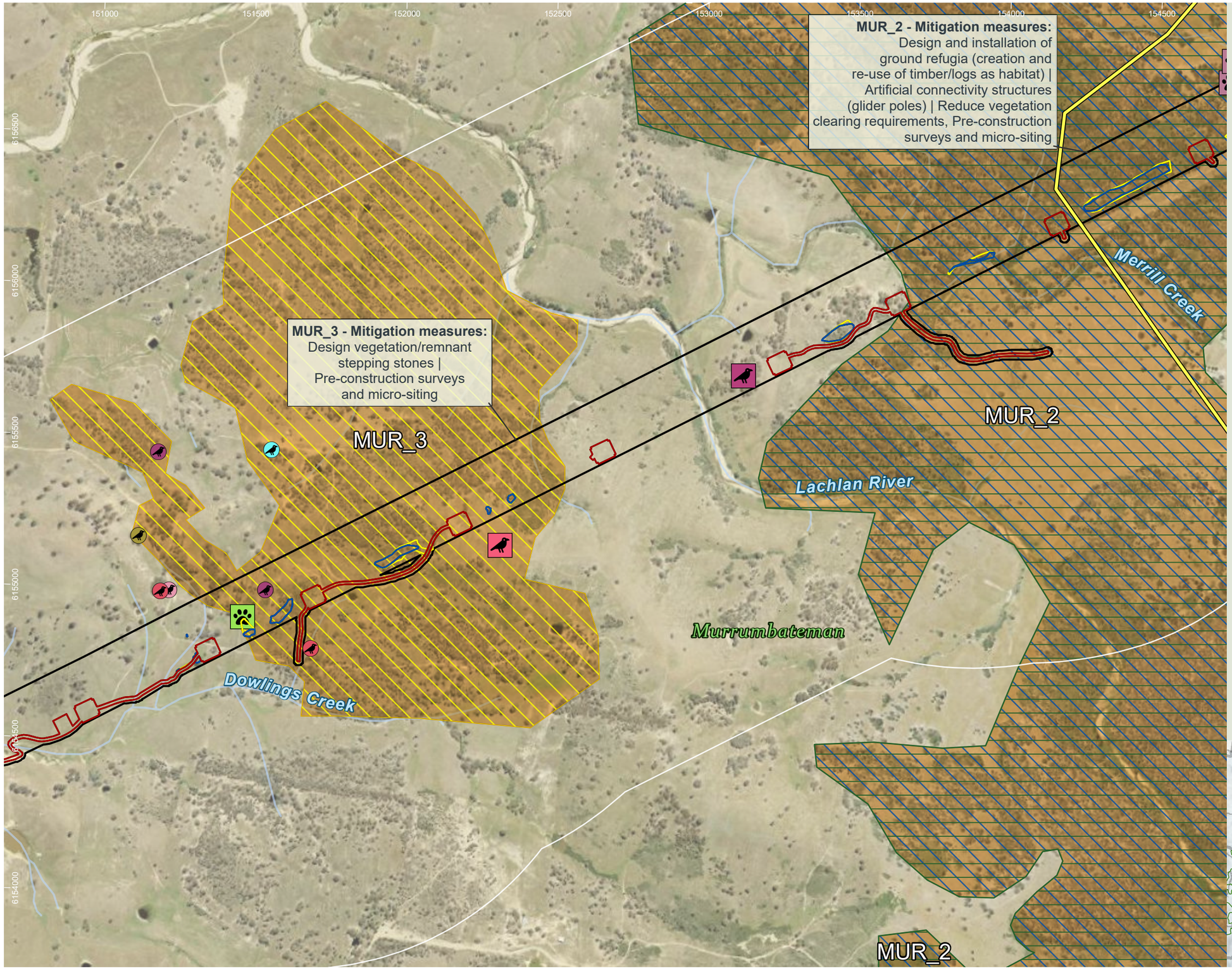


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides) (1)
- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)

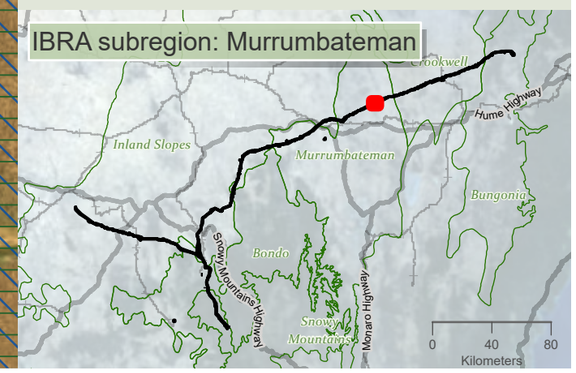
Mammalia

- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Squirrel Glider (Petaurus norfolcensis) (2)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Diamond Firetail (Stagonopleura guttata) (2)
- Flame Robin (Petroica phoenicea) (1)
- Scarlet Robin (Petroica boodang) (2)
- Speckled Warbler (Chthonicola sagittata) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



Environment and Heritage

0 350 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 82

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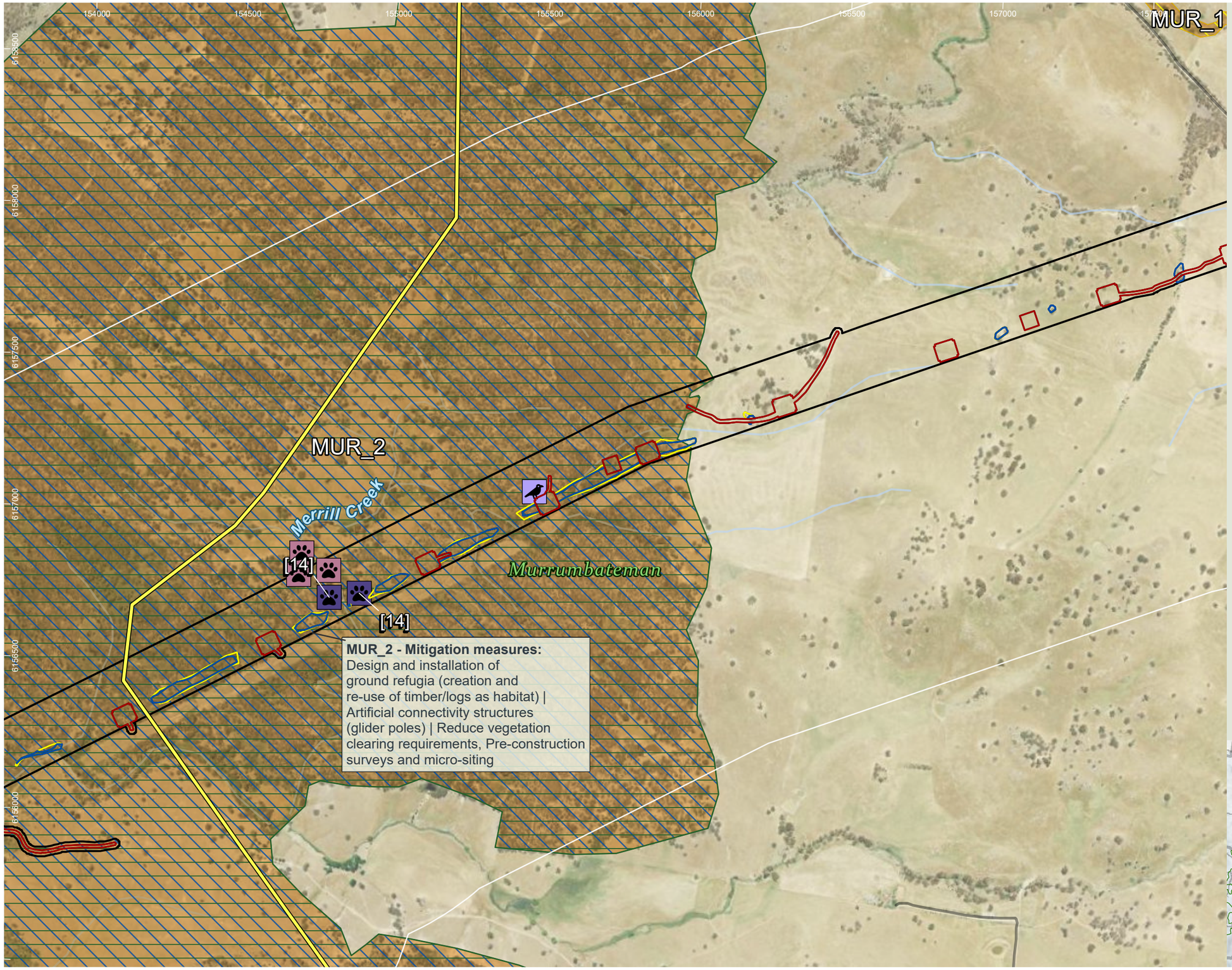


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- Moderate

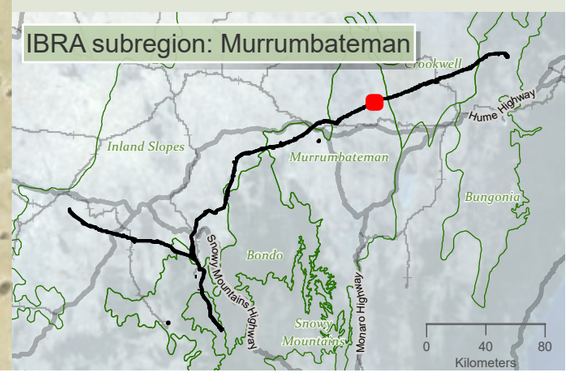
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Squirrel Glider (Petaurus norfolcensis) (3)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 83

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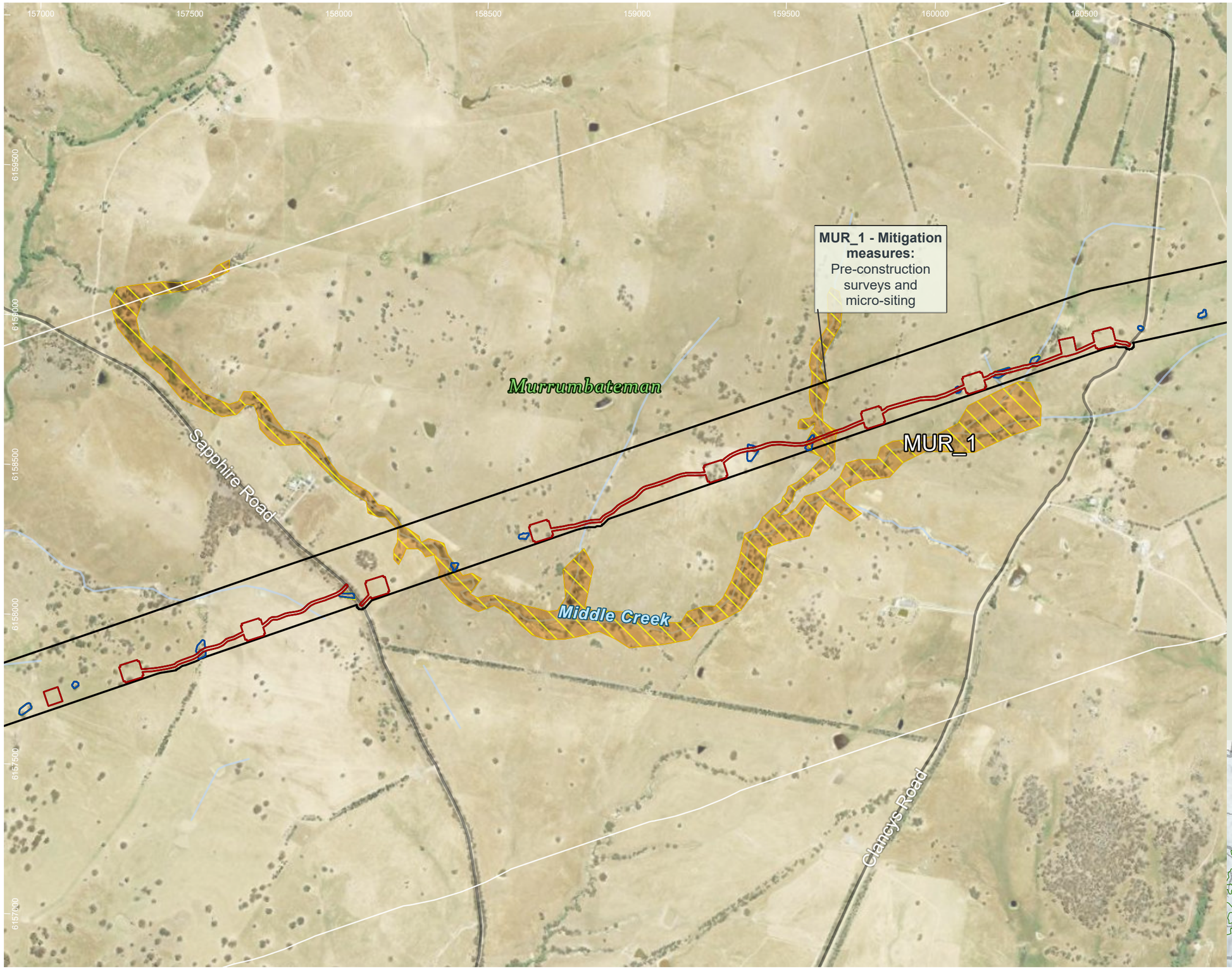


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

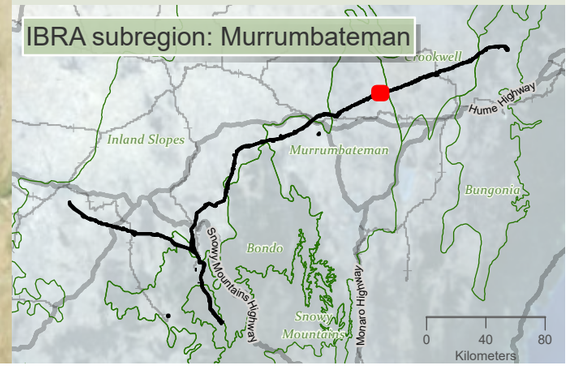
- Moderate

Fauna corridors - existing connectivity

- Moderate

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Superb Parrot (Polytelis swainsonii) (1)



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 84

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

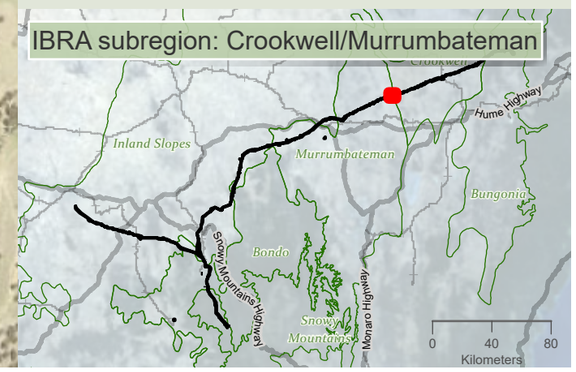
Amphibia

- Verreaux's Frog (Litoria verreauxii) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Speckled Warbler (Chthonicola sagittata) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 85

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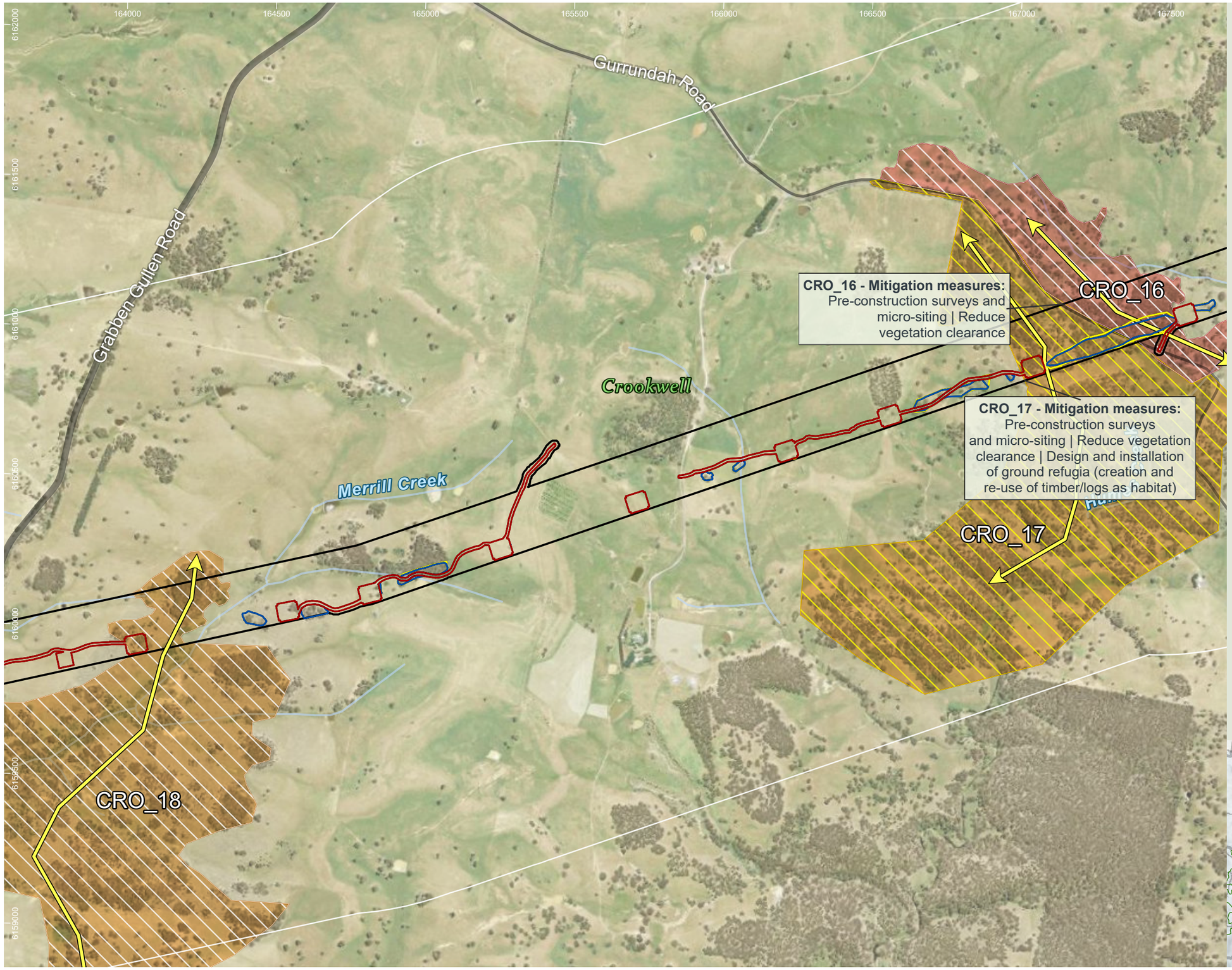


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

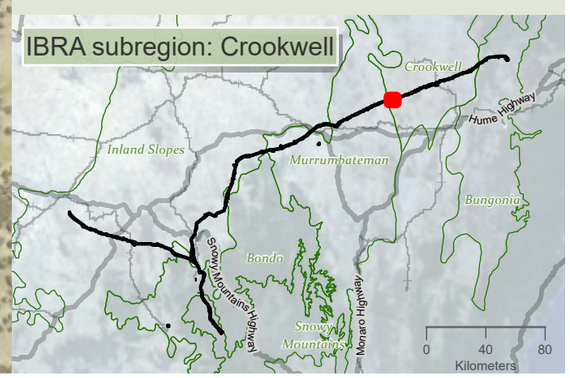
- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 86

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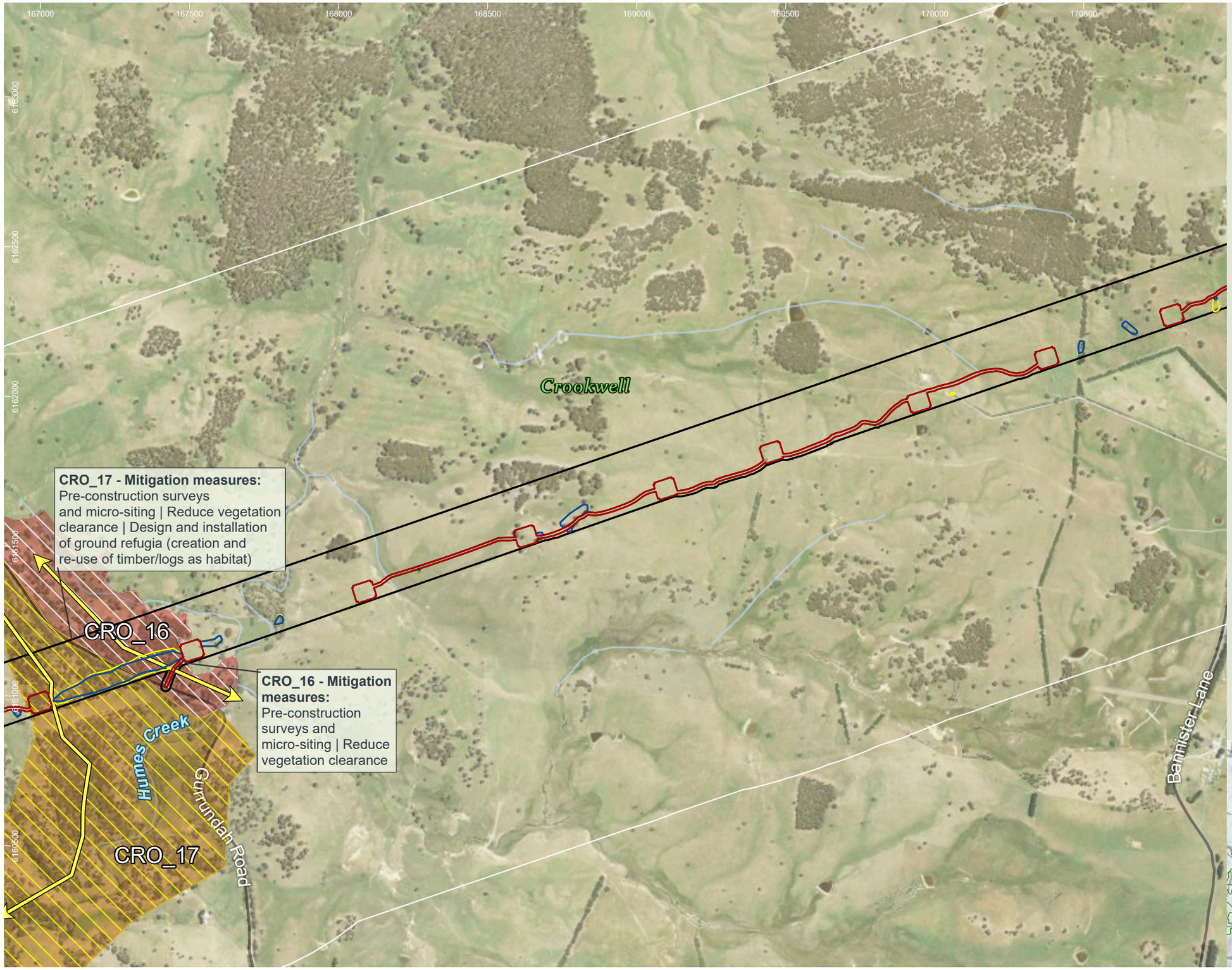


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

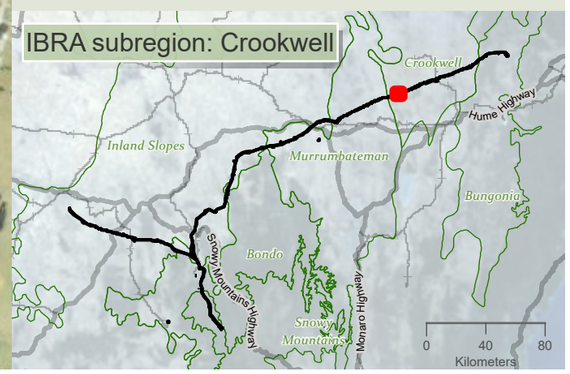
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 87

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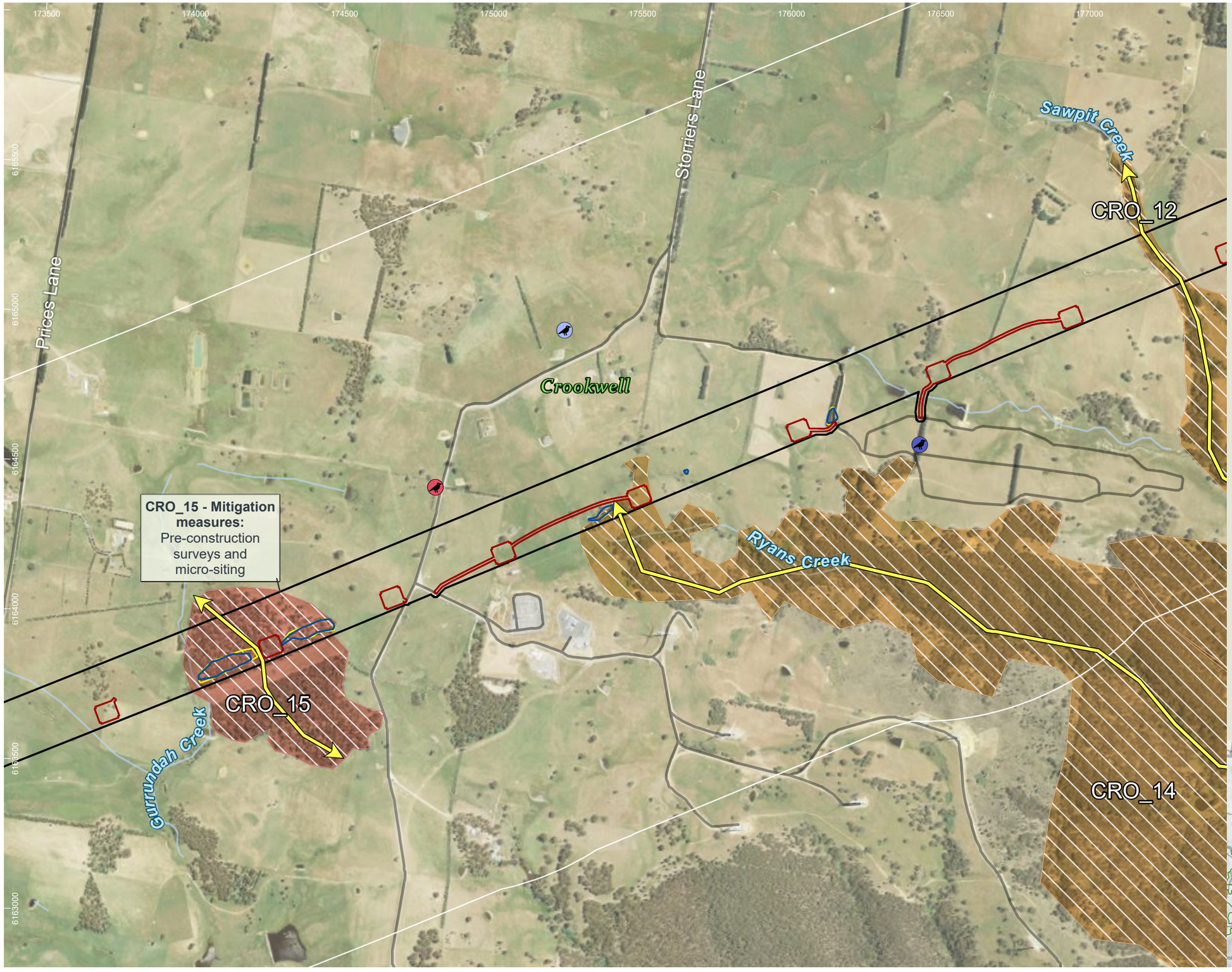


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

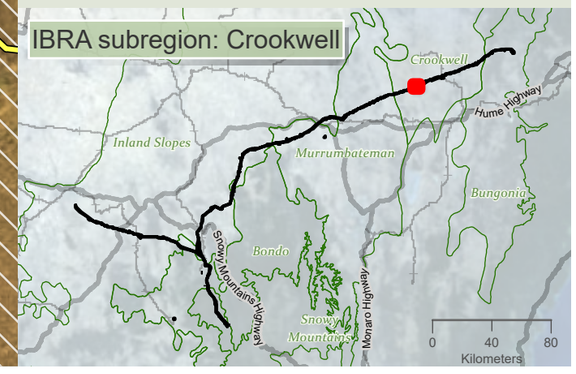
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Little Eagle (Hieraaetus morphnoides) (1)
- Scarlet Robin (Petroica boodang) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 89

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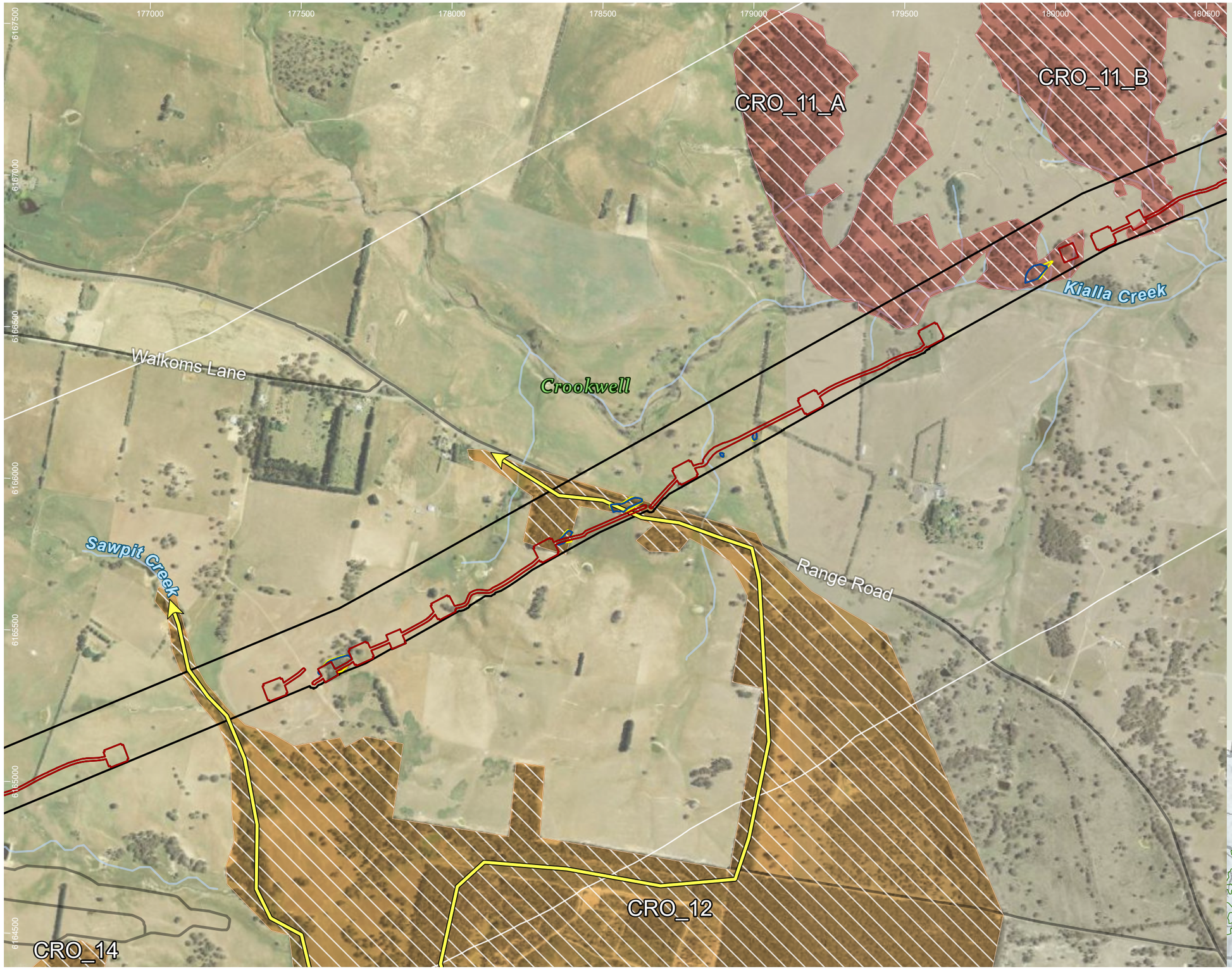


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

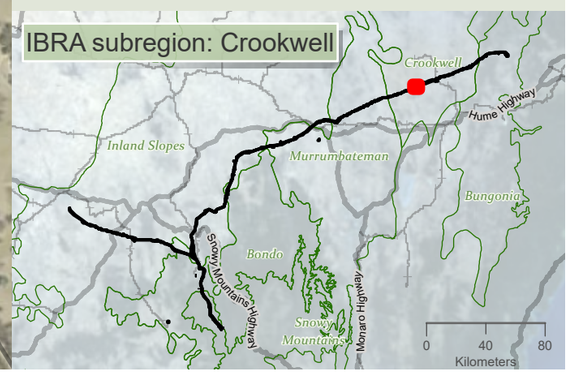
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate
- Low



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 90

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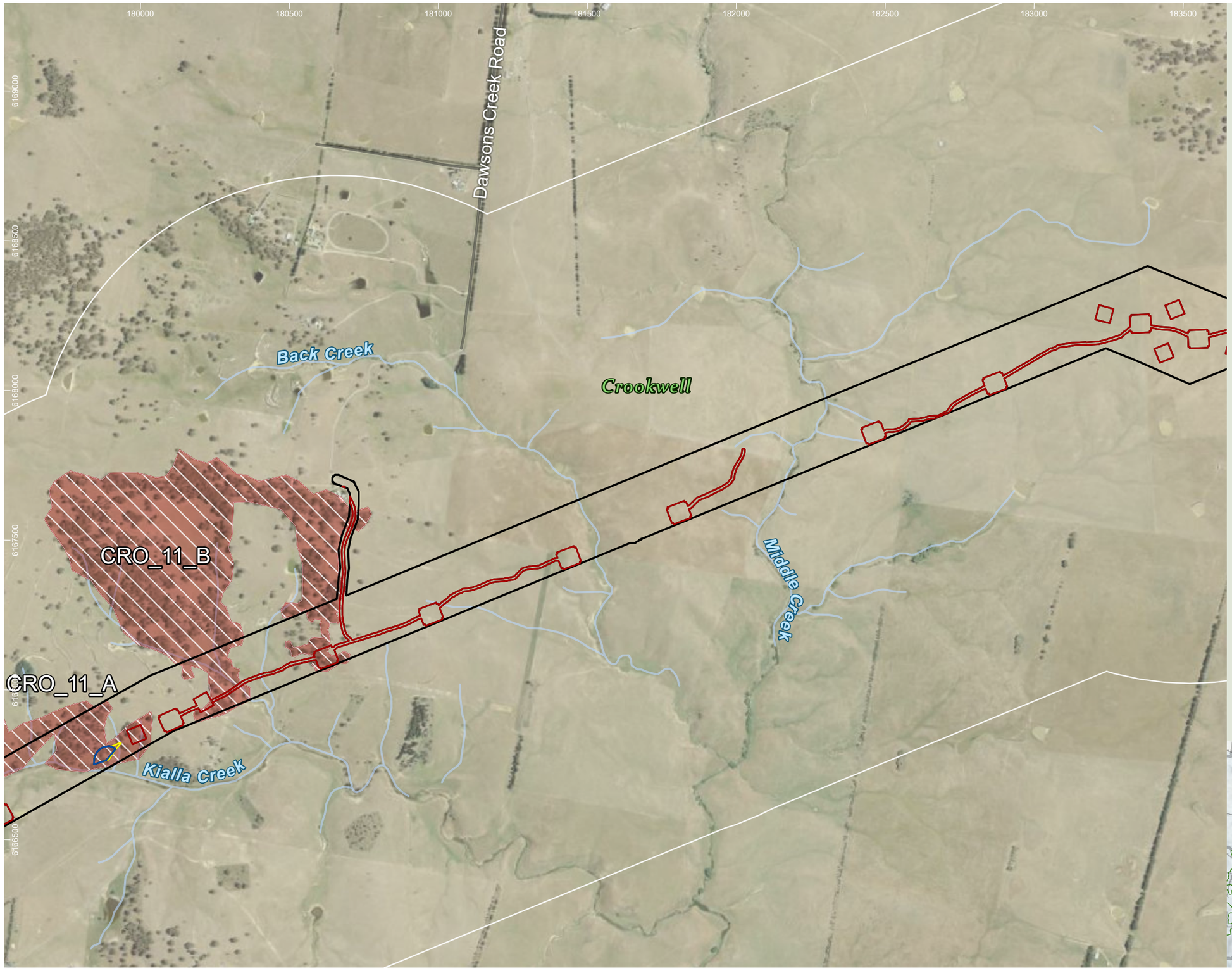


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

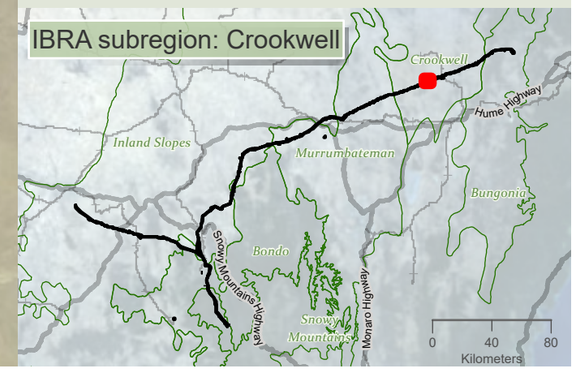
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 91

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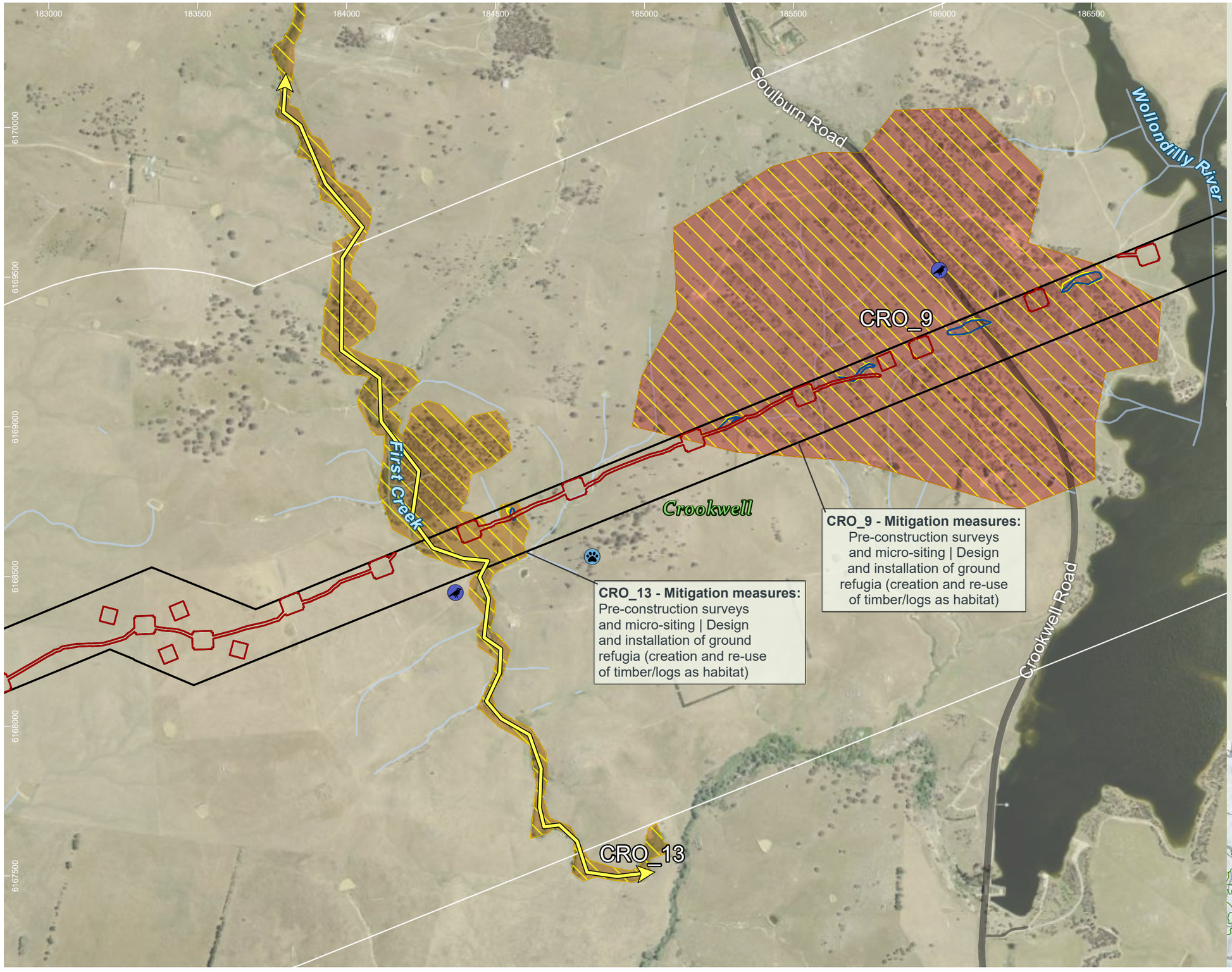


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate
- Low

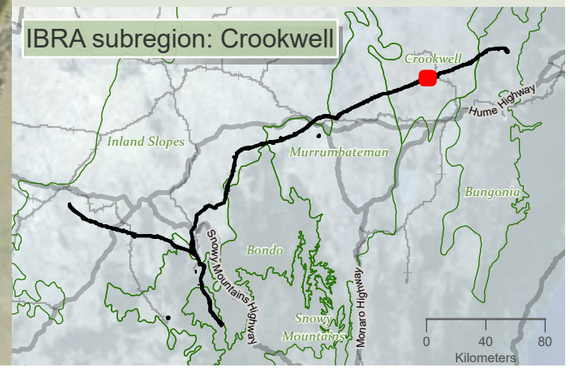
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 92

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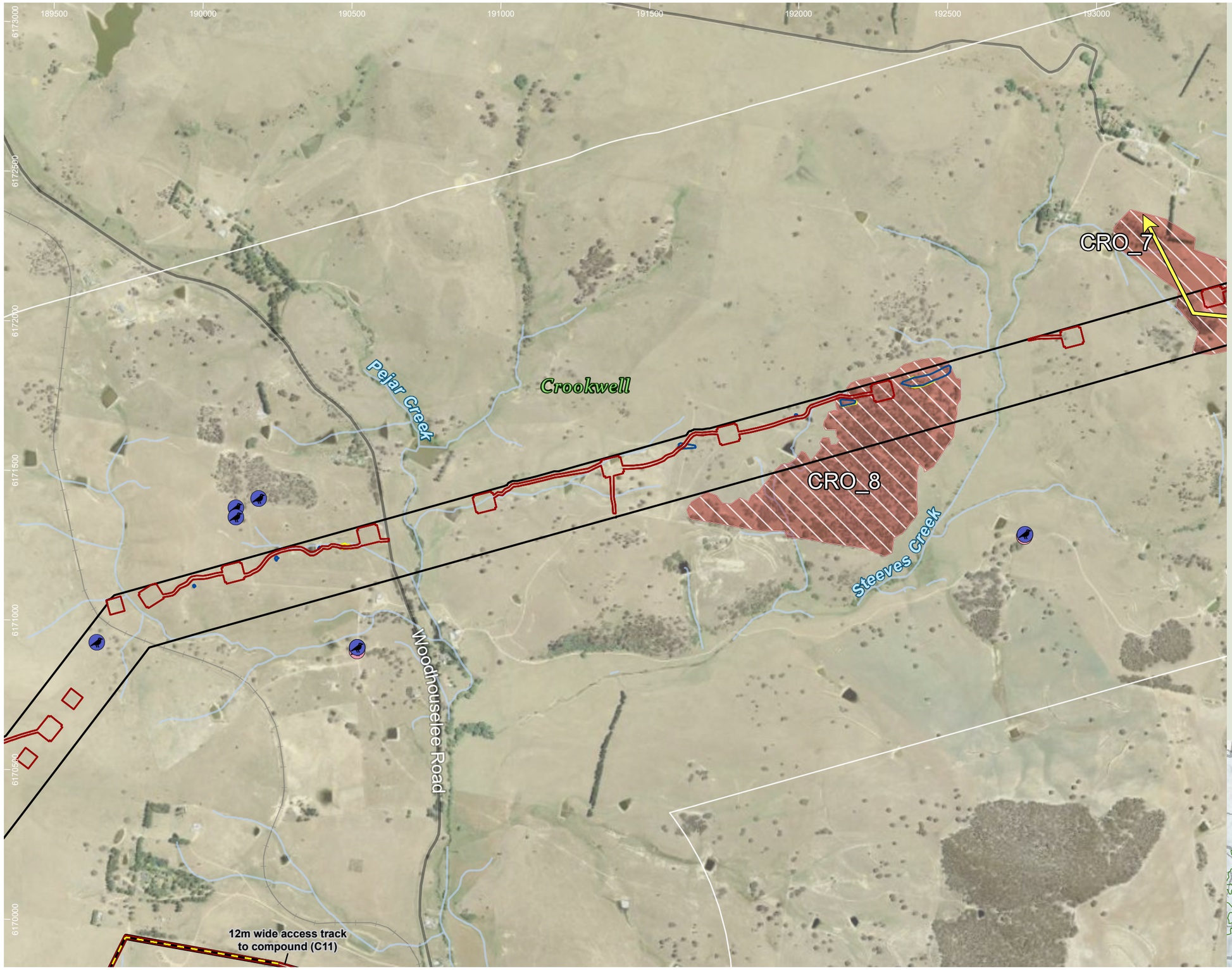


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

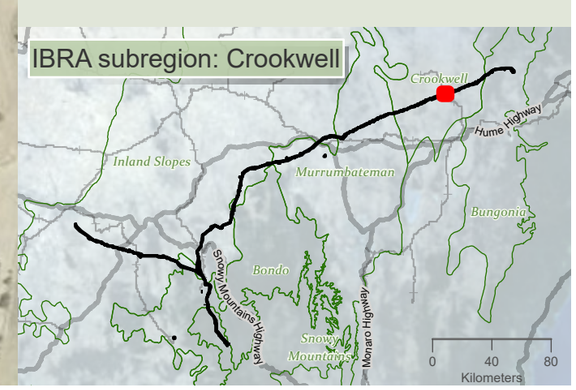
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (6)
- Varied Sittella (Daphoenositta chrysoptera) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 94

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193000 193500 194000 194600 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

Crookwell

Melamalong Creek

CRO_6 - Mitigation measures: Pre-construction surveys and micro-siting

CRO_6

[2]

[2]

CRO_7

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (1)

Aves

- Scarlet Robin (Petroica boodang) (2)

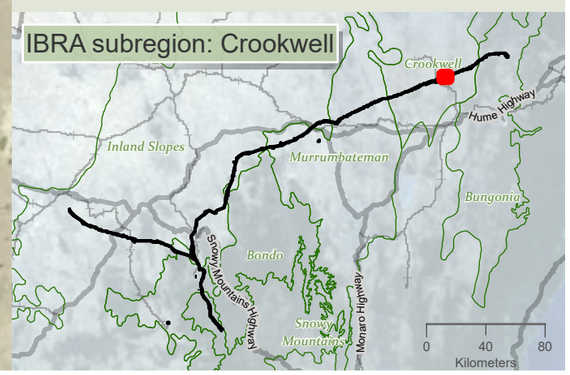
Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Varied Sittella (Daphoenositta chrysoptera) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 95

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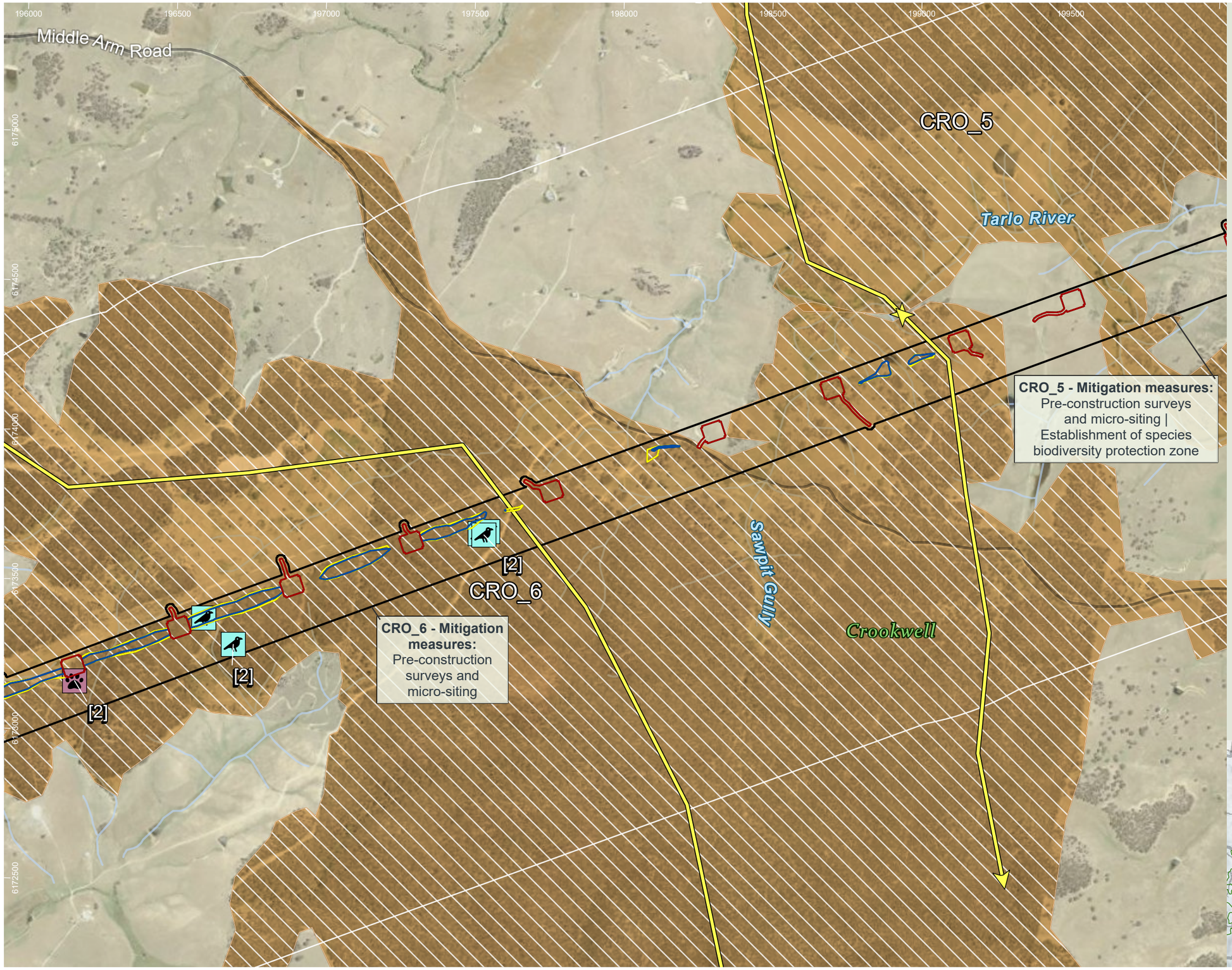


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

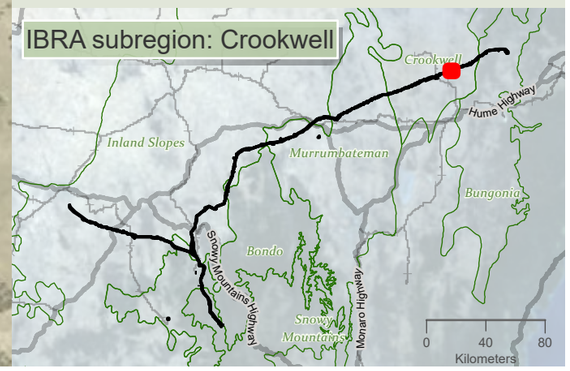
- Scarlet Robin (Petroica boodang) (5)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 96

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199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Rhyanna Road

Back Arm Road

Crookwell

Tarlo River

Turrallo Creek

CRO_3

CRO_4

CRO_5

CRO_6

CRO_2

CRO_5 - Mitigation measures:
Pre-construction surveys and micro-siting | Establishment of species biodiversity protection zone

CRO_3 - Mitigation measures:
Pre-construction surveys and micro-siting

CRO_4 - Mitigation measures:
Pre-construction surveys and micro-siting

CRO_6 - Mitigation measures:
Pre-construction surveys and micro-siting

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

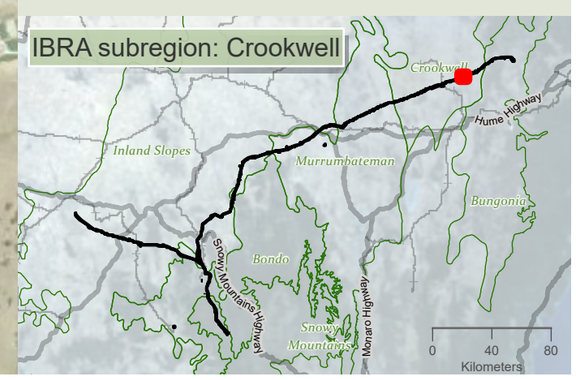
Aves

- Scarlet Robin (Petroica boodang) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)

IBRA subregion: Crookwell



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 97

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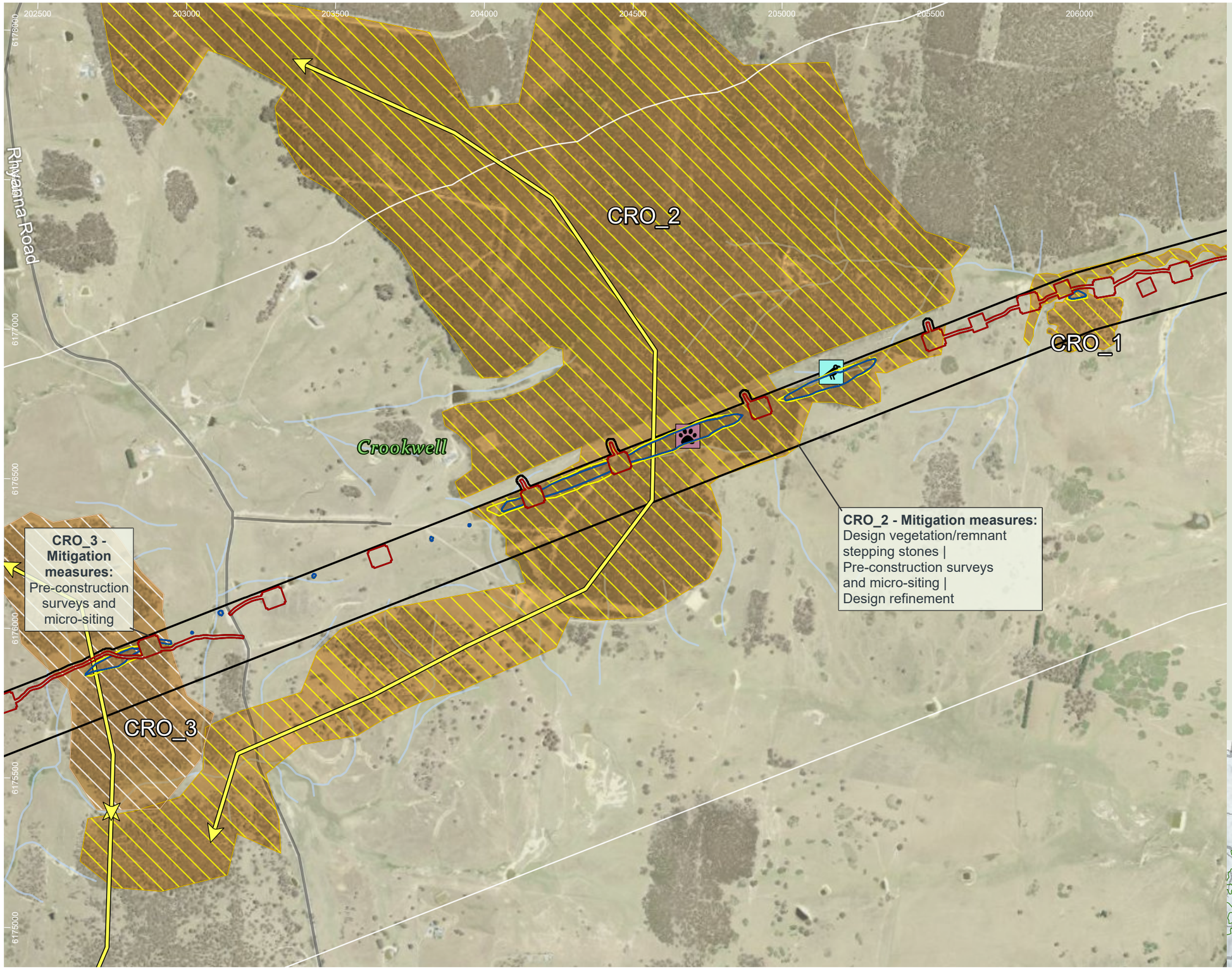


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

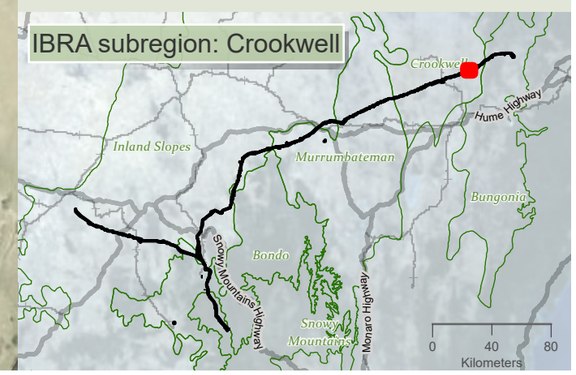
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Cowpers Lane

Taralga Road

Myrtle Creek

Crookwell

Cowpers Creek

CRO_1

[148] [129] [13] [21] [13] [148] [4] [115] [129] [111]

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

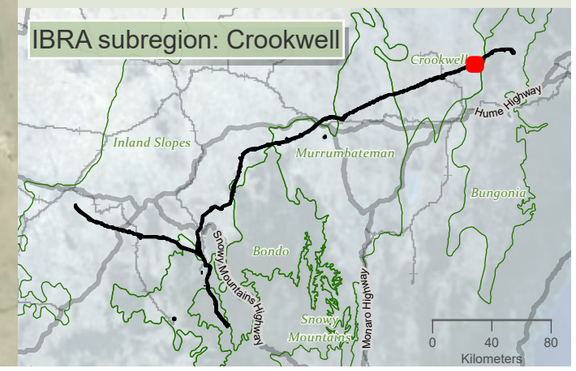
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (3)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (3)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (3)
- Southern Myotis (Myotis macropus) (3)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 99

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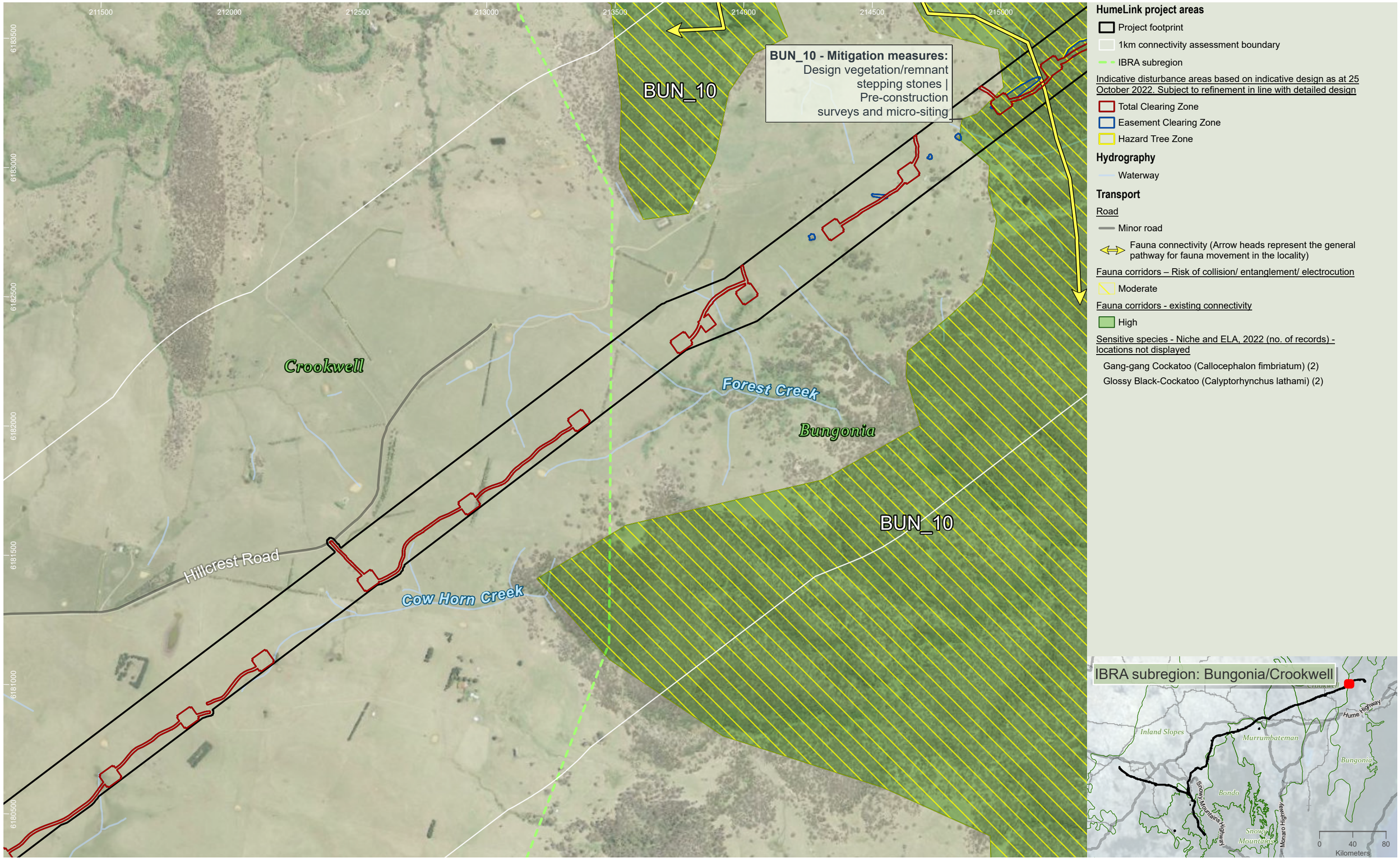

niche Environment and Heritage

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m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 101

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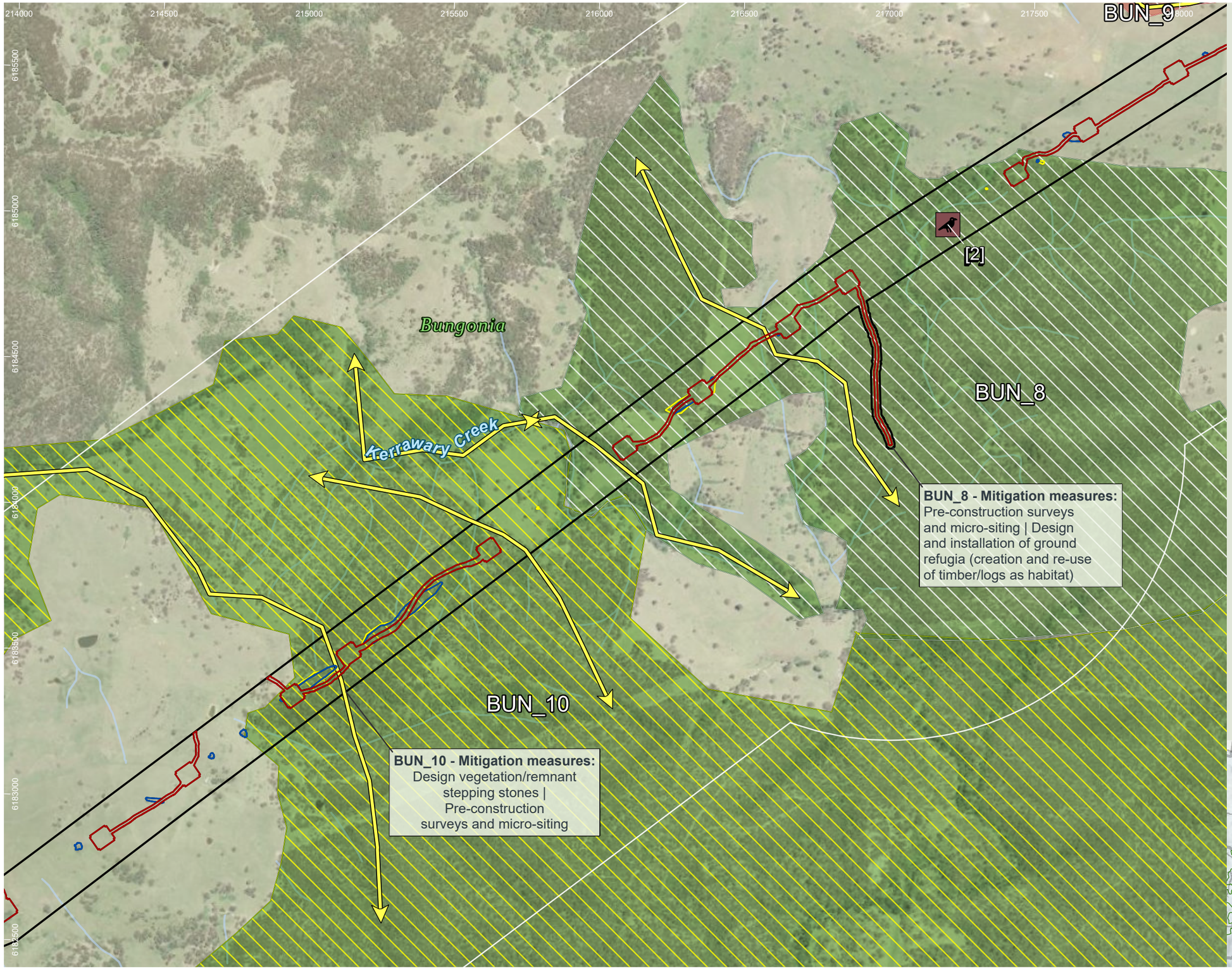


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low

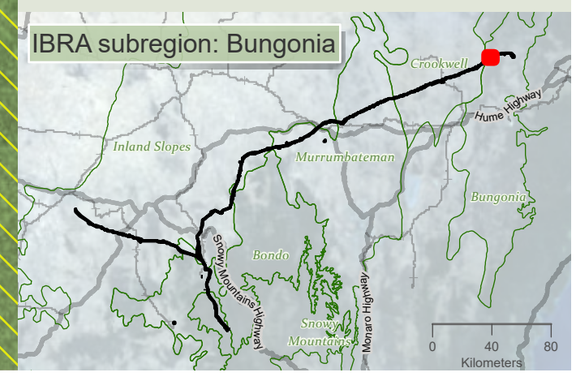
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (5)
- Glossy Black-Cockatoo (Calyptorhynchus lathami) (3)
- Powerful Owl (Ninox strenua) (1)



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 102

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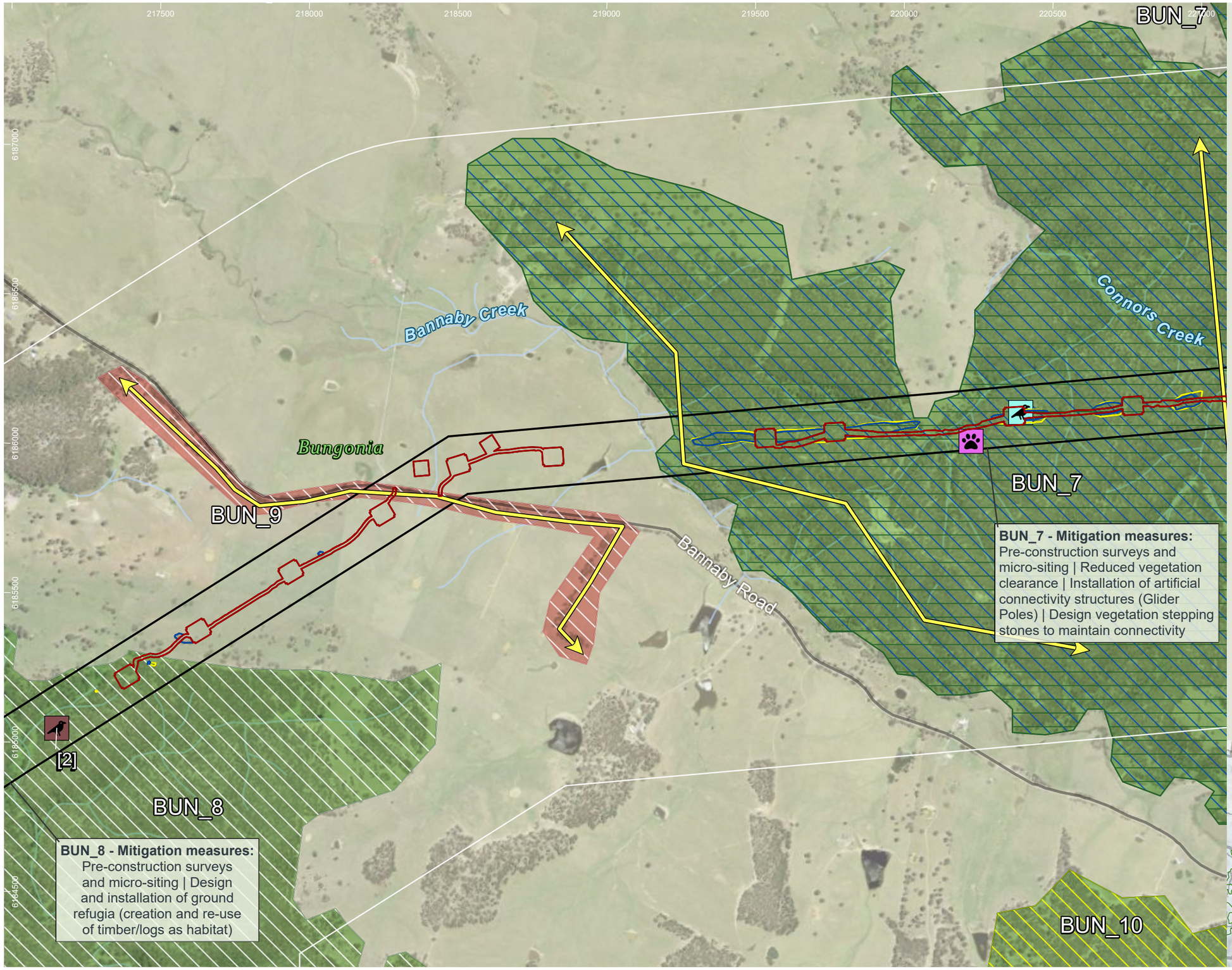


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

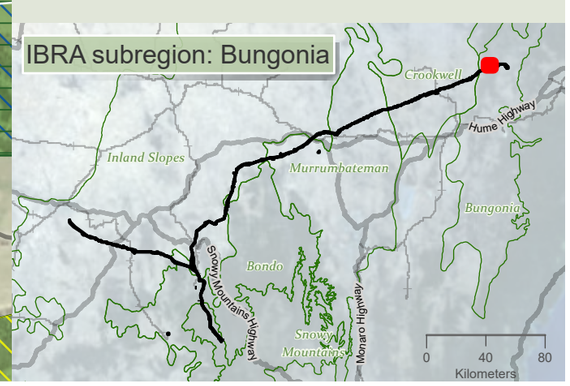
- Flame Robin (Petroica phoenicea) (1)
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Greater Glider (Petauroides volans) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 103

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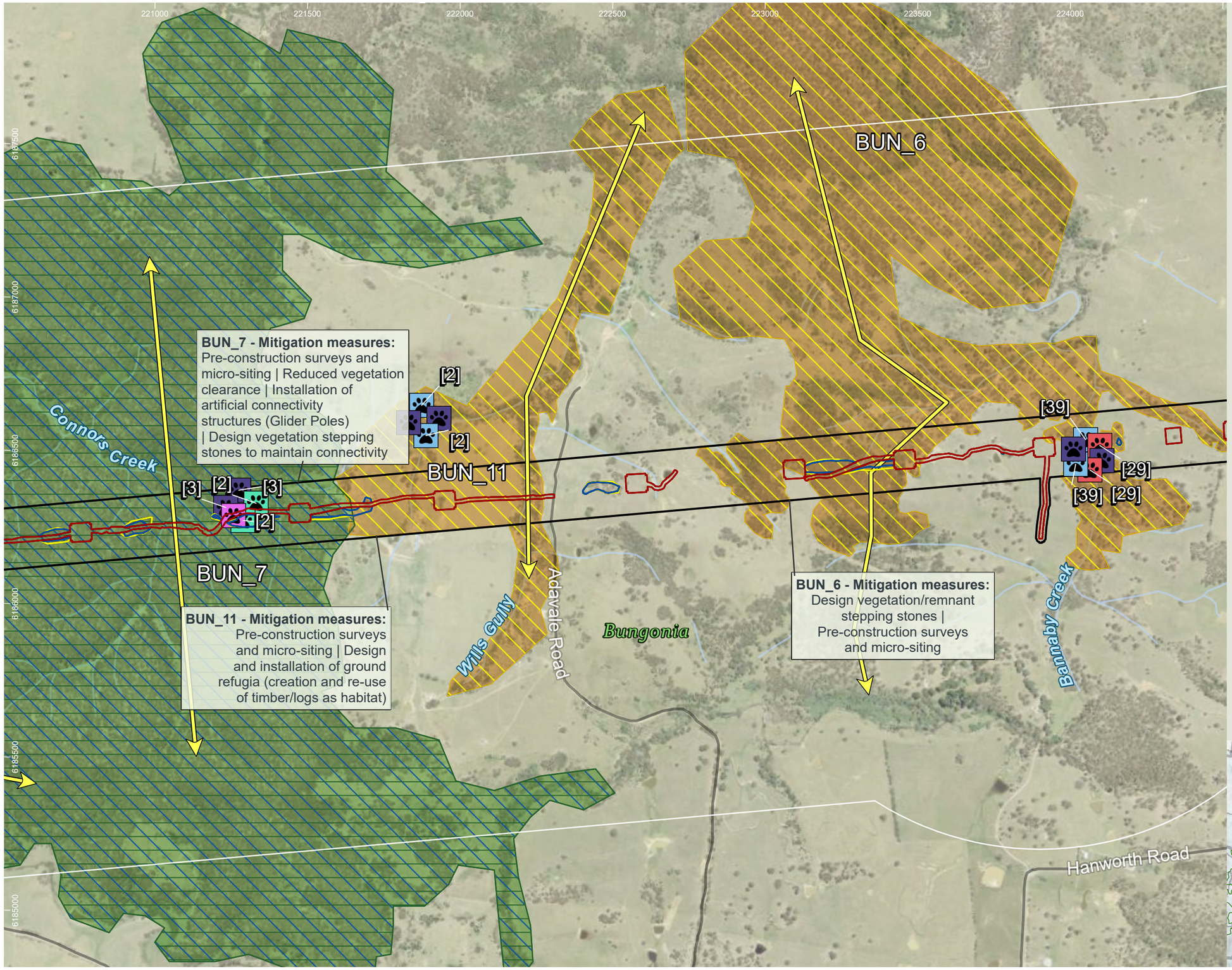


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

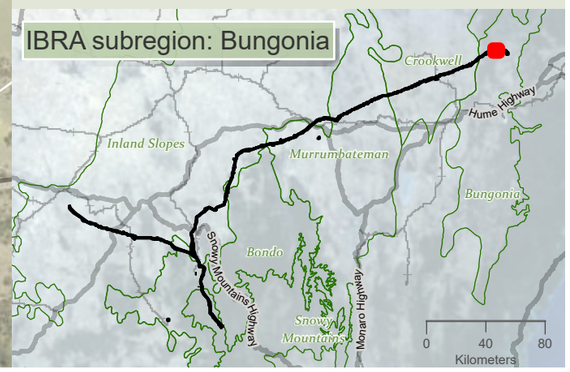
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (4)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Greater Glider (Petauroides volans) (1)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (6)
- Southern Myotis (Myotis macropus) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (7)



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niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 104

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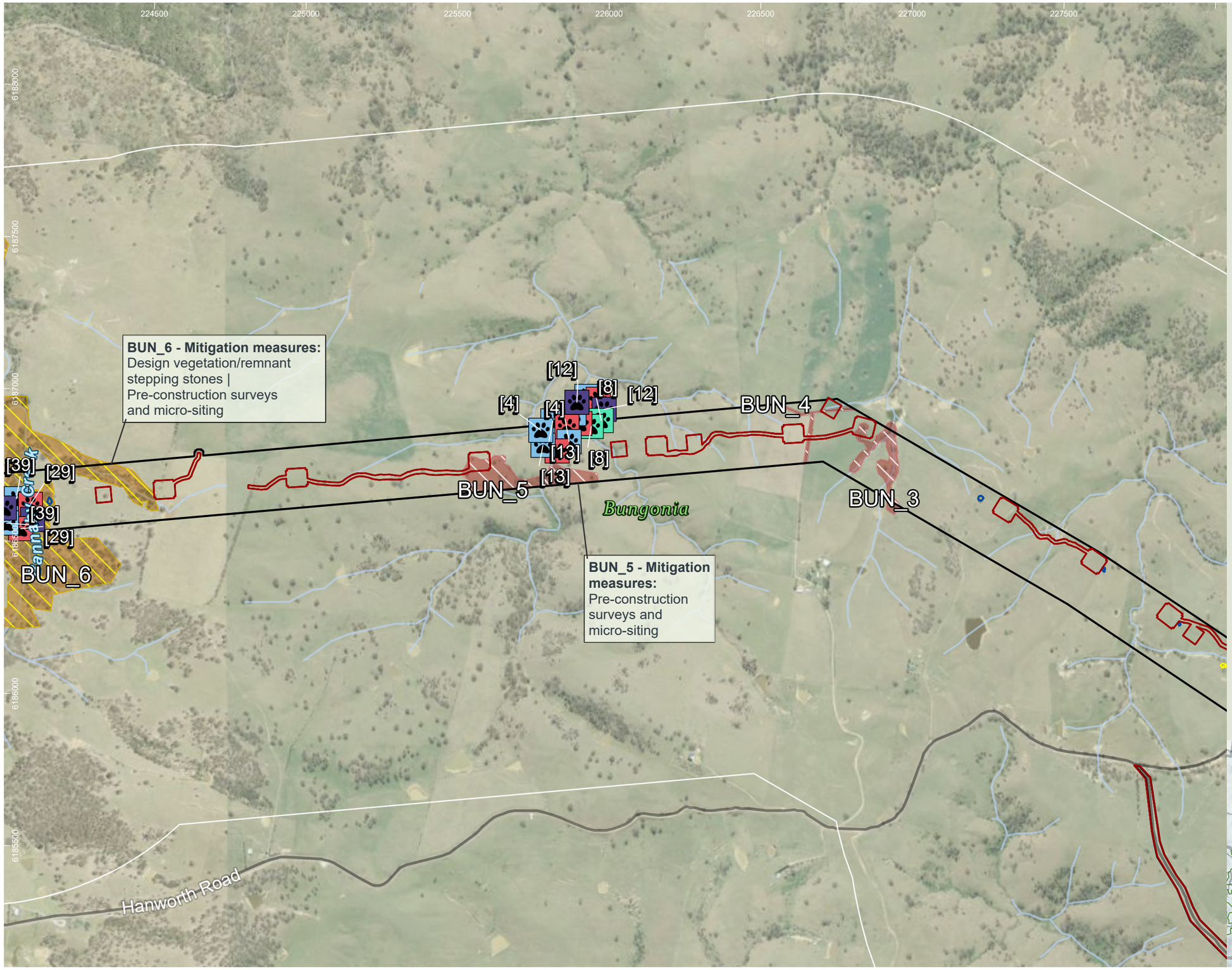


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

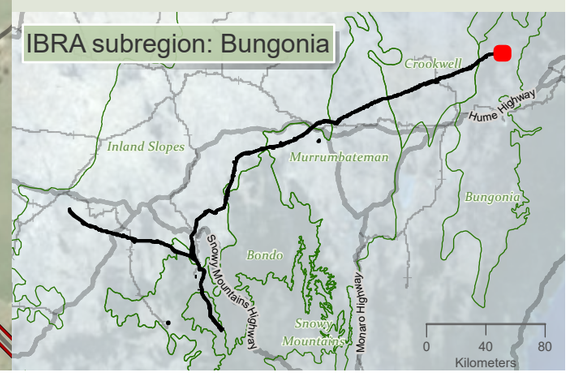
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (8)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (6)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (4)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 105

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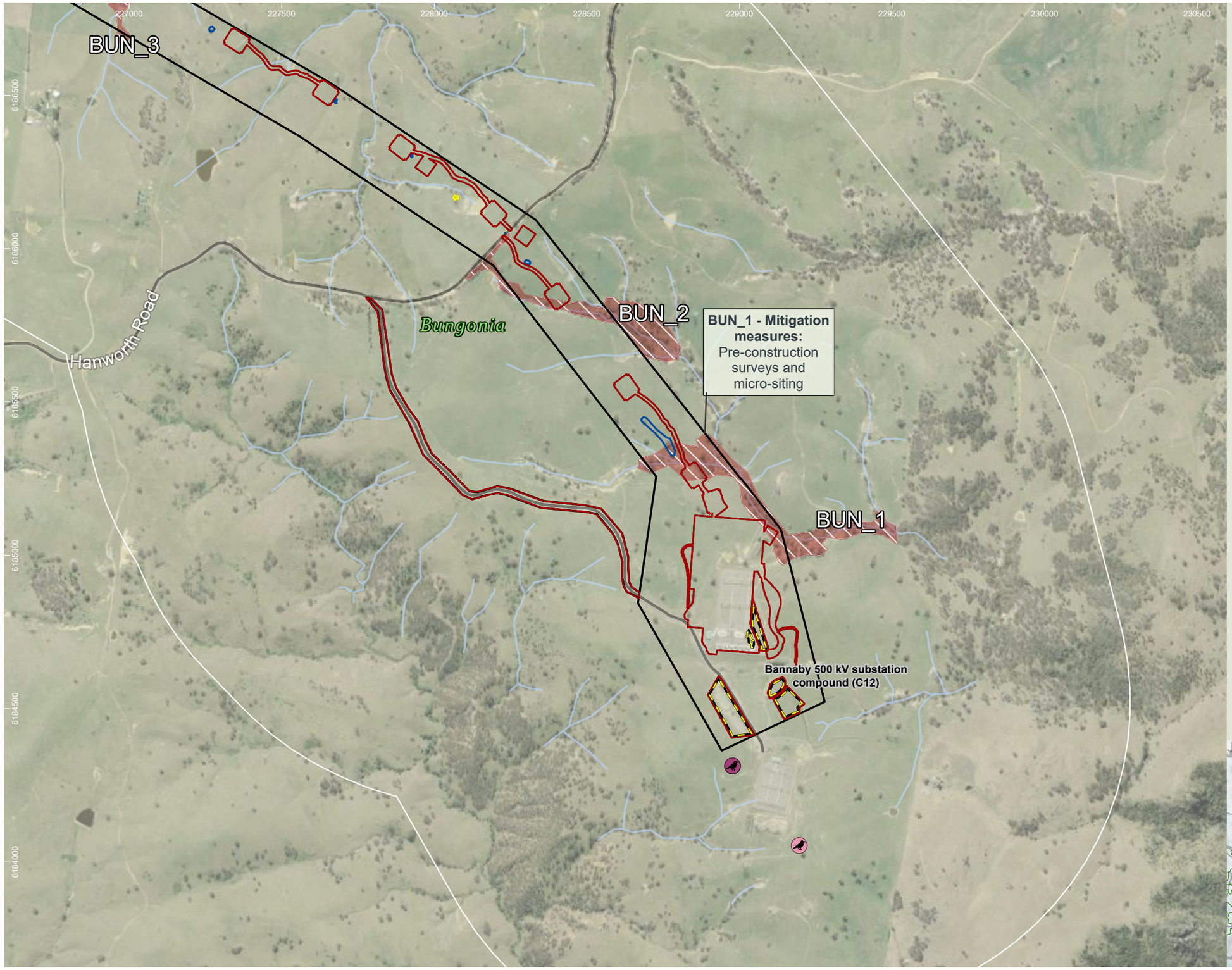


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

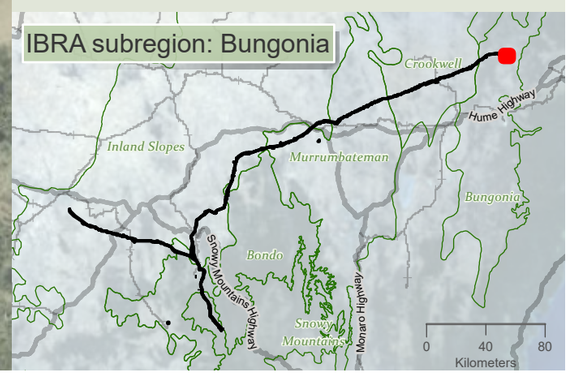
Fauna corridors - existing connectivity

- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black Falcon (Falco subniger) (1)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



Niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts and design mitigation priorities

HumeLink BDAR

Figure 13-15 map reference 106

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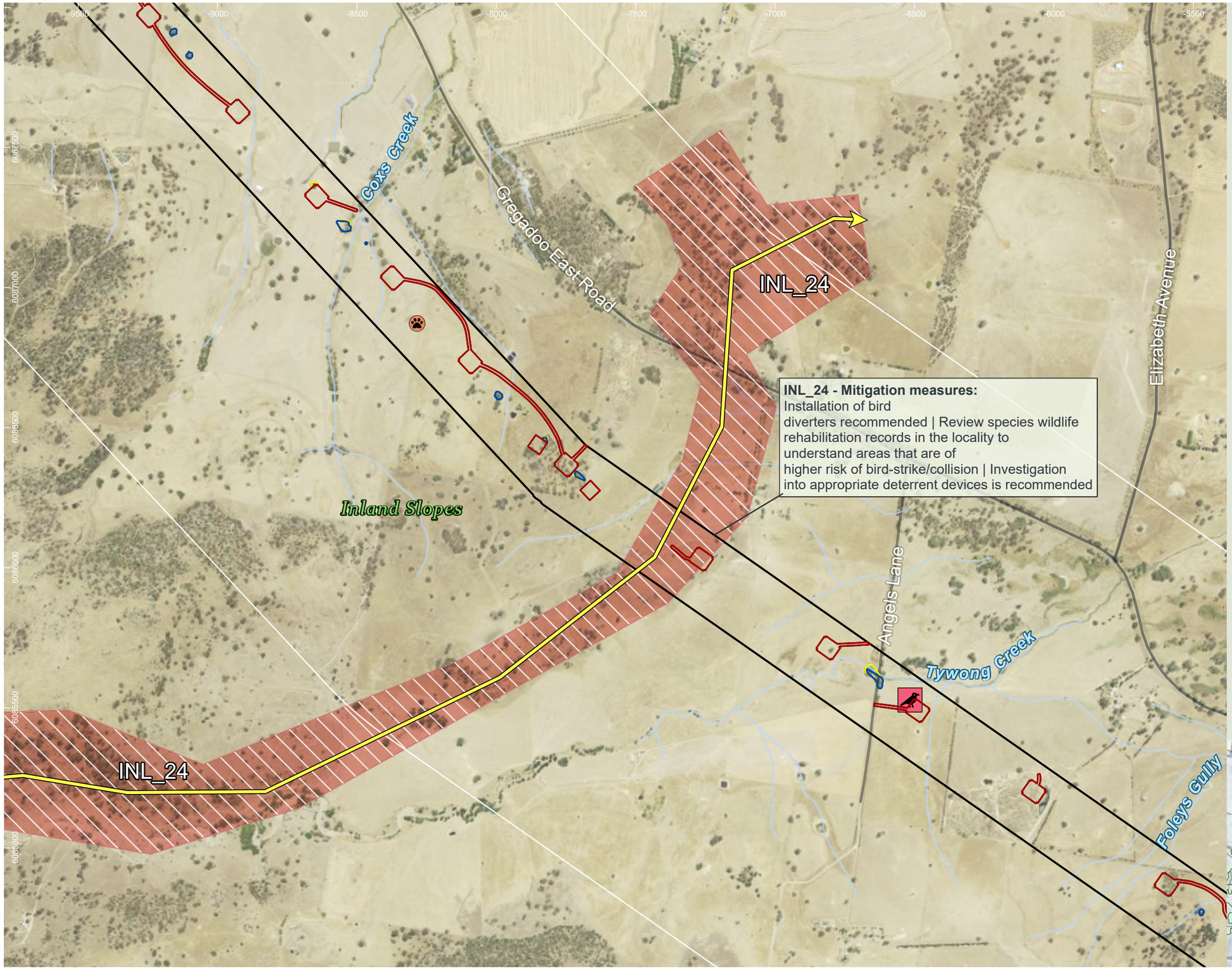


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

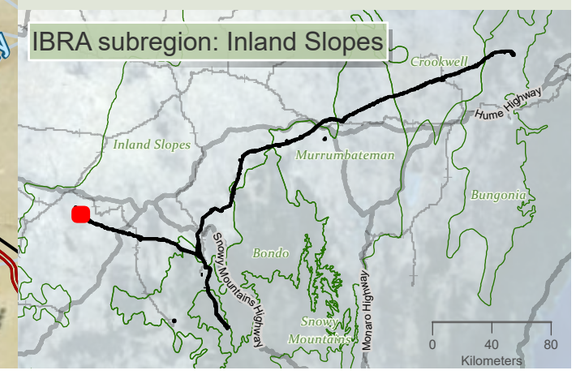
Aves

- Little Eagle (Hieraaetus morphnoides) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Koala (Phascolarctos cinereus) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 2

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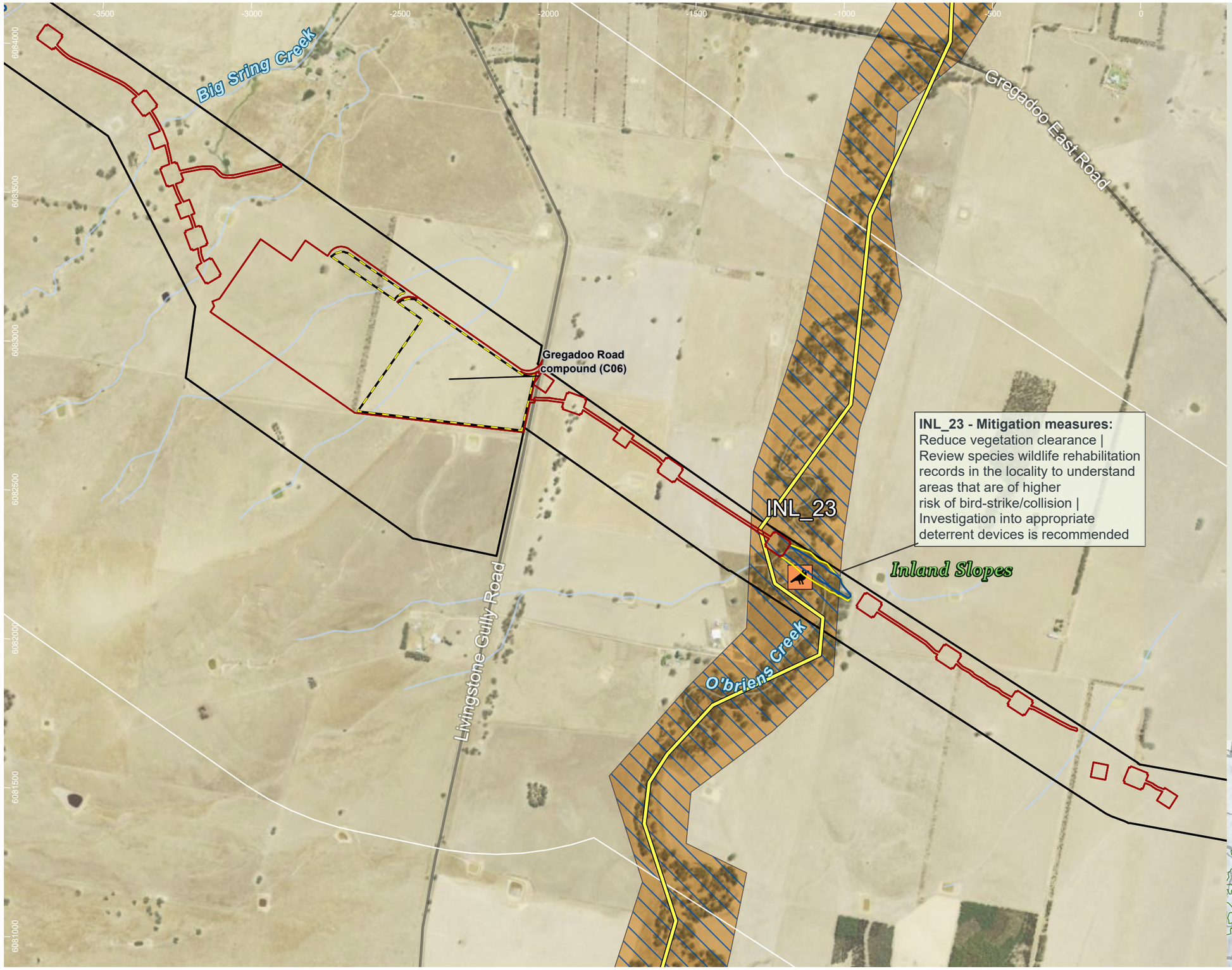


INL_23 - Mitigation measures:
Reduce vegetation clearance | Review species wildlife rehabilitation records in the locality to understand areas that are of higher risk of bird-strike/collision | Investigation into appropriate deterrent devices is recommended

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

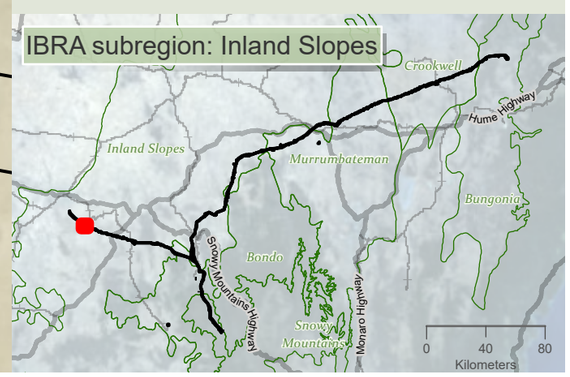
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)



Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 4

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-500 0 500 1000 1500 2000 2500 3000 3500

6082500 6082000 6081500 6081000 6080500 6080000

Gregadoo East Road

INL_23

Byes Lane

Tumbarumba Road

Kyeamba Creek

Inland Slopes

Tooles Creek

Trewalla Road

INL_23 - Mitigation measures:
Reduce vegetation clearance | Review species wildlife rehabilitation records in the locality to understand areas that are of higher risk of bird-strike/collision | Investigation into appropriate deterrent devices is recommended

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

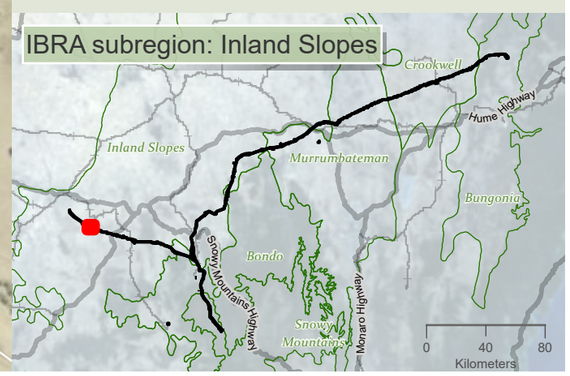
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

Fauna corridors - existing connectivity

- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 5

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3000 3500 4000 4500 5000 5500 6000 6500

6081500 6081000 6080500 6080000 6079500

Inland Slopes

INL_21

Tooles Creek

Trewalla Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

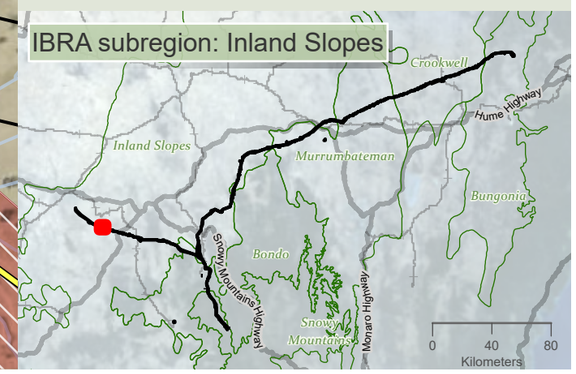
Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

IBRA subregion: Inland Slopes



0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 6

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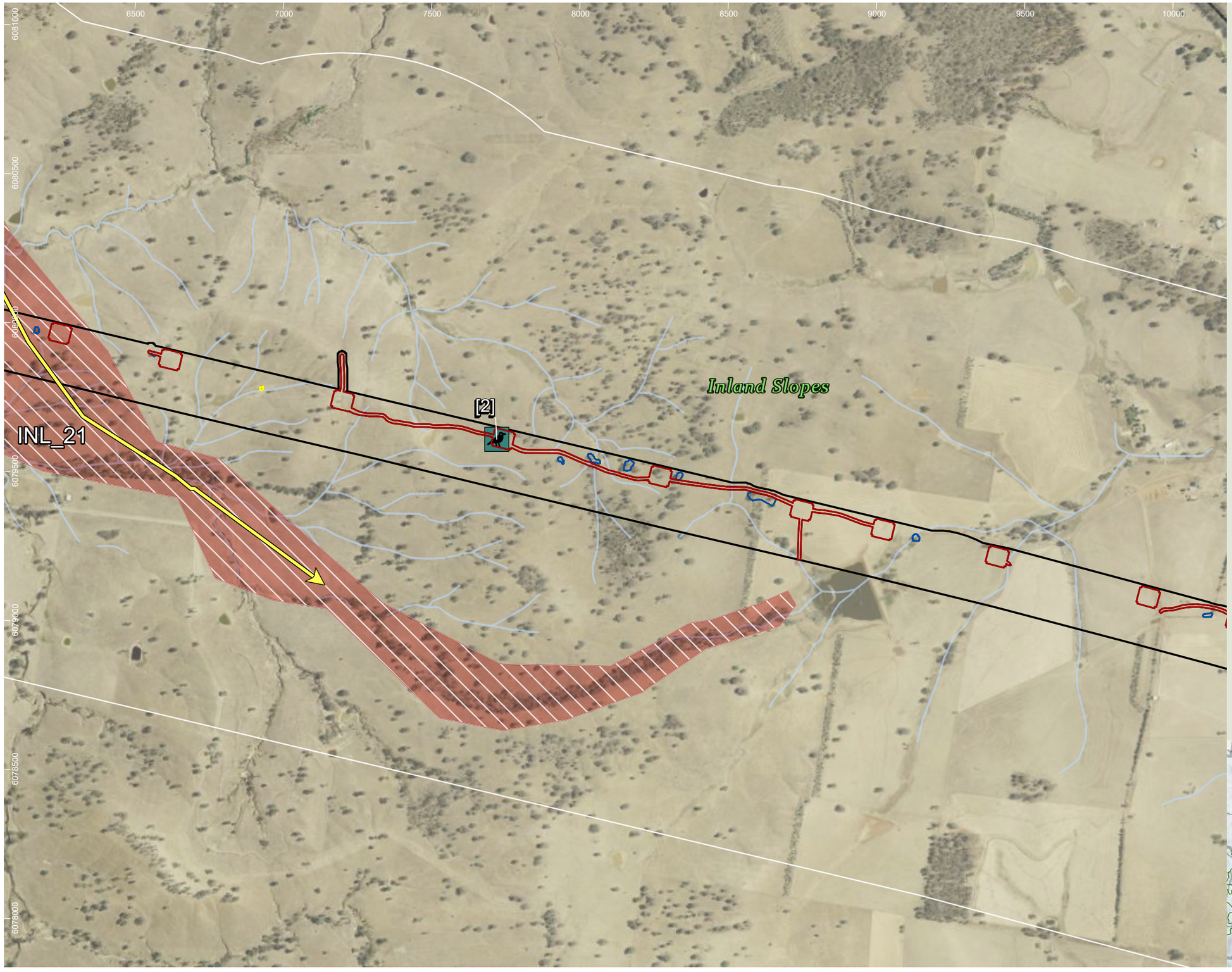


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

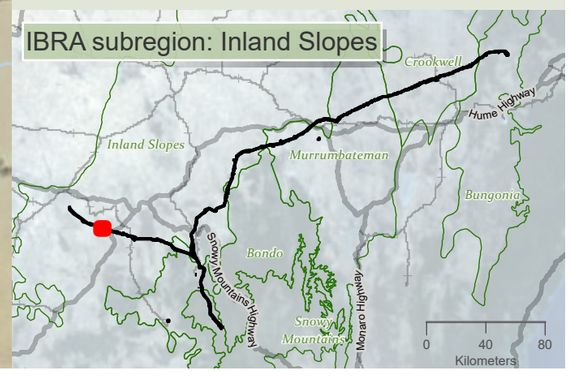
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Grey-crowned Babbler (eastern subspecies) (Pomatostomus temporalis temporalis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Superb Parrot (Polytelis swainsonii) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 7

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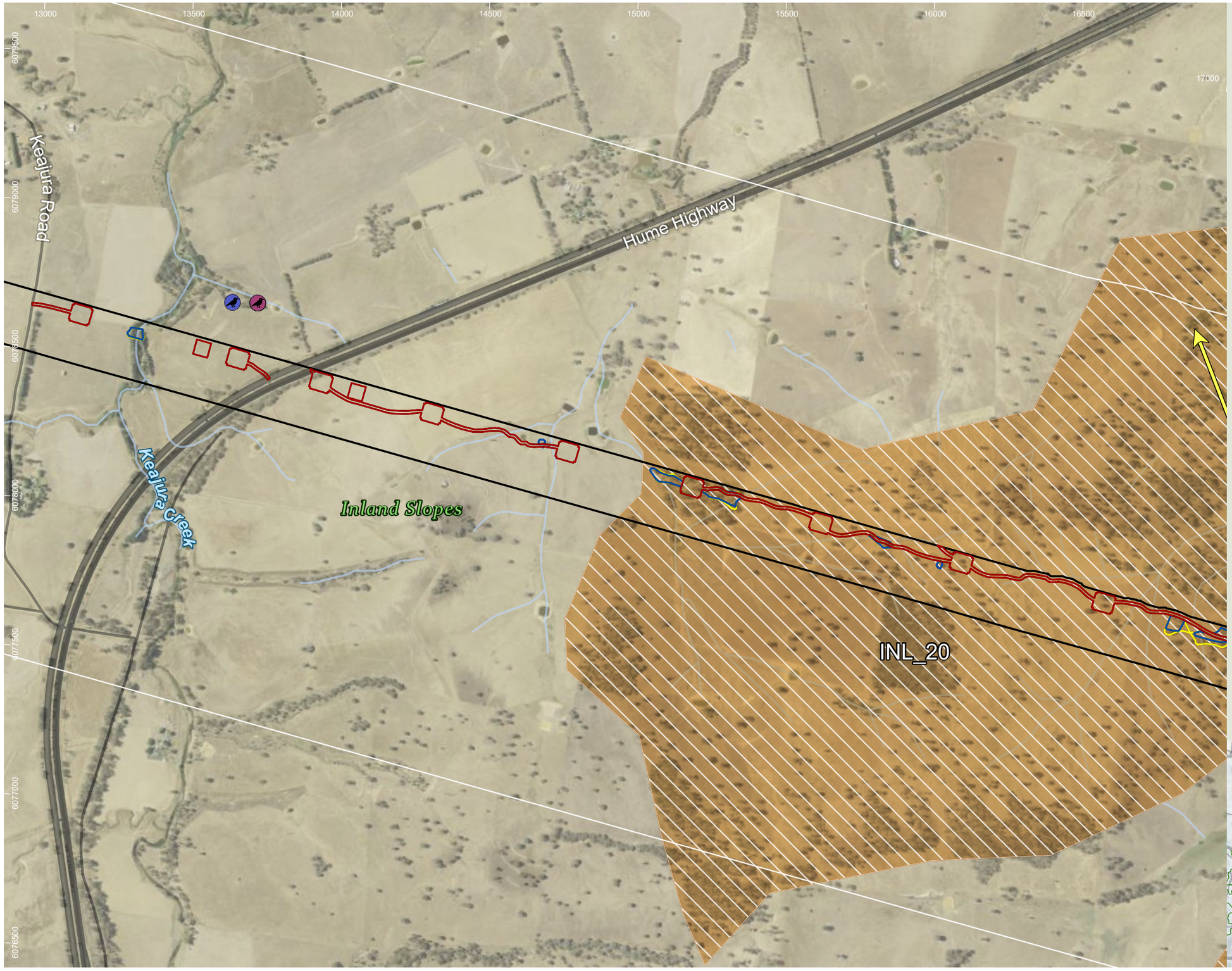


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

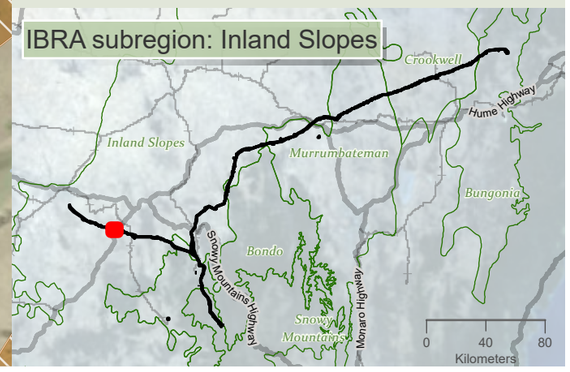
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Flame Robin (Petroica phoenicea) (1)



Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 9

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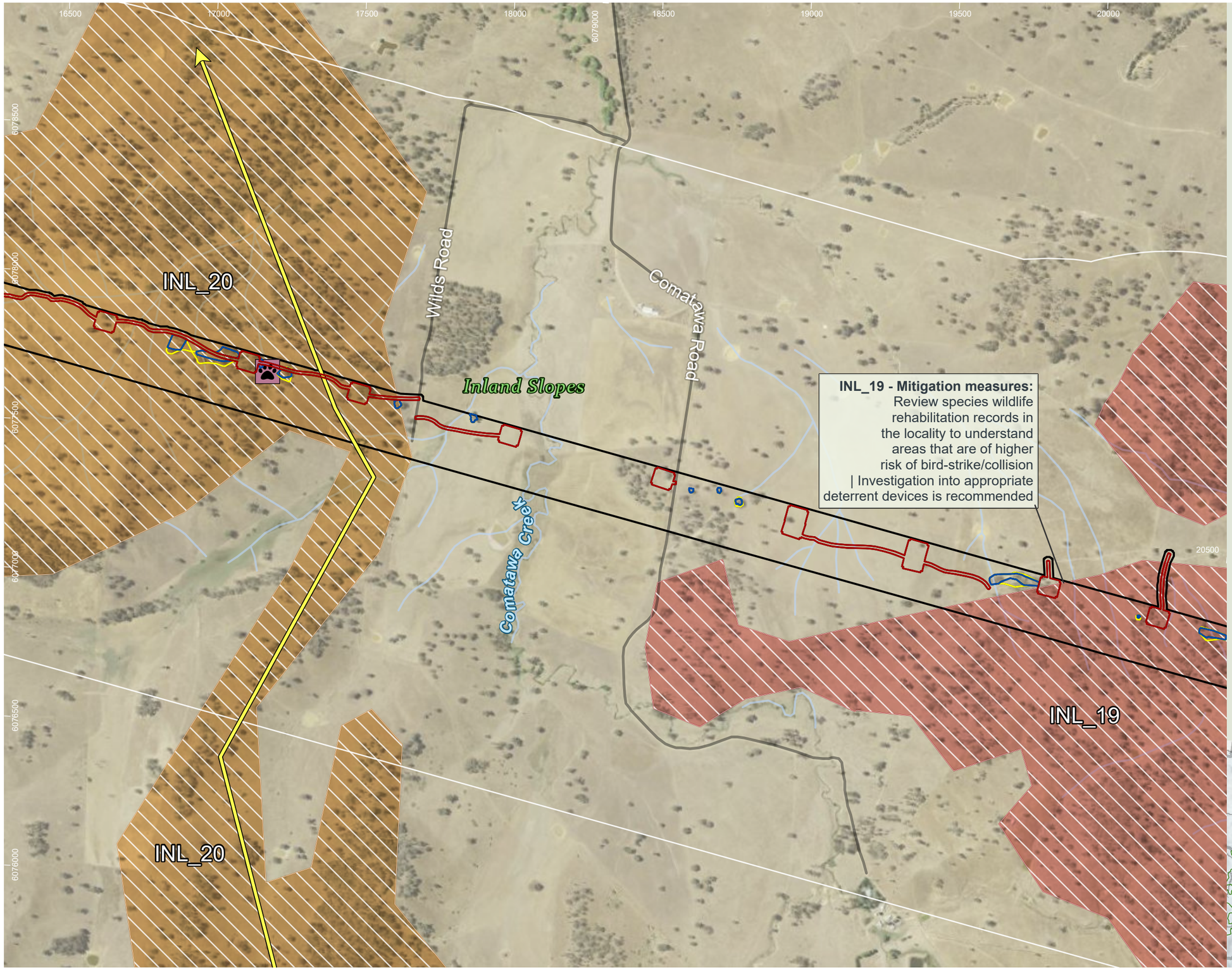


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

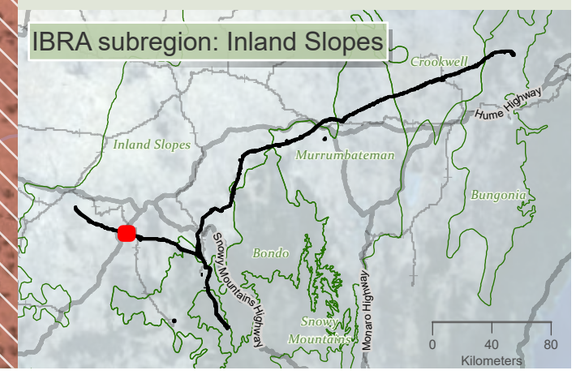
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 10

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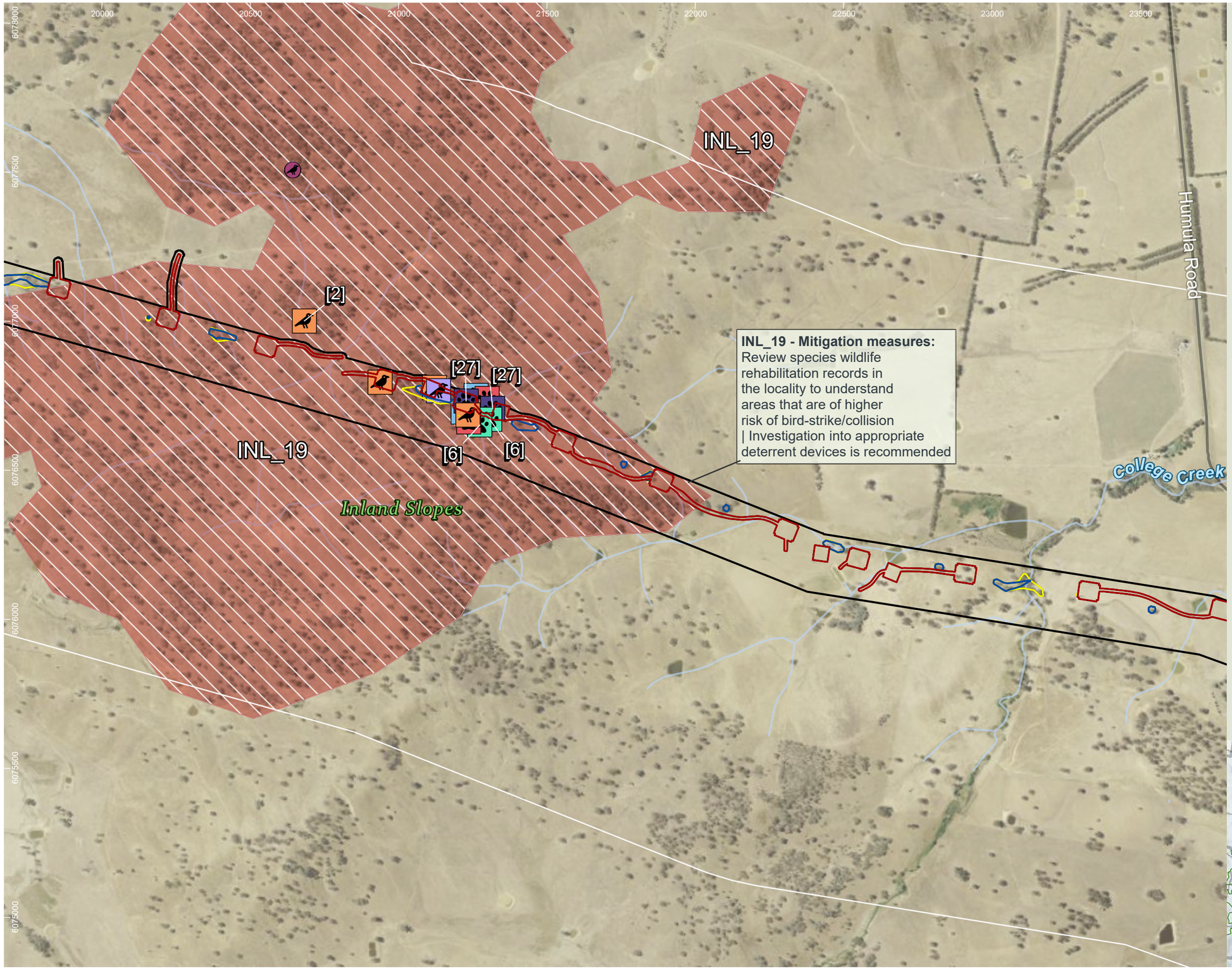


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (4)
- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Southern Myotis (Myotis macropus) (2)
- Squirrel Glider (Petaurus norfolcensis) (1)

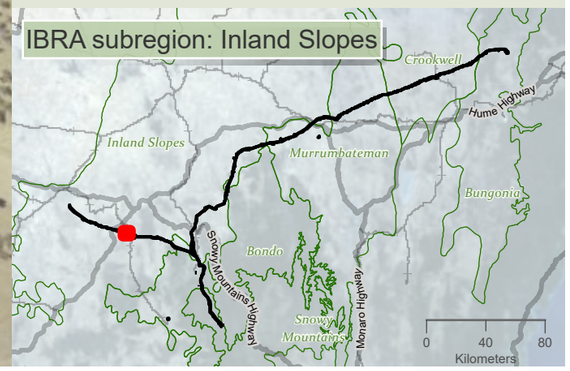
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black-chinned Honeyeater (eastern subspecies) (Melithreptus gularis gularis) (3)
- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (15)
- Diamond Firetail (Stagonopleura guttata) (3)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (4)
- Flame Robin (Petroica phoenicea) (2)
- Grey-crowned Babbler (eastern subspecies) (Pomatostomus temporalis temporalis) (1)
- Hooded Robin (south-eastern form) (Melanodryas cucullata cucullata) (6)
- Scarlet Robin (Petroica boodang) (2)
- Speckled Warbler (Chthonicola sagittata) (3)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)
- Squirrel Glider in the Wagga Wagga Local Government Area (Petaurus norfolcensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 11

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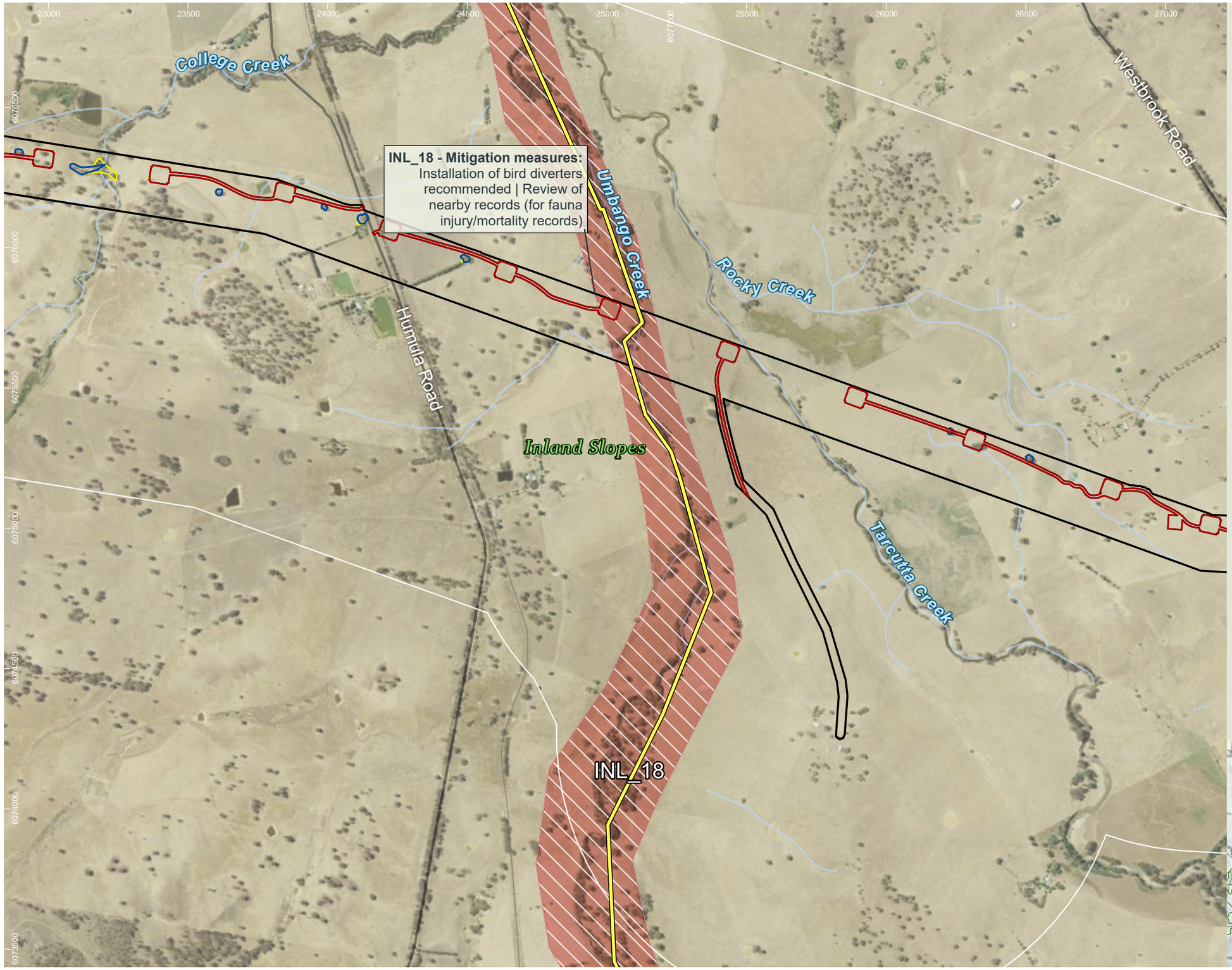


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail

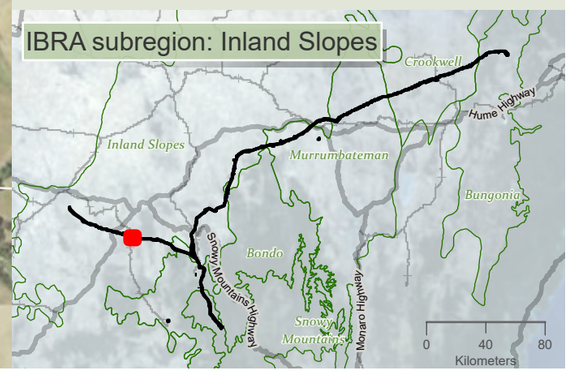
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 12

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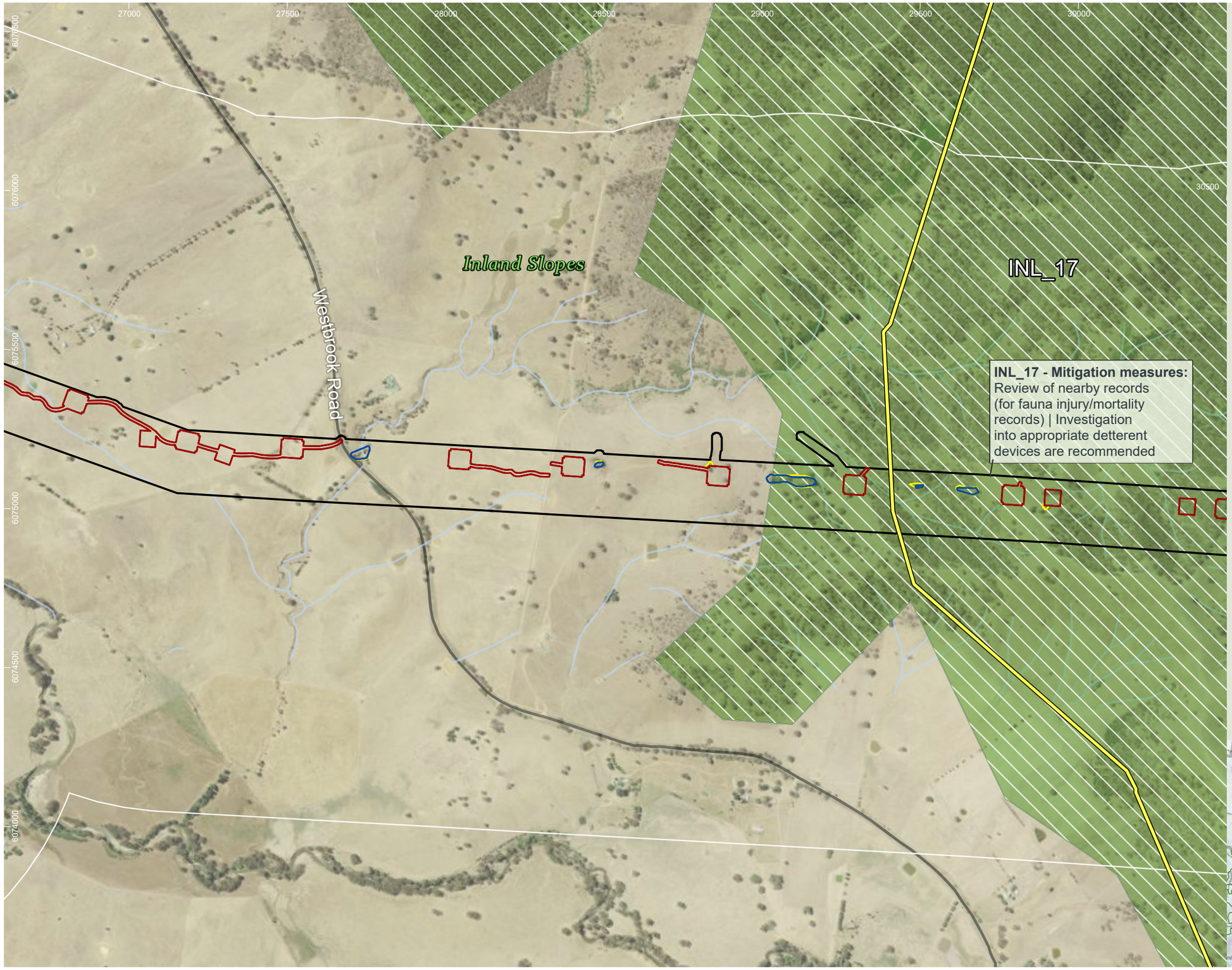


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

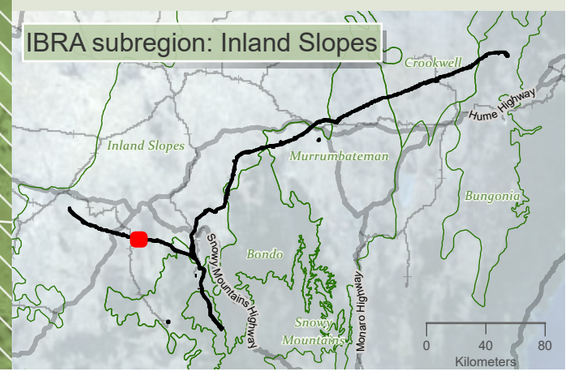
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



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niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 13

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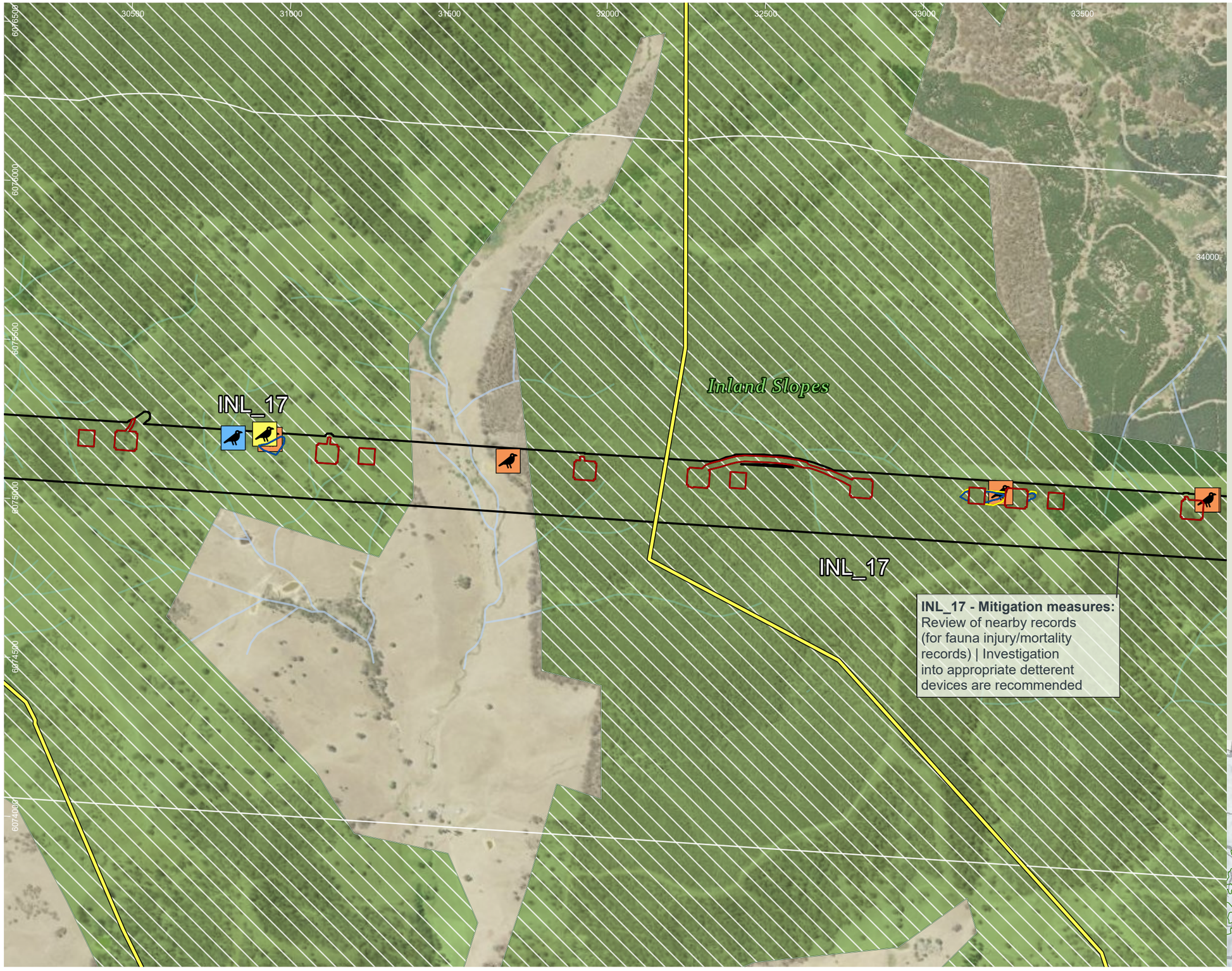


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

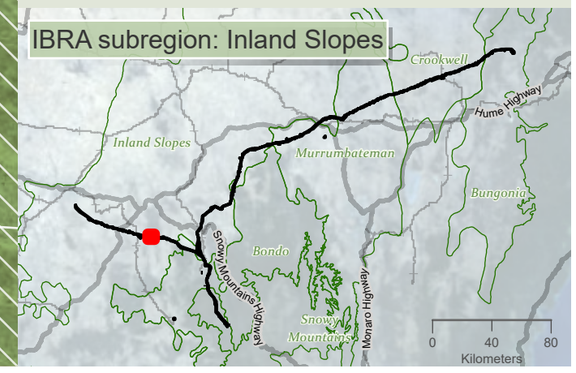
Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (5)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 14

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34000 34500 35000 35500 36000 36500 37000 37500

6075000 6075500 6074500 6074000

Inland Slopes

Turners Creek

Galvins Creek

INL_17

INL_17 - Mitigation measures:
Review of nearby records (for fauna injury/mortality records) | Investigation into appropriate detterent devices are recommended

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

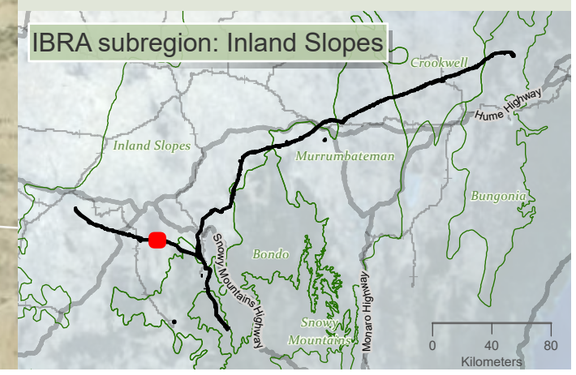
Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 15

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37000 37500 38000 38500 39000 39500 40000 40500 41000

6076500 6076000 6075500 6075000 6074500 6074000 6073500

INL_17

INL_17 - Mitigation measures:
Review of nearby records (for fauna injury/mortality records) | Investigation into appropriate detterent devices are recommended

Ellerslie Road

Yaven Yaven Creek

Inland Slopes

INL_16

Yaven Creek Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

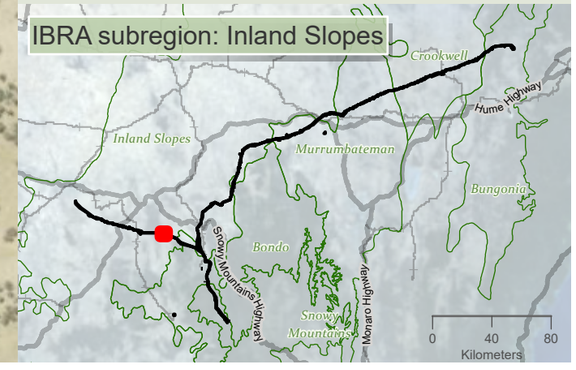
Fauna corridors - existing connectivity

- High
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Amphibia

- Booroolong Frog (Litoria booroolongensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 16

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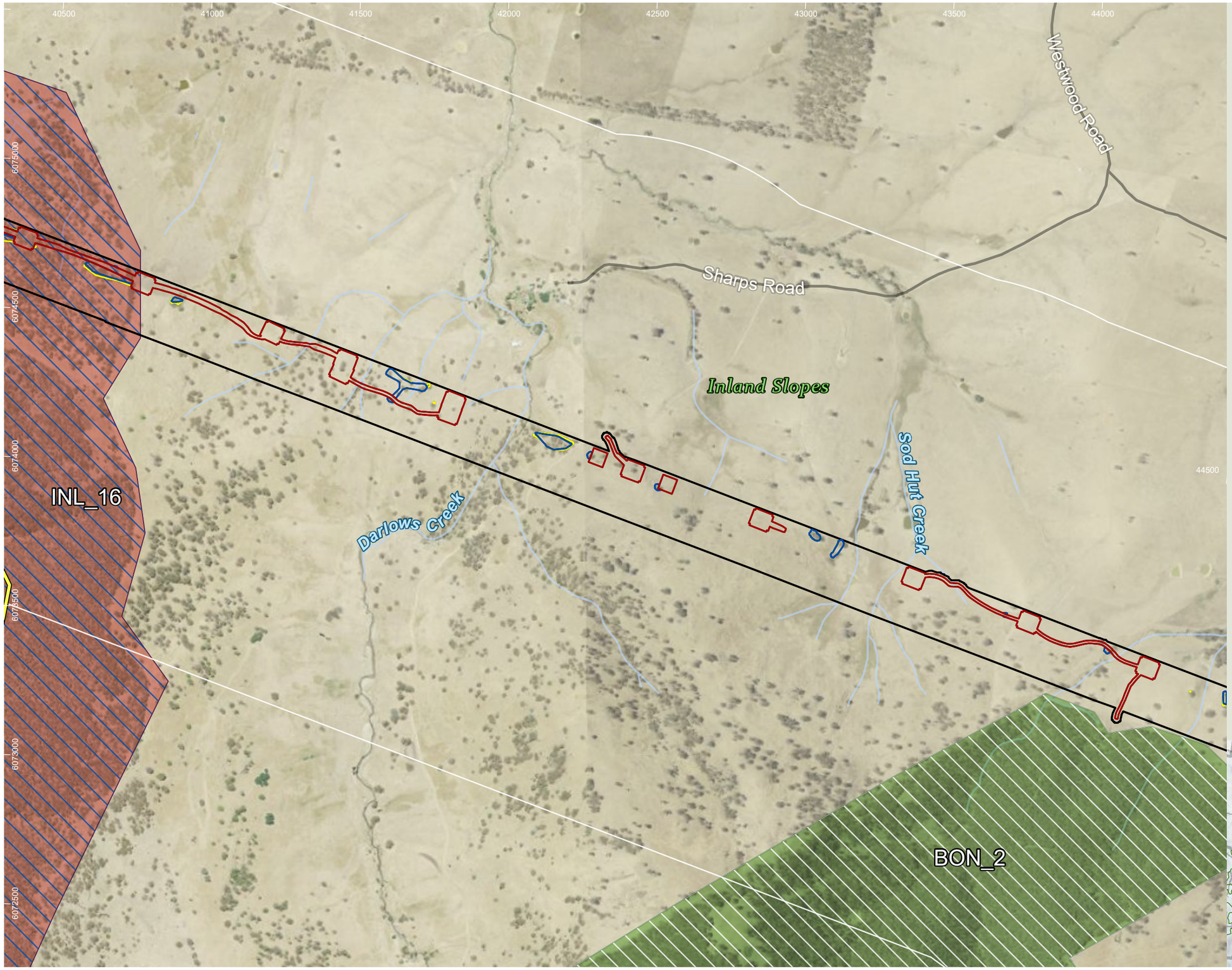


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

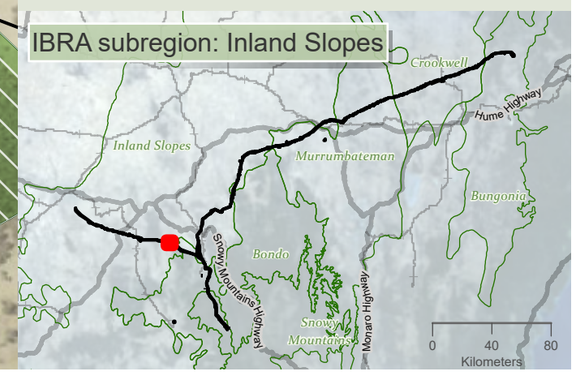
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 17

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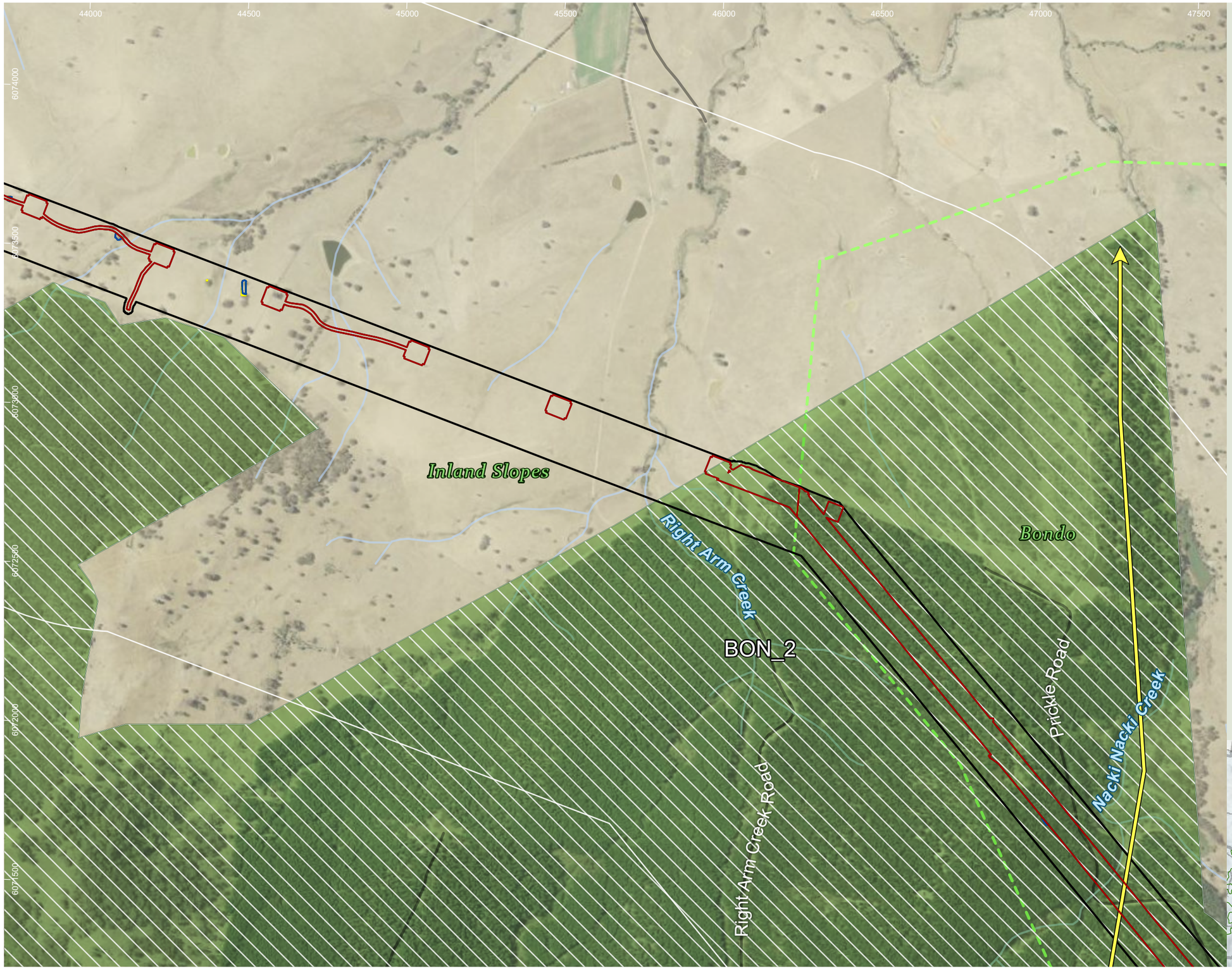


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

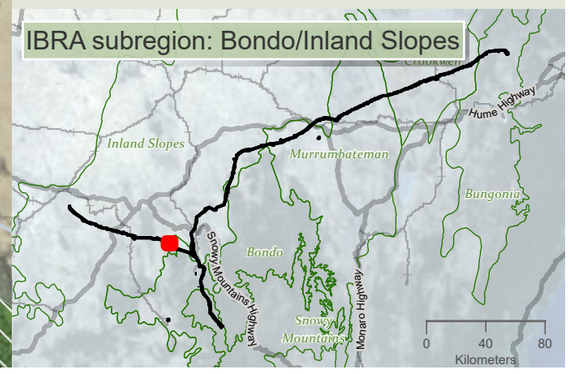
Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\arc

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 18

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46500 47000 47500 48000 48500 49000 49500 50000

6072000 6071500 6071000 6070500 6070000 6069500

Nacki Nacki Creek

Back Nacki Creek Road

Bondo

Prickle Road

BON_2

Inland Slopes

Sharps Creek Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

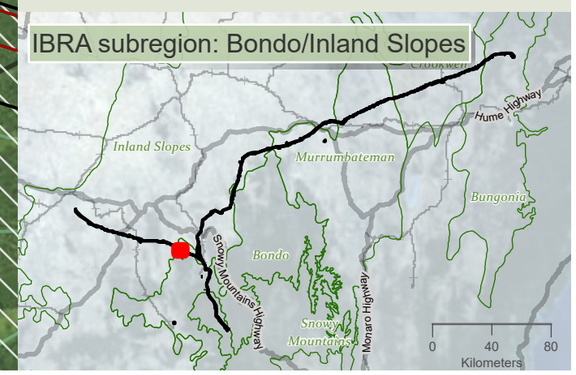
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 19

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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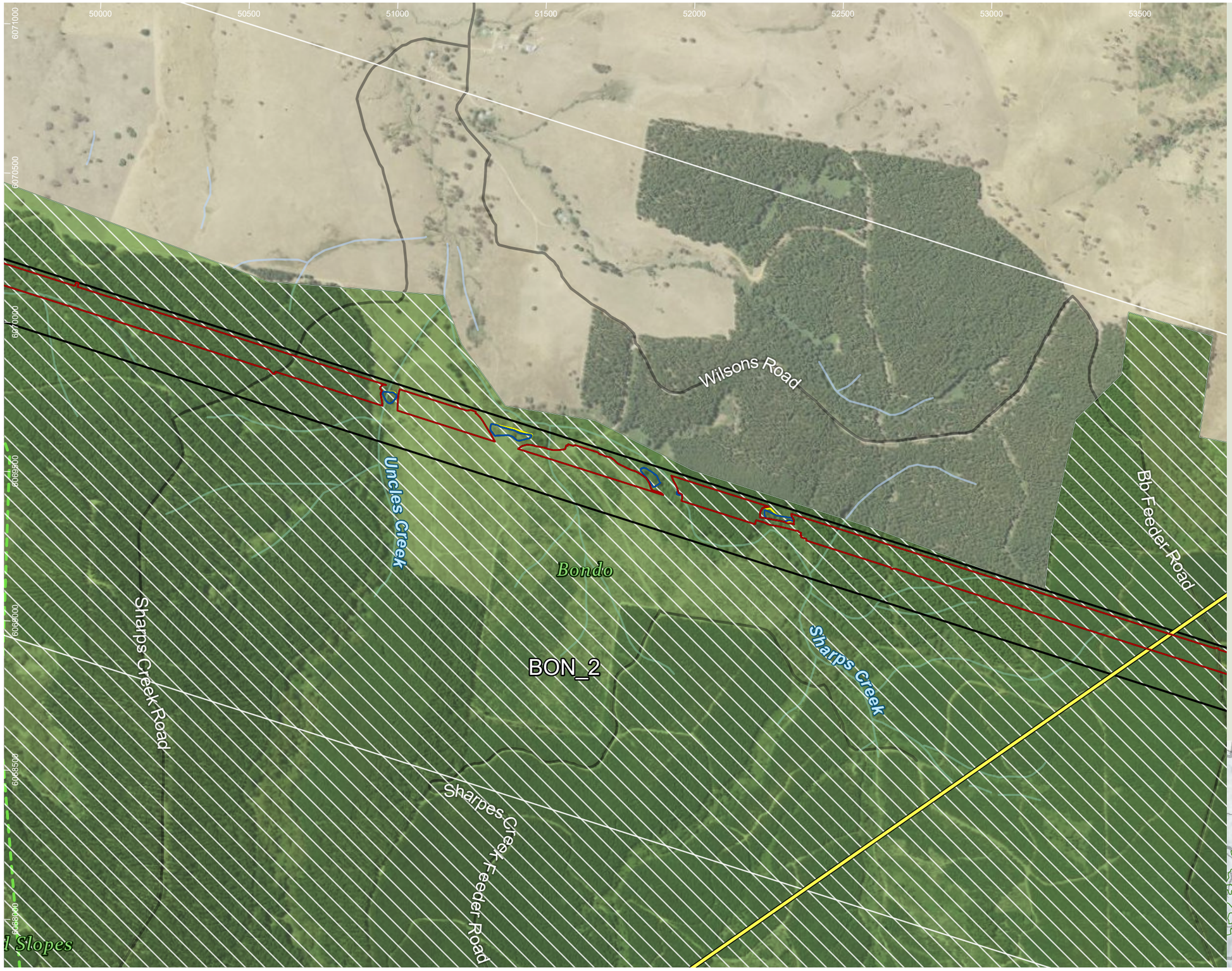


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

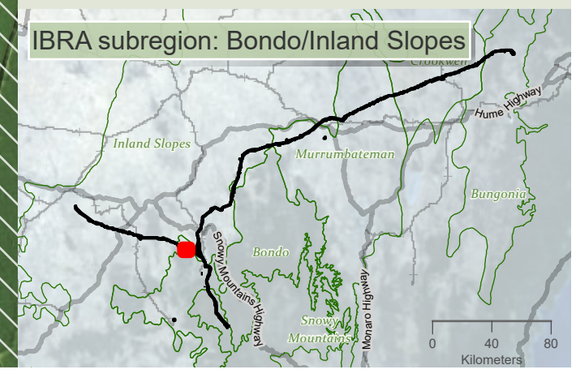
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 20

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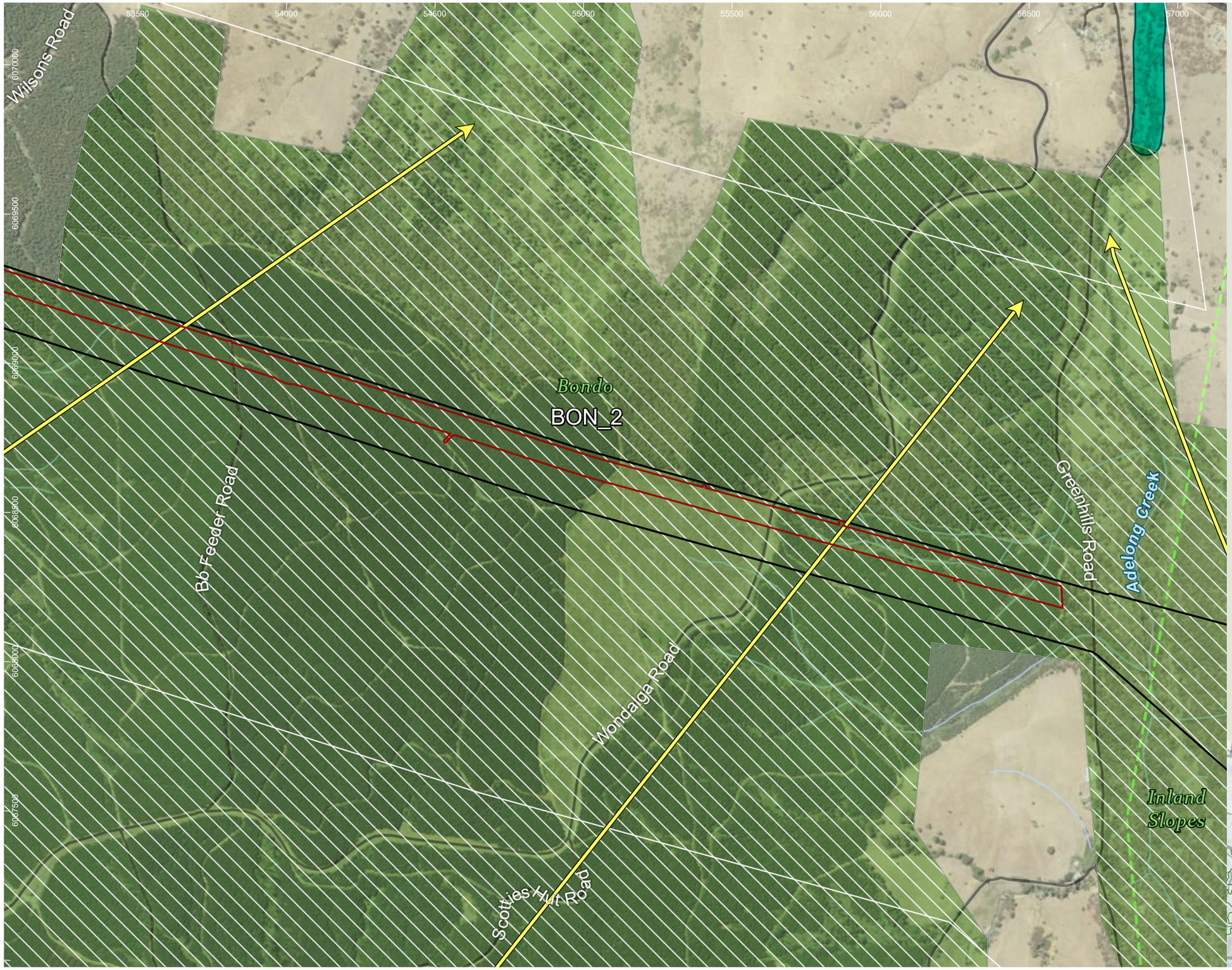

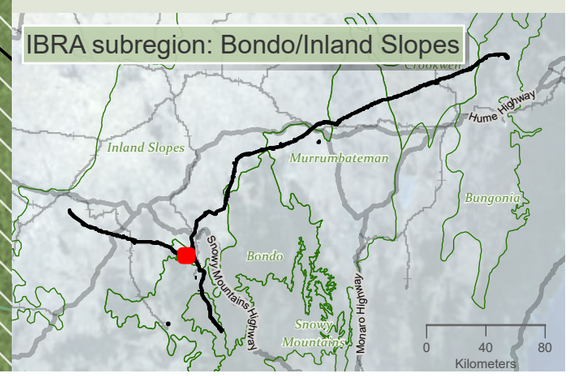

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 21

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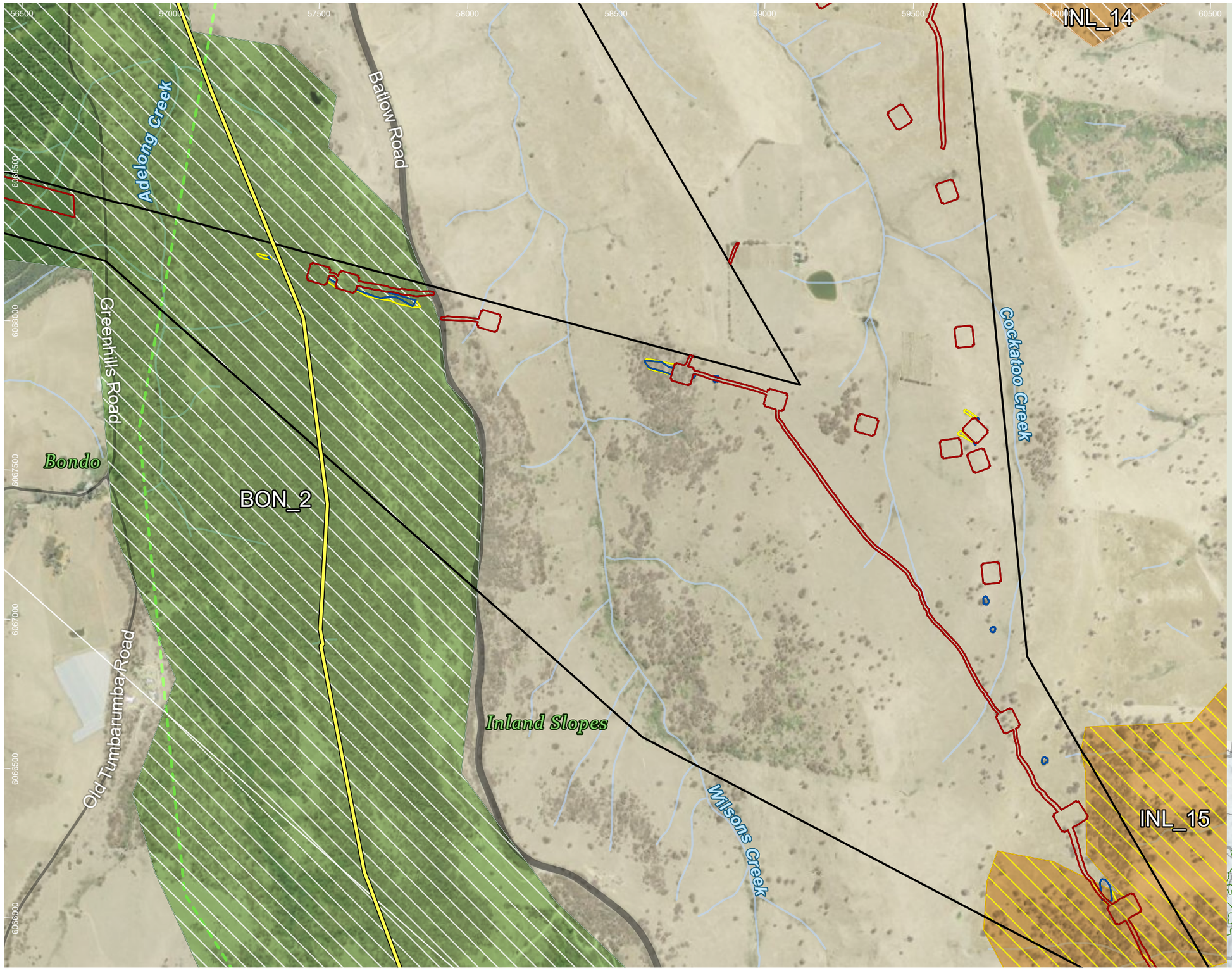


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

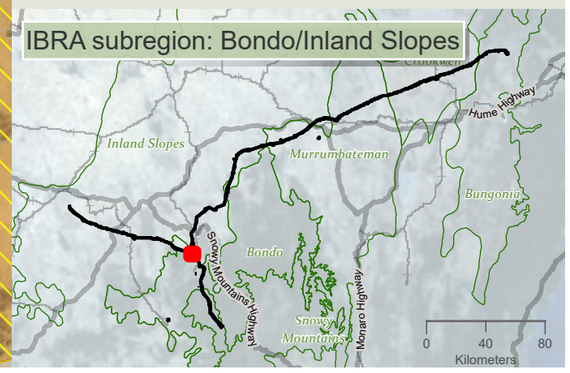
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 22

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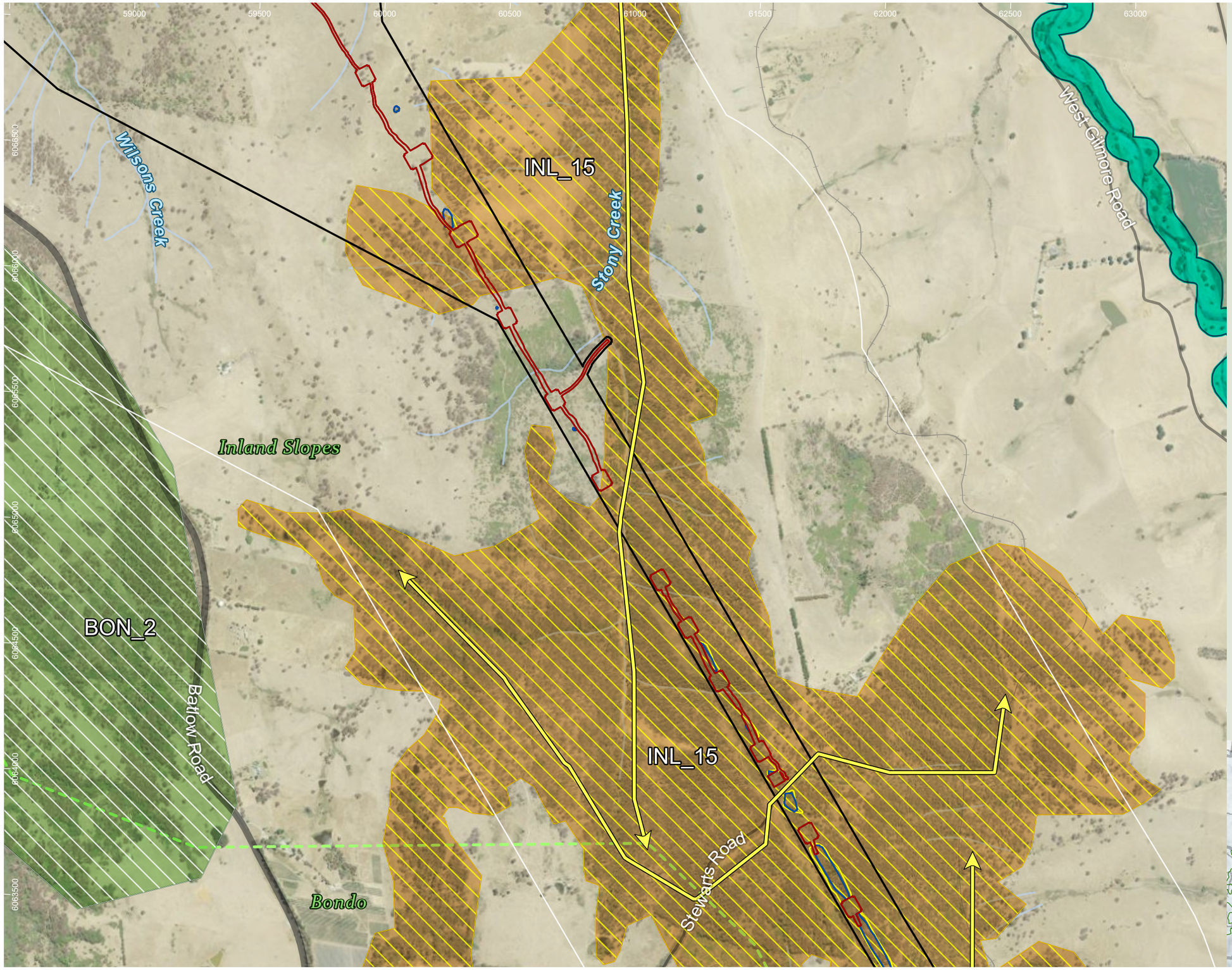


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail

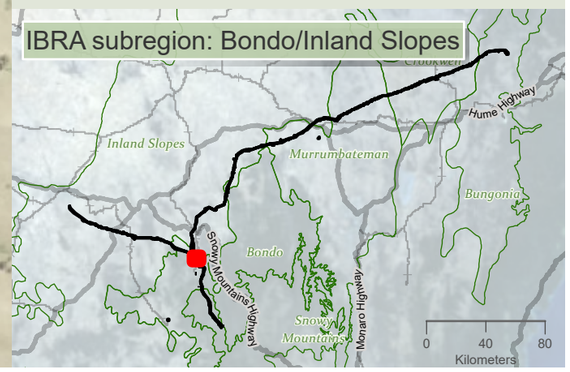
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 23

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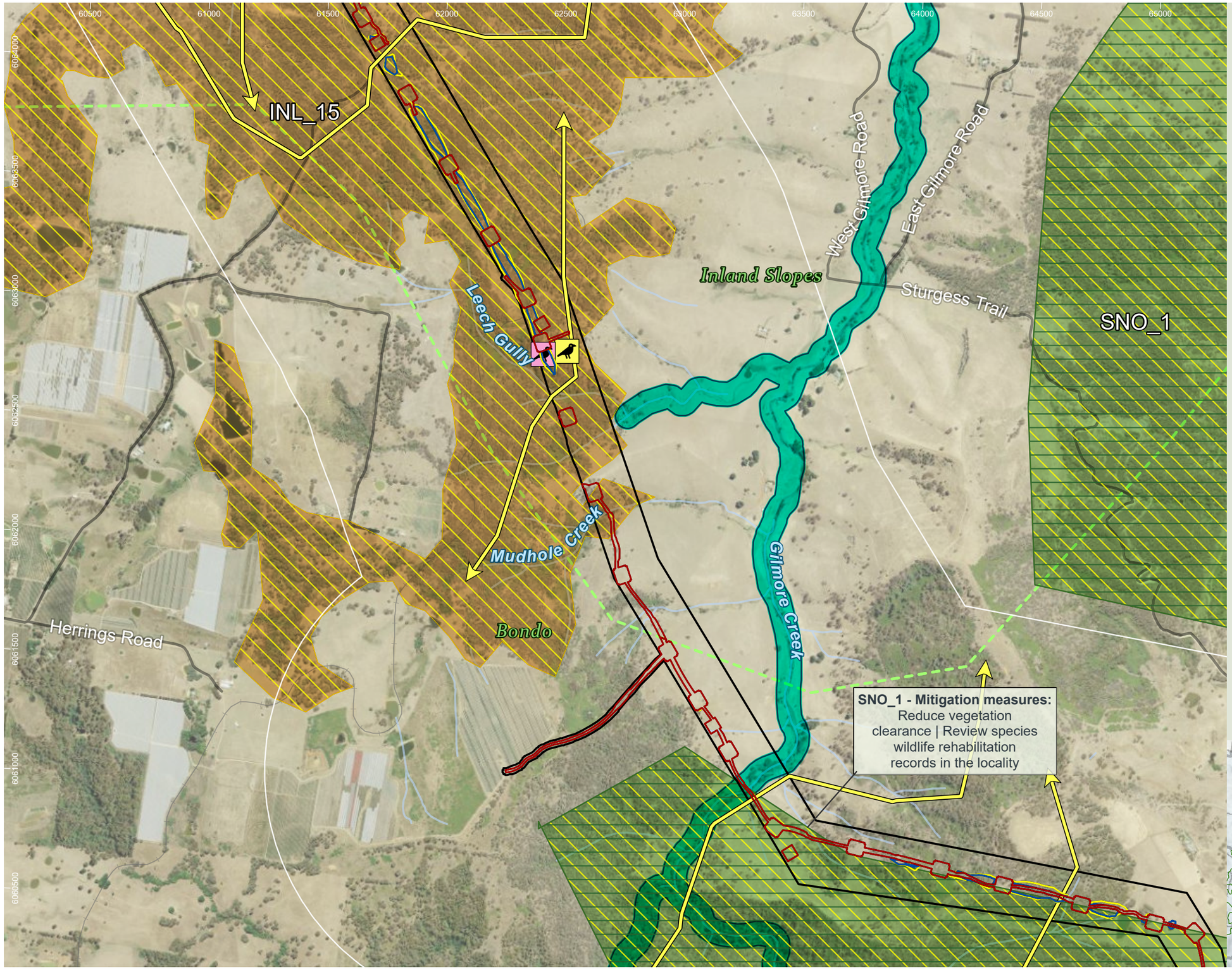


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

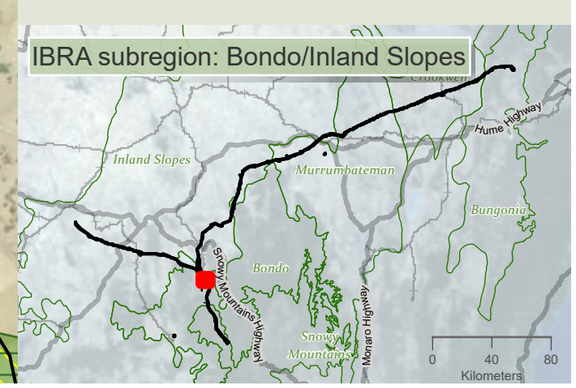
Fauna corridors - existing connectivity

- High
- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Speckled Warbler (Chthonicola sagittata) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 24

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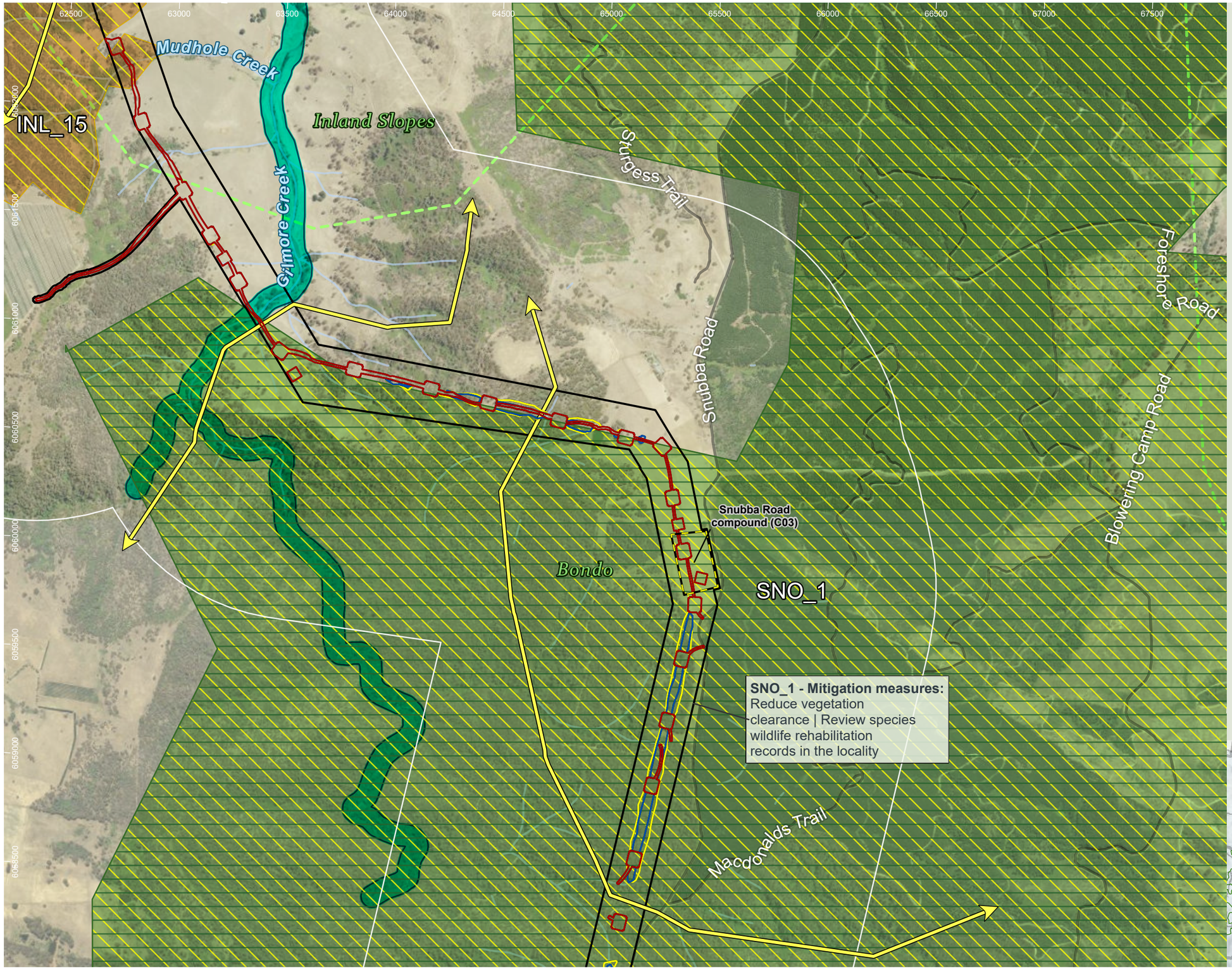


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

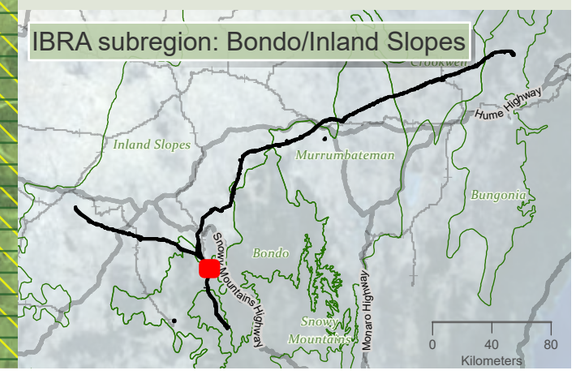
- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 25

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Towns and cities

- Town

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

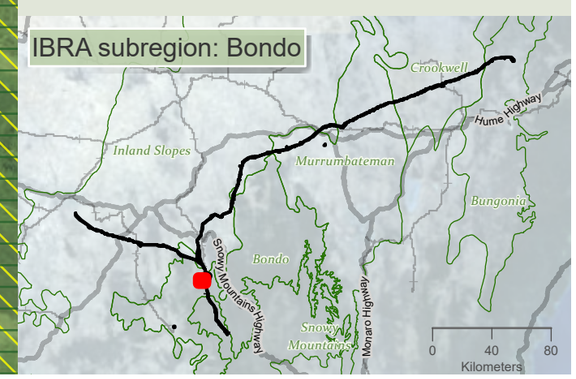
Fauna corridors - existing connectivity

- High

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Spotted-tailed Quoll (Dasyurus maculatus) (4)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 27

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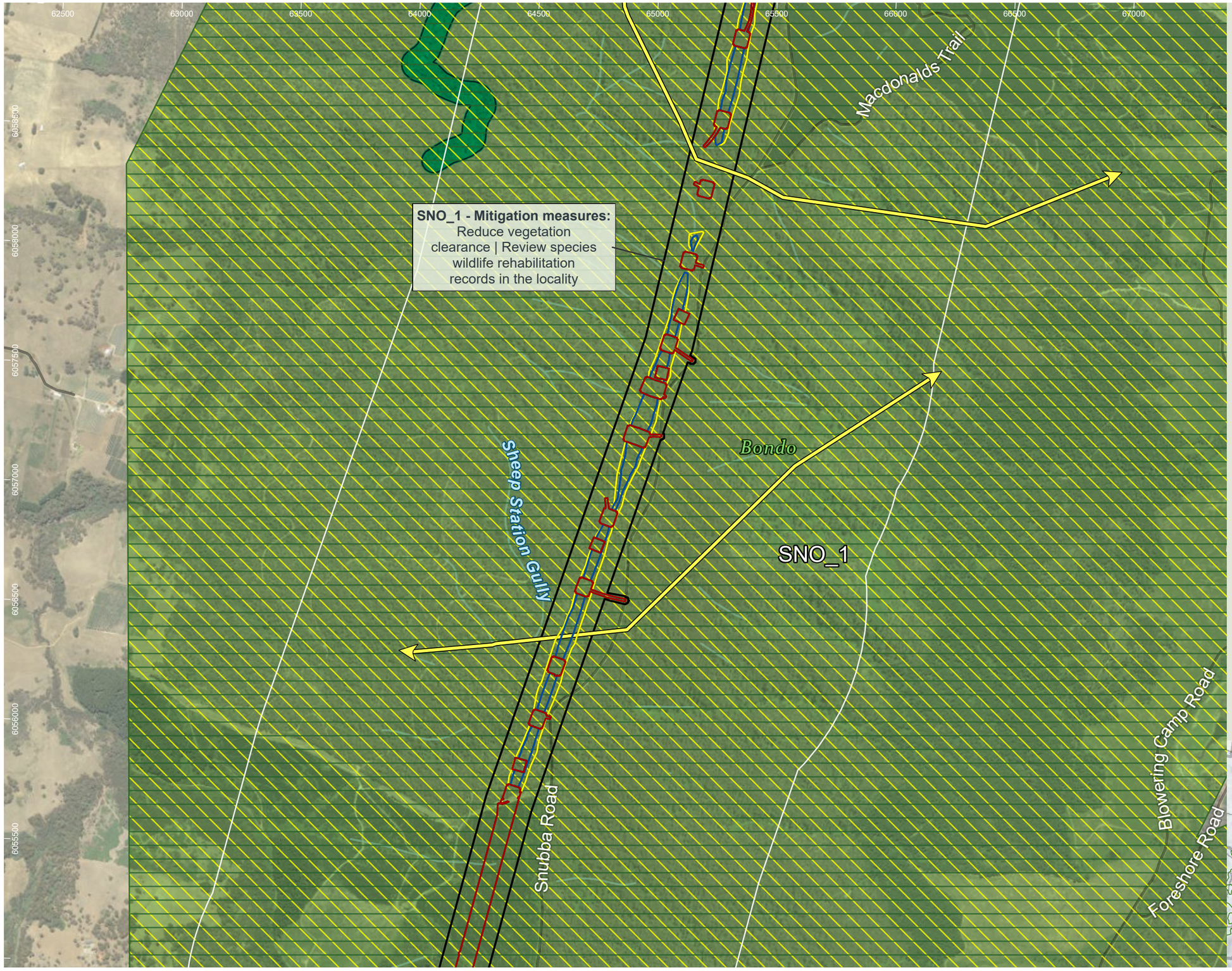


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

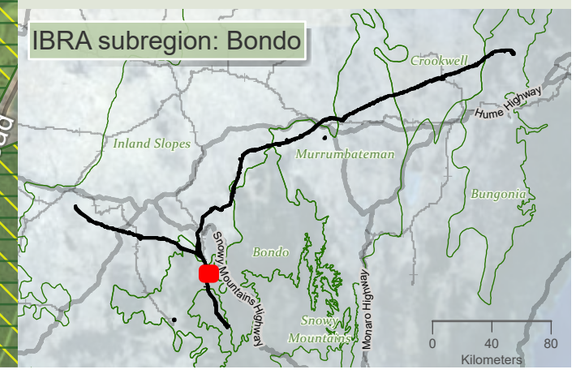
- Moderate

Fauna corridors - existing connectivity

- High

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (4)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 28

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

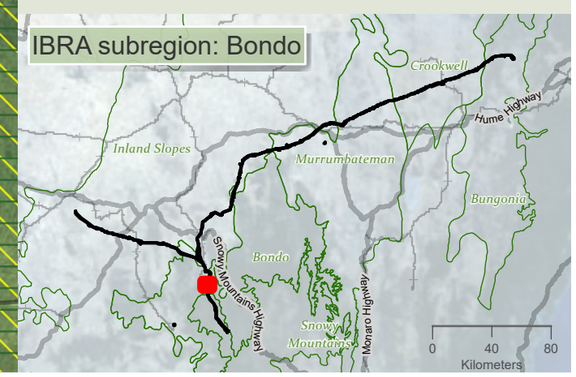
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans) (10)
- Yellow-bellied Glider (Petaurus australis) (3)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 29

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans) (9)
- Yellow-bellied Glider (Petaurus australis) (3)

Threatened fauna species - Forestry (no. of records)

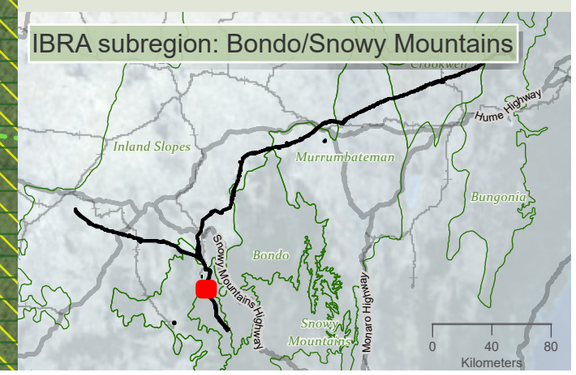
Mammalia

- Yellow-bellied Glider (Petaurus australis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Greater Glider (Petauroides volans) (5)
- Yellow-bellied Glider (Petaurus australis) (3)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (3)



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 30

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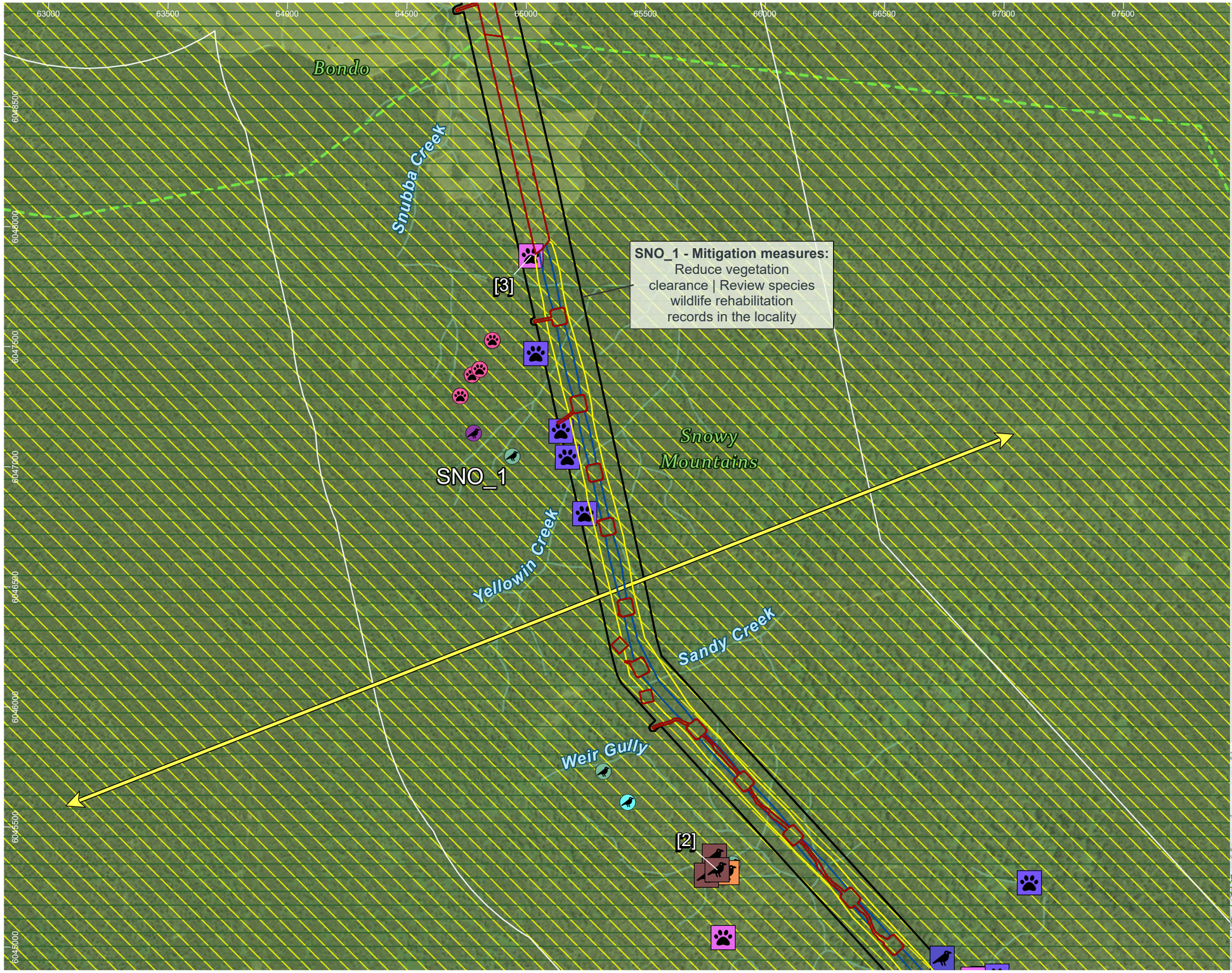


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Greater Glider (Petauroides volans) (4)
- Yellow-bellied Glider (Petaurus australis) (7)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

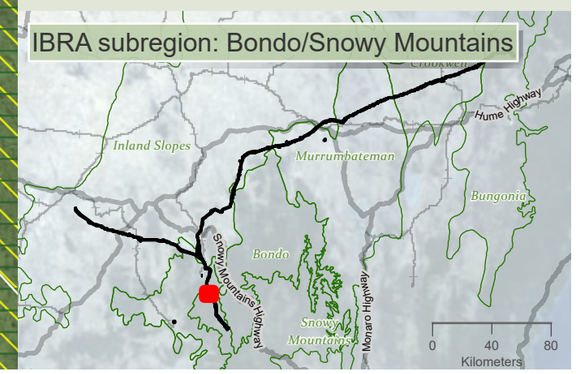
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (3)
- Pilotbird (Pycnoptilus floccosus) (1)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (4)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 31

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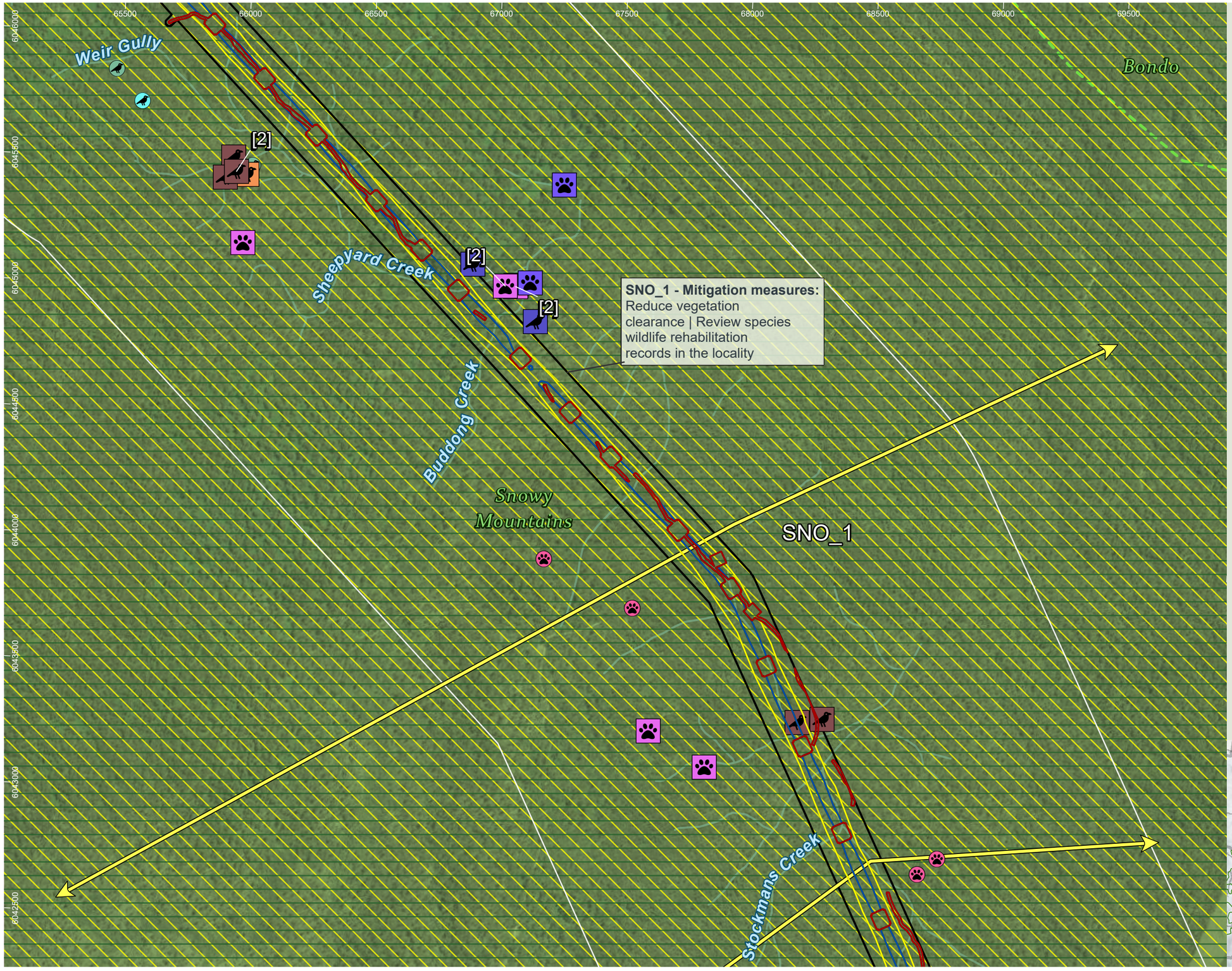


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (5)
- Olive Whistler (Pachycephala olivacea) (2)

Mammalia

- Greater Glider (Petauroides volans) (5)
- Yellow-bellied Glider (Petaurus australis) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

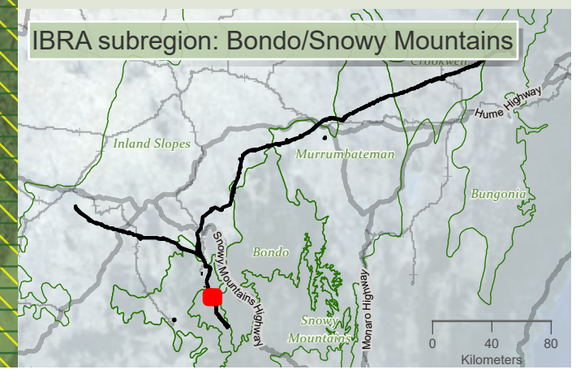
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (2)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (4)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (5)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 32

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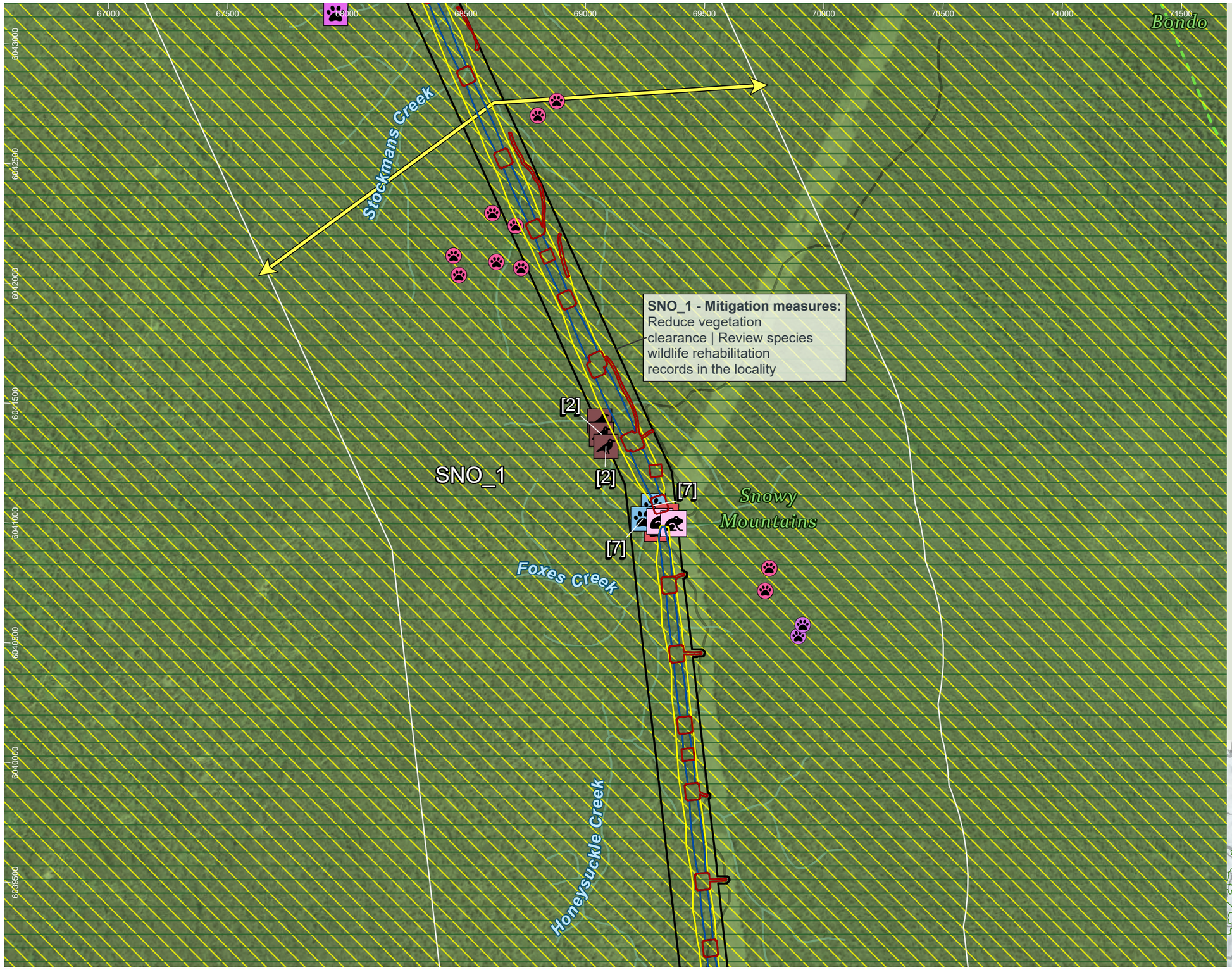


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (2)

Aves

- Flame Robin (Petroica phoenicea) (3)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Greater Glider (Petauroides volans) (1)

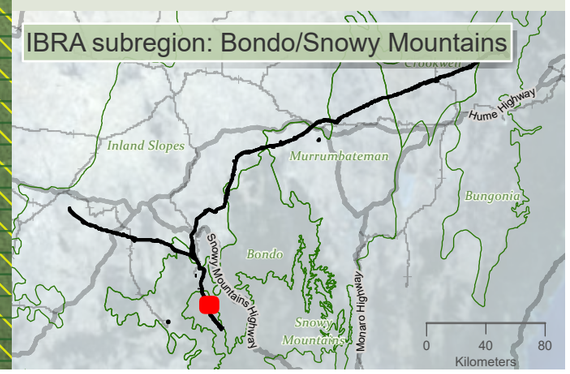
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Greater Glider (Petauroides volans) (2)
- Yellow-bellied Glider (Petaurus australis) (11)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (11)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 33

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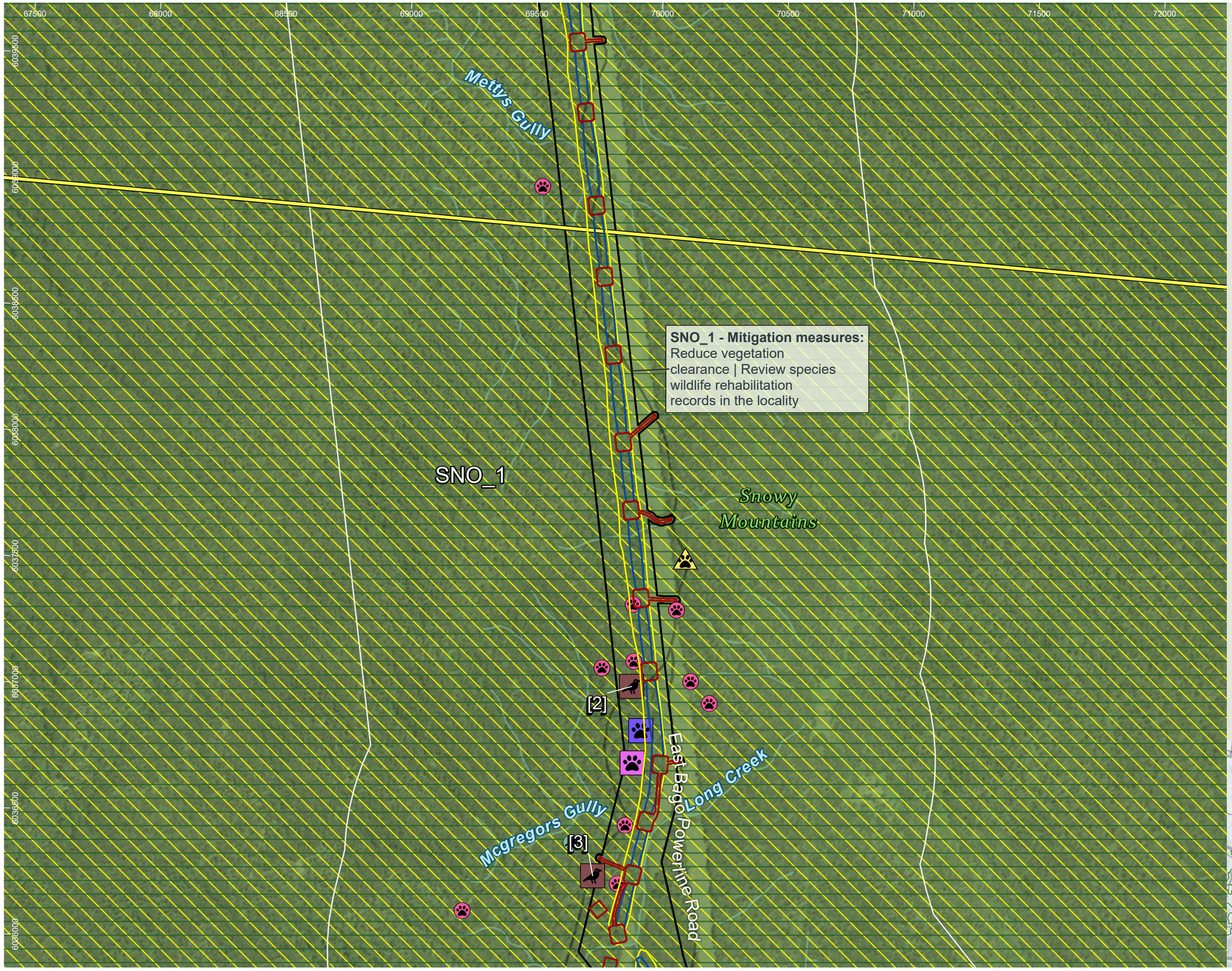


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (2)

Mammalia

- Greater Glider (Petauroides volans) (1)
- Yellow-bellied Glider (Petaurus australis) (1)

Threatened fauna species - Forestry (no. of records)

Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

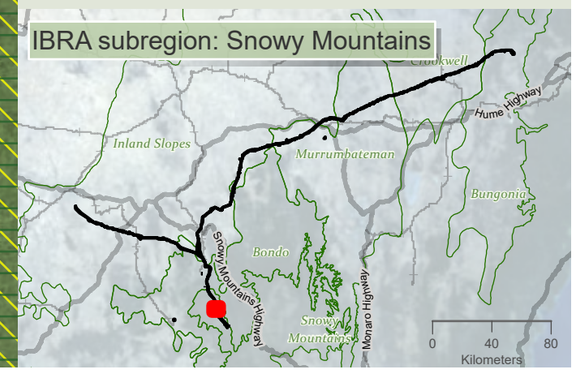
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Yellow-bellied Glider (Petaurus australis) (11)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (11)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (6)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 34

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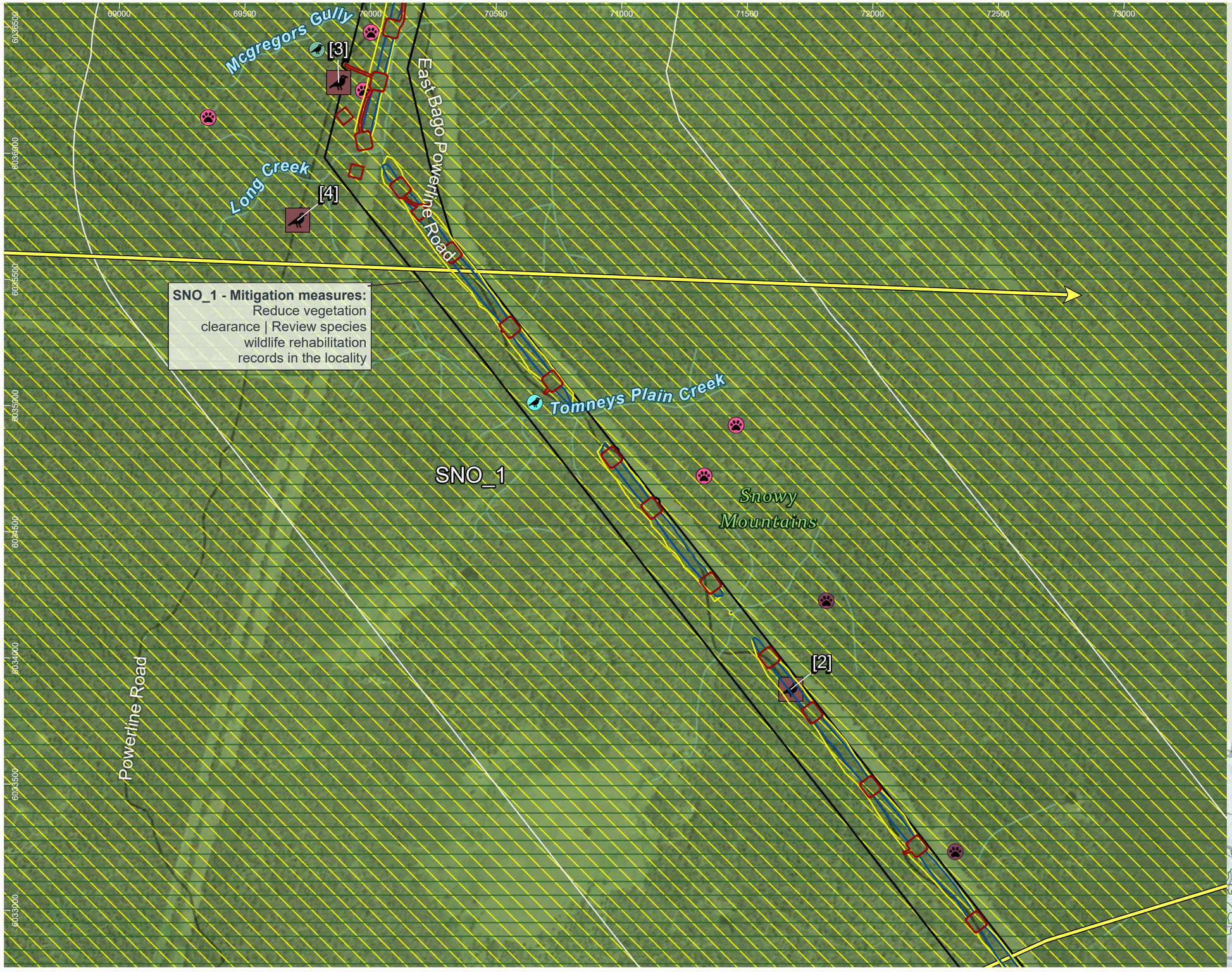


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

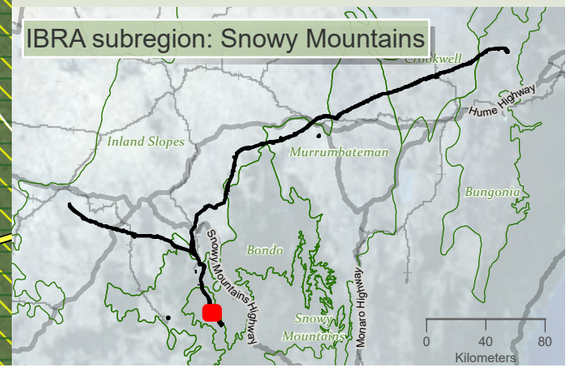
- Flame Robin (Petroica phoenicea) (1)
- Olive Whistler (Pachycephala olivacea) (1)

Mammalia

- Spotted-tailed Quoll (Dasyurus maculatus) (2)
- Yellow-bellied Glider (Petaurus australis) (5)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (5)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Barking Owl (Ninox connivens) (1)
- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 36

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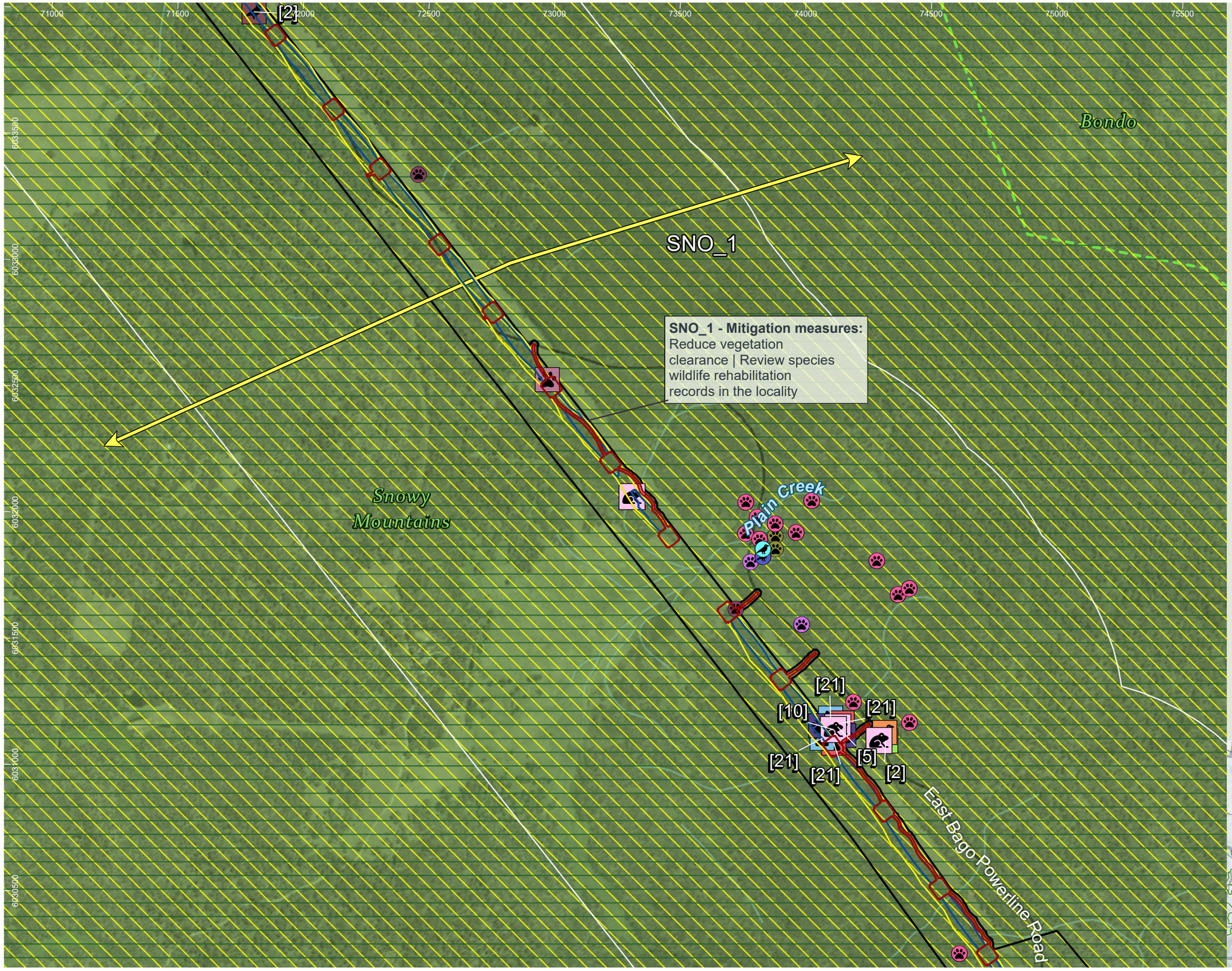


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (4)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Squirrel Glider (Petaurus norfolcensis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

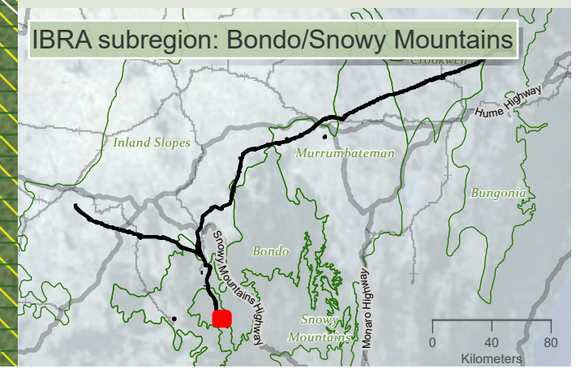
- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Flame Robin (Petroica phoenicea) (1)

Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)
- Greater Glider (Petauroides volans) (3)
- Spotted-tailed Quoll (Dasyurus maculatus) (3)
- Squirrel Glider (Petaurus norfolcensis) (4)
- Yellow-bellied Glider (Petaurus australis) (15)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (15)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Barking Owl (Ninox connivens) (1)
- Gang-gang Cockatoo (Callocephalon fimbriatum) (8)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 37

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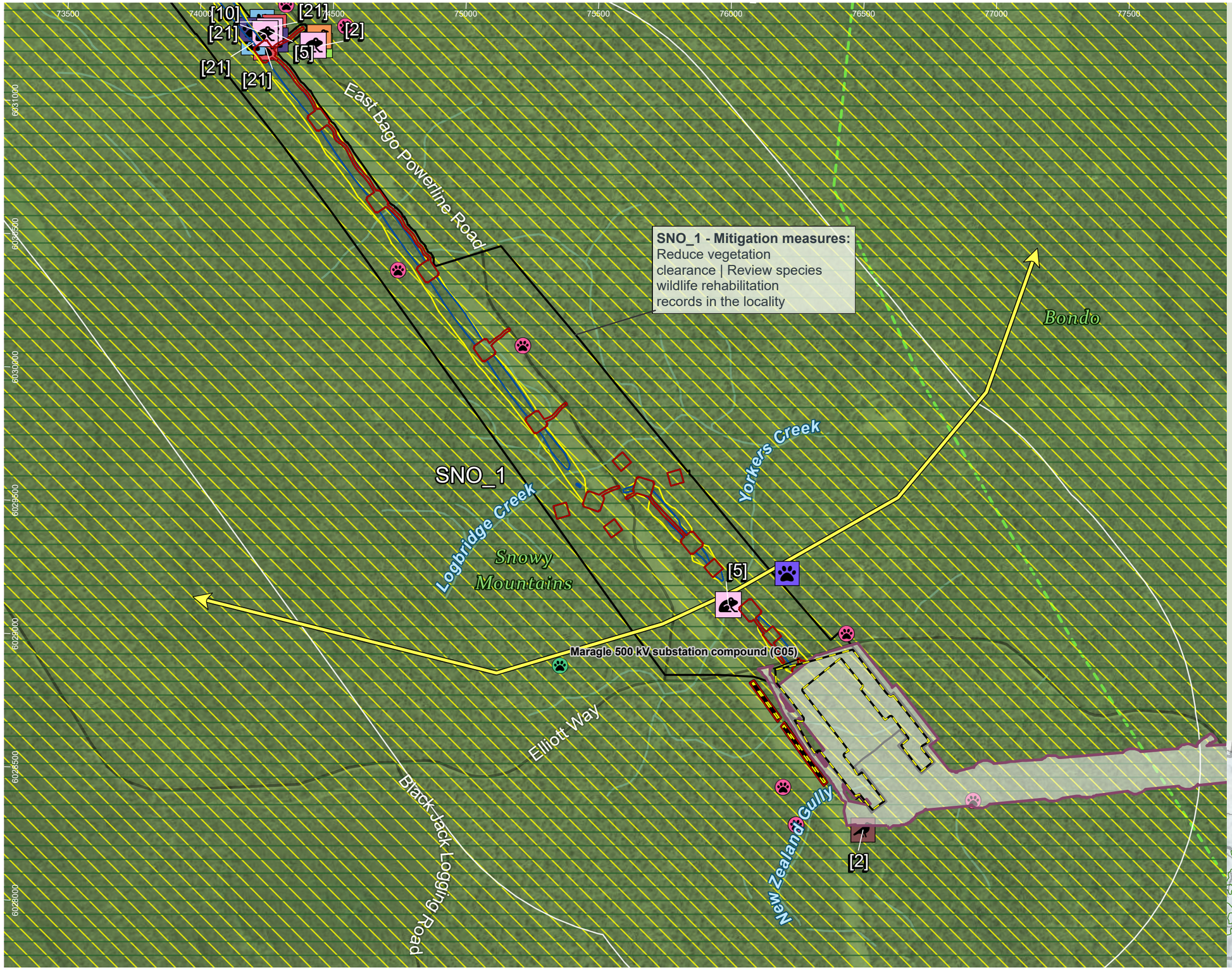


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (4)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Yellow-bellied Glider (Petaurus australis) (1)

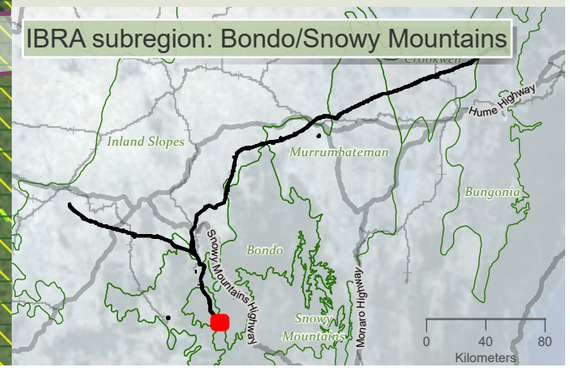
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Mammalia

- Broad-toothed Rat (Mastacomys fuscus) (1)
- Yellow-bellied Glider (Petaurus australis) (9)
- Yellow-bellied Glider population on the Bago Plateau (Petaurus australis) (9)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (12)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 38

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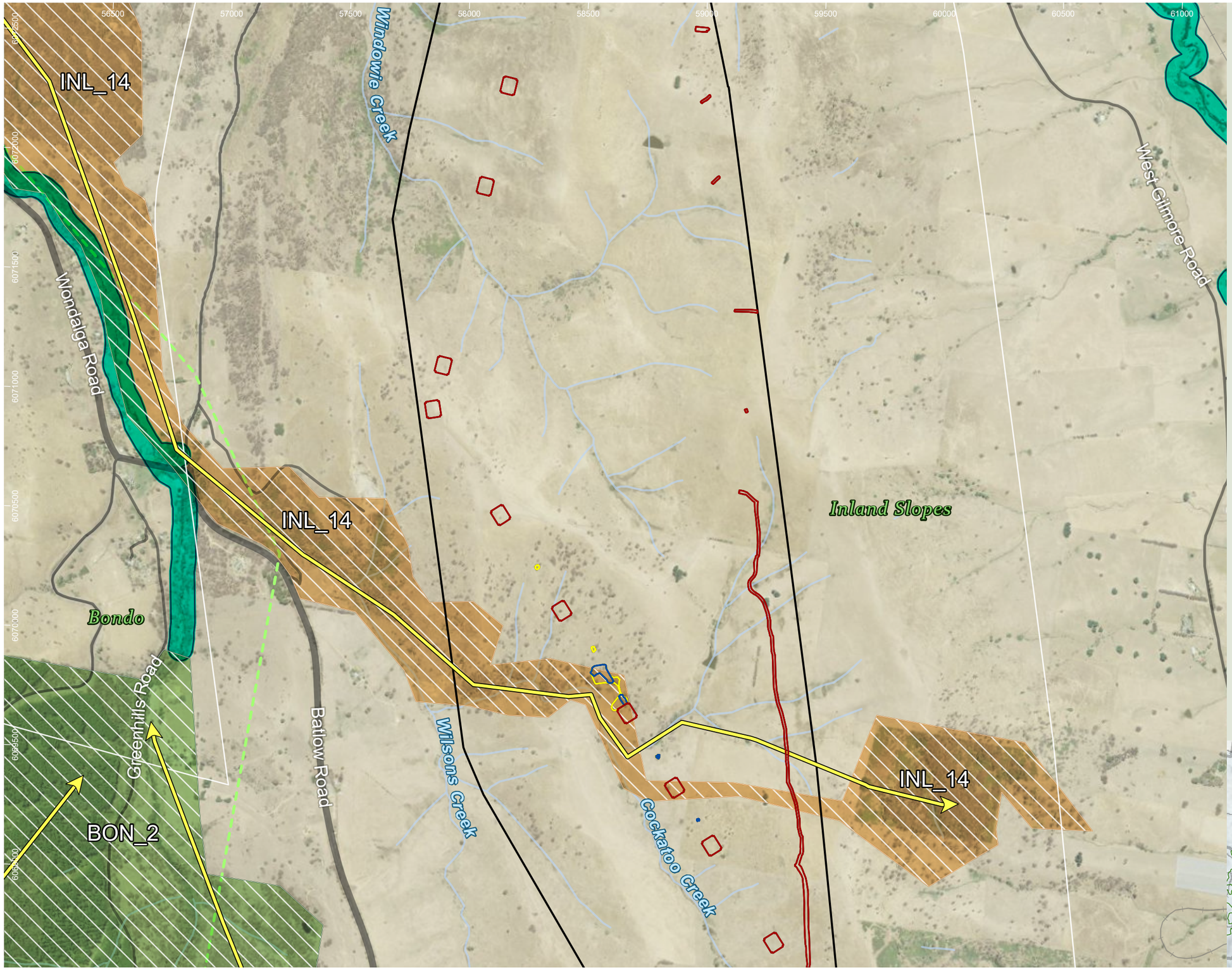


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

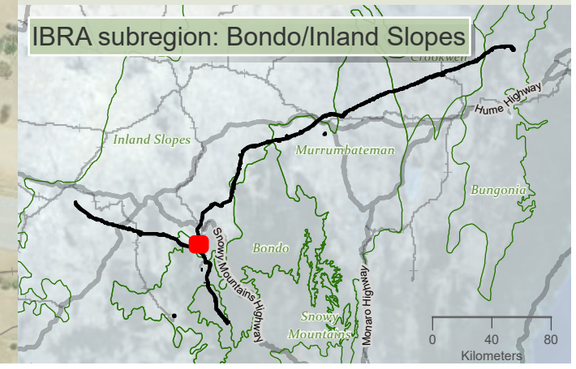
- Major road
- Minor road
- Rail
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- High
- Moderate



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 39

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail

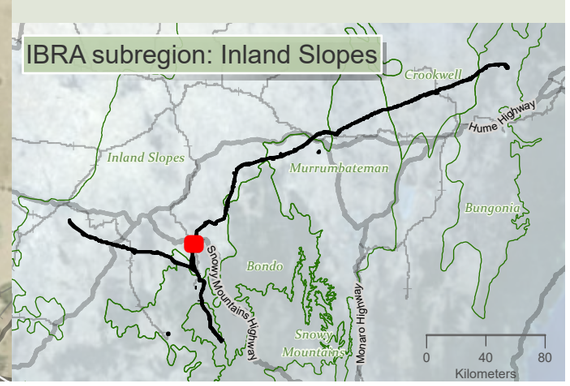
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 42

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HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway

Transport

Road

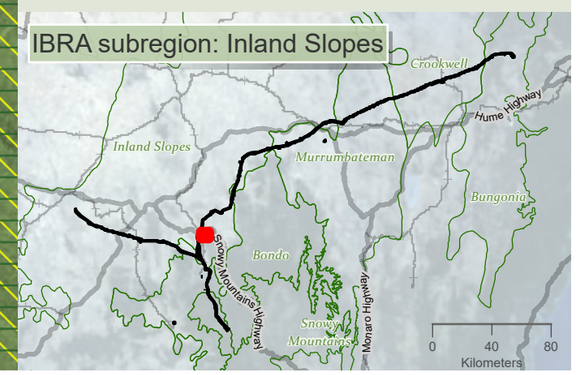
- Major road
- Minor road
- Rail
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 43

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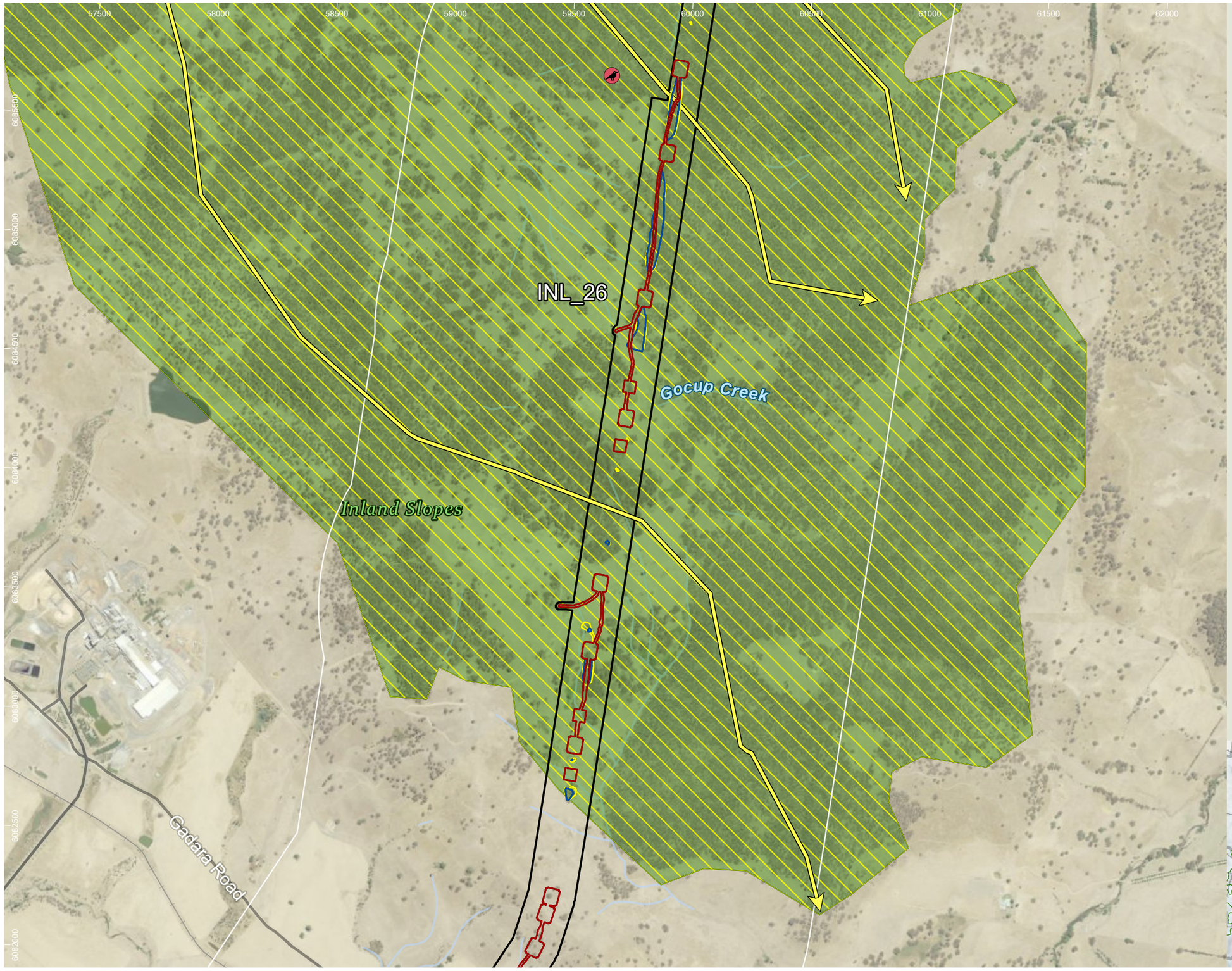


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

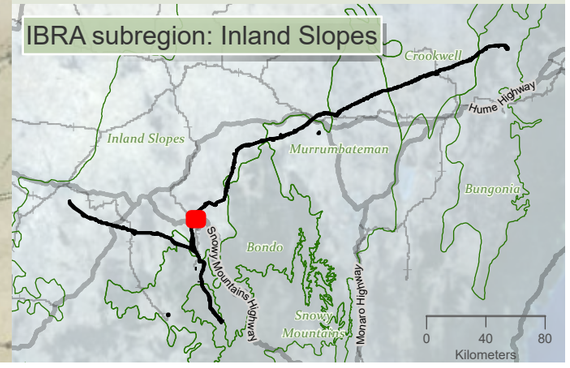
Fauna corridors - existing connectivity

- High

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Scarlet Robin (Petroica boodang) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 44

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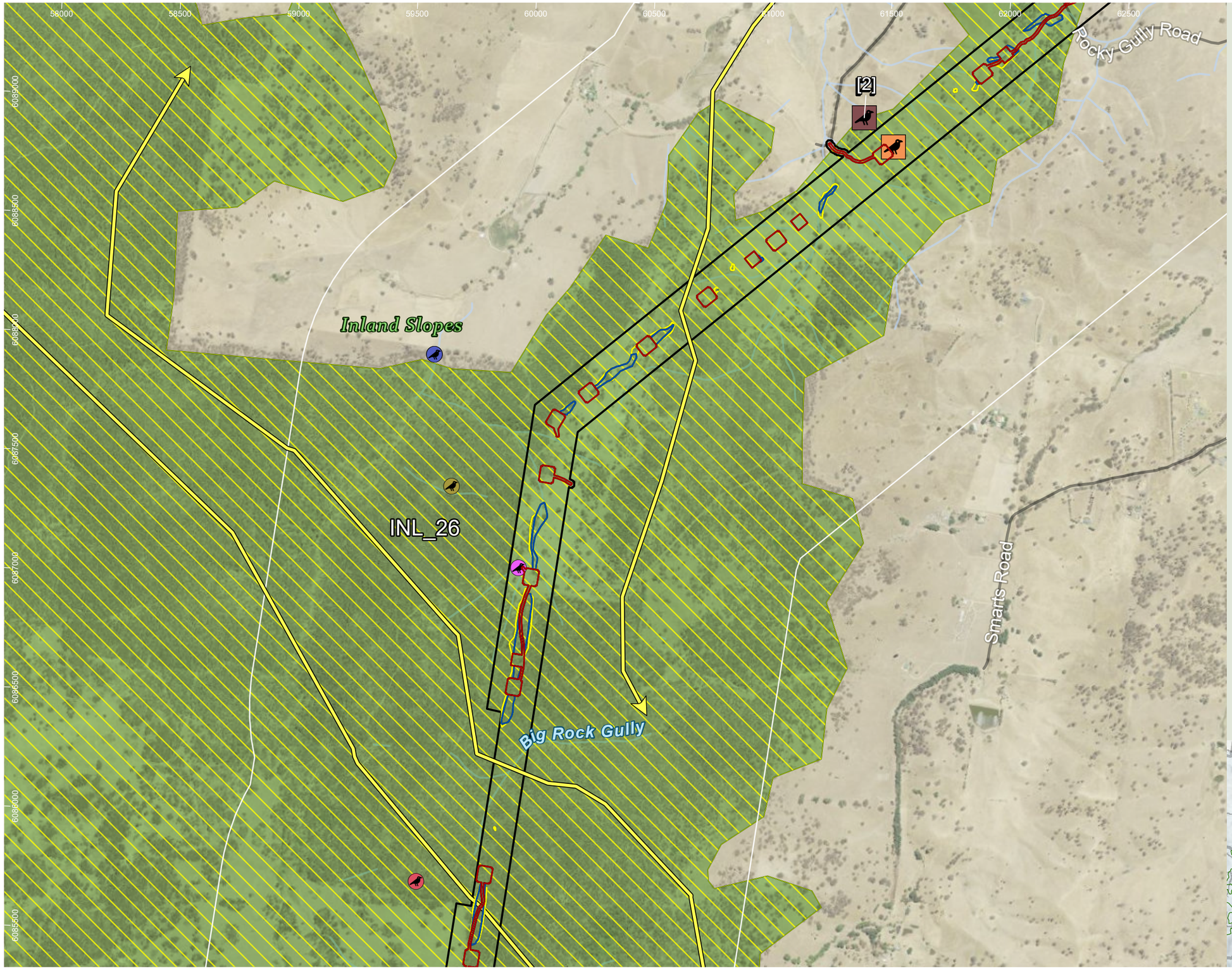


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

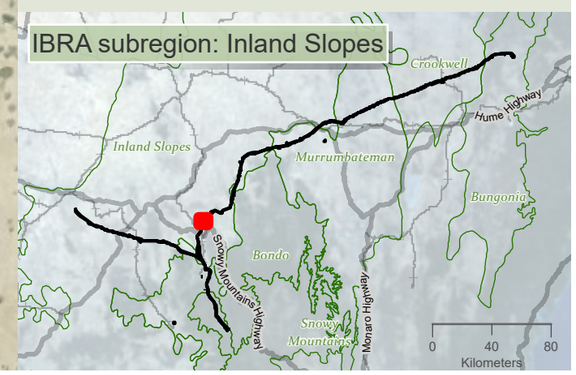
Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Scarlet Robin (Petroica boodang) (1)
- Speckled Warbler (Chthonicola sagittata) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 45

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61000 61500 62000 62500 63000 63500 64000 64500

6090000 6089500 6089000 6088500

Meadow Creek Road

Gocup Creek

Fumut River

INL_11

Inland Slopes

Gocup Road

Rocky Gully Road

[2]

INL_26

Gocup Farms Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

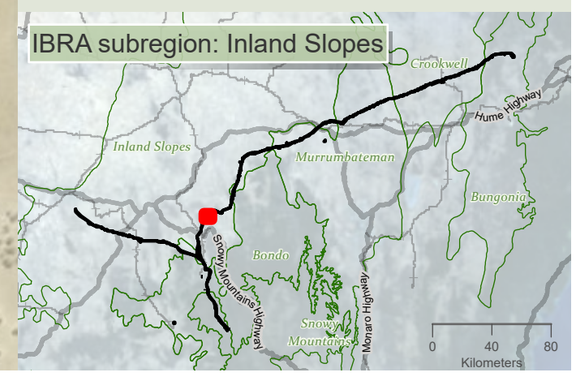
Fauna corridors - existing connectivity

- High
- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Flame Robin (Petroica phoenicea) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 46

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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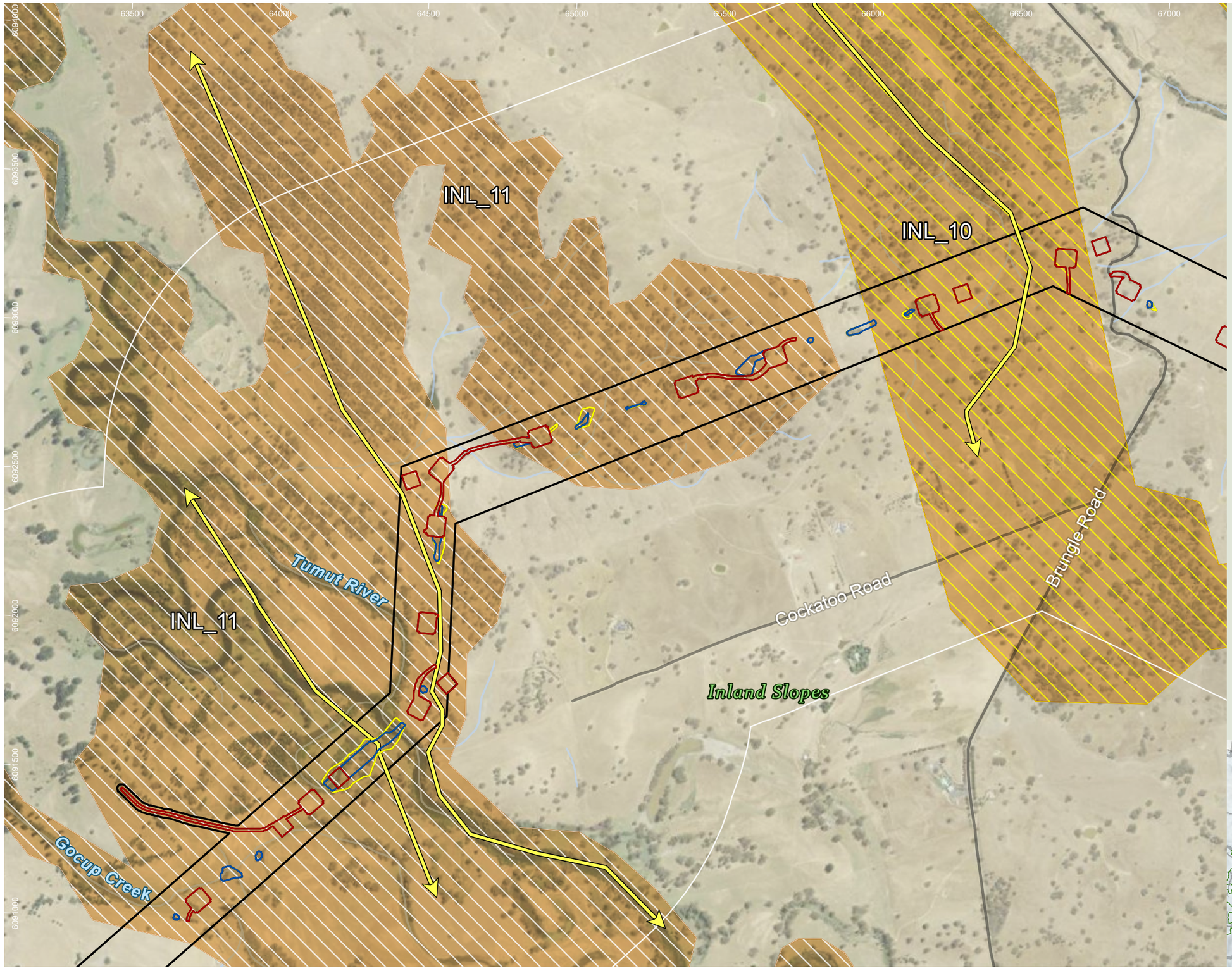


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

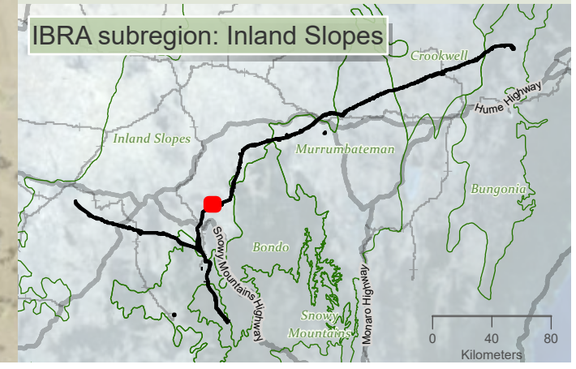
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 47

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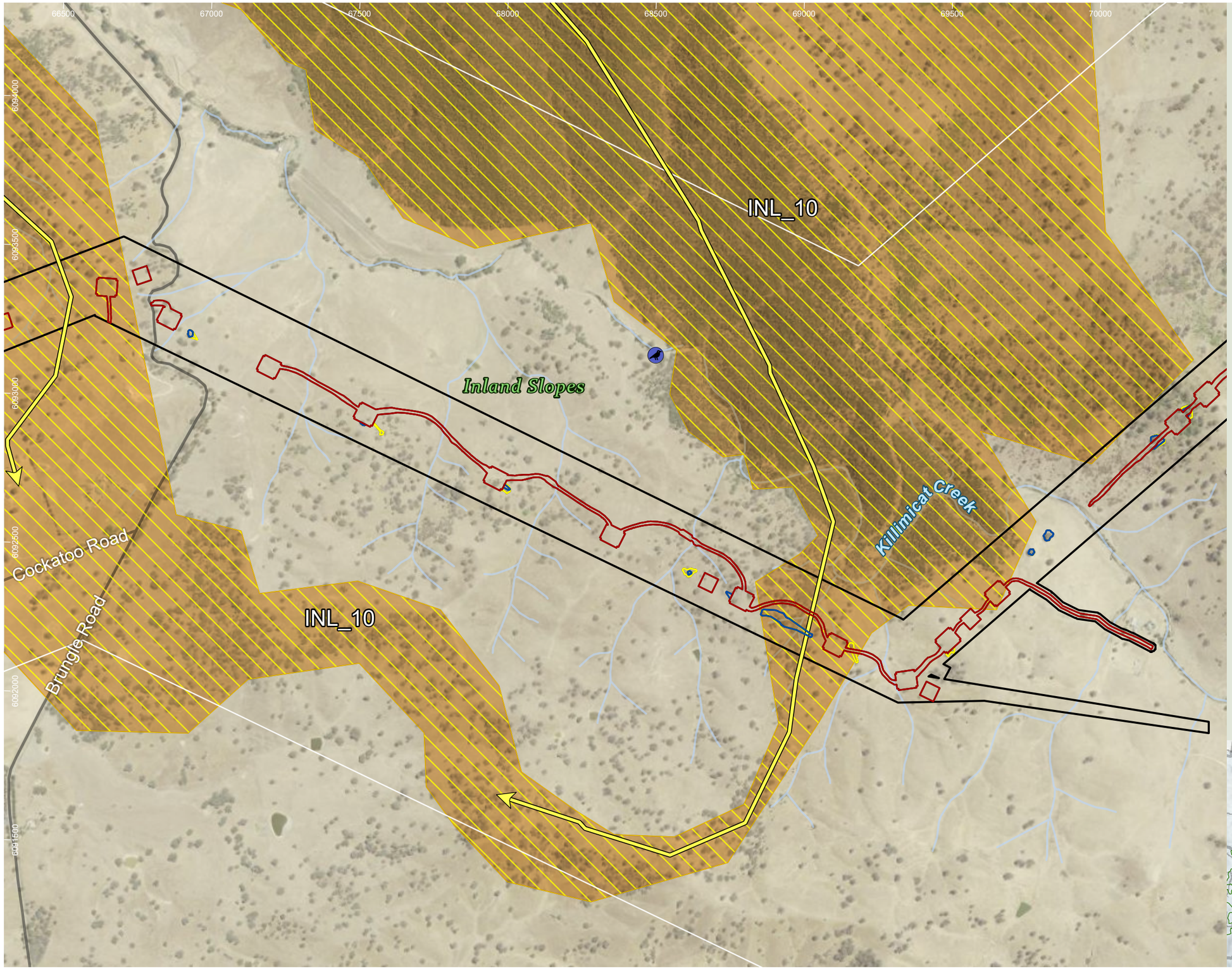


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

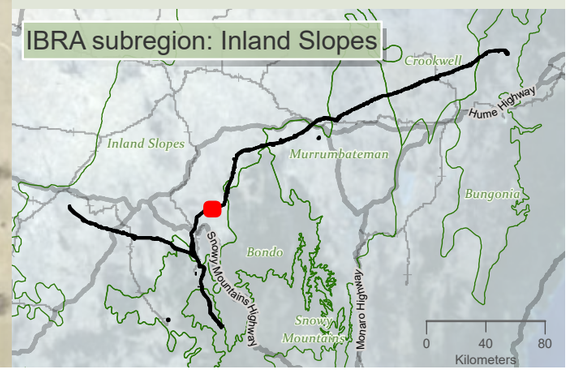
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 48

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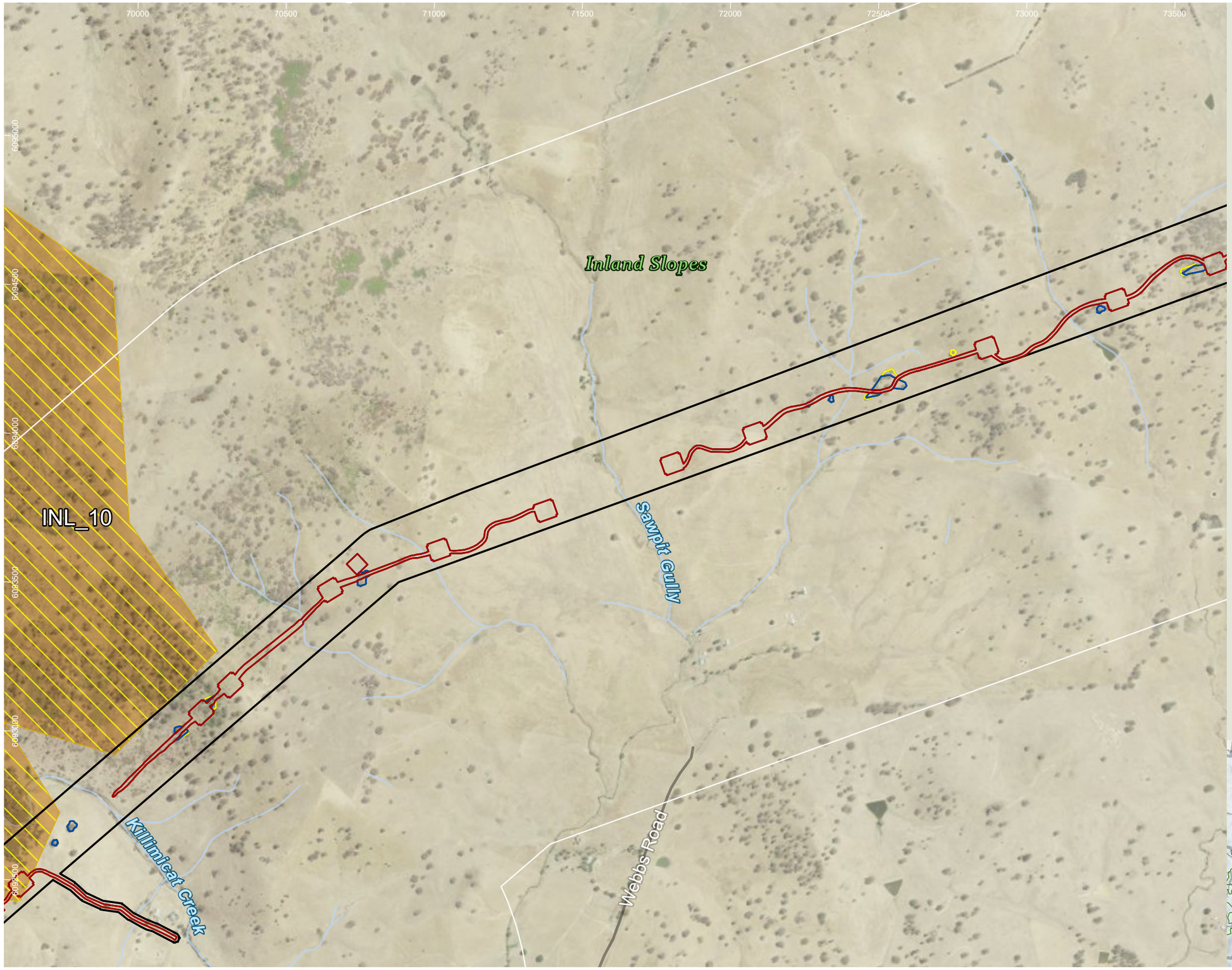


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

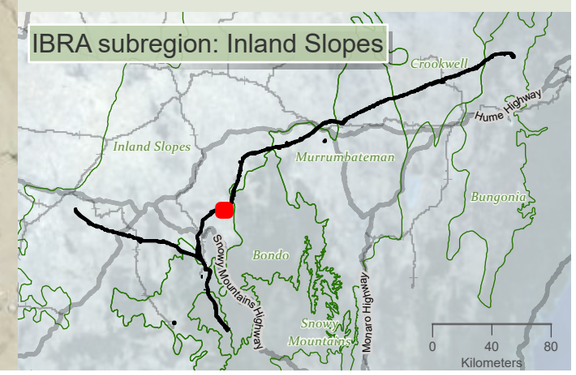
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 49

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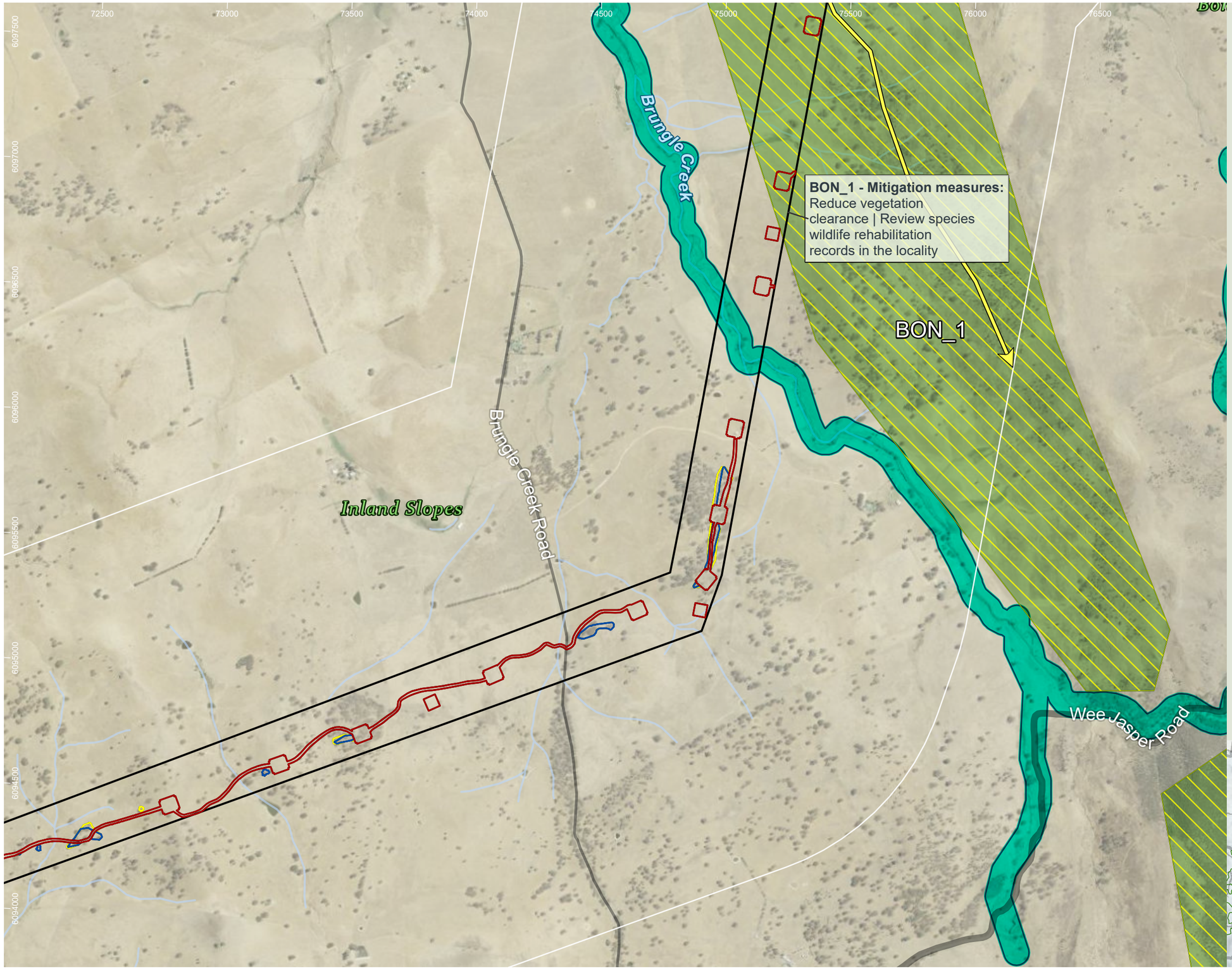


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

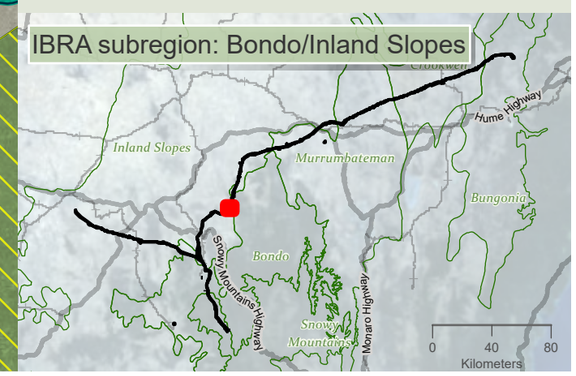
- Major road
- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 50

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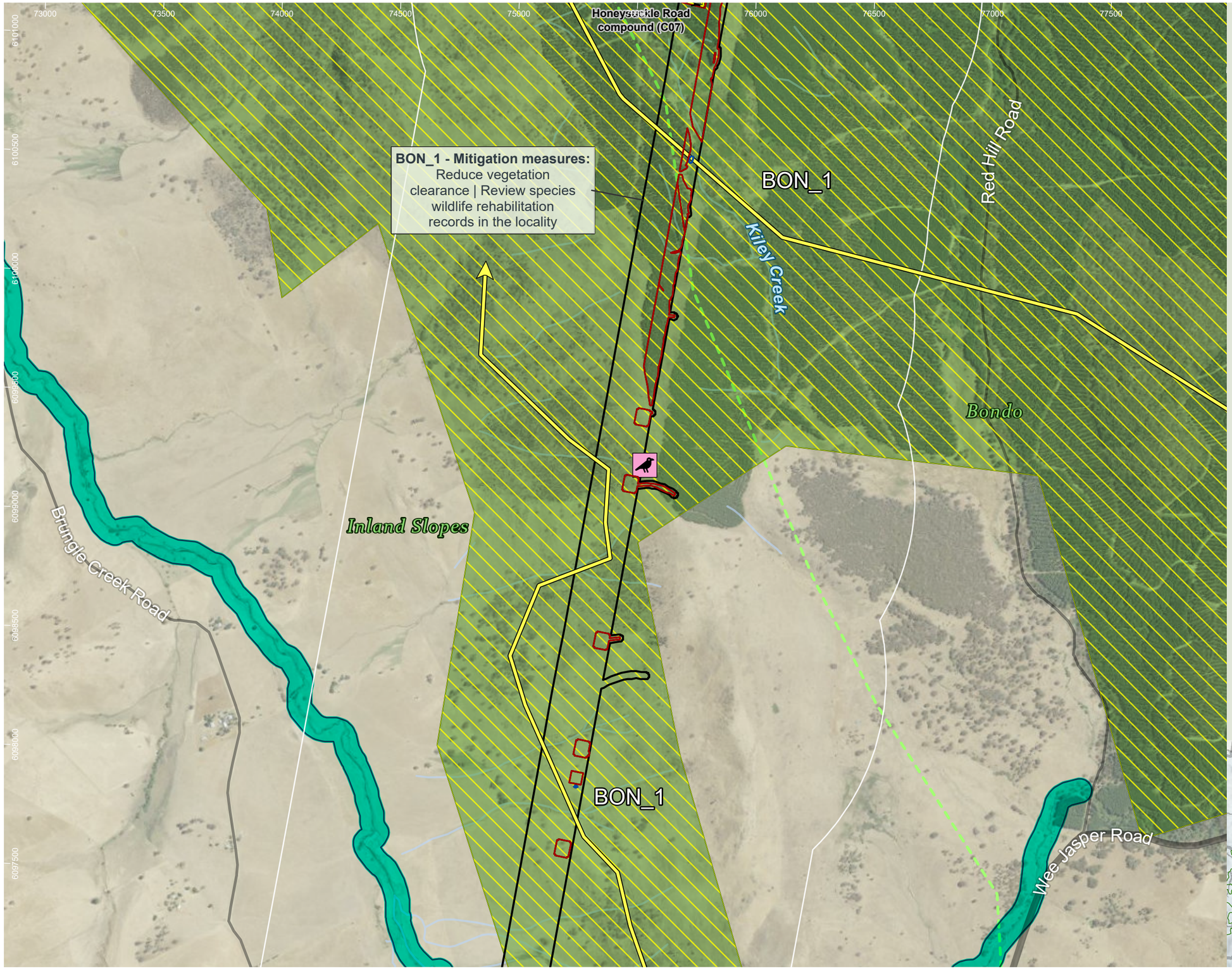

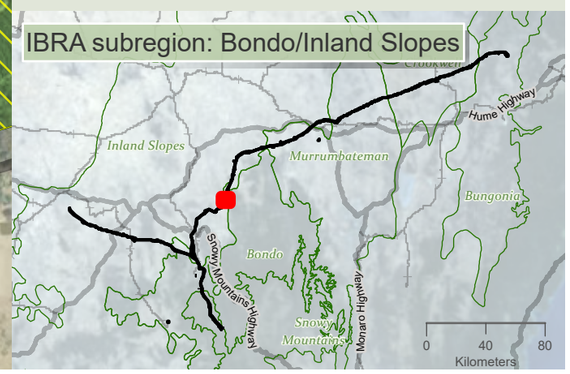

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Speckled Warbler (Chthonicola sagittata) (1)

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 51

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74000 74500 75000 75500 76000 76500 77000 77500 78000 78500

6104000 6103500 6103000 6102500 6102000 6101500 6101000

Saw Mill Creek

BON_1 - Mitigation measures:
Reduce vegetation clearance | Review species wildlife rehabilitation records in the locality

BON_1

Bondo

Red Hill Road compound (C08)

Billapaloola Road

Red Hill Road

Red Hill Access Road

Inland Slopes

Honeysuckle Road compound (C07)

Honeysuckle Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

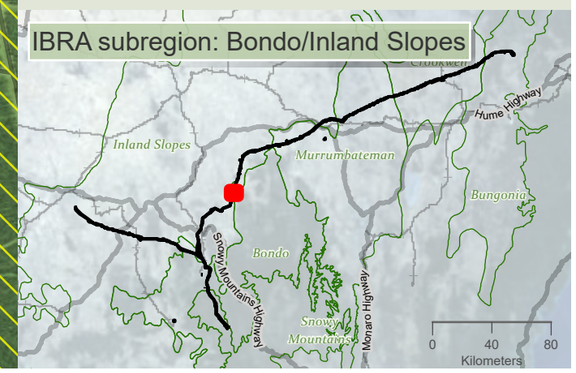
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (5)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 52

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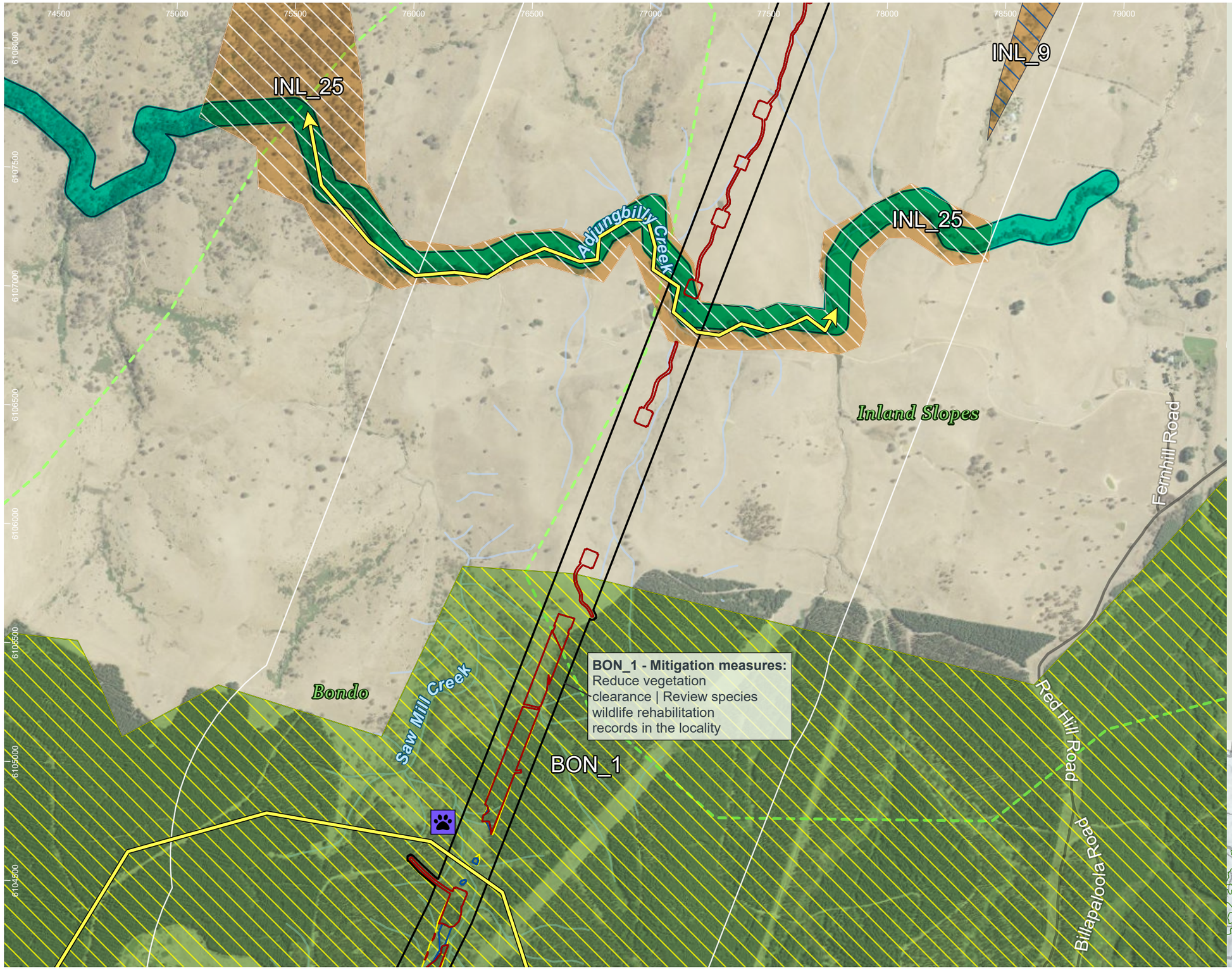


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate

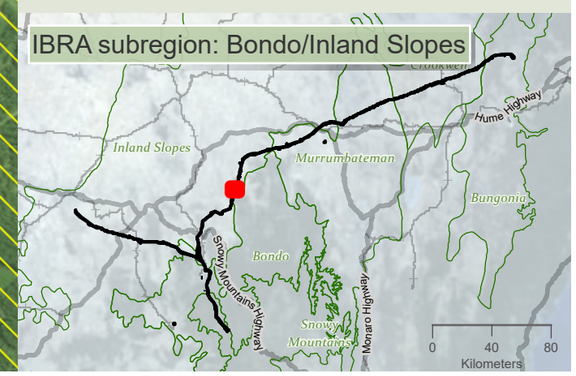
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Yellow-bellied Glider (Petaurus australis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 53

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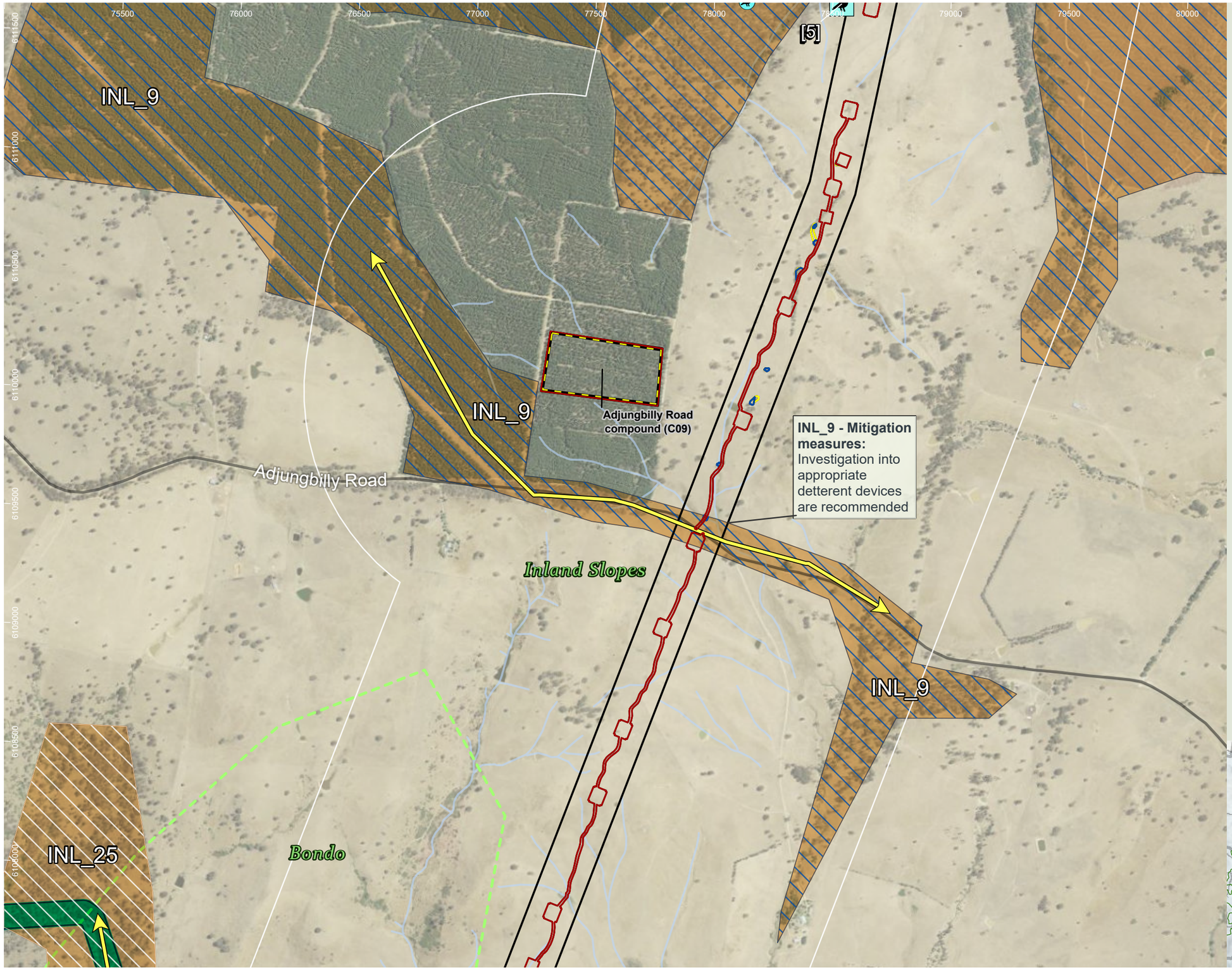


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

- Booroolong frog habitat mapping (Source: DPE)
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

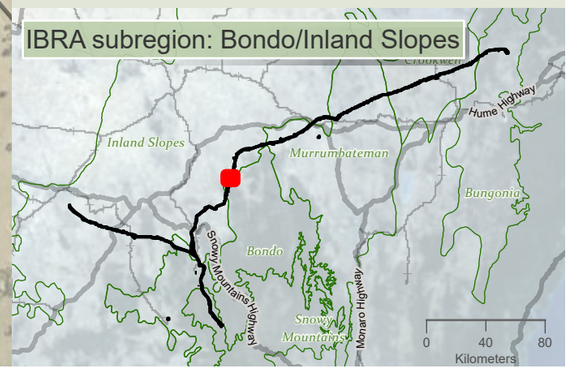
Aves

- Scarlet Robin (Petroica boodang) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Flame Robin (Petroica phoenicea) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 54

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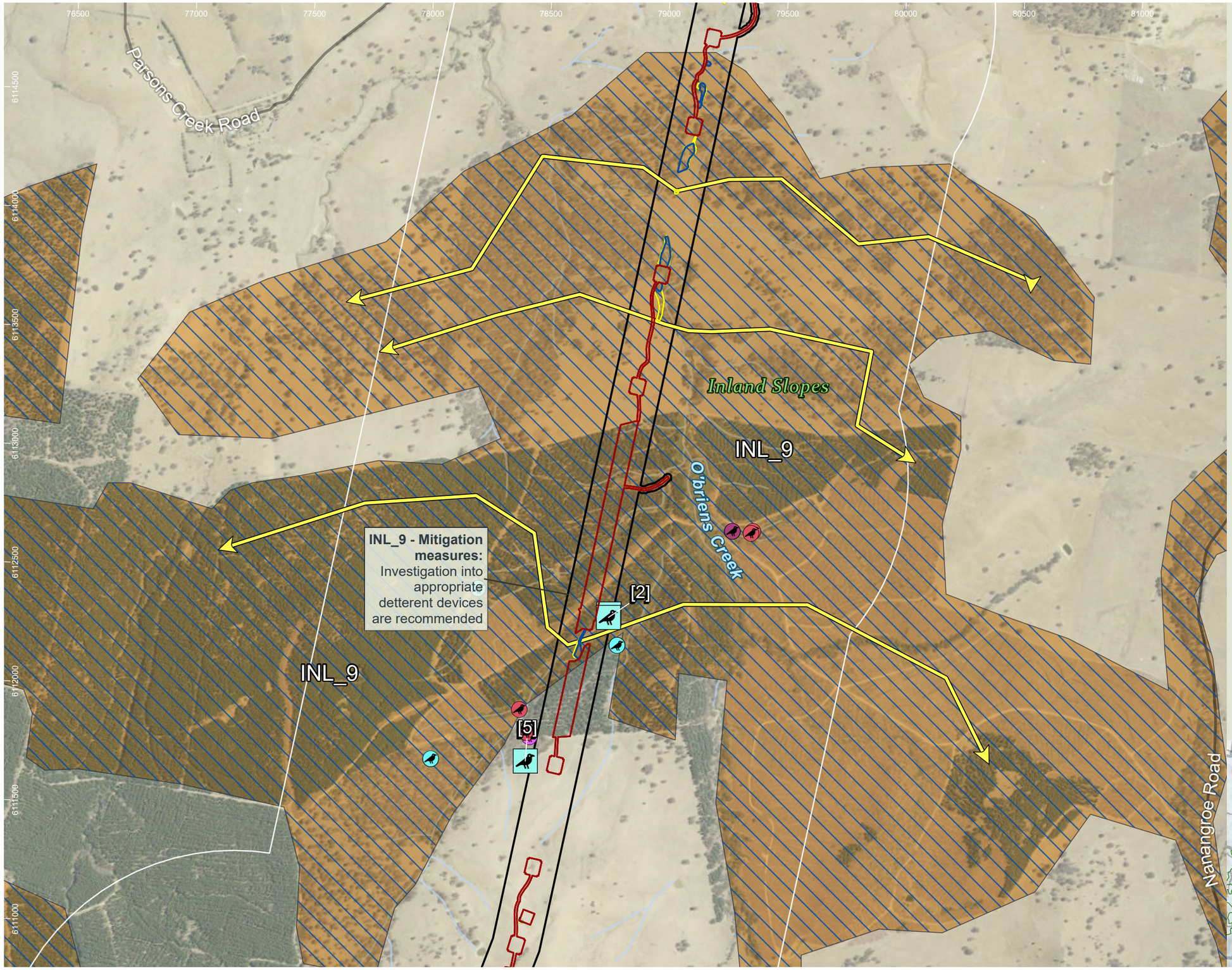


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (3)

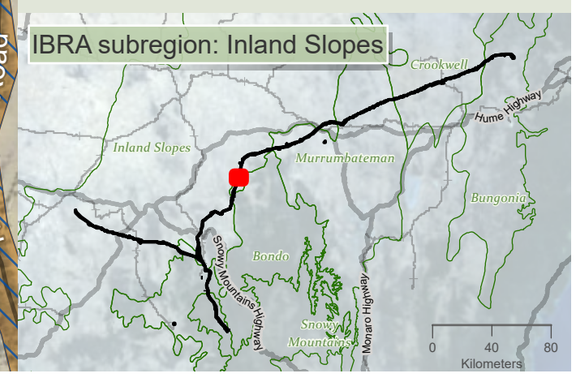
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (1)
- Flame Robin (Petroica phoenicea) (5)
- Scarlet Robin (Petroica boodang) (9)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (3)
- Powerful Owl (Ninox strenua) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 55

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77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

INL_8

INL_9

O'briens Gully

Cart Road Creek

Inland Slopes

Parsons Creek Road

INL_9 - Mitigation measures: Investigation into appropriate detterent devices are recommended

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High

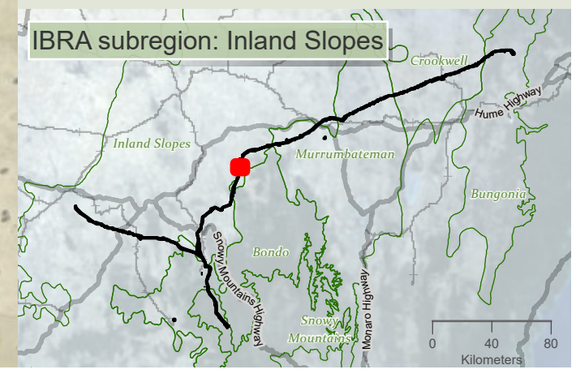
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (2)
- Diamond Firetail (Stagonopleura guttata) (4)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 56

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77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

INL_7

Oak Creek

[110]

[6]

Inland Slopes

INL_8 - Mitigation measures: Investigation into appropriate detterent devices are recommended

INL_8

Cart Road Creek

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Low

Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)
- Southern Myotis (Myotis macropus) (1)

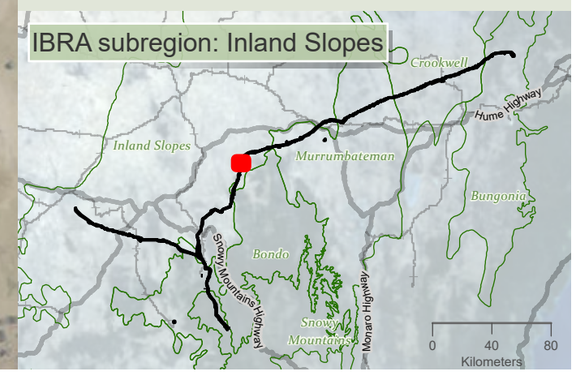
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (20)
- Diamond Firetail (Stagonopleura guttata) (13)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (13)
- Scarlet Robin (Petroica boodang) (1)
- Speckled Warbler (Chthonicola sagittata) (1)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)
- Southern Myotis (Myotis macropus) (1)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 57

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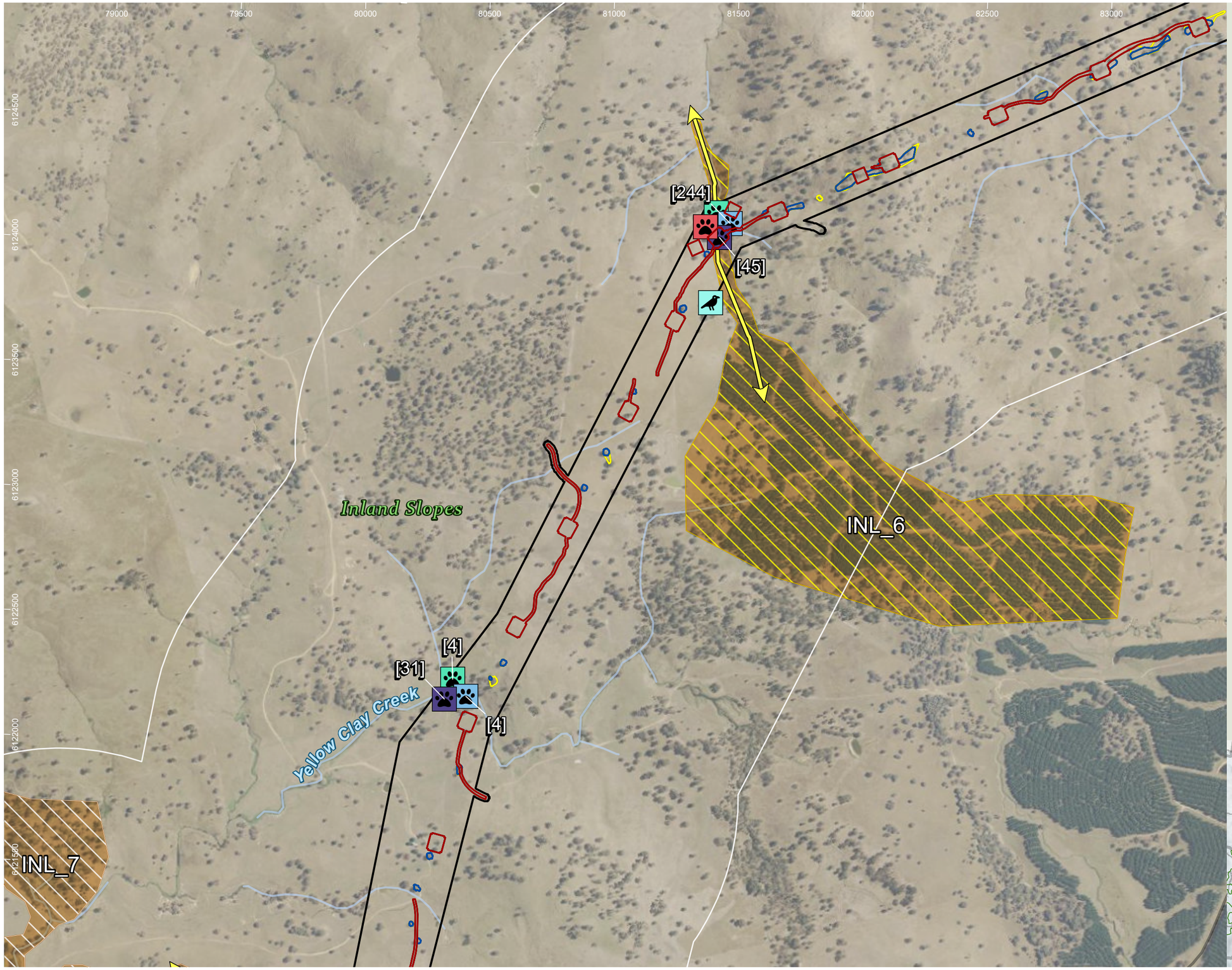


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

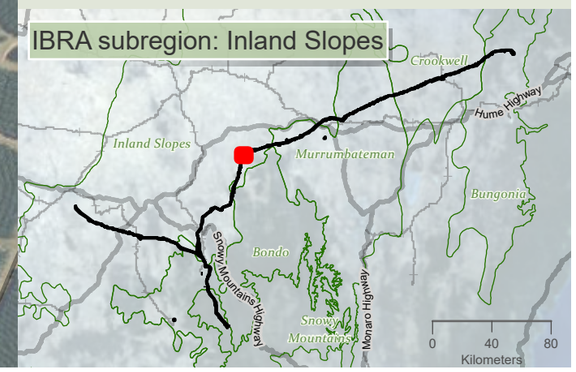
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (1)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 58

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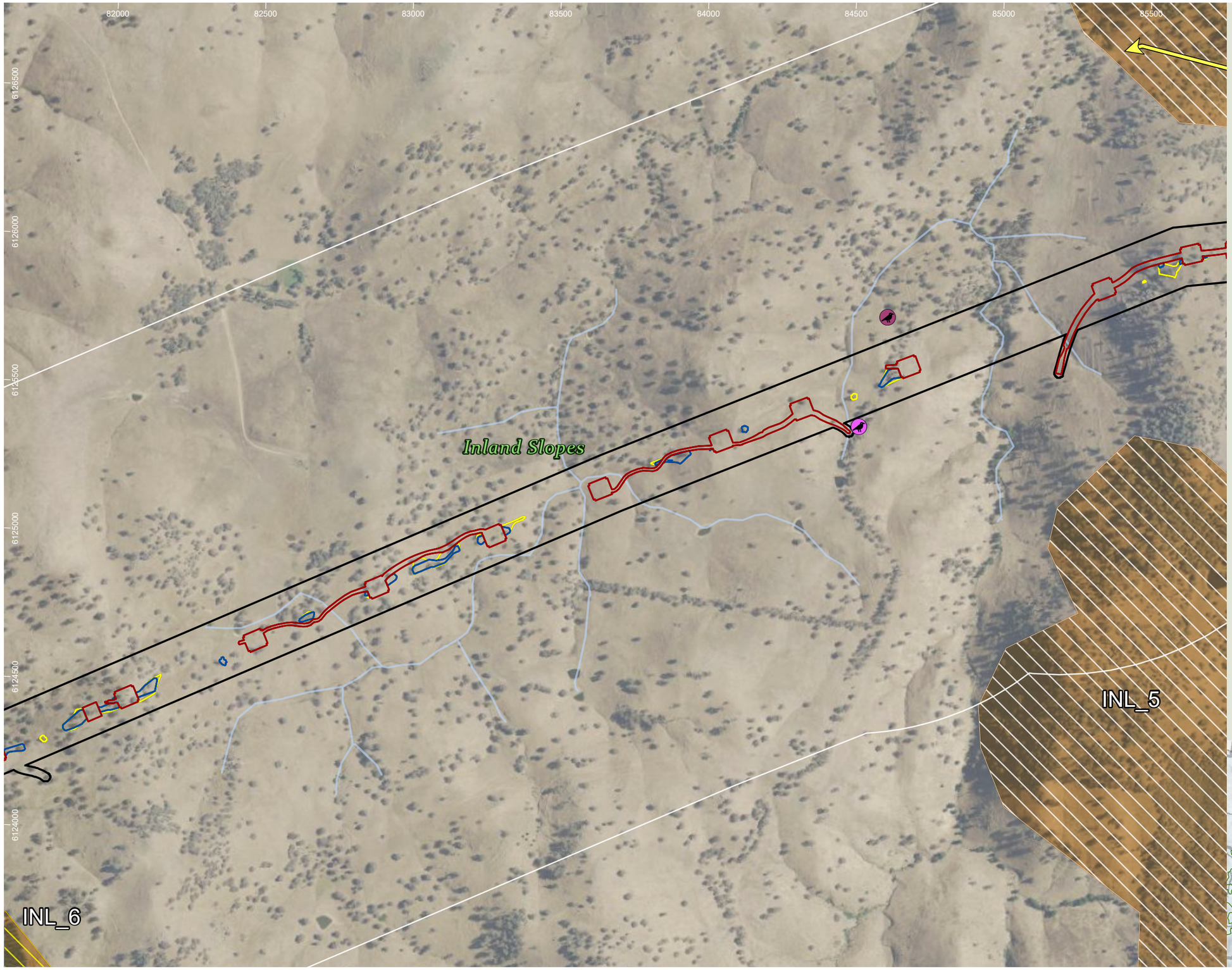


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

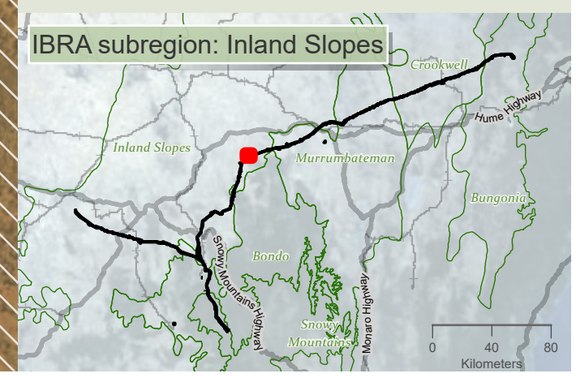
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (1)
- Diamond Firetail (Stagonopleura guttata) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 59

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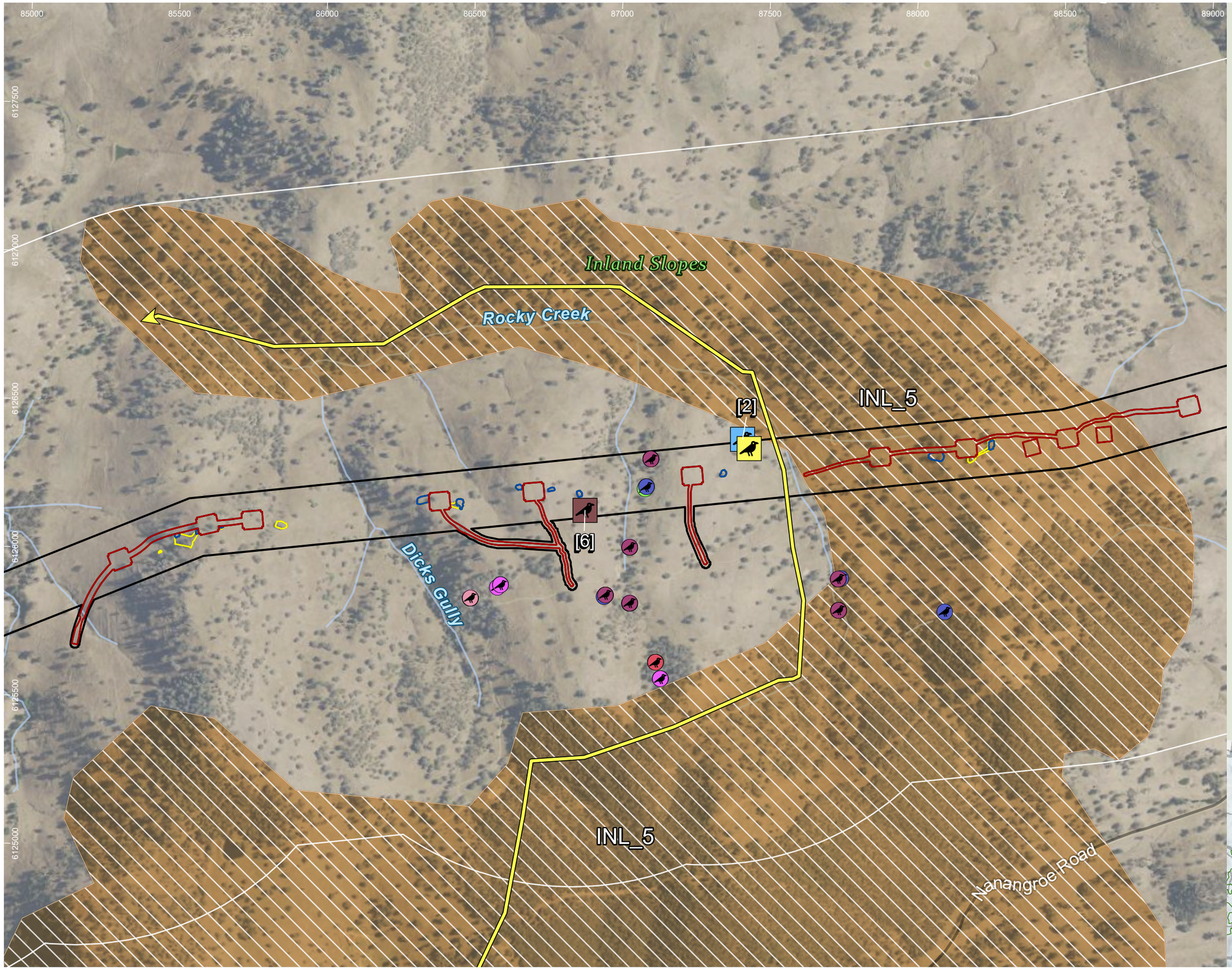


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

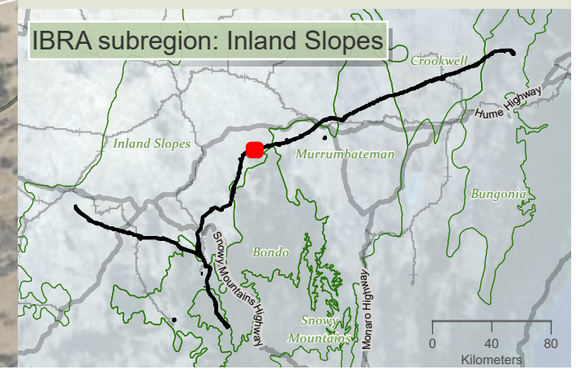
Aves

- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Flame Robin (Petroica phoenicea) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black-chinned Honeyeater (eastern subspecies) (Melithreptus gularis gularis) (1)
- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (40)
- Diamond Firetail (Stagonopleura guttata) (8)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (8)
- Hooded Robin (south-eastern form) (Melanodryas cucullata cucullata) (1)
- Scarlet Robin (Petroica boodang) (4)
- Speckled Warbler (Chthonicola sagittata) (3)
- Varied Sittella (Daphoenositta chrysoptera) (5)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 60

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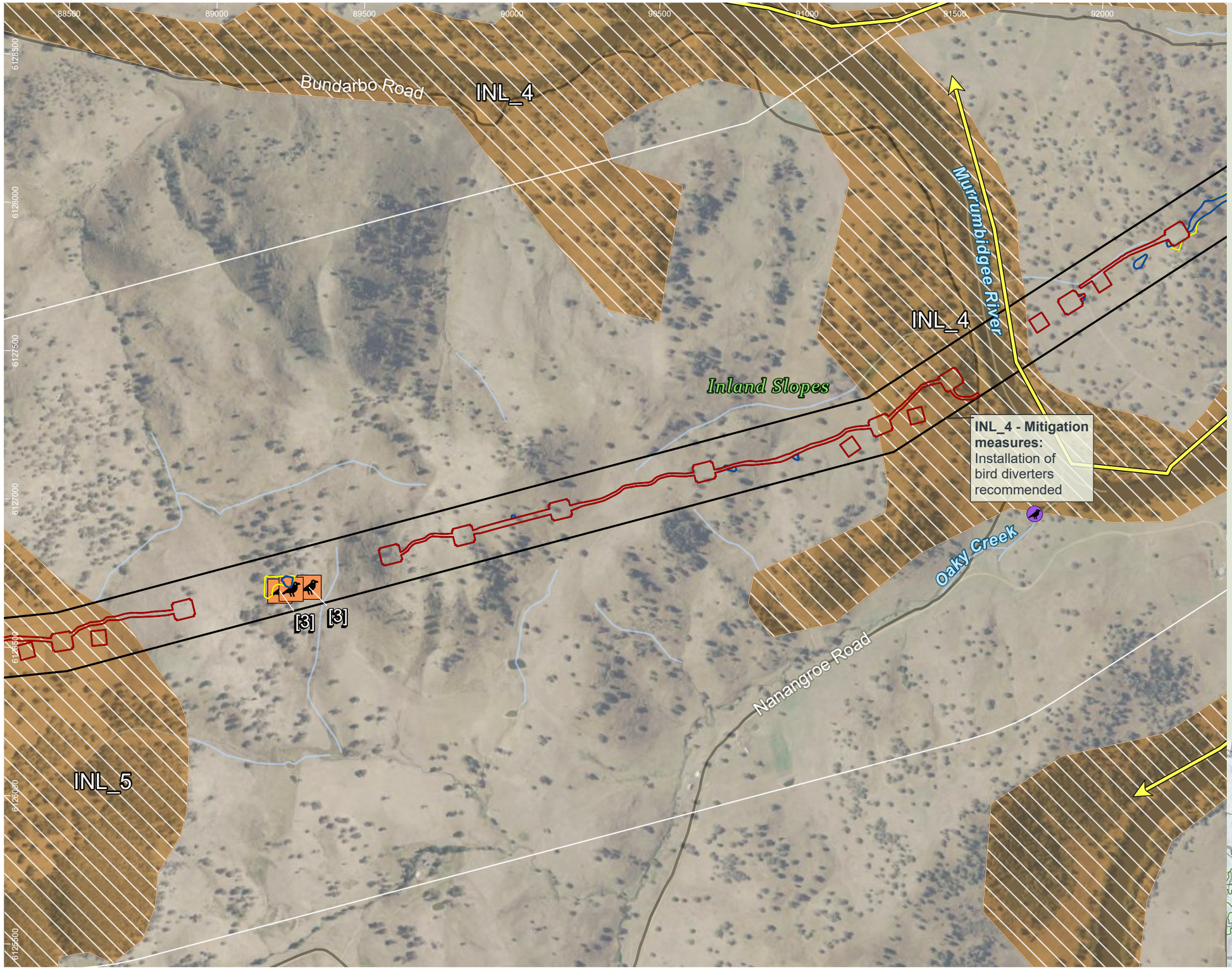


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

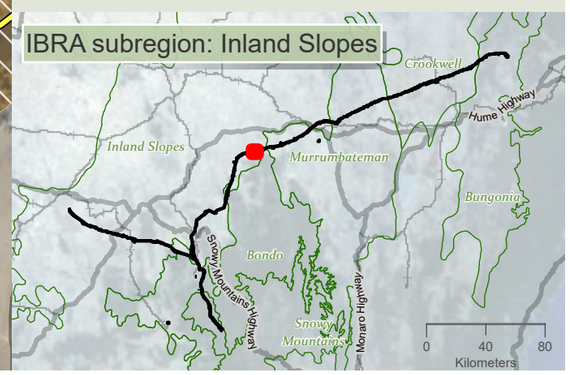
Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae) (3)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 61

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92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500

Nanangroe Road

Oak Creek

Childowla Road

[18] [18]

Inland Slopes

Murrumbidgee River

Bundarbo Road

Oaky Creek

INL_4

INL_4 - Mitigation measures:
Installation of bird diverters recommended

Bondo

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

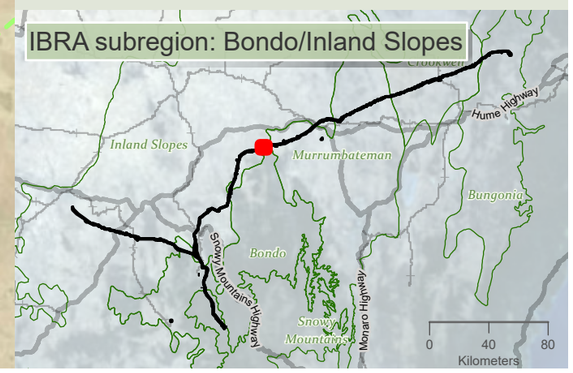
- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)

IBRA subregion: Bondo/Inland Slopes



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 62

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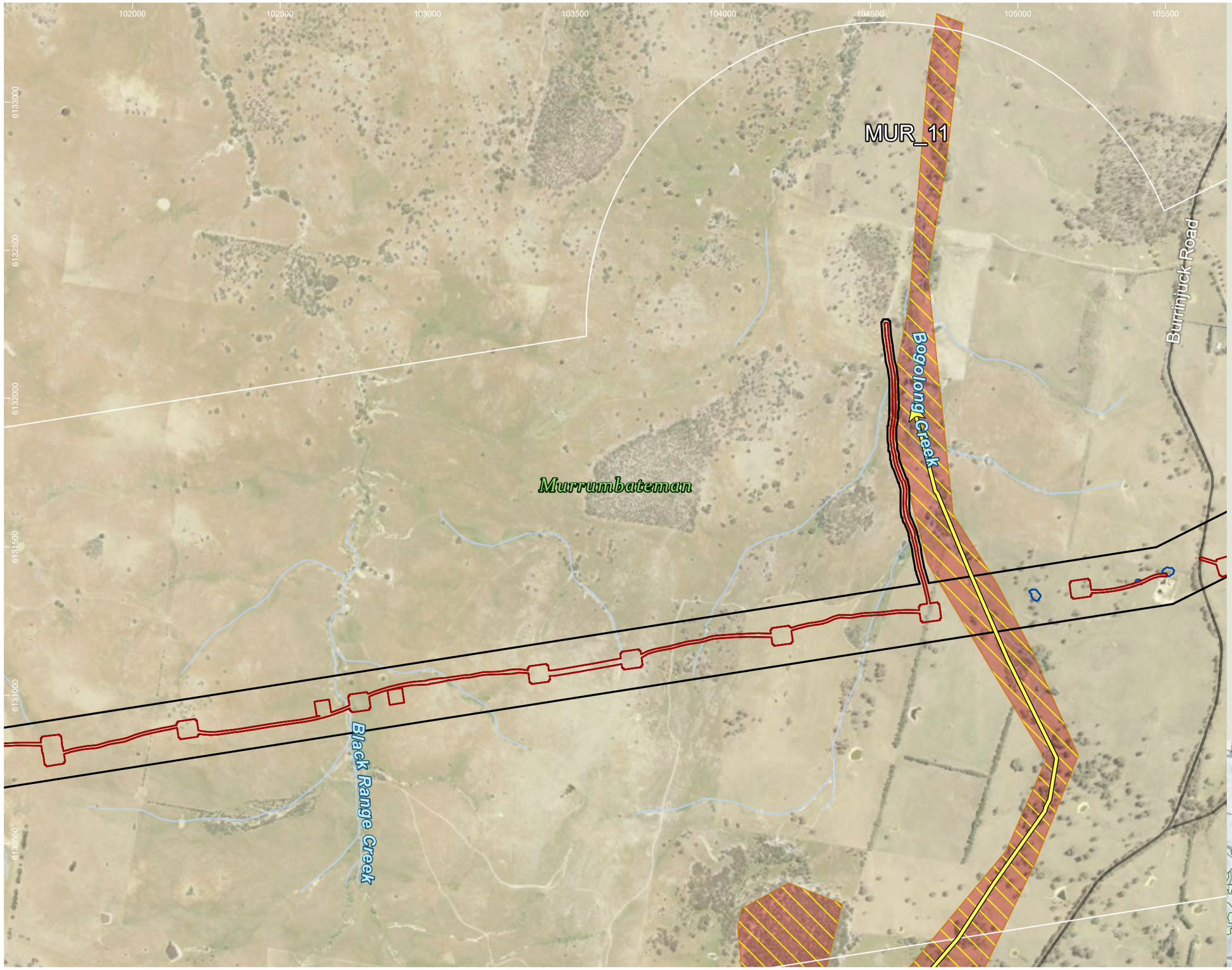


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

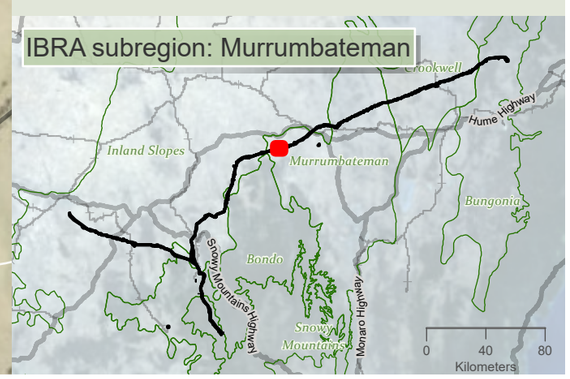
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 65

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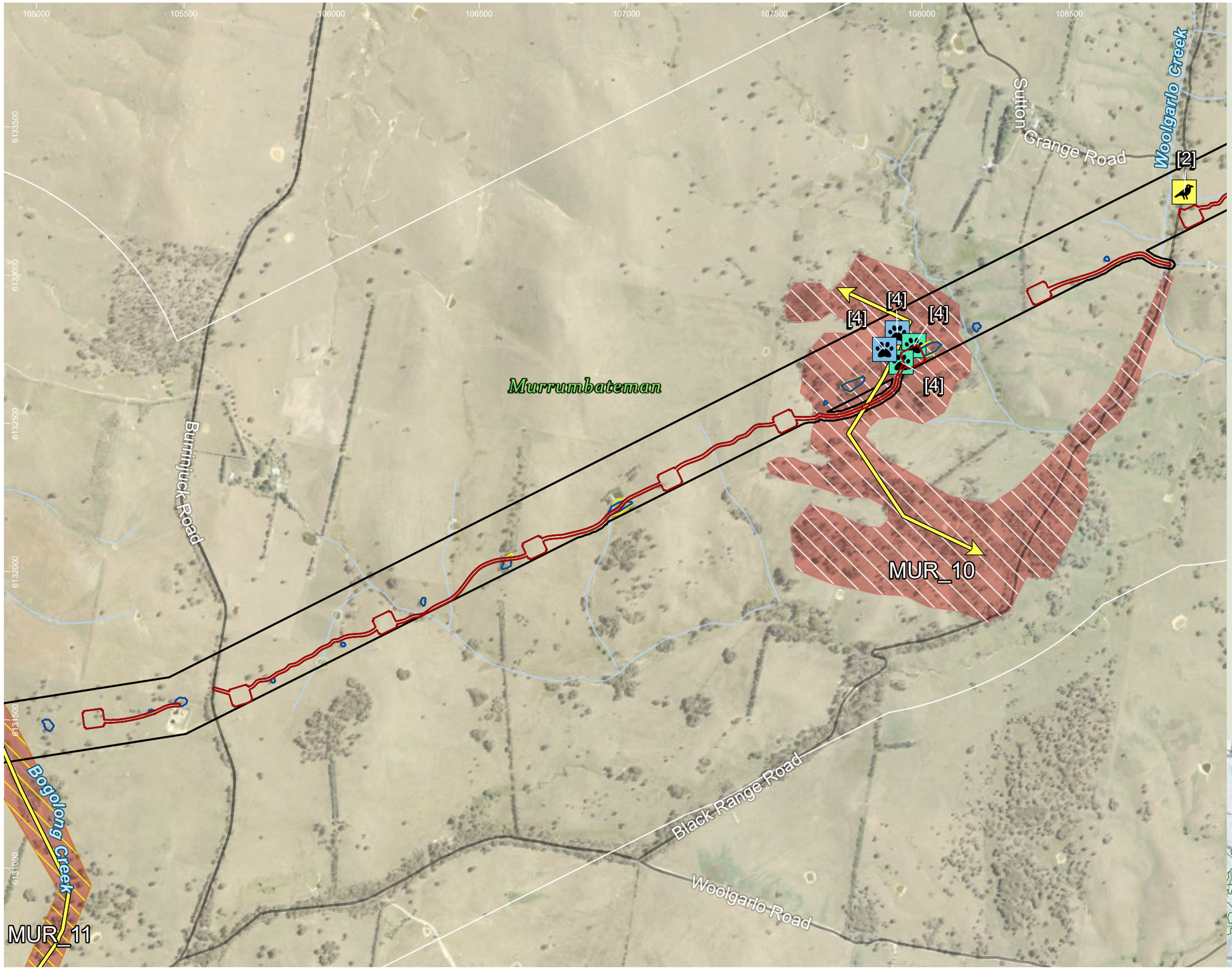


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

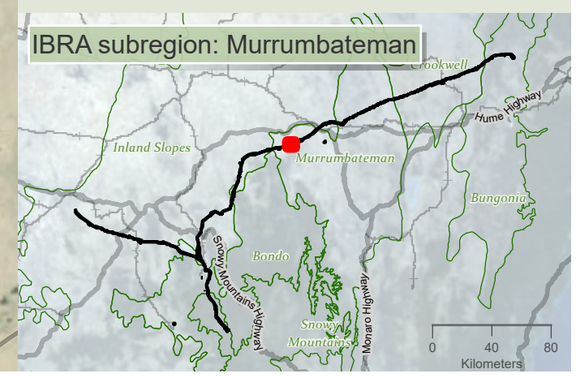
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Southern Myotis (Myotis macropus) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 66

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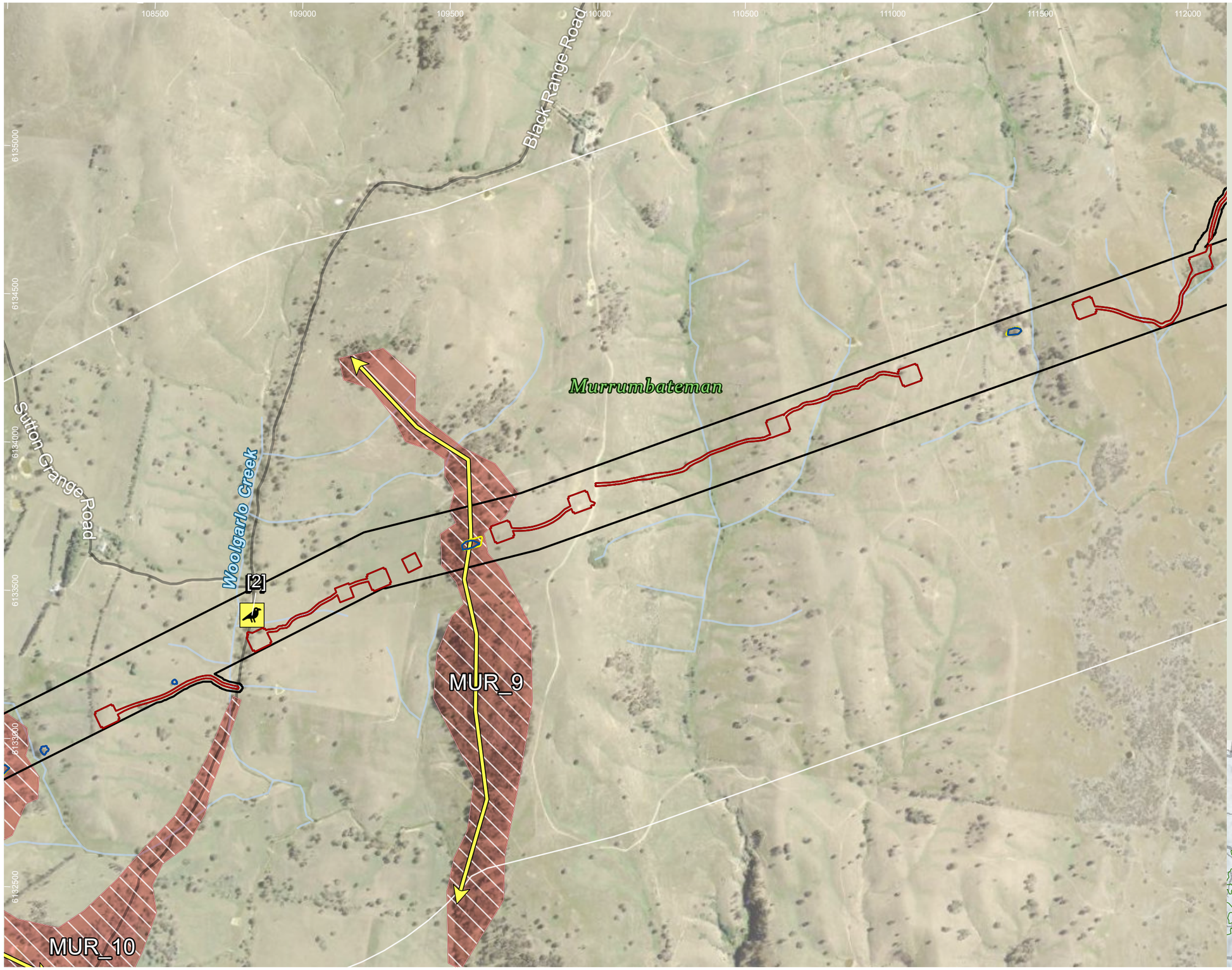


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

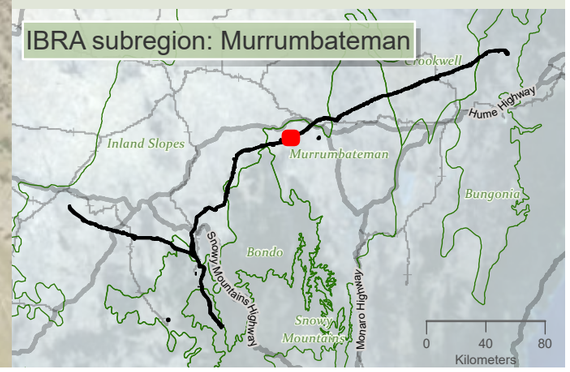
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\arcgis\6699_Humelink_BDAR_Stage 2 Part C.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 67

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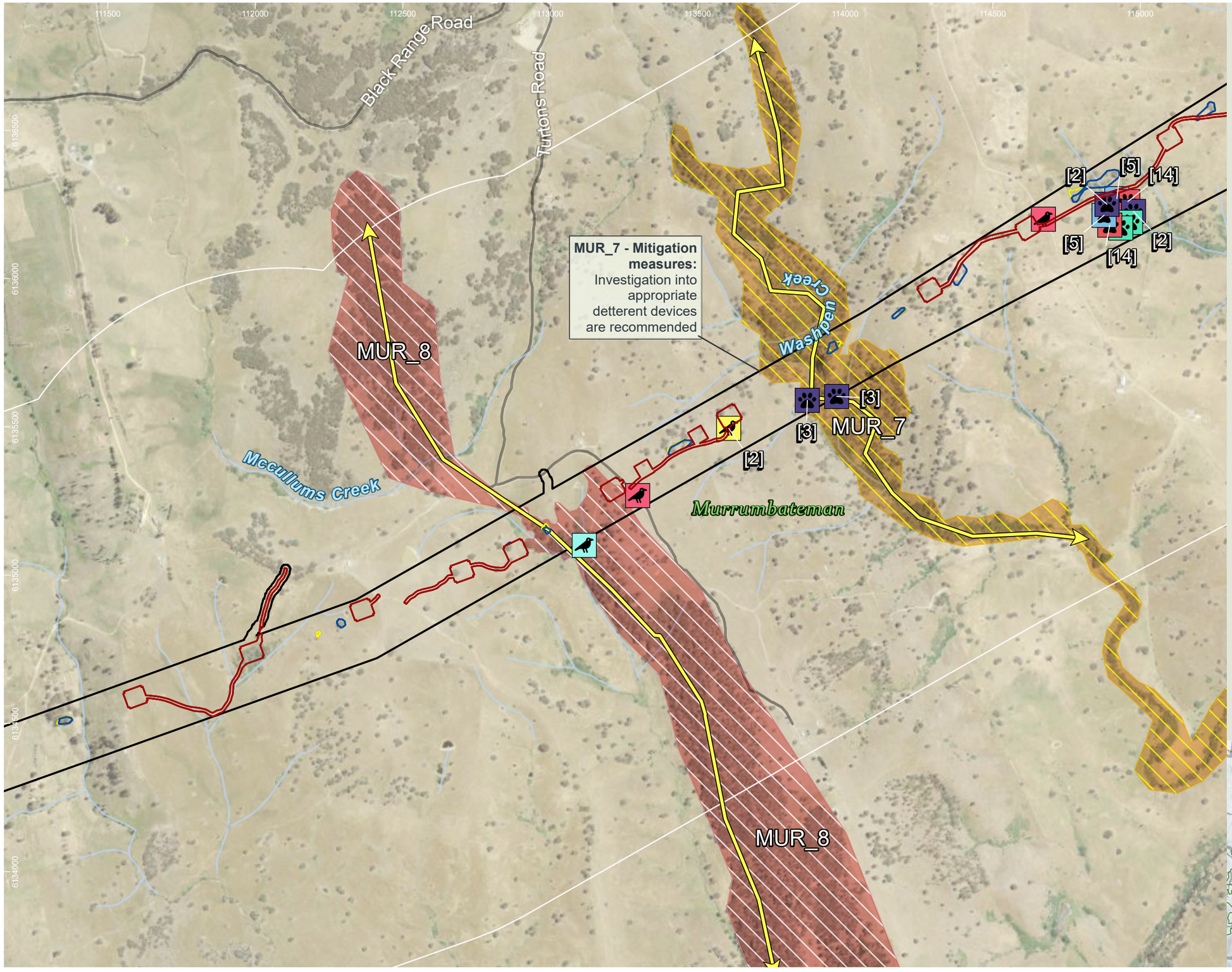


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low

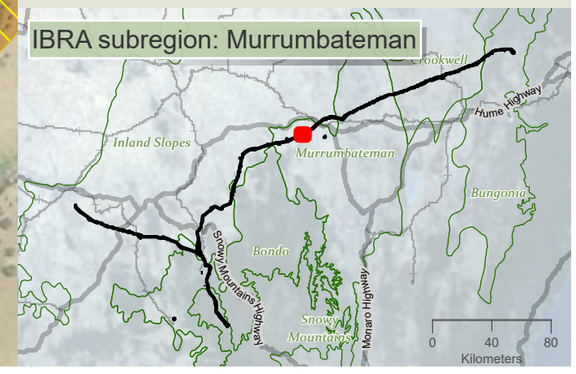
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Little Eagle (Hieraaetus morphnoides) (2)
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (4)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 68

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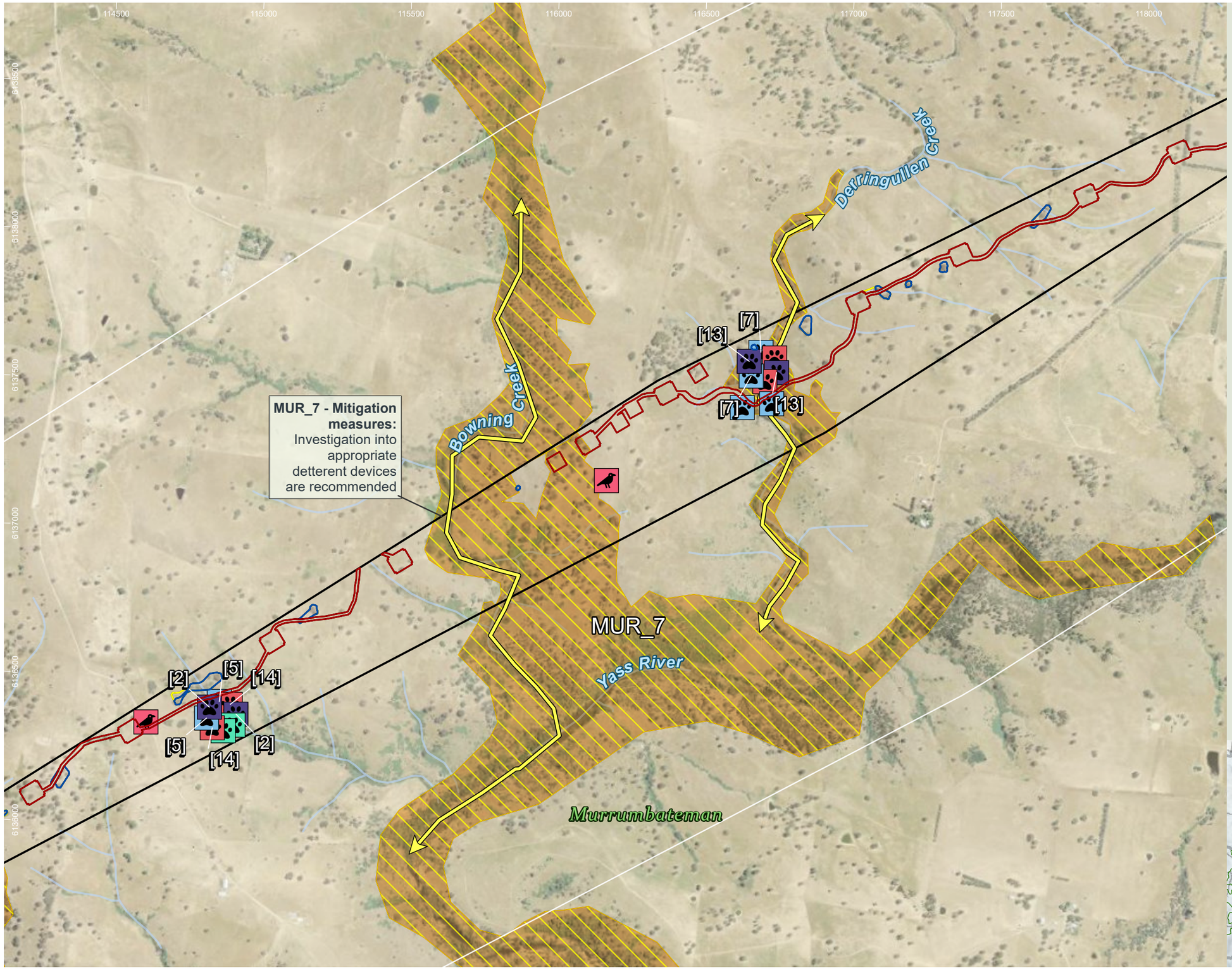


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

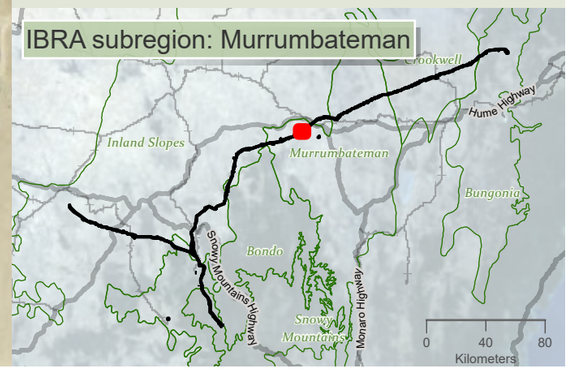
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides) (2)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (6)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (4)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (4)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 69

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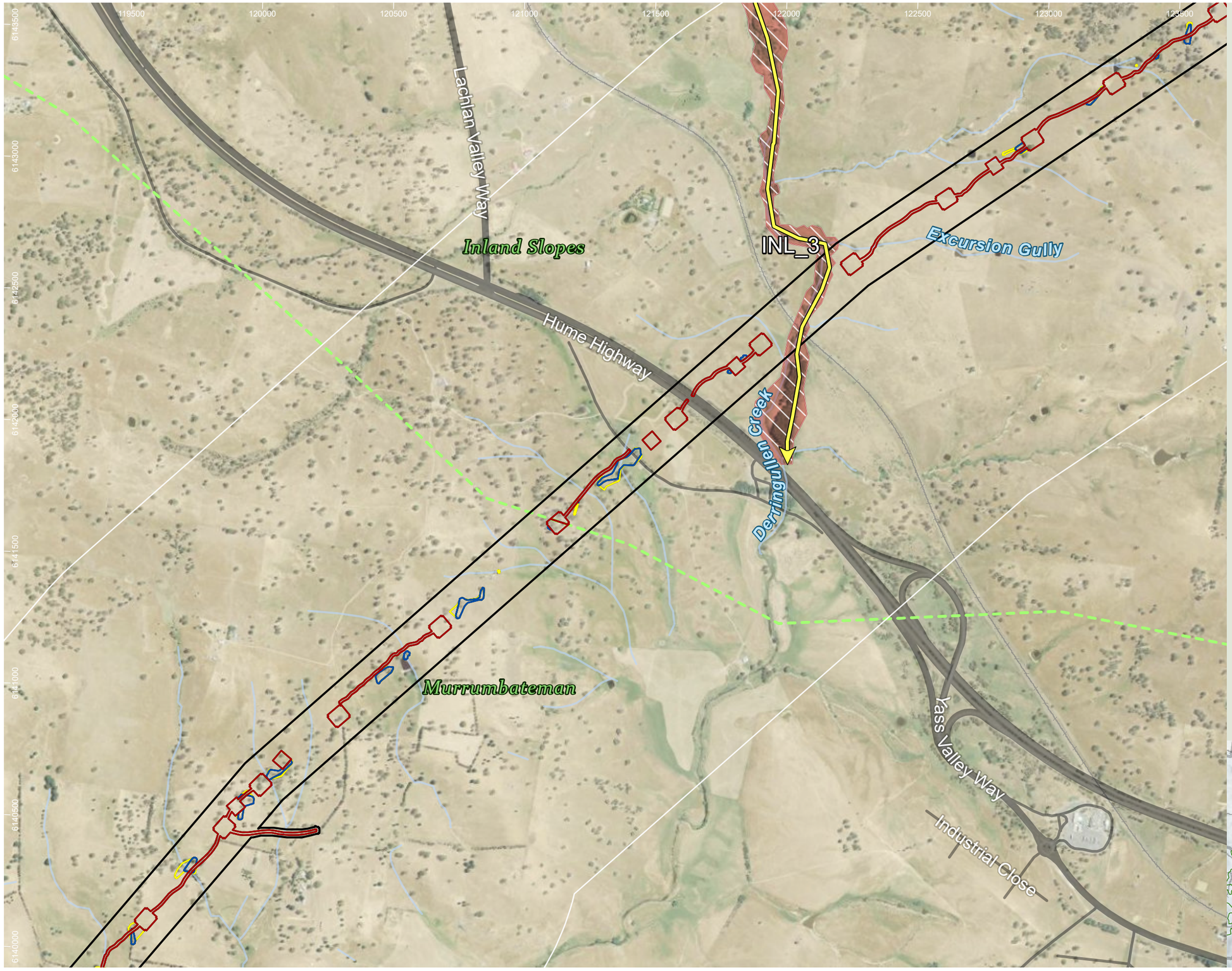

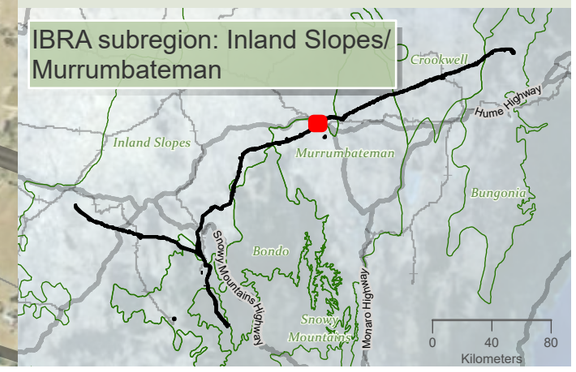

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 71

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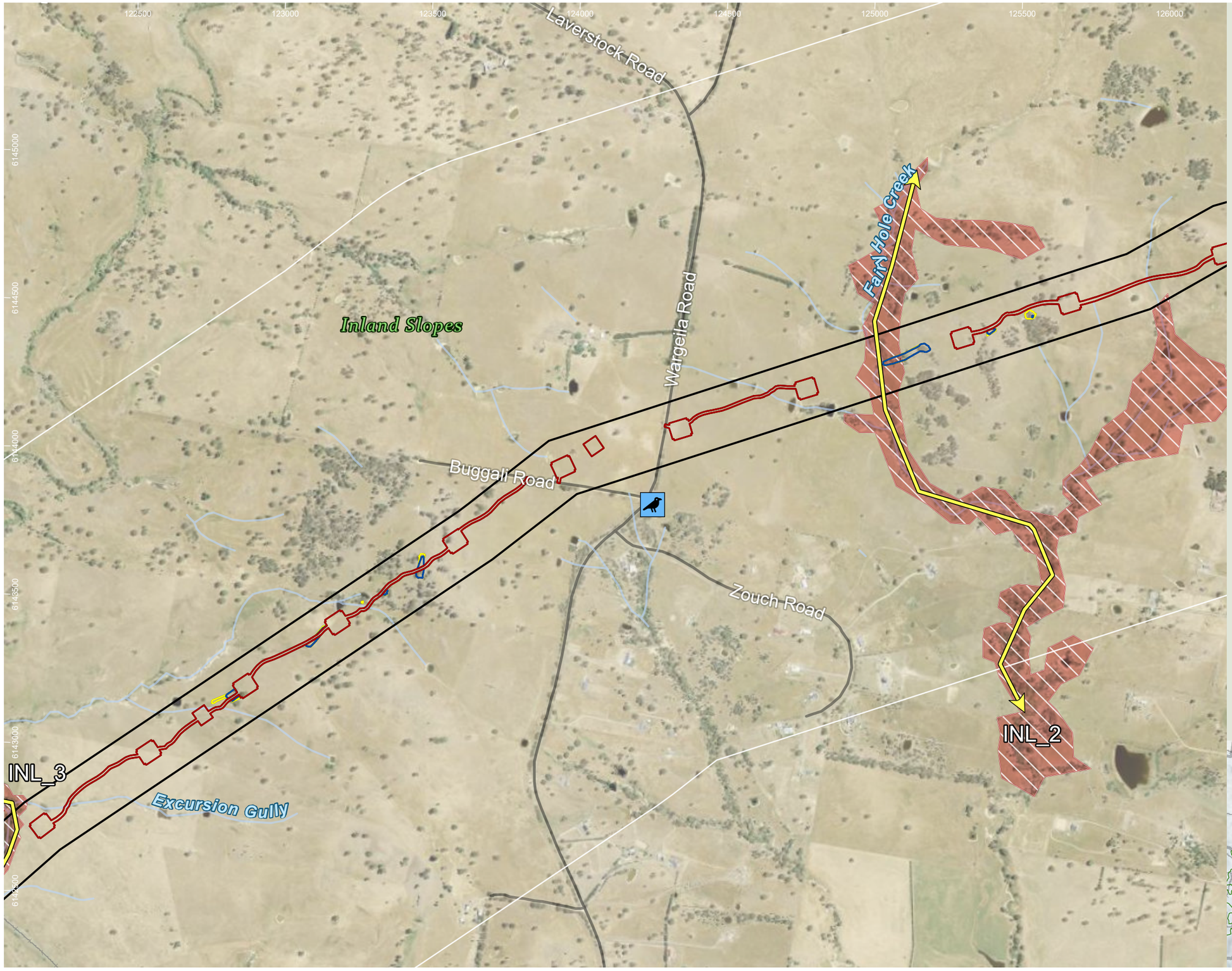


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

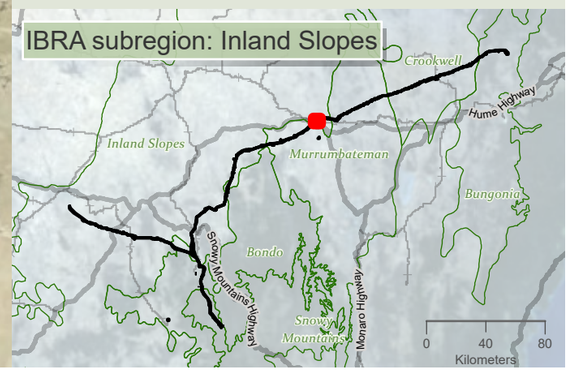
Fauna corridors - existing connectivity

- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 73

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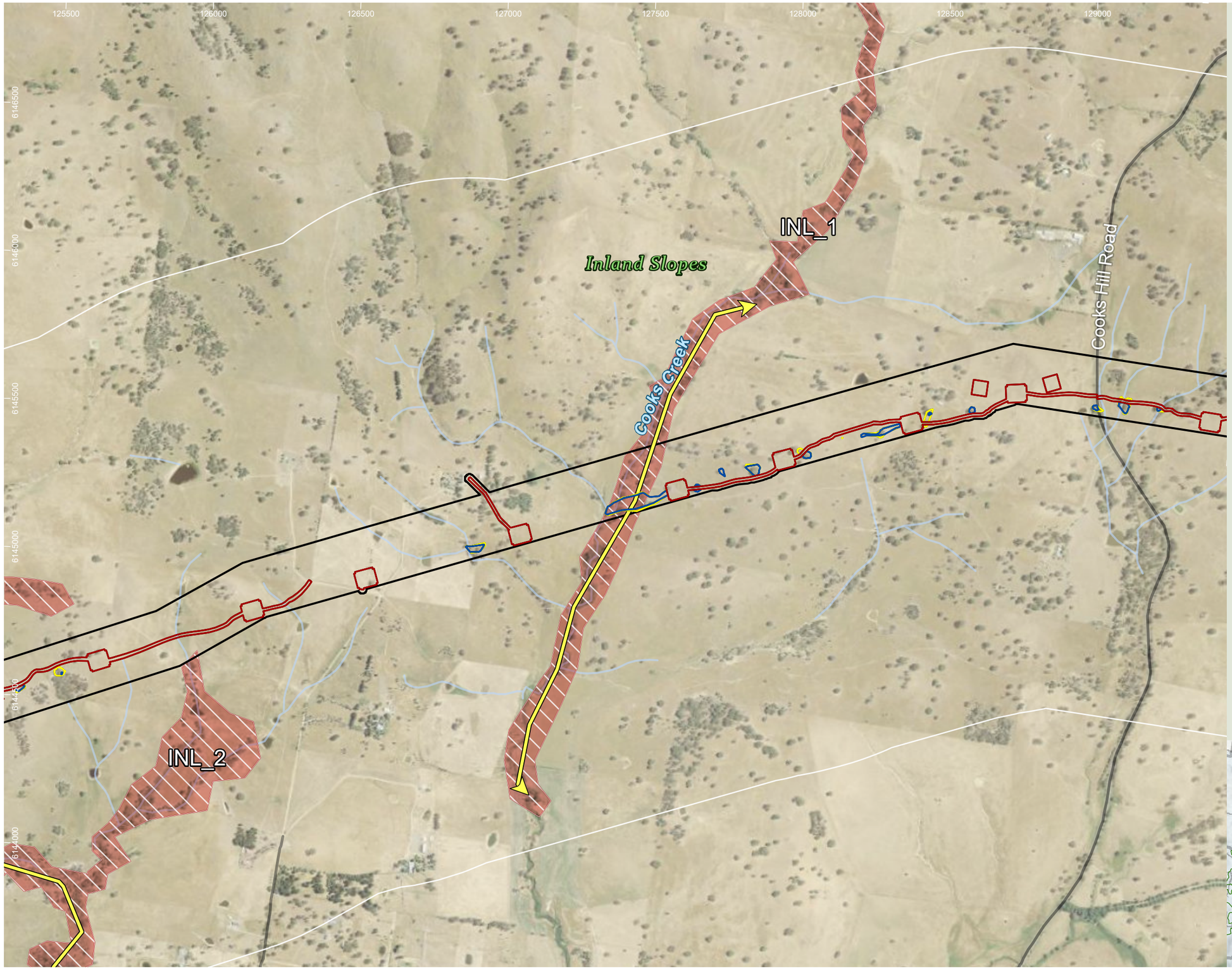


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

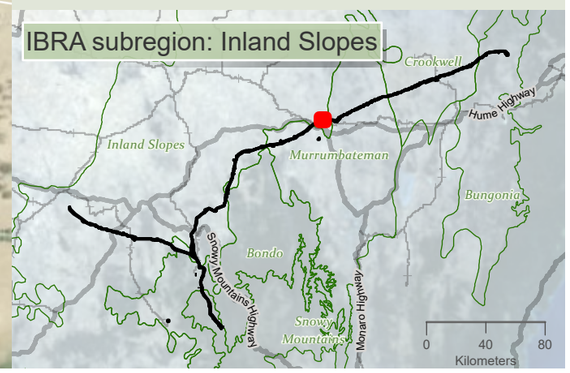
- Low

Fauna corridors - existing connectivity

- Low

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Superb Parrot (Polytelis swainsonii) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 74

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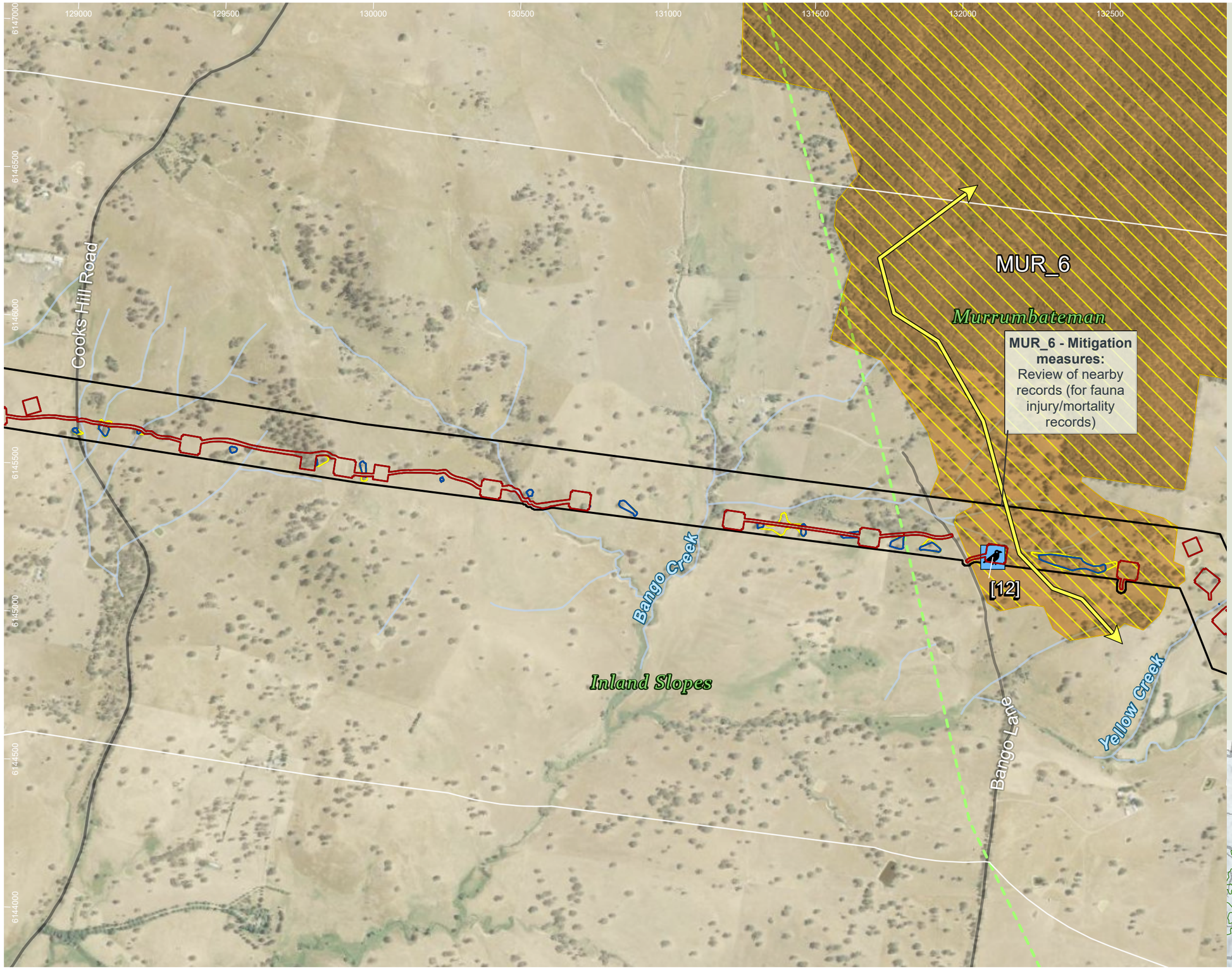


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

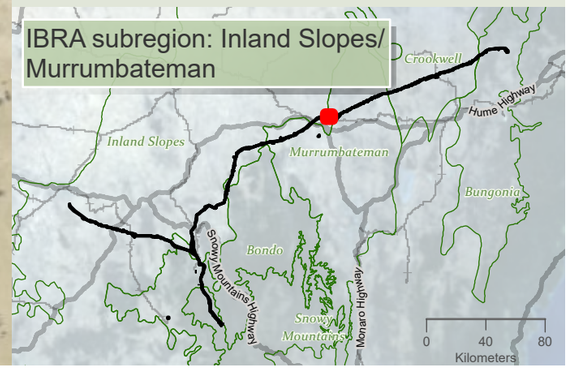
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)
- Superb Parrot (Polytelis swainsonii) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 75

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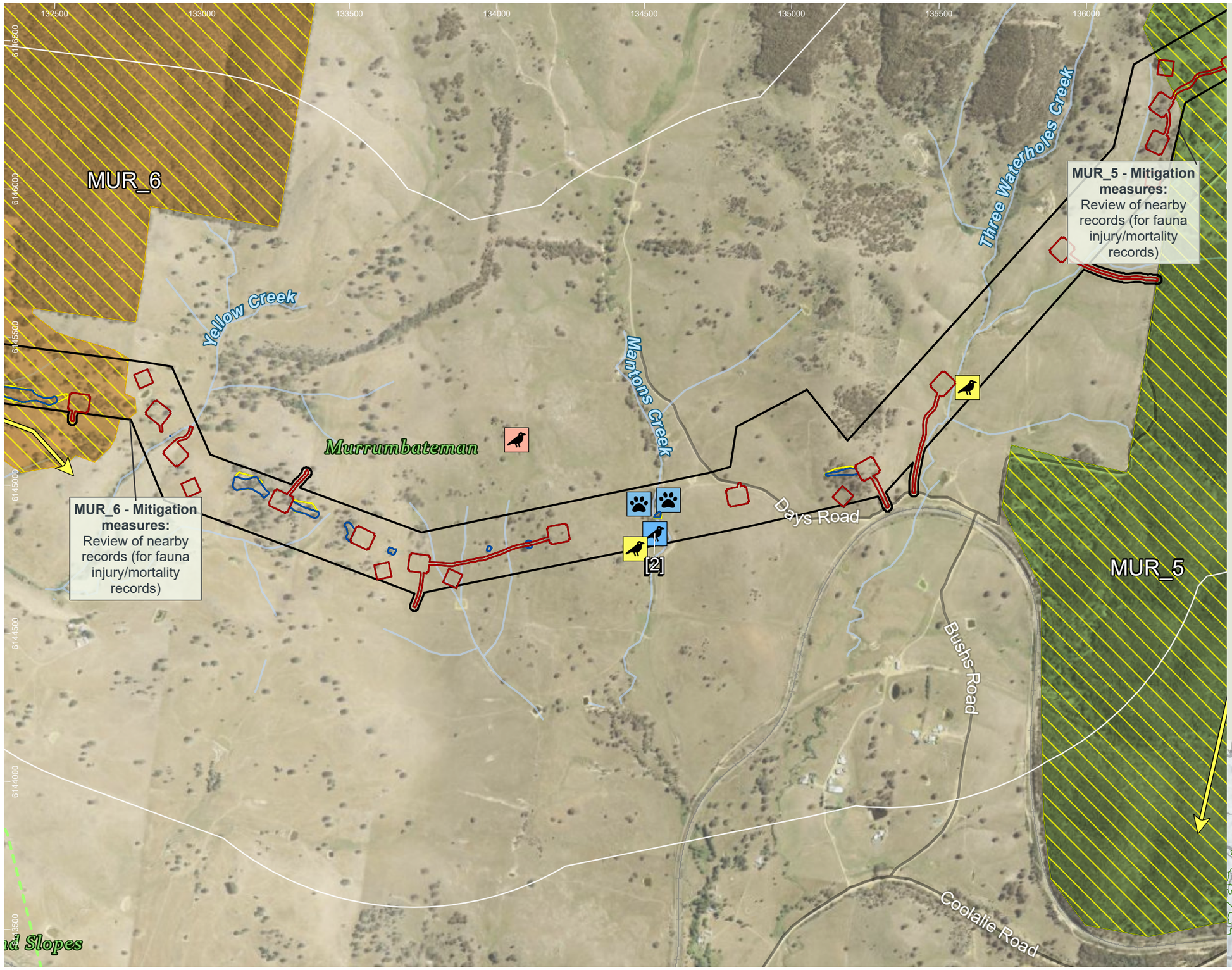
Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

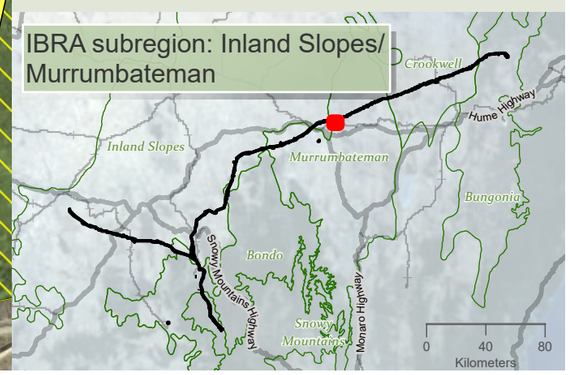
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)
- Spotted Harrier (Circus assimilis) (1)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 76

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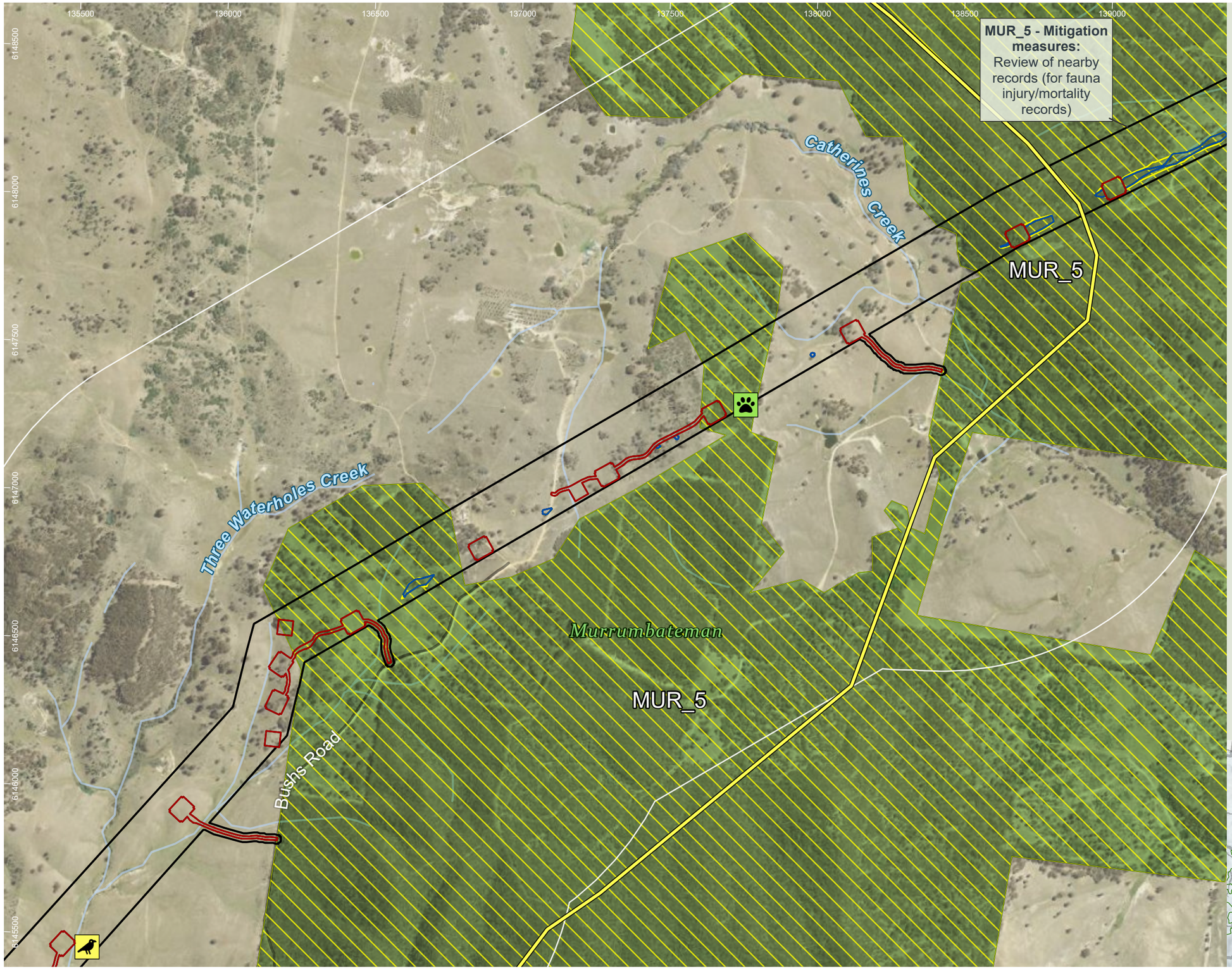
Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- High

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

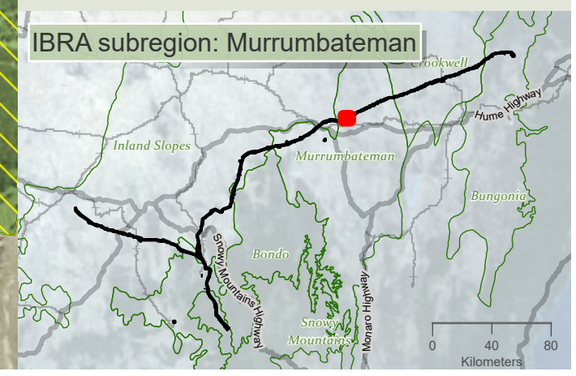
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)

Mammalia

- Eastern Pygmy-possum (Cercartetus nanus) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 77

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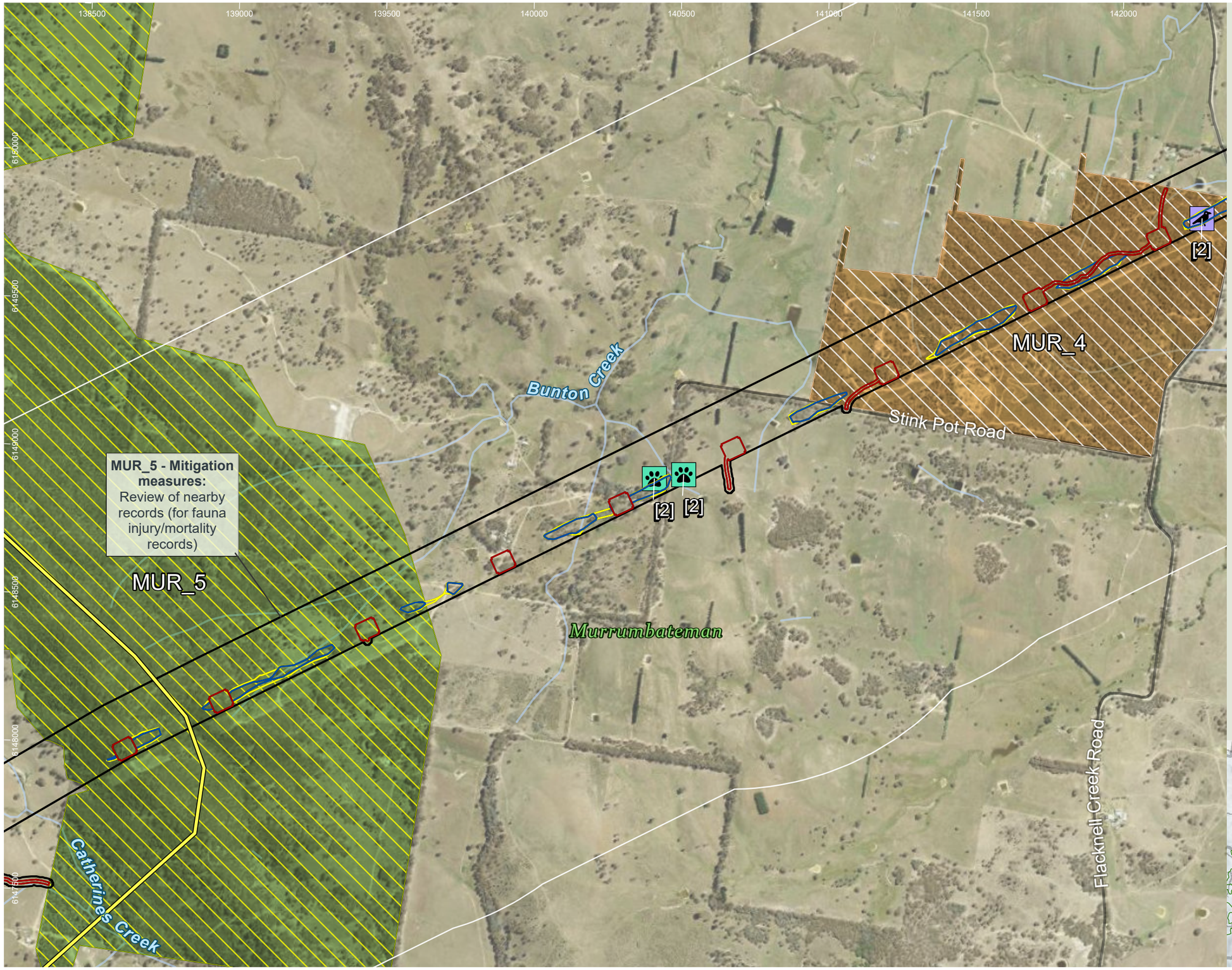


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Moderate

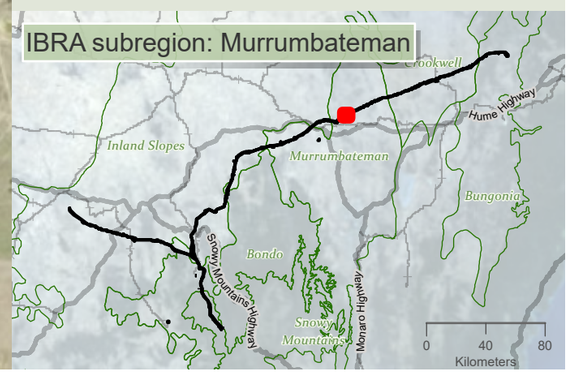
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 78

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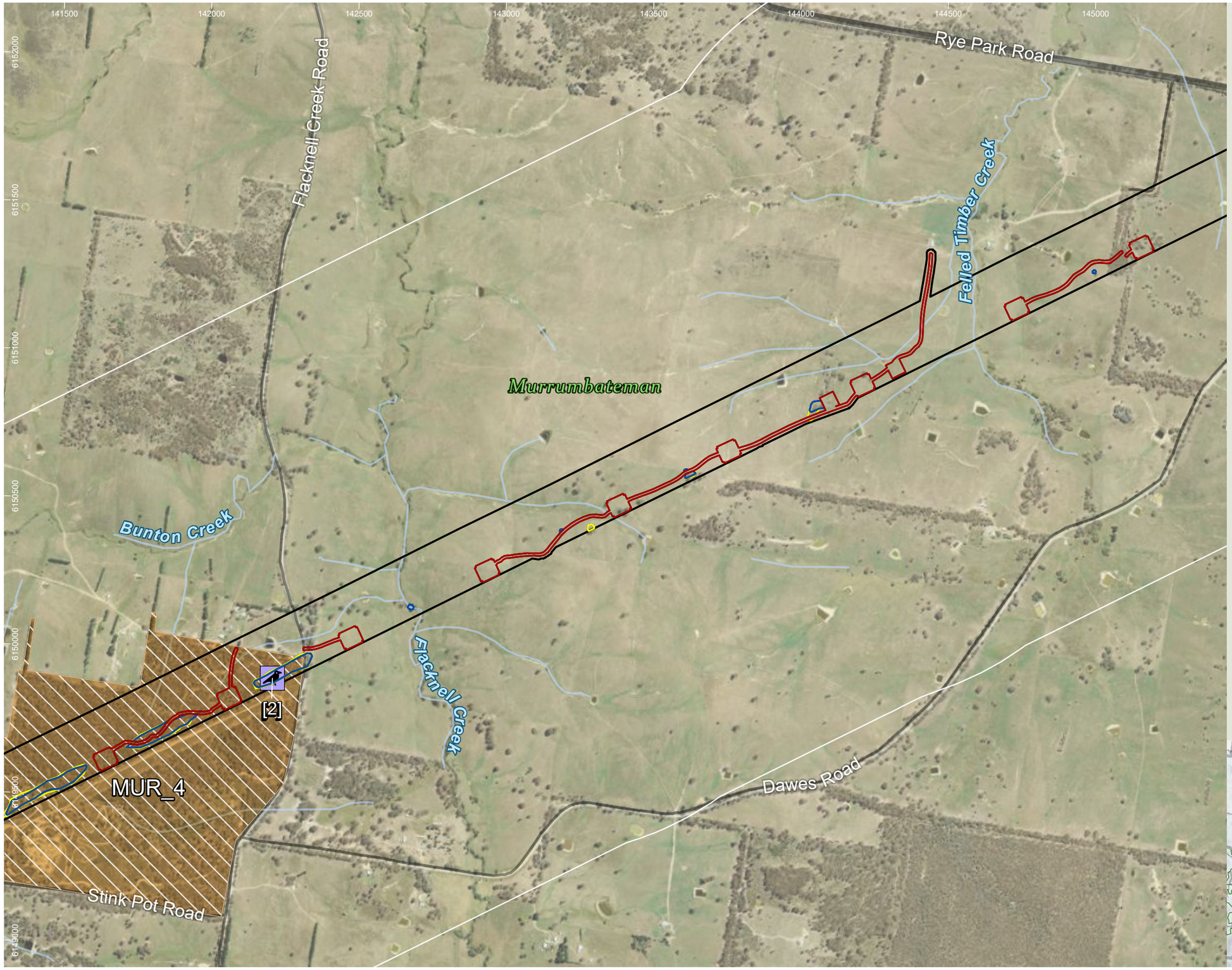


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

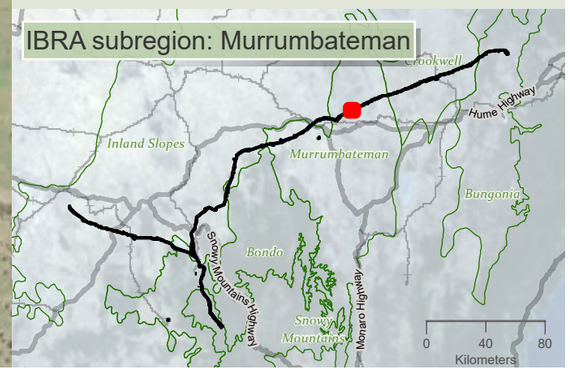
Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 79

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151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

MUR_3 - Mitigation measures: Investigation into appropriate detterent devices are recommended

MUR_3

MUR_2

Merrill Creek

Lachlan River

Murrumbateman

Dowlings Creek

Sams Creek

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides) (1)
- White-bellied Sea-Eagle (Haliaeetus leucogaster) (1)

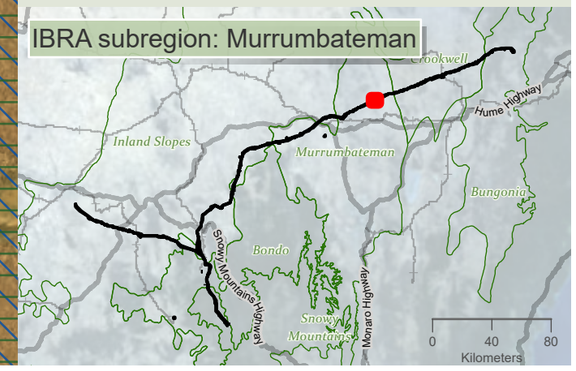
Mammalia

- Eastern Pygmy-possum (Cercartetus nanus) (1)
- Squirrel Glider (Petaurus norfolcensis) (2)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Diamond Firetail (Stagonopleura guttata) (2)
- Flame Robin (Petroica phoenicea) (1)
- Scarlet Robin (Petroica boodang) (2)
- Speckled Warbler (Chthonicola sagittata) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 82

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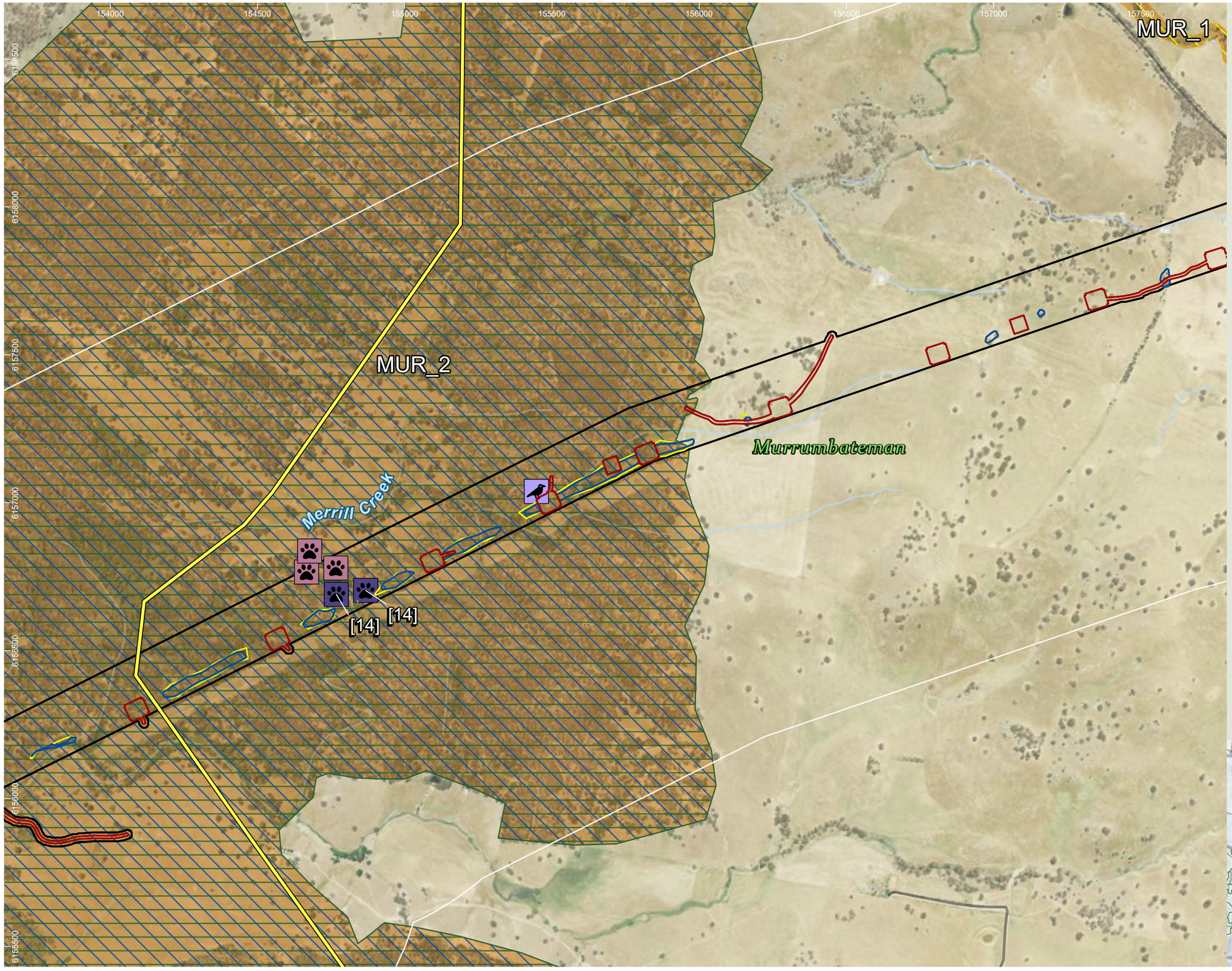


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- Moderate

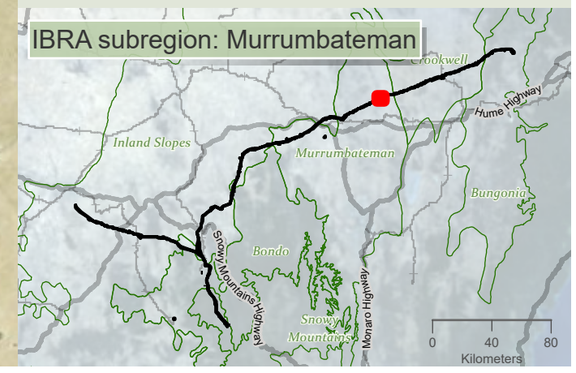
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera) (1)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (2)
- Squirrel Glider (Petaurus norfolcensis) (3)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 83

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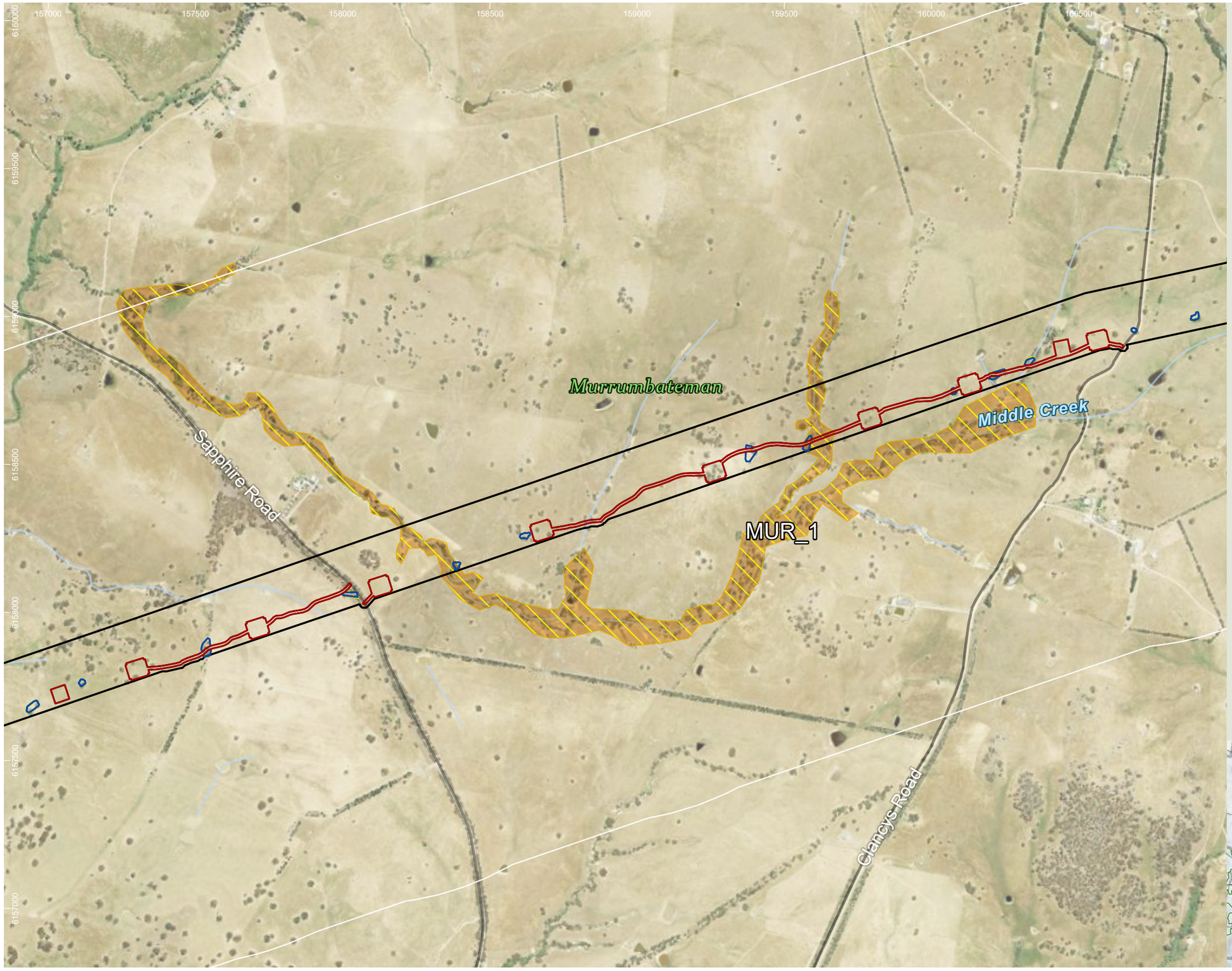
Drawn by: MatthewZajaczkowski; Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

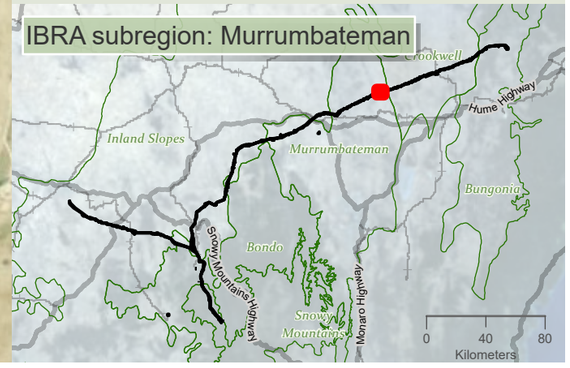
- Moderate

Fauna corridors - existing connectivity

- Moderate

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Superb Parrot (Polytelis swainsonii) (1)



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 84

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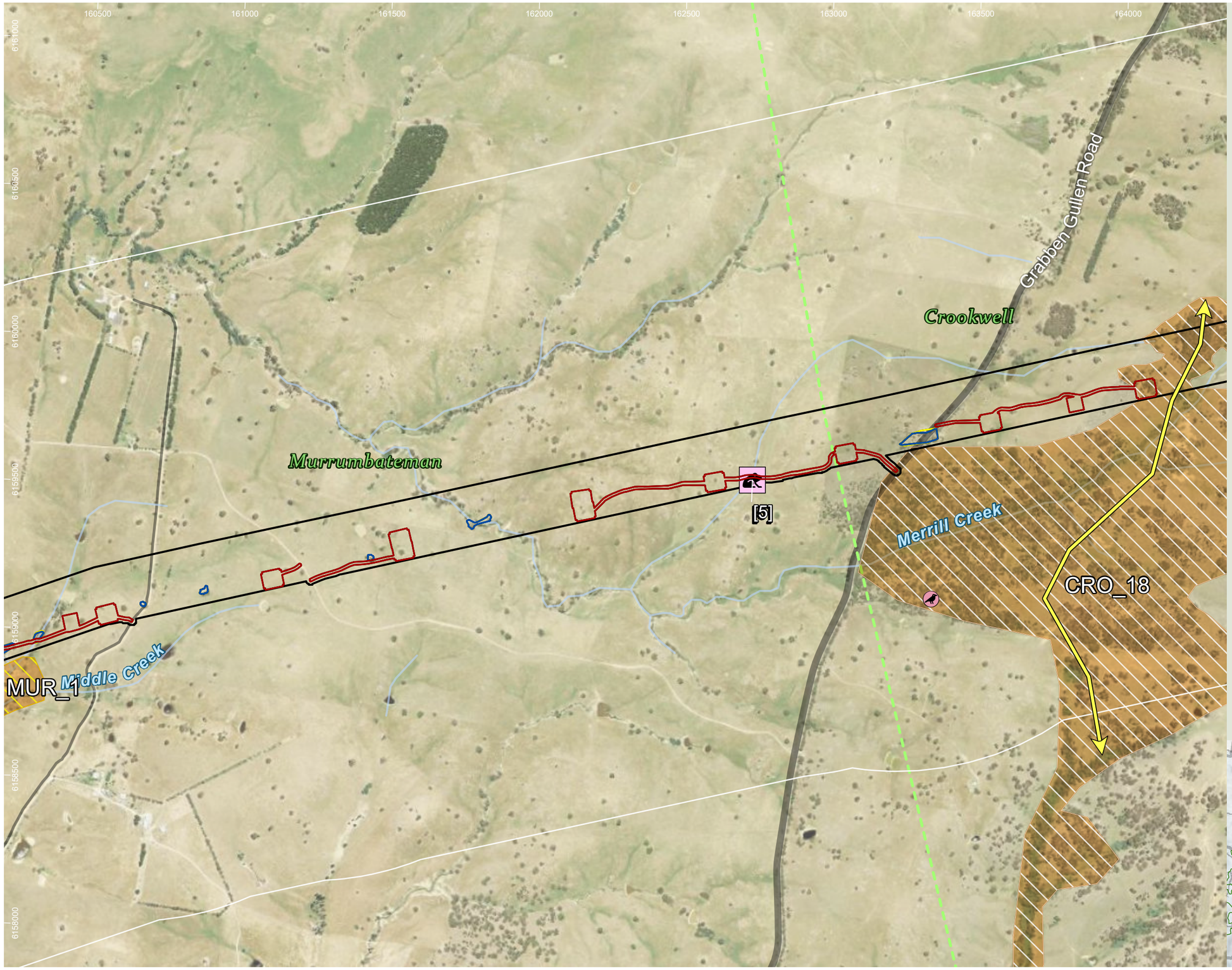


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

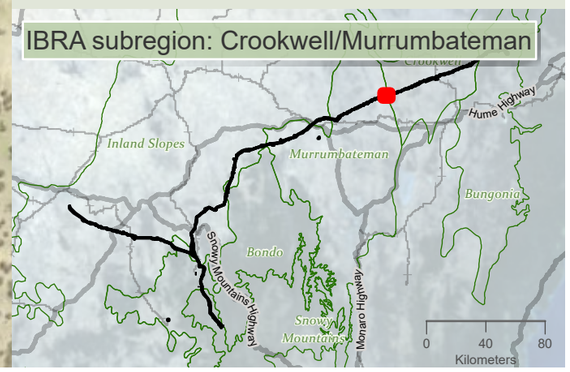
Amphibia

- Verreaux's Frog (Litoria verreauxii) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Speckled Warbler (Chthonicola sagittata) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 85

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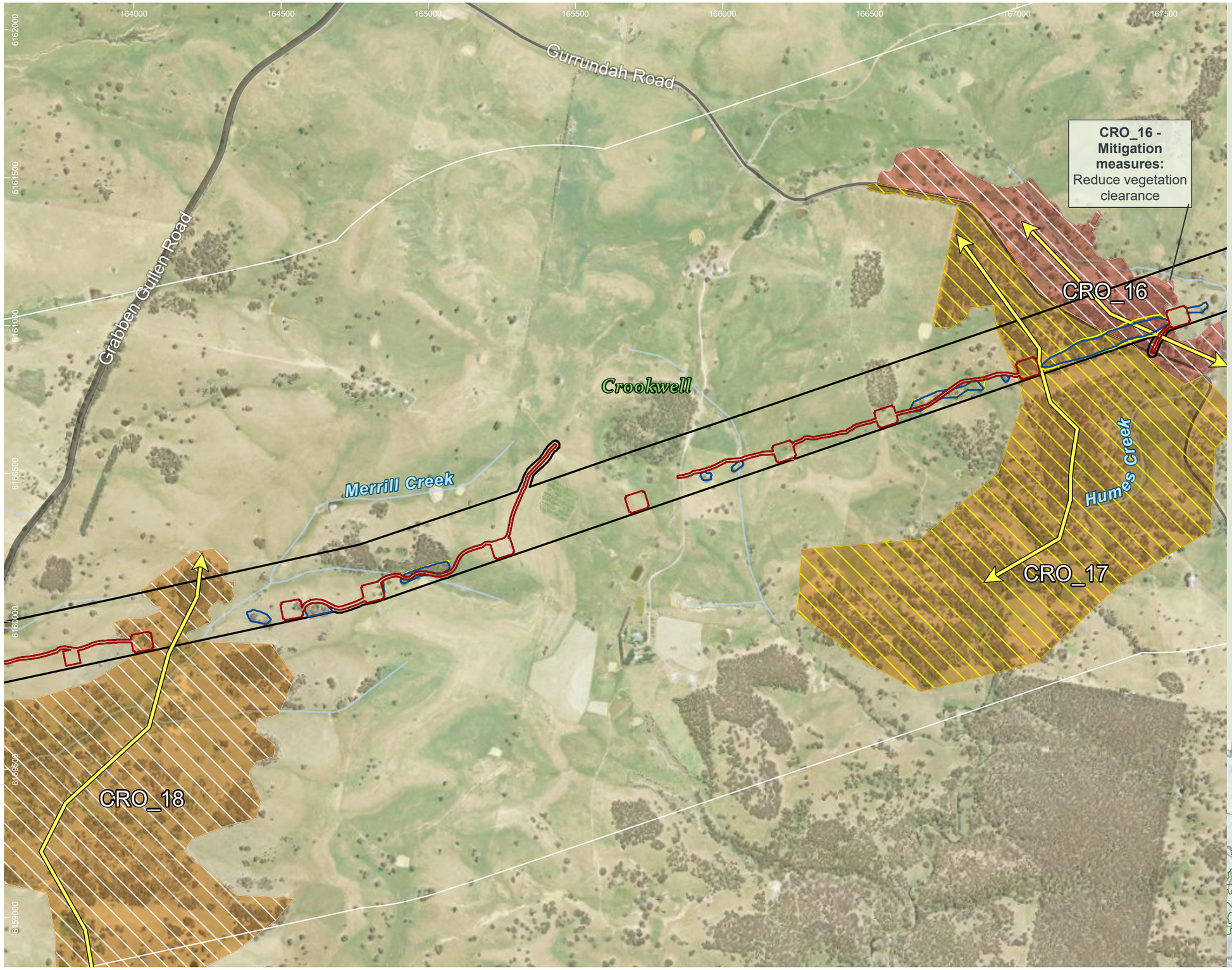
mpact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part C.aprx - Confidential



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

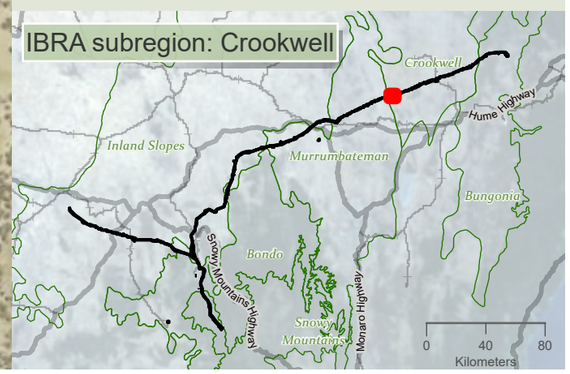
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 86

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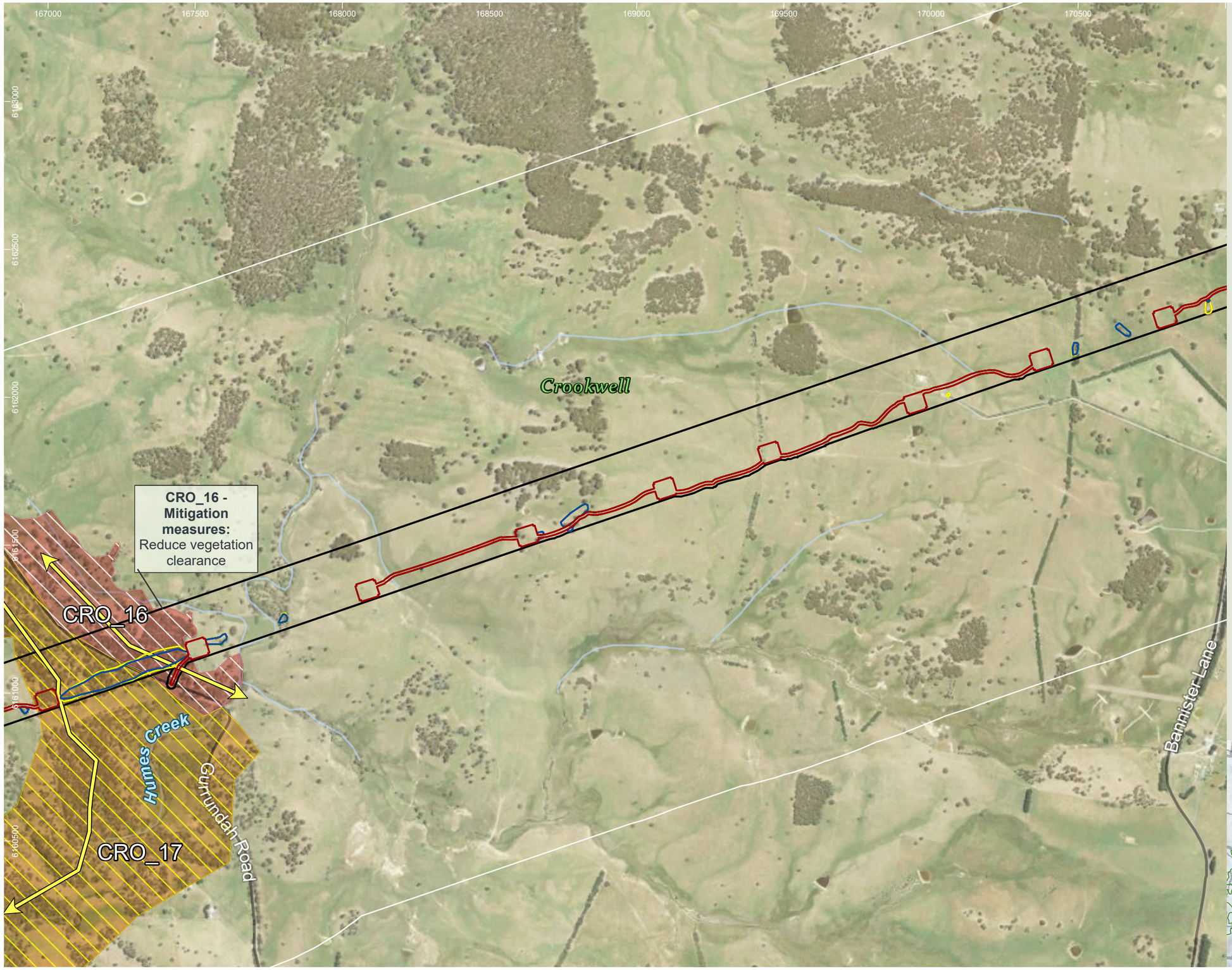


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

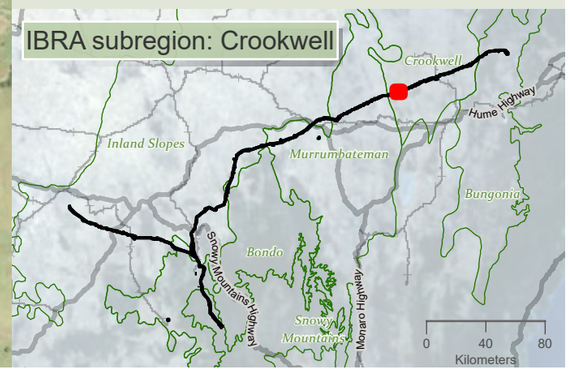
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate
- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 87

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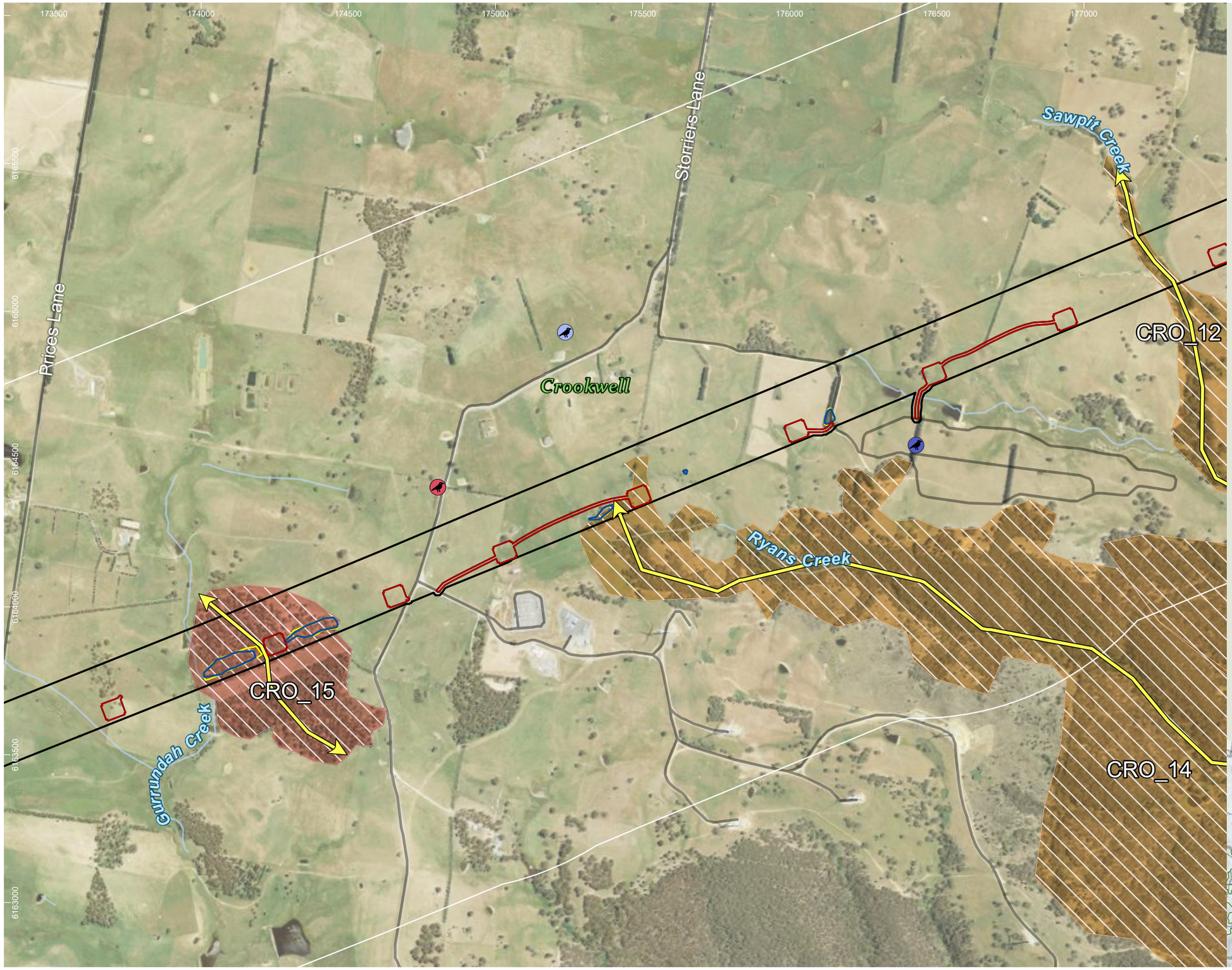


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

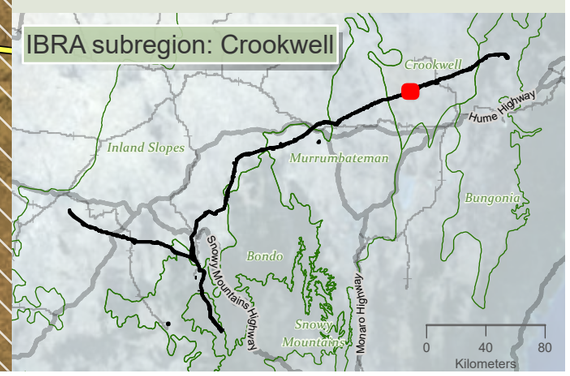
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Little Eagle (Hieraaetus morphnoides) (1)
- Scarlet Robin (Petroica boodang) (2)



Drawn by: MatthewZajaczkowski Last updated: 1/08/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\arcgis\6699_Humelink_BDAR_Stage 2 Part C.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 89

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177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

CRO_11_A

CRO_11_B

Kialla Creek

Walkoms Lane

Crookwell

Sawpit Creek

Range Road

CRO_12

CRO_14

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

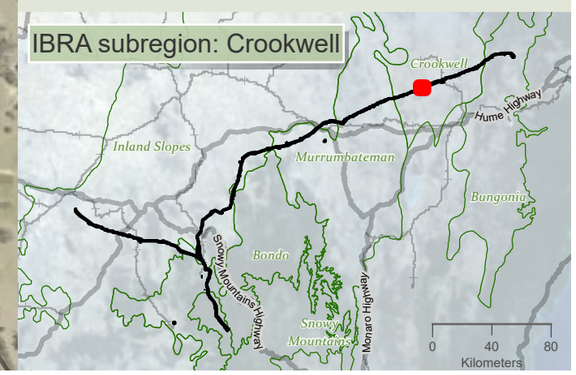
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate
- Low



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 90

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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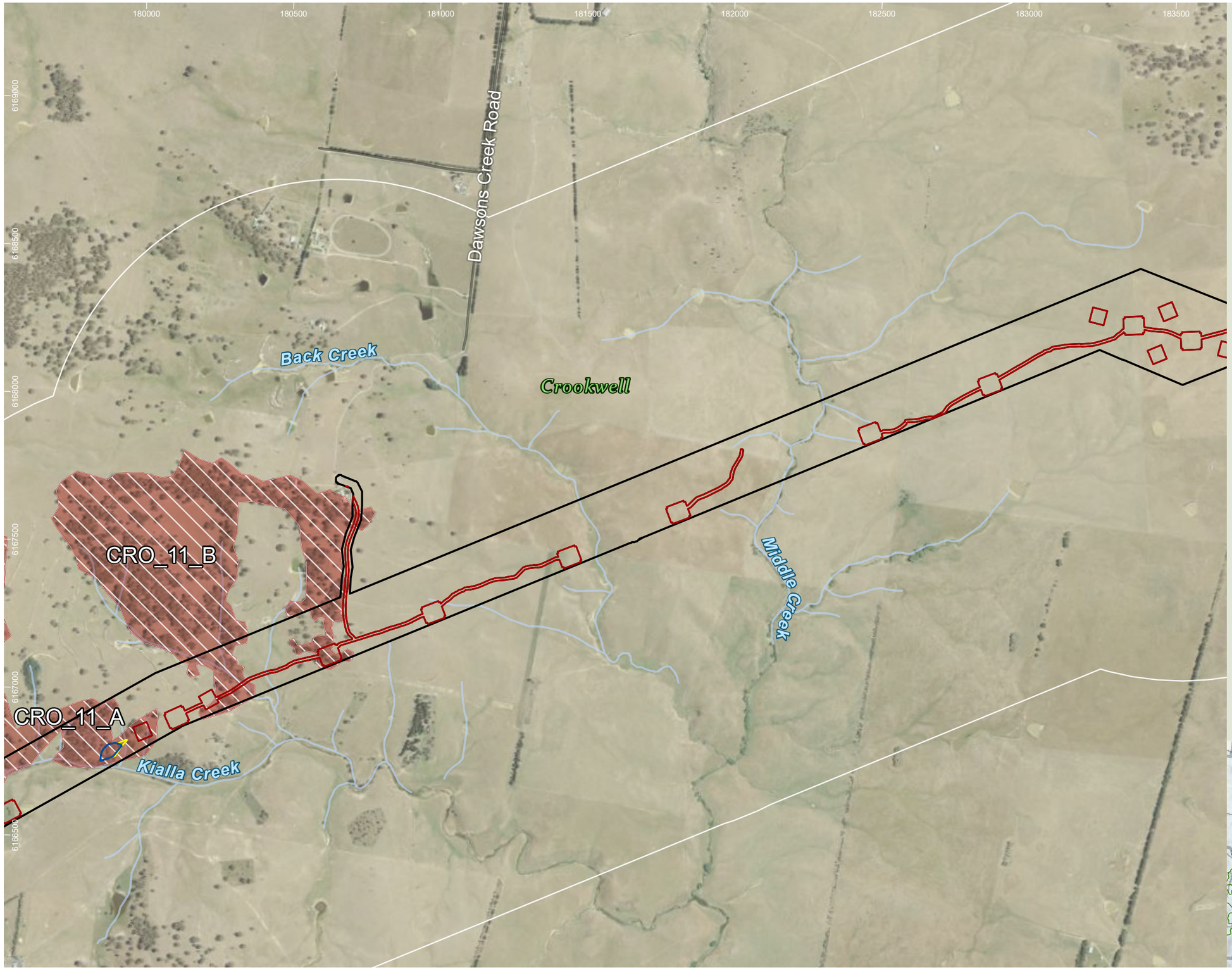


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

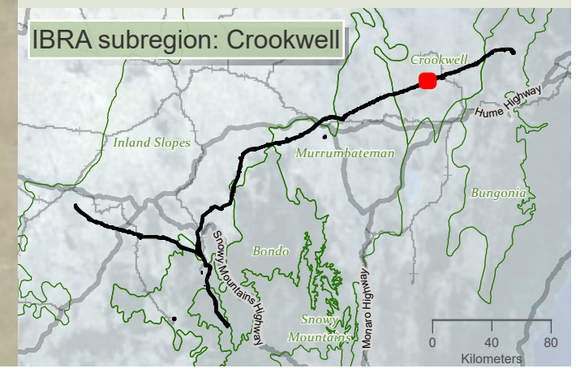
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 91

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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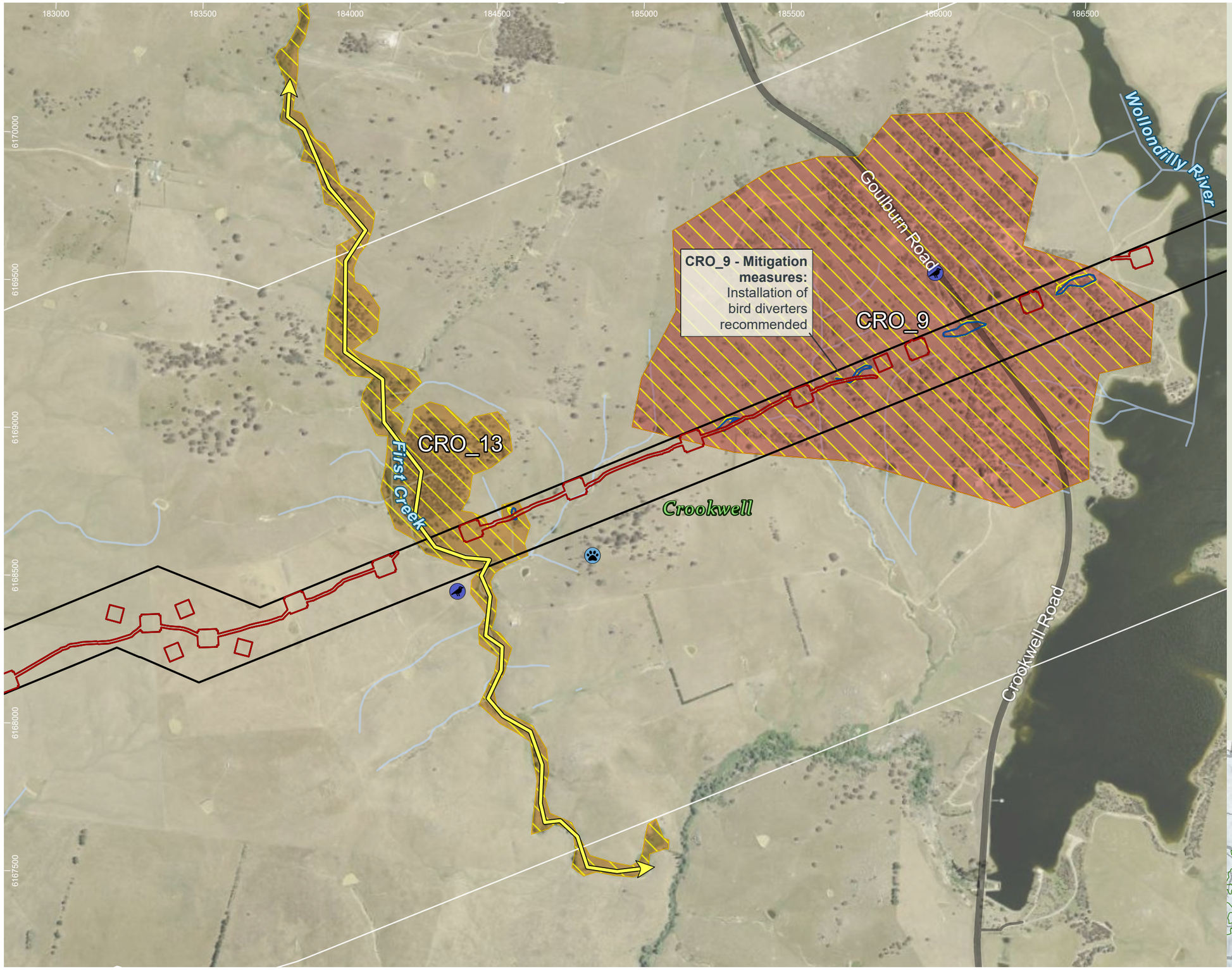


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate
- Low

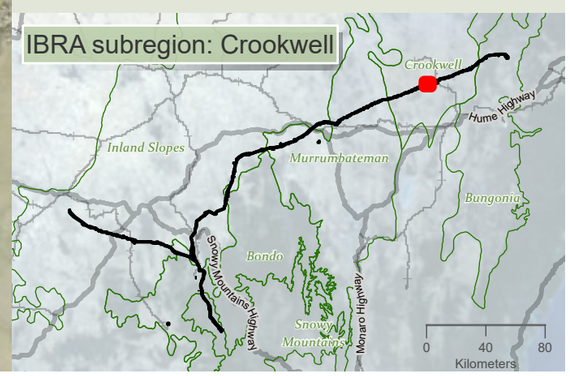
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (2)

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 92

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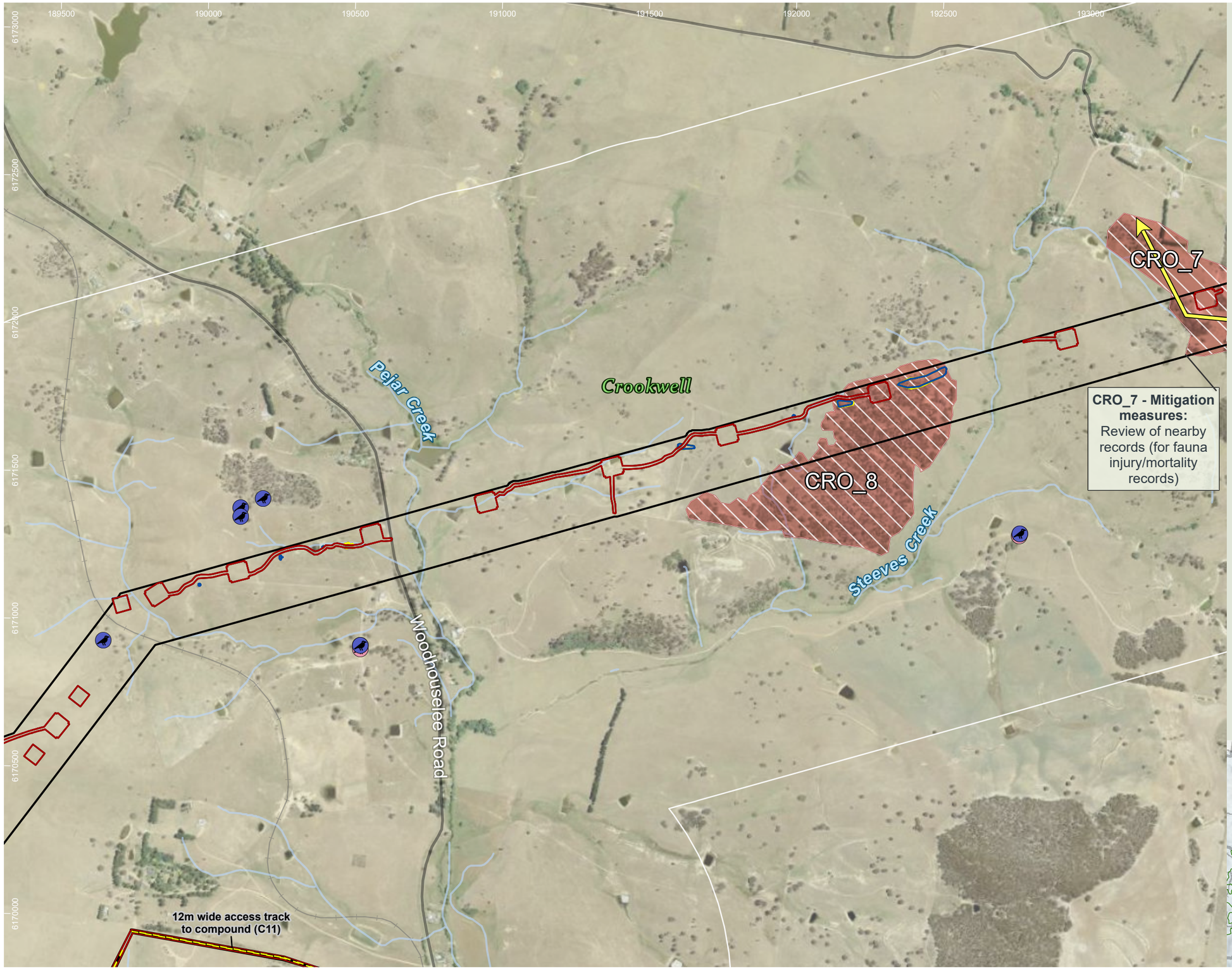


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Rail
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Low

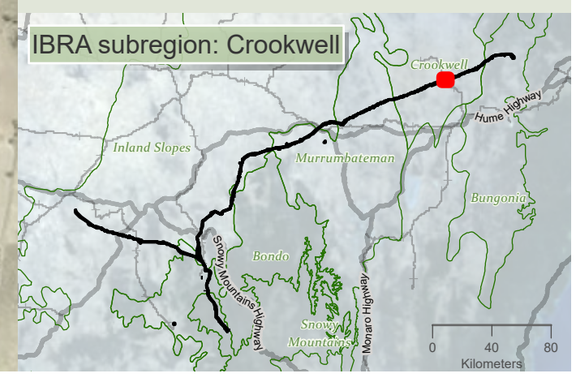
Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (6)
- Varied Sittella (Daphoenositta chrysoptera) (4)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 94

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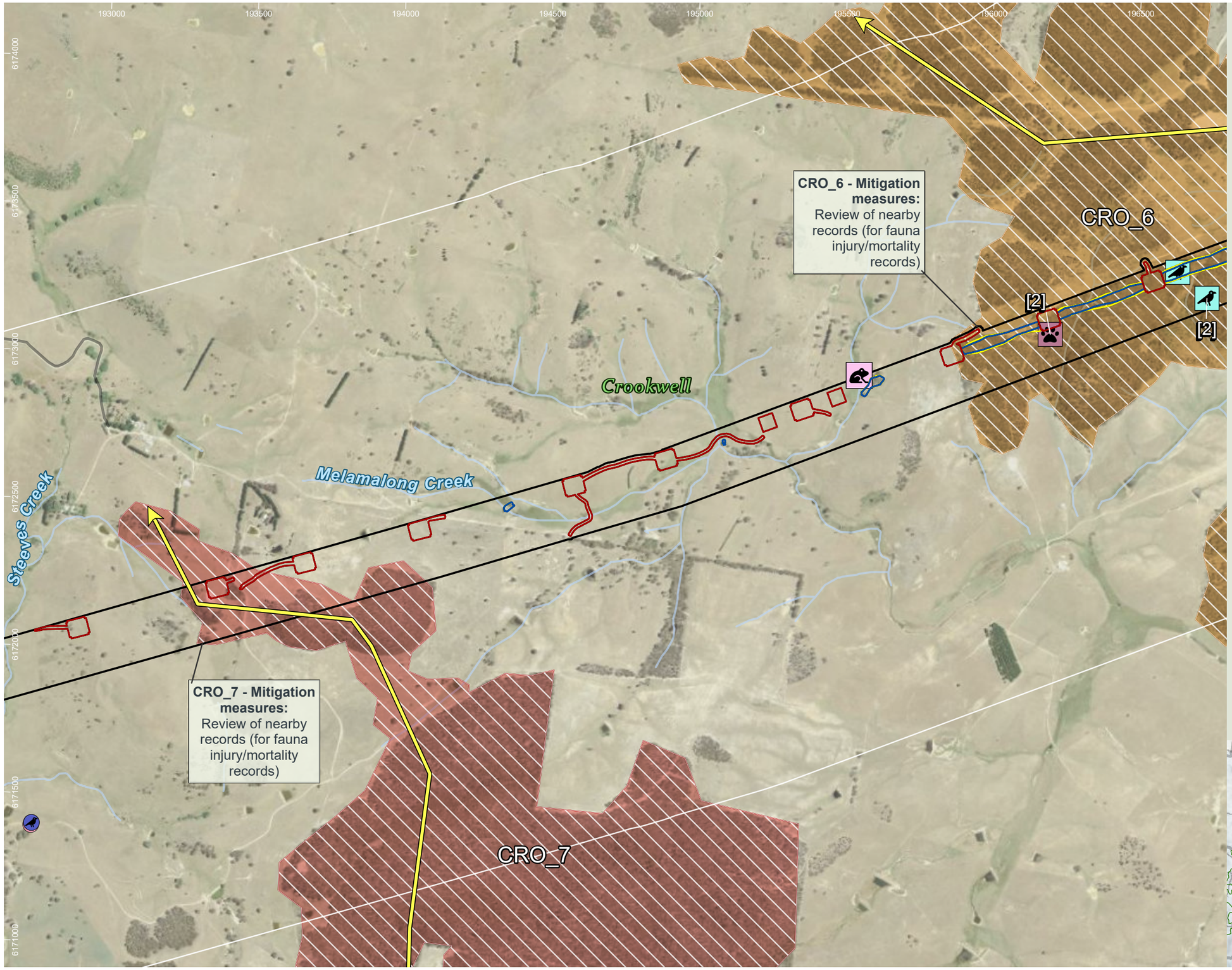


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii) (1)

Aves

- Scarlet Robin (Petroica boodang) (2)

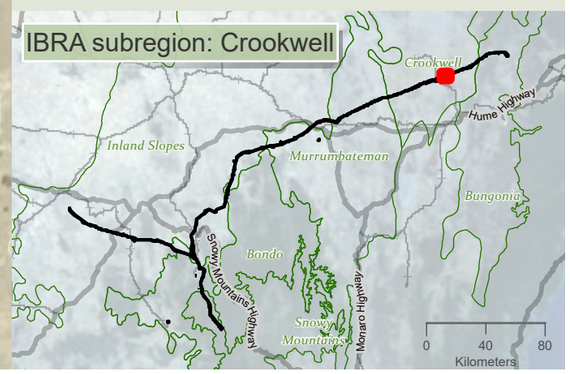
Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Varied Sittella (Daphoenositta chrysoptera) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 95

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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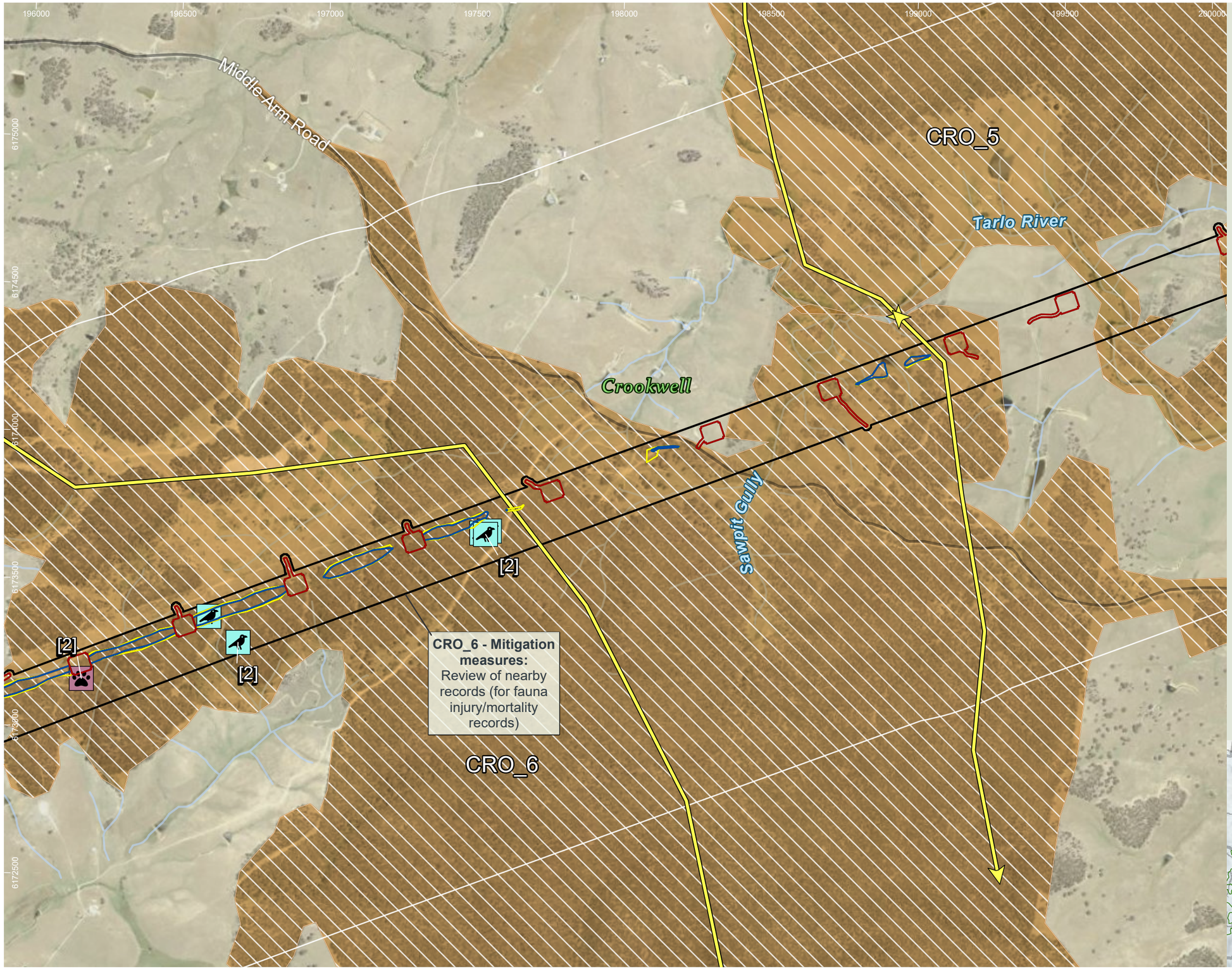


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

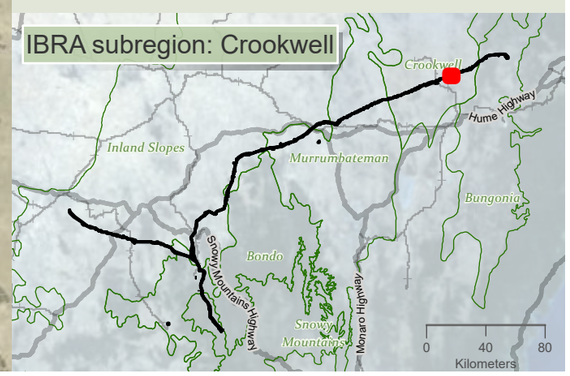
- Scarlet Robin (Petroica boodang) (5)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 96

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199500 200000 200500 201000 201500 202000 202500 203000

6176500 6175000 6174500 6174000 6175000

CRO_4

CRO_5

CRO_3

CRO_2

CRO_6

Crookwell

Rhyanna Road

CRO_4 - Mitigation measures:
Review of nearby records (for fauna injury/mortality records)

CRO_6 - Mitigation measures:
Review of nearby records (for fauna injury/mortality records)

Tarlo River

Twrallo Creek

Back Arm Road

Middle Arm Road

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

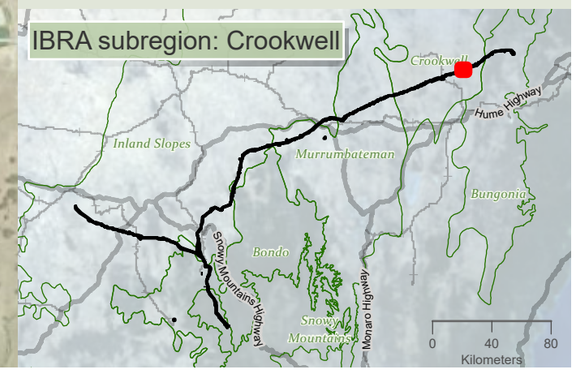
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 97

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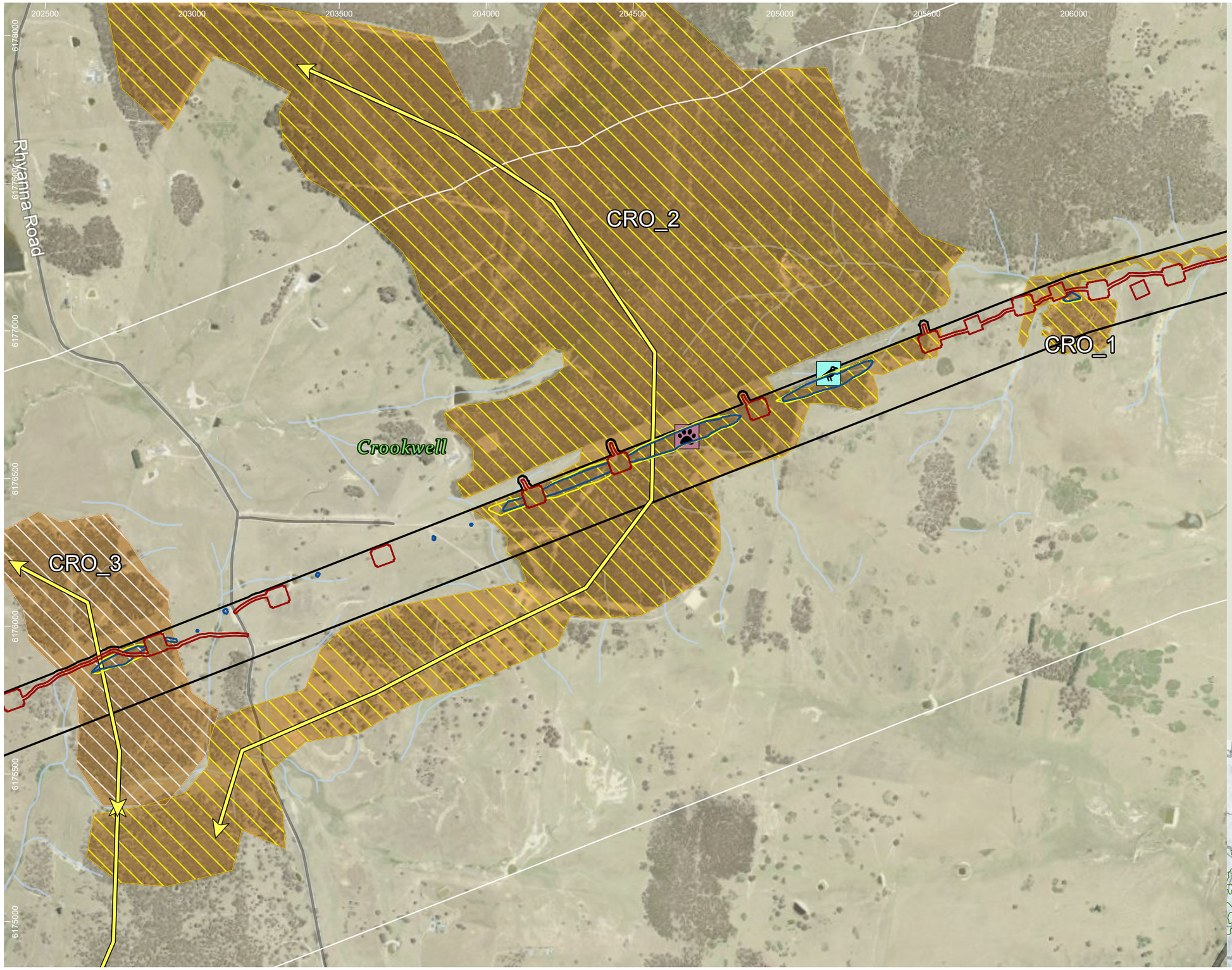


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- Moderate

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

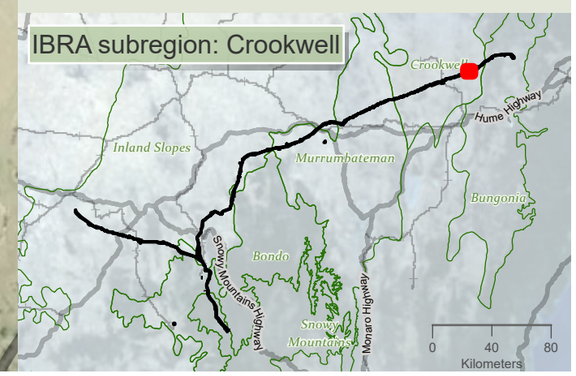
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Squirrel Glider (Petaurus norfolcensis) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 98

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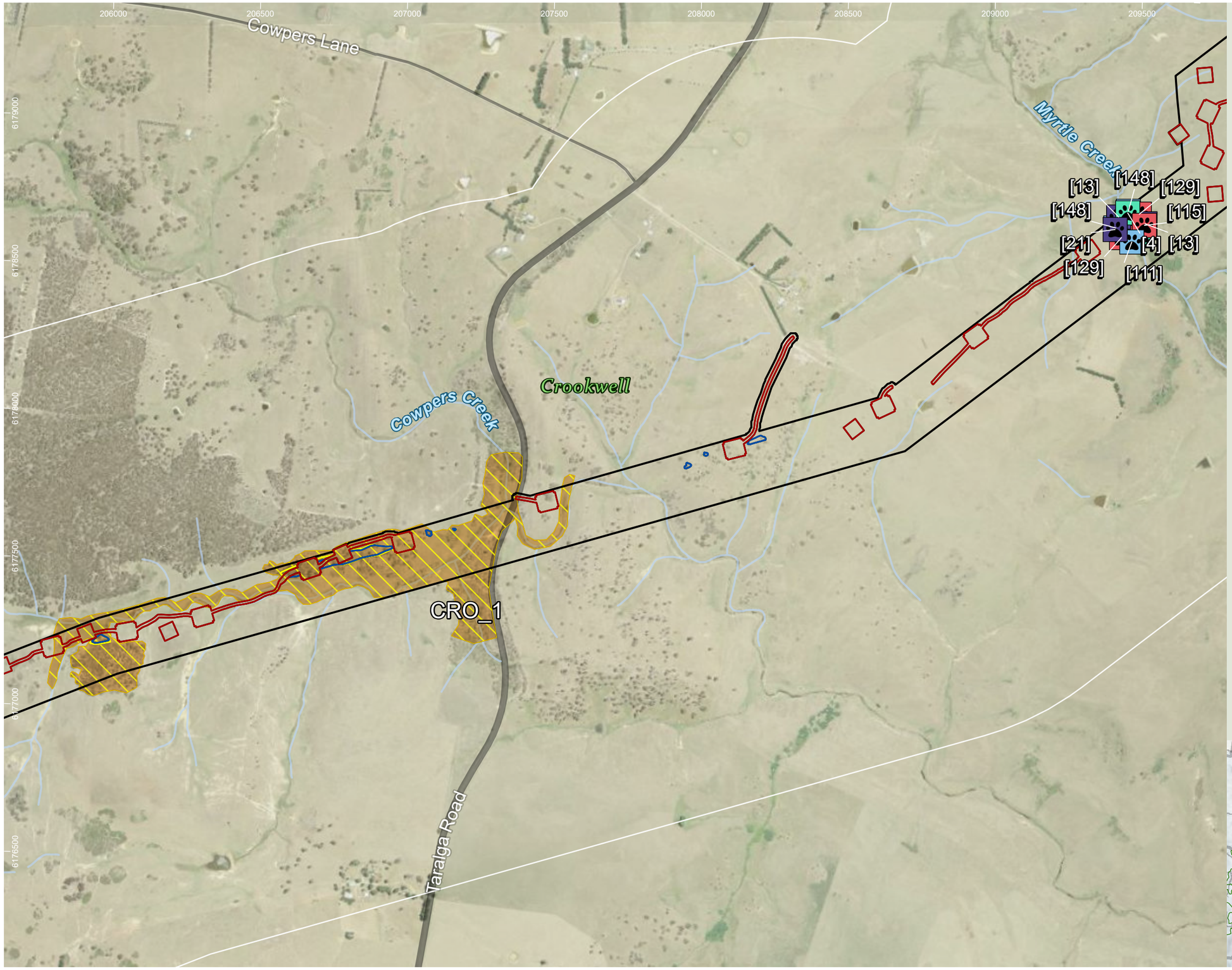


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Major road
- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate

Fauna corridors - existing connectivity

- Moderate

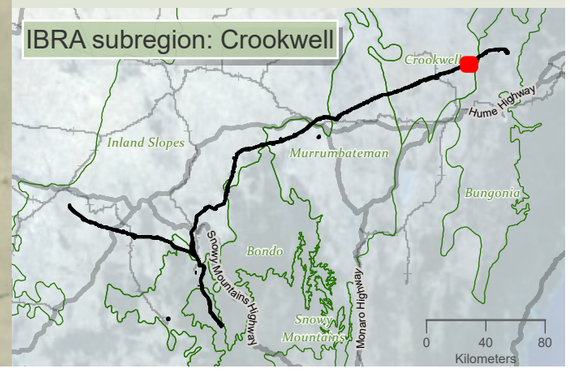
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (3)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (3)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (3)
- Southern Myotis (Myotis macropus) (3)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 99

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211500 212000 212500 213000 213500 214000 214500 215000

6183500 6183000 6182500 6182000 6181500 6181000 6180500

Crookwell

Forest Creek

Bungonia

Hillcrest Road

Cow Horn Creek

BUN_10

HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

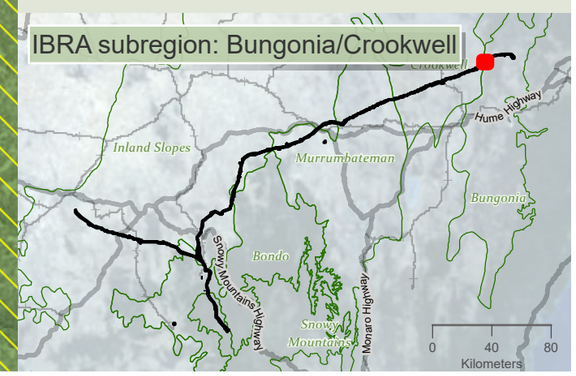
- Moderate

Fauna corridors - existing connectivity

- High

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)
Glossy Black-Cockatoo (Calyptorhynchus lathami) (2)



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 101

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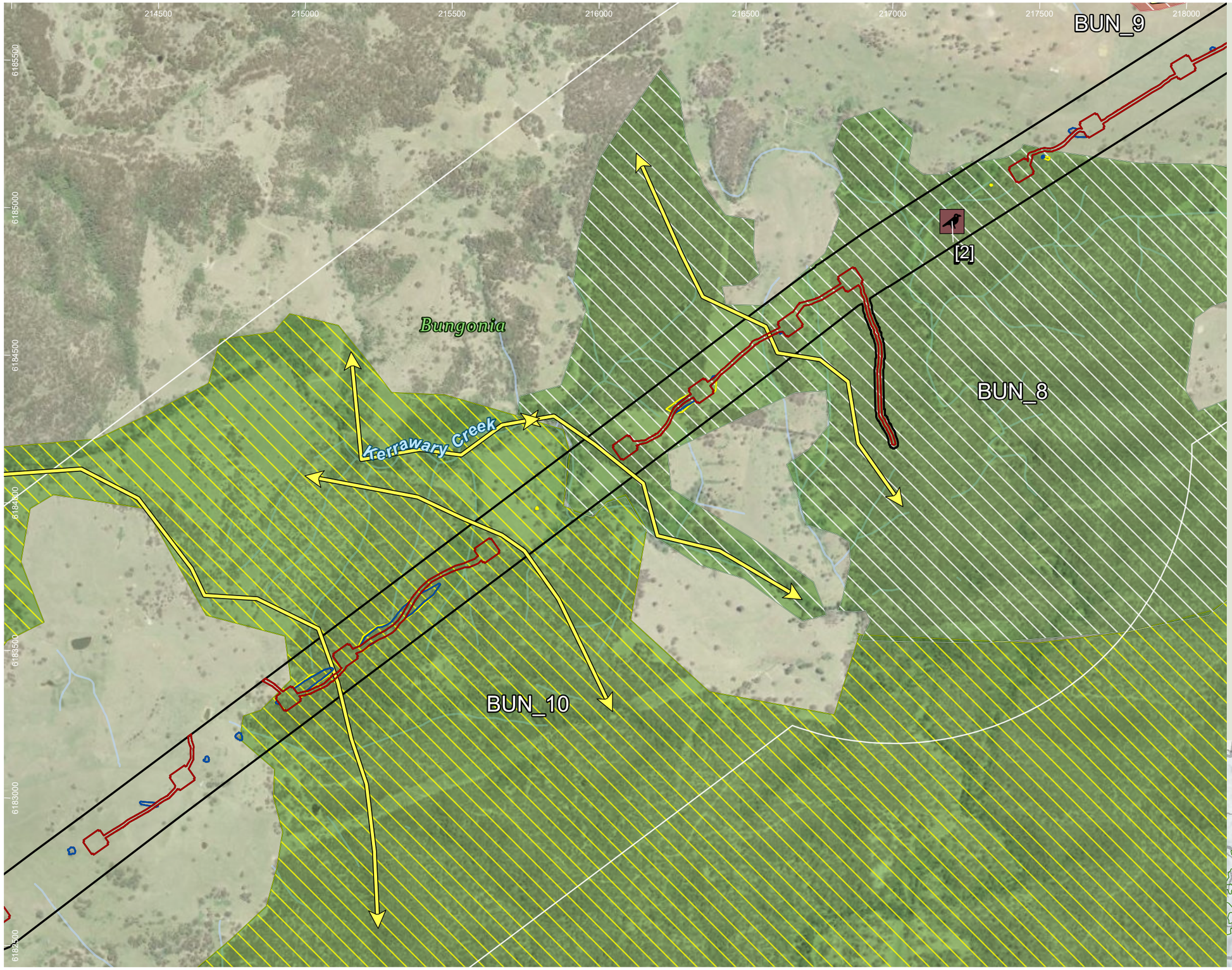


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low

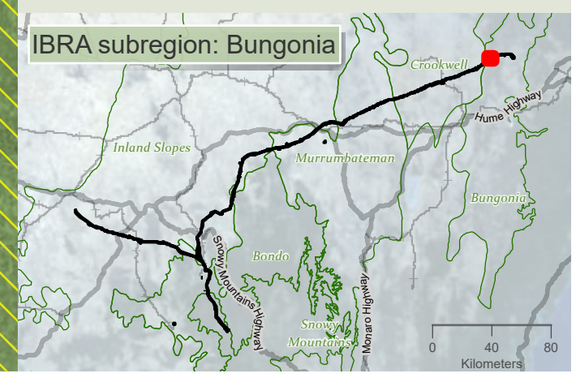
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum) (5)
- Glossy Black-Cockatoo (Calyptorhynchus lathami) (3)
- Powerful Owl (Ninox strenua) (1)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 102

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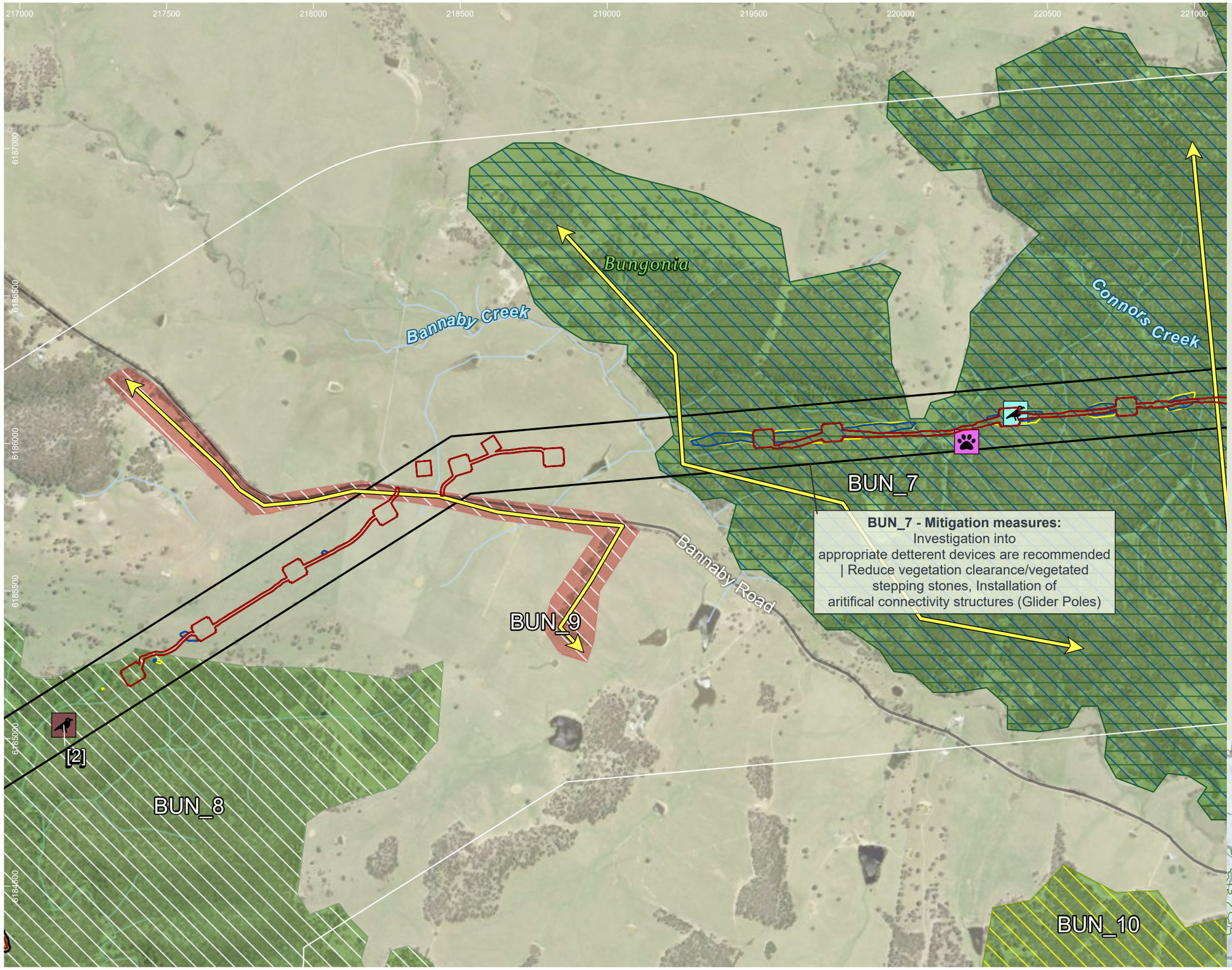


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate
- Low

Fauna corridors - existing connectivity

- High
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Aves

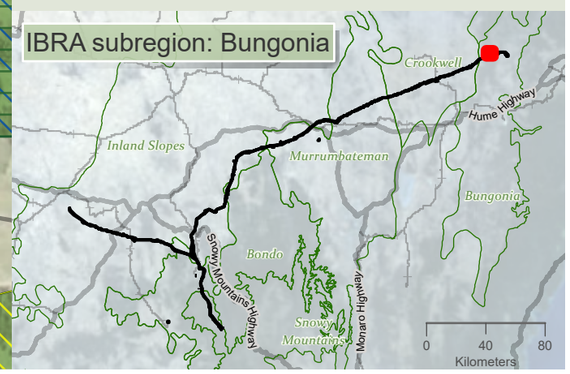
- Flame Robin (Petroica phoenicea) (1)
- Scarlet Robin (Petroica boodang) (1)

Mammalia

- Greater Glider (Petauroides volans) (1)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (2)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 103

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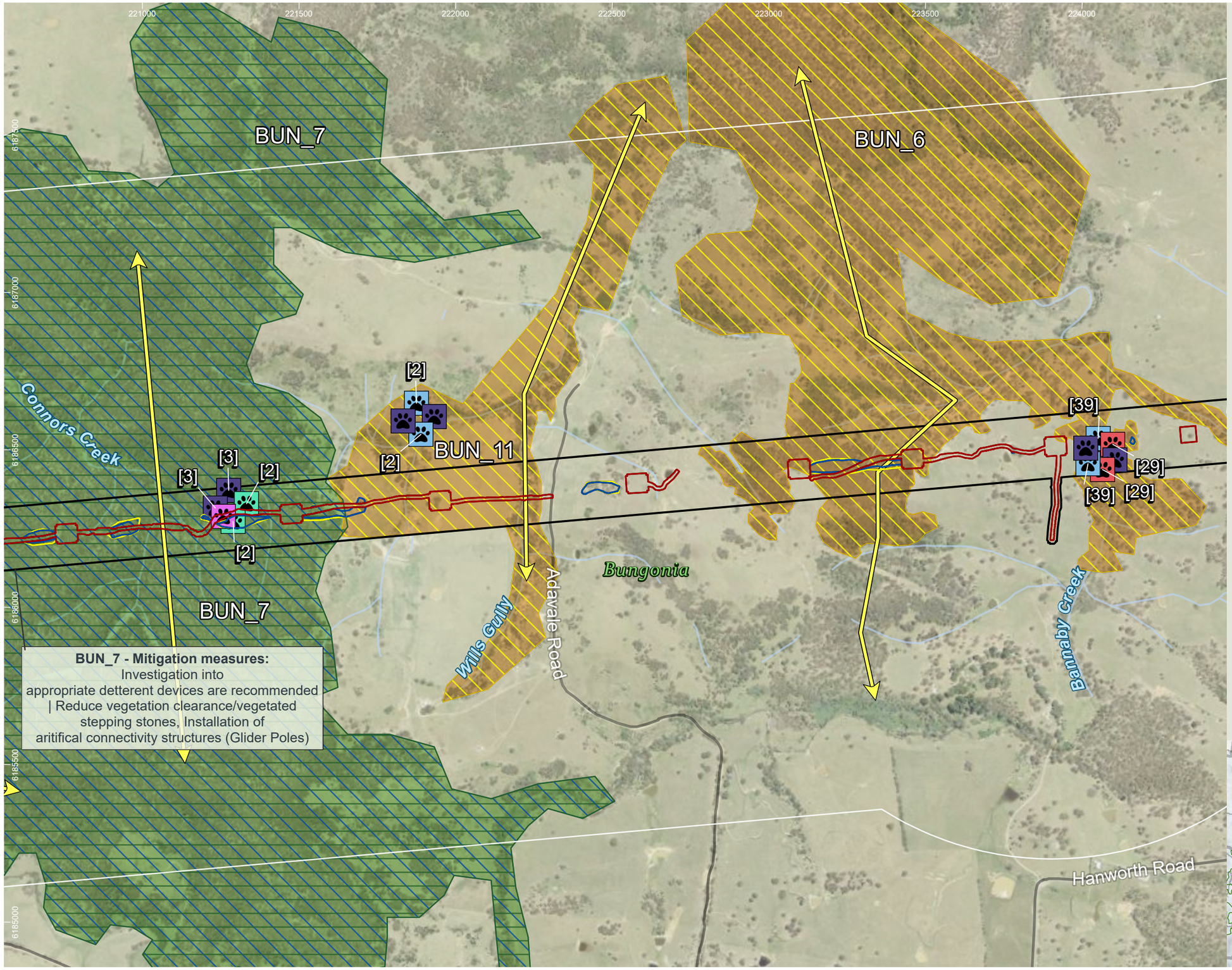


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road
- Fauna connectivity (Arrow heads represent the general pathway for fauna movement in the locality)
- Glider corridor

Fauna corridors – Risk of collision/ entanglement/ electrocution

- High
- Moderate

Fauna corridors - existing connectivity

- High
- Moderate

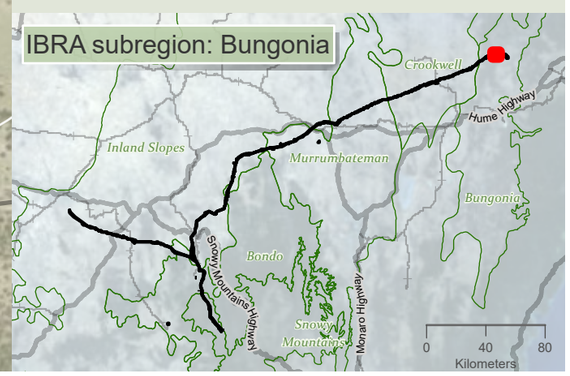
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (4)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (2)
- Greater Glider (Petauroides volans) (1)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (6)
- Southern Myotis (Myotis macropus) (2)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum) (7)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 104

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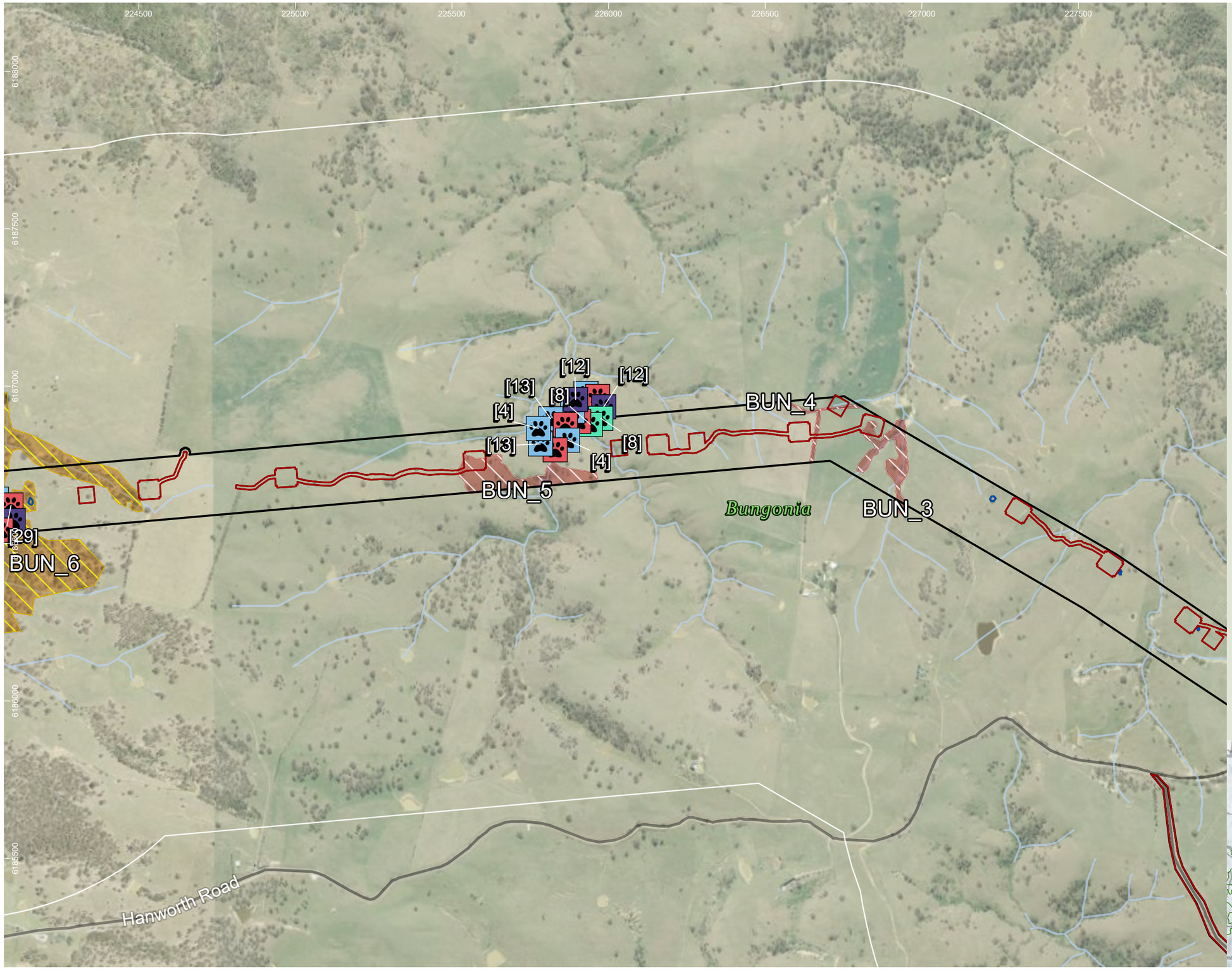


HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Moderate
- Low

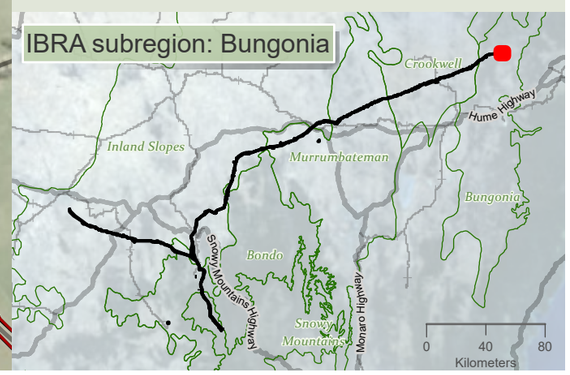
Fauna corridors - existing connectivity

- Moderate
- Low

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis) (7)
- Greater Broad-nosed Bat (Scoteanax rueppellii) (6)
- Large Bent-winged Bat (Miniopterus orianae oceanensis) (3)
- Southern Myotis (Myotis macropus) (2)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 105

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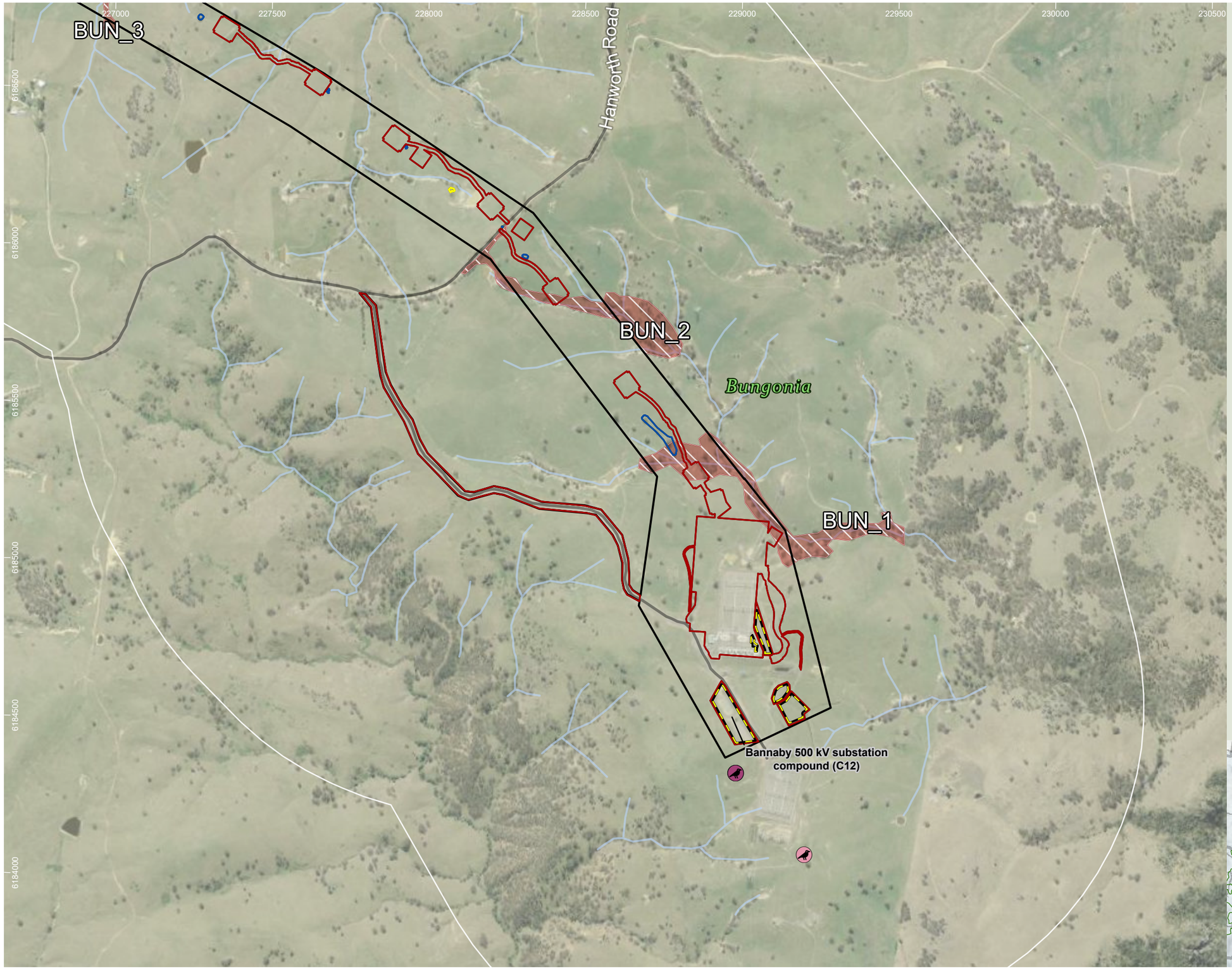
Impact assessment SEC-EXT - BDAR_v2\s6699_Humelink_BDAR_Stage 2 Part C - Confidential



HumeLink project areas

- Project footprint
- 1km connectivity assessment boundary
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Fauna corridors – Risk of collision/ entanglement/ electrocution

- Low

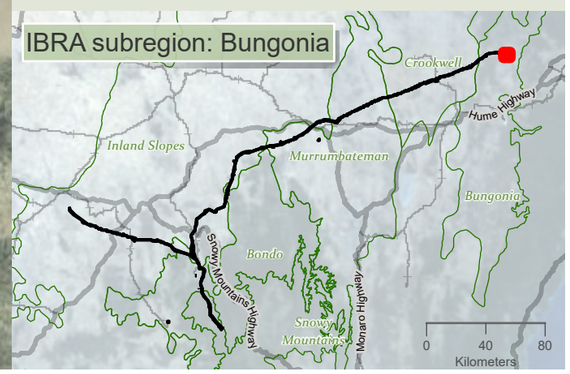
Fauna corridors - existing connectivity

- Low

Threatened fauna species - Bionet Atlas results, 2022 (no. of records)

Aves

- Black Falcon (Falco subniger) (1)
- Diamond Firetail (Stagonopleura guttata) (1)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus) (1)
- Varied Sittella (Daphoenositta chrysoptera) (1)



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0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Terrestrial connectivity impacts - collision, entanglement and electrocution

HumeLink BDAR

Figure 13-16 map reference 106

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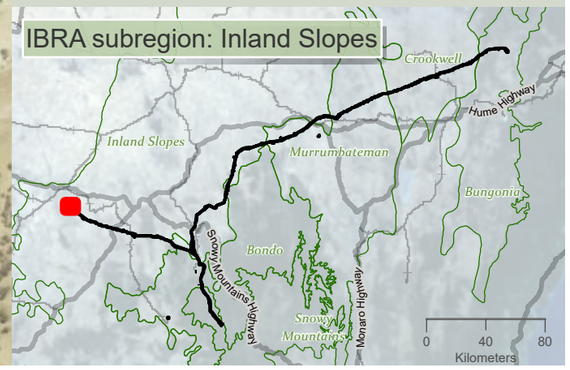
Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 1

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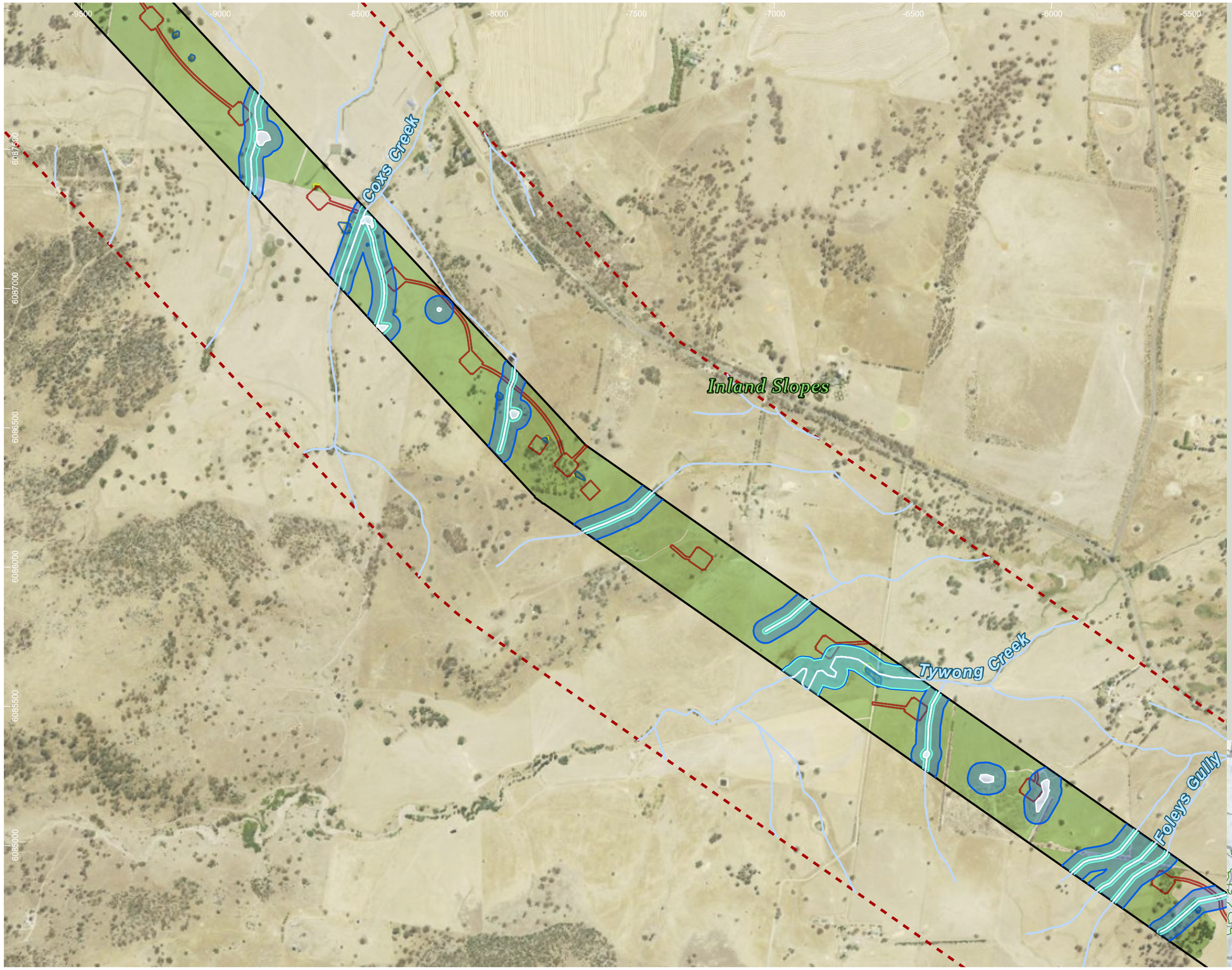
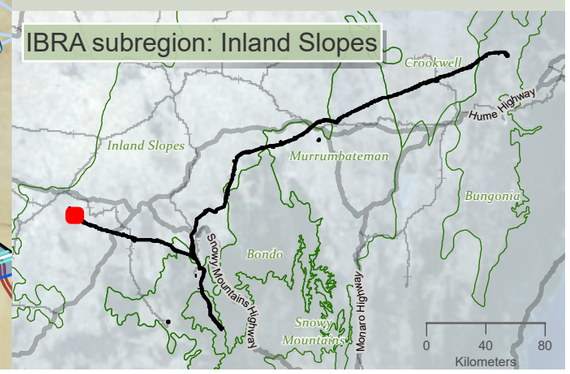


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 2

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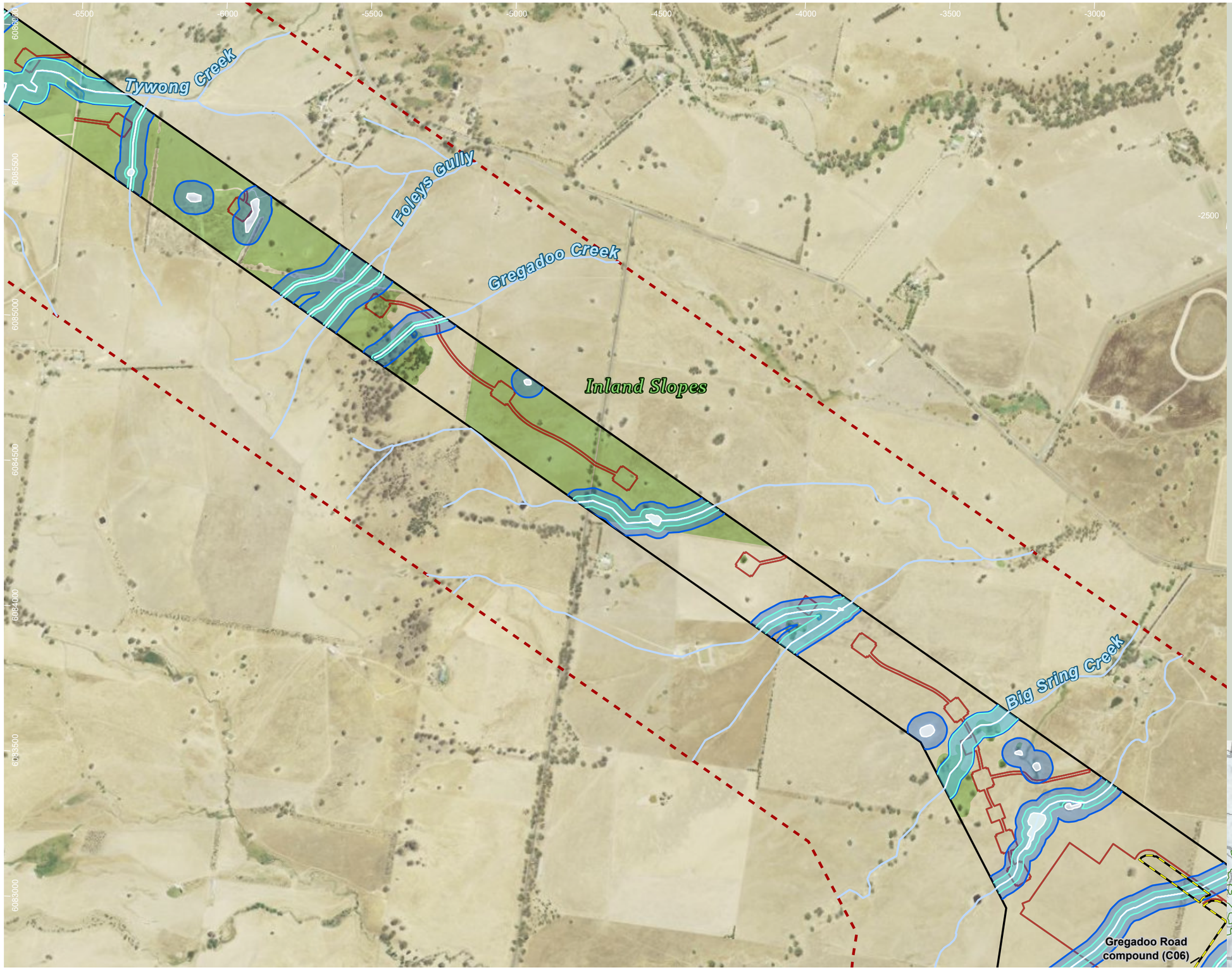
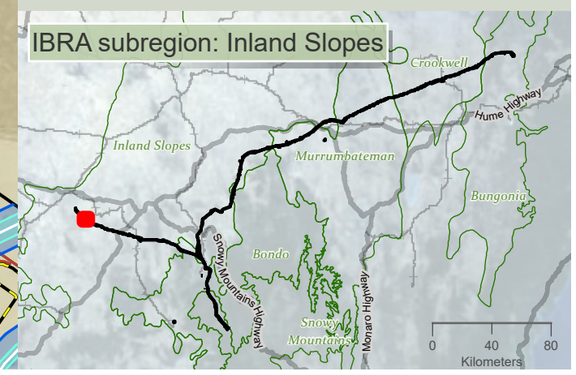


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 3

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-3500 -3000 -2500 -2000 -1500 -1000 -500 0

6084000 6083500 6083000 6082500 6082000 6081500 6081000

Big Sring Creek

Inland Slopes

Gregadoo Road compound (C06)

5

O'briens Creek

Humelink project areas

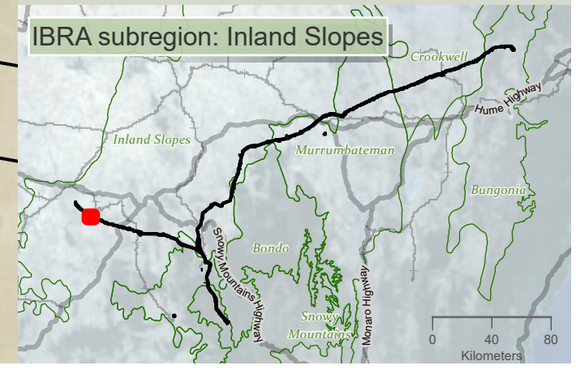
- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 4

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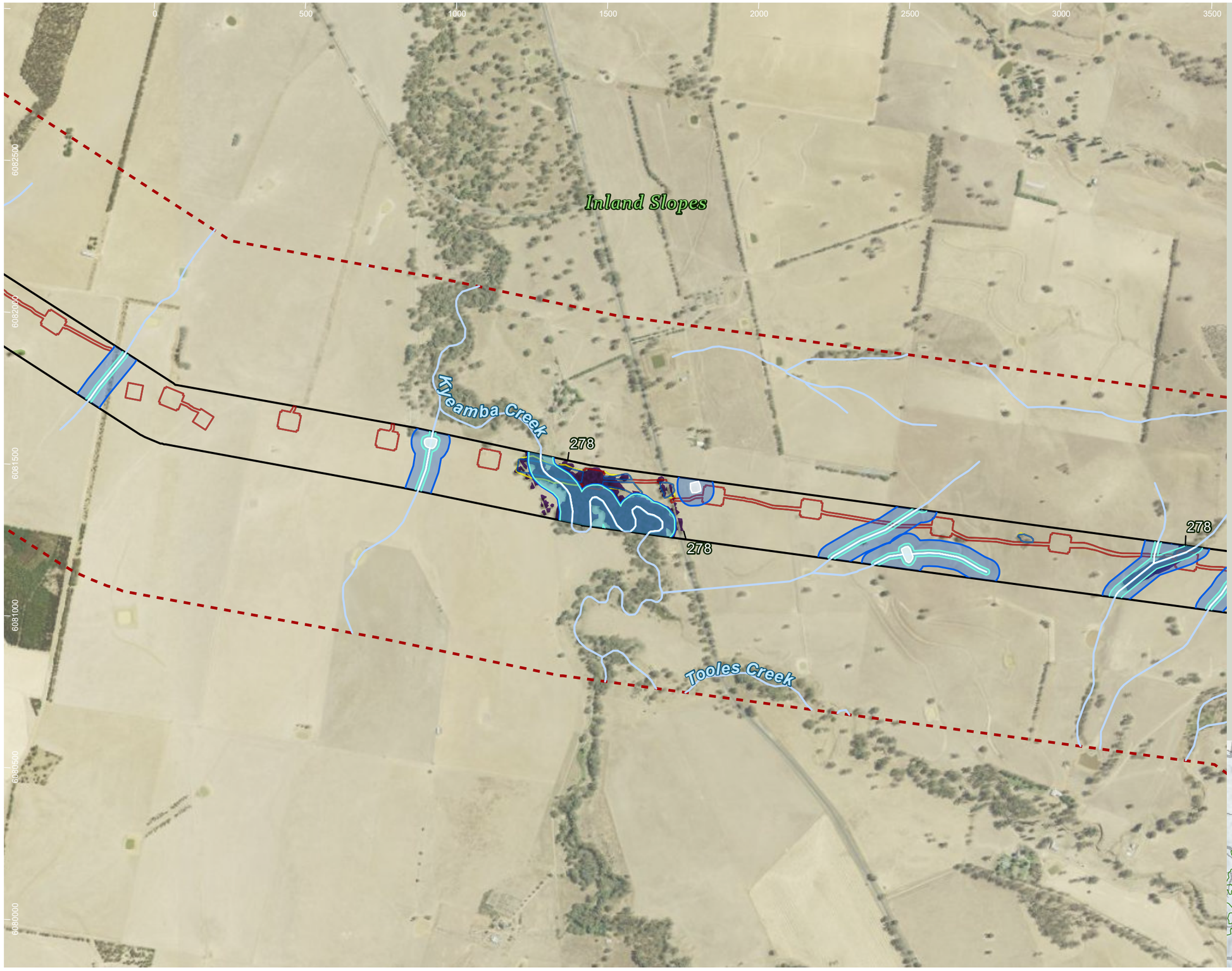


Humelink project areas

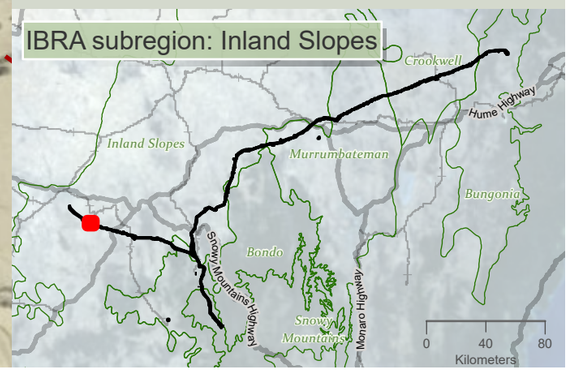
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 5

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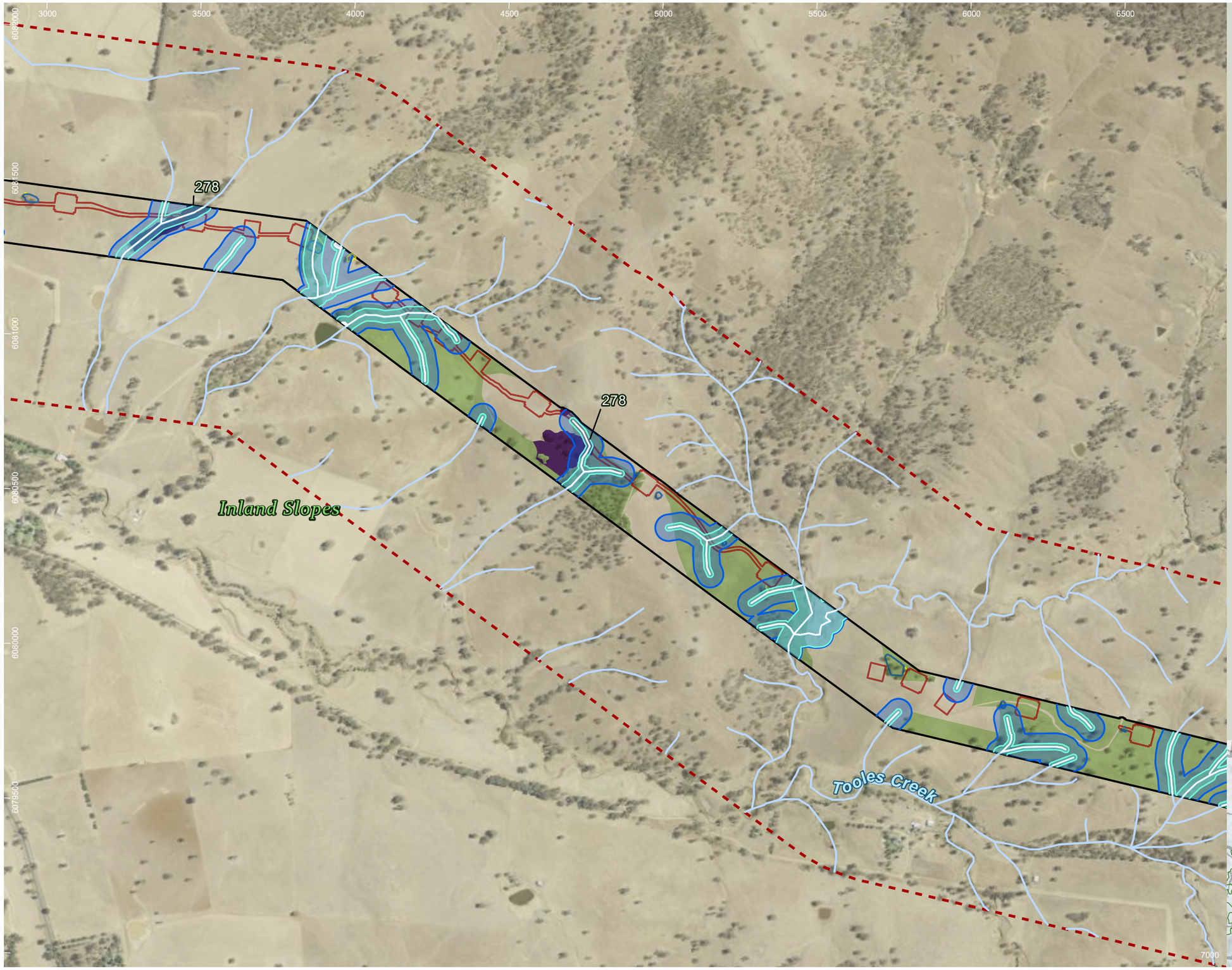


Humelink project areas

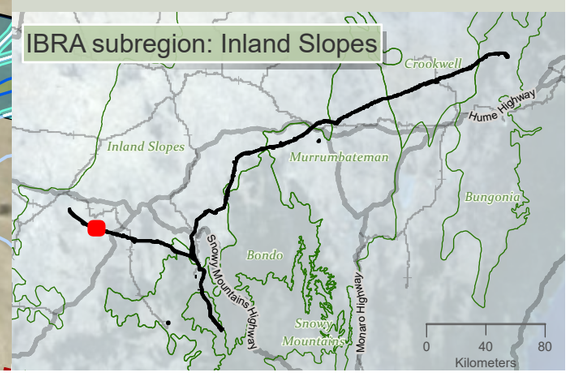
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 6

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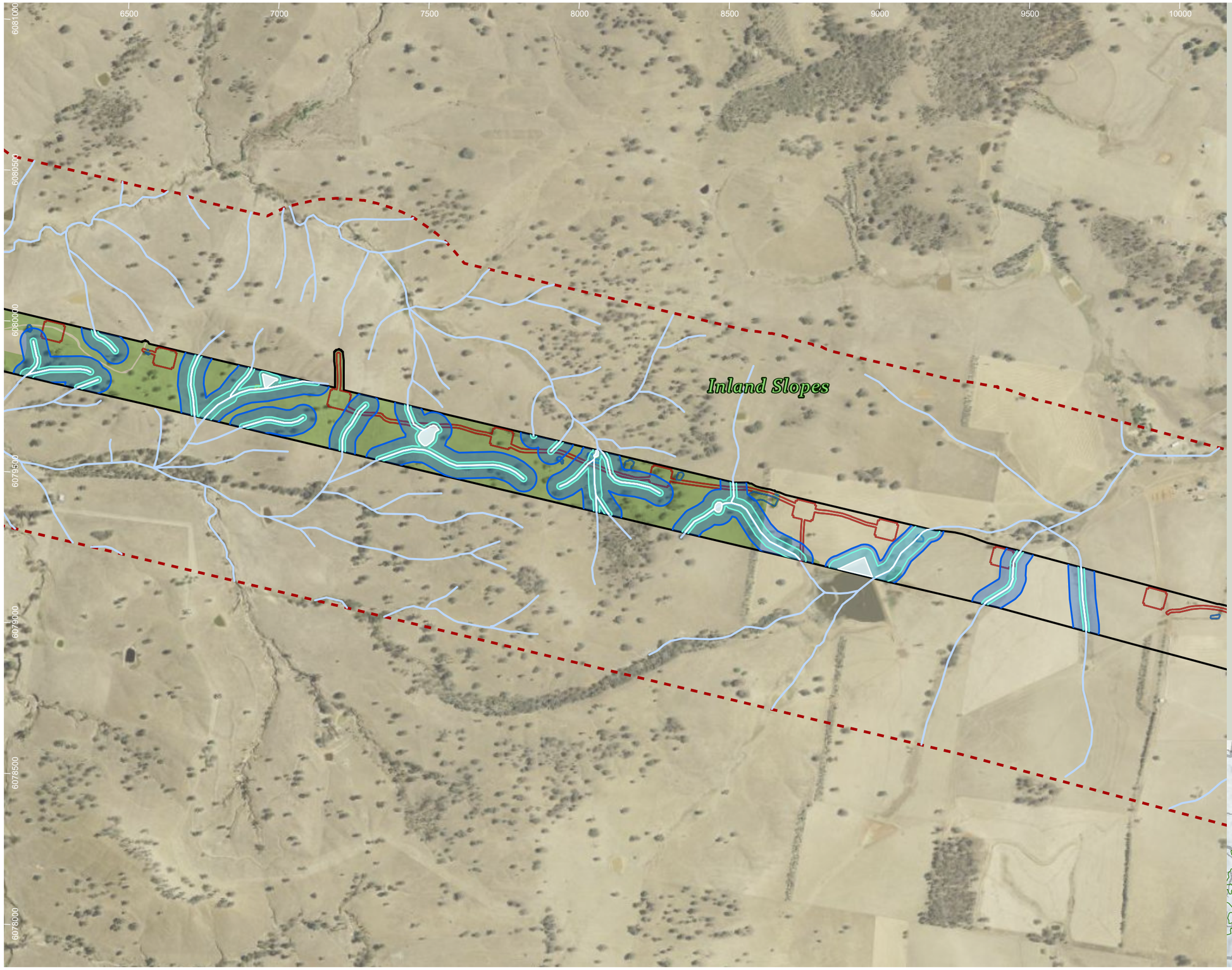
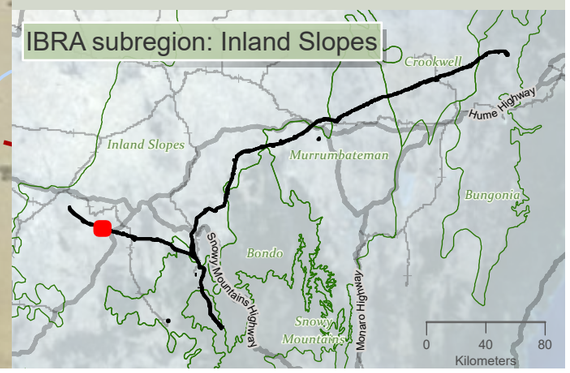


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 7

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10000 10500 11000 11500 6080500 12000 12500 13000 13500

6080000 6079500 6079000 6078500 6078000 6077500

Inland Slopes

Keajura Creek

278

Humelink project areas

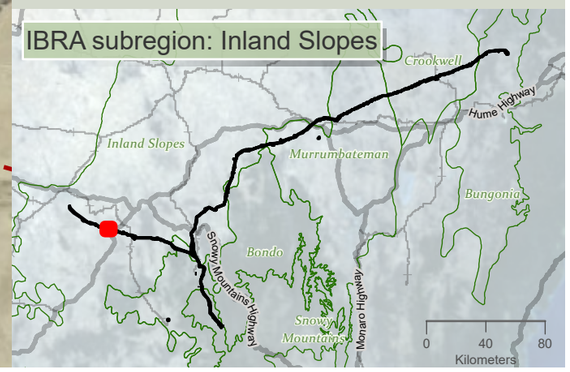
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 8

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13000 13500 14000 14500 15000 15500 16000 16500 17000

6079500 6079000 6078500 6078000 6077500 6077000 6076500

Keajura Creek

278

Inland Slopes

Humelink project areas

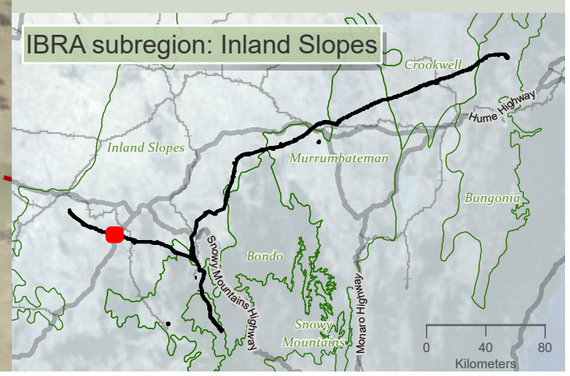
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 9

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16500 17000 17500 18000 18500 6079000 19000 19500 20000

6078500 6078000 6077500 6077000 6076500 6076000

Inland Slopes

Comatawa Creek

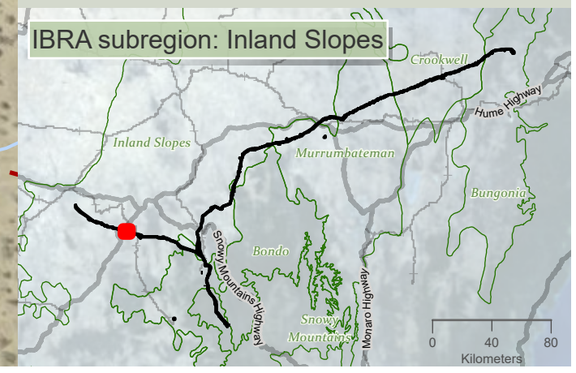
20500

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 10

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20000 20500 21000 21500 22000 22500 23000 23500

6077500 6077000 6076500 6076000 6075500 6075000

Inland Slopes

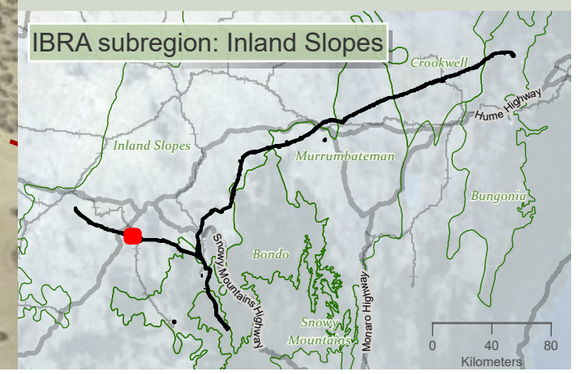
College Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 11

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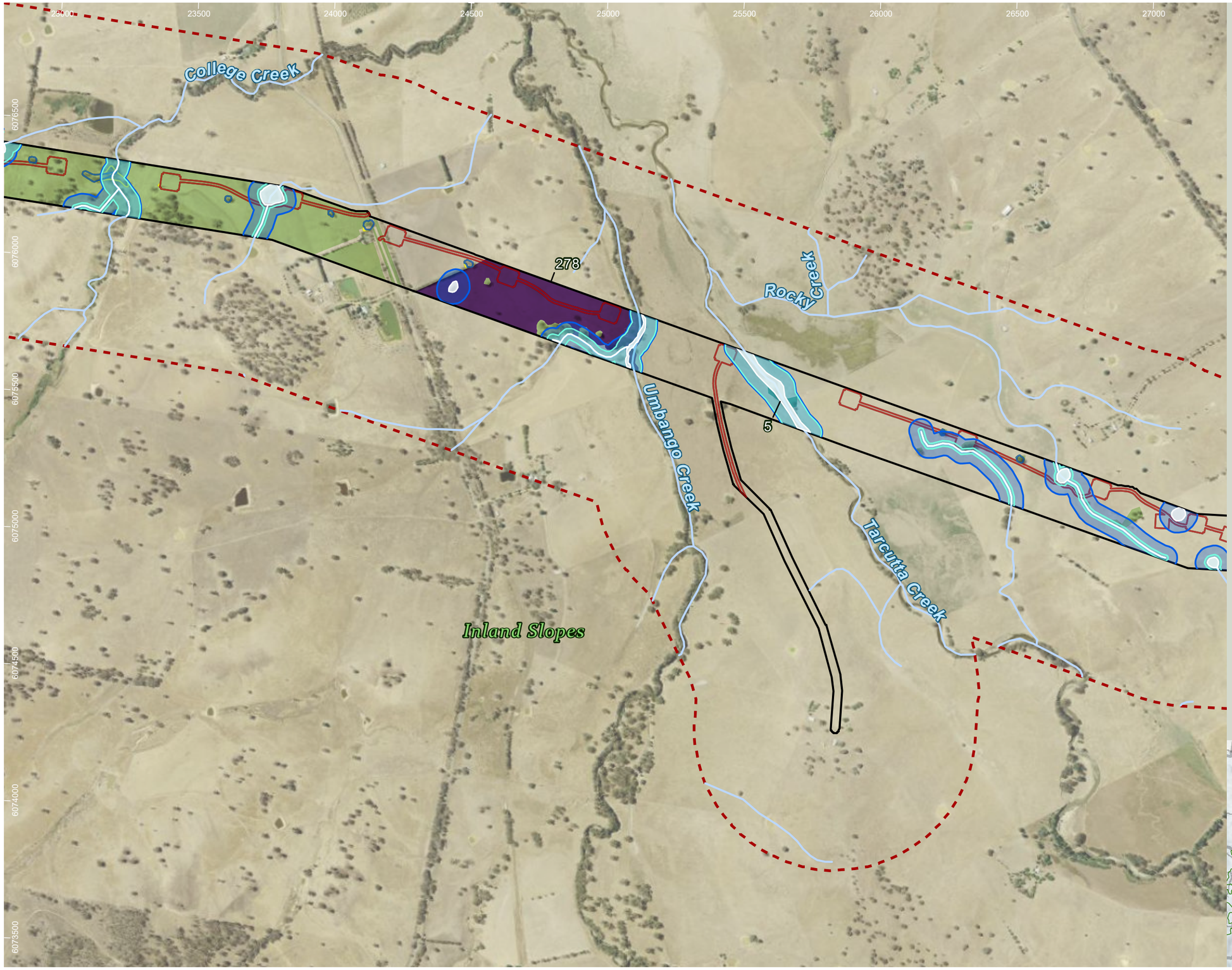


Humelink project areas

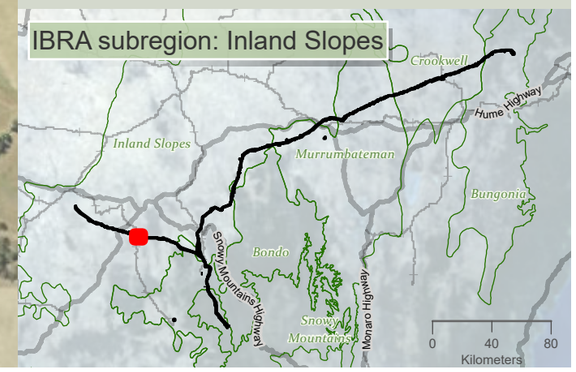
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion
- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

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Figure 13-17 map reference 12

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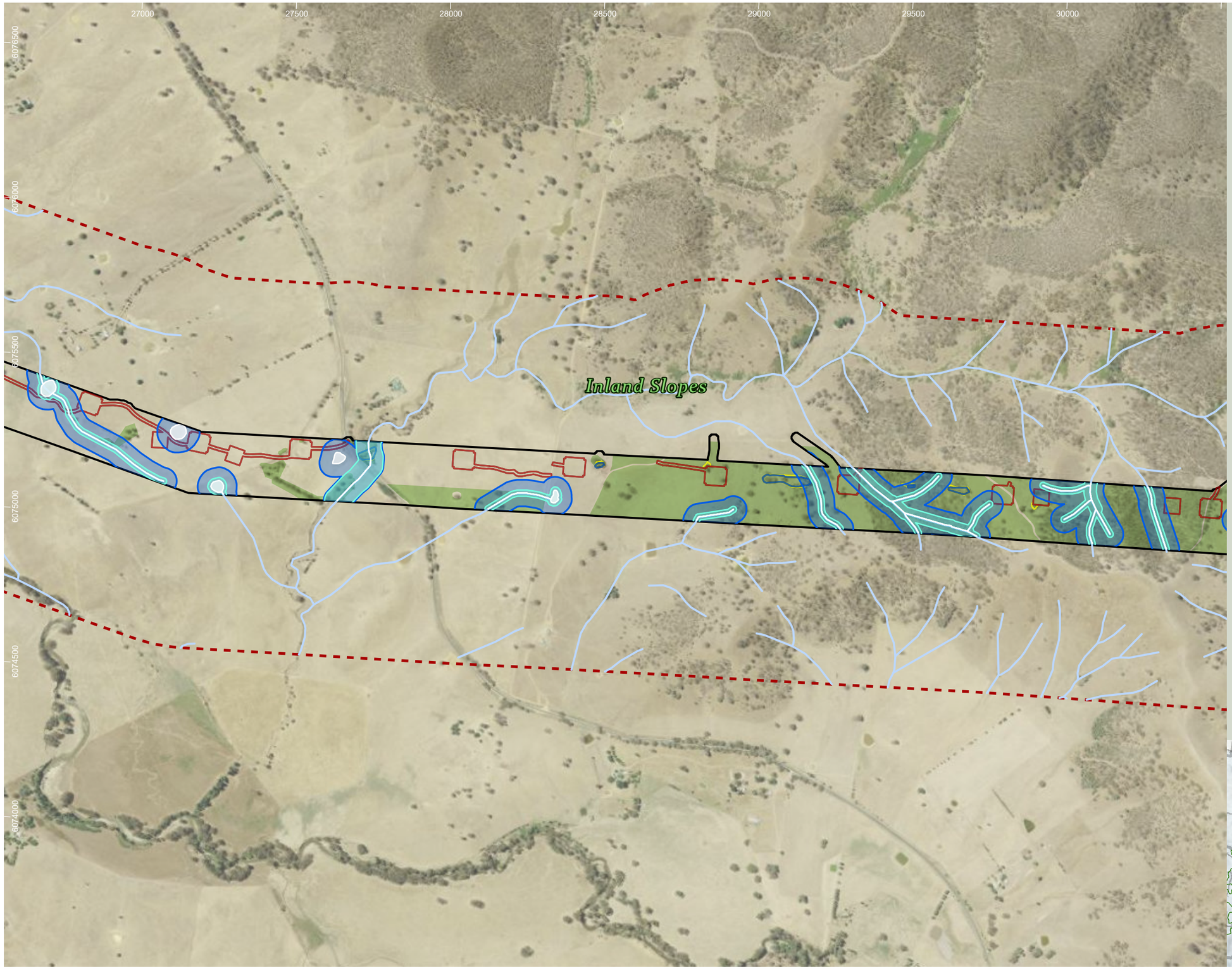
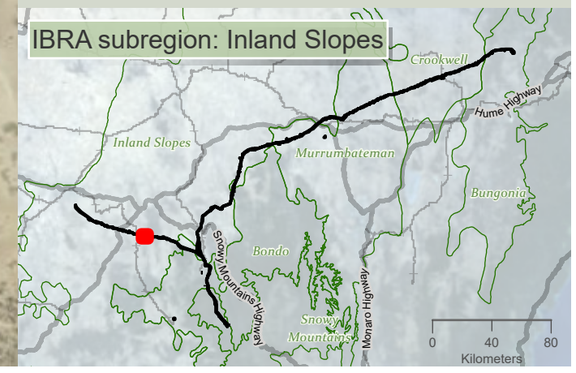


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 13

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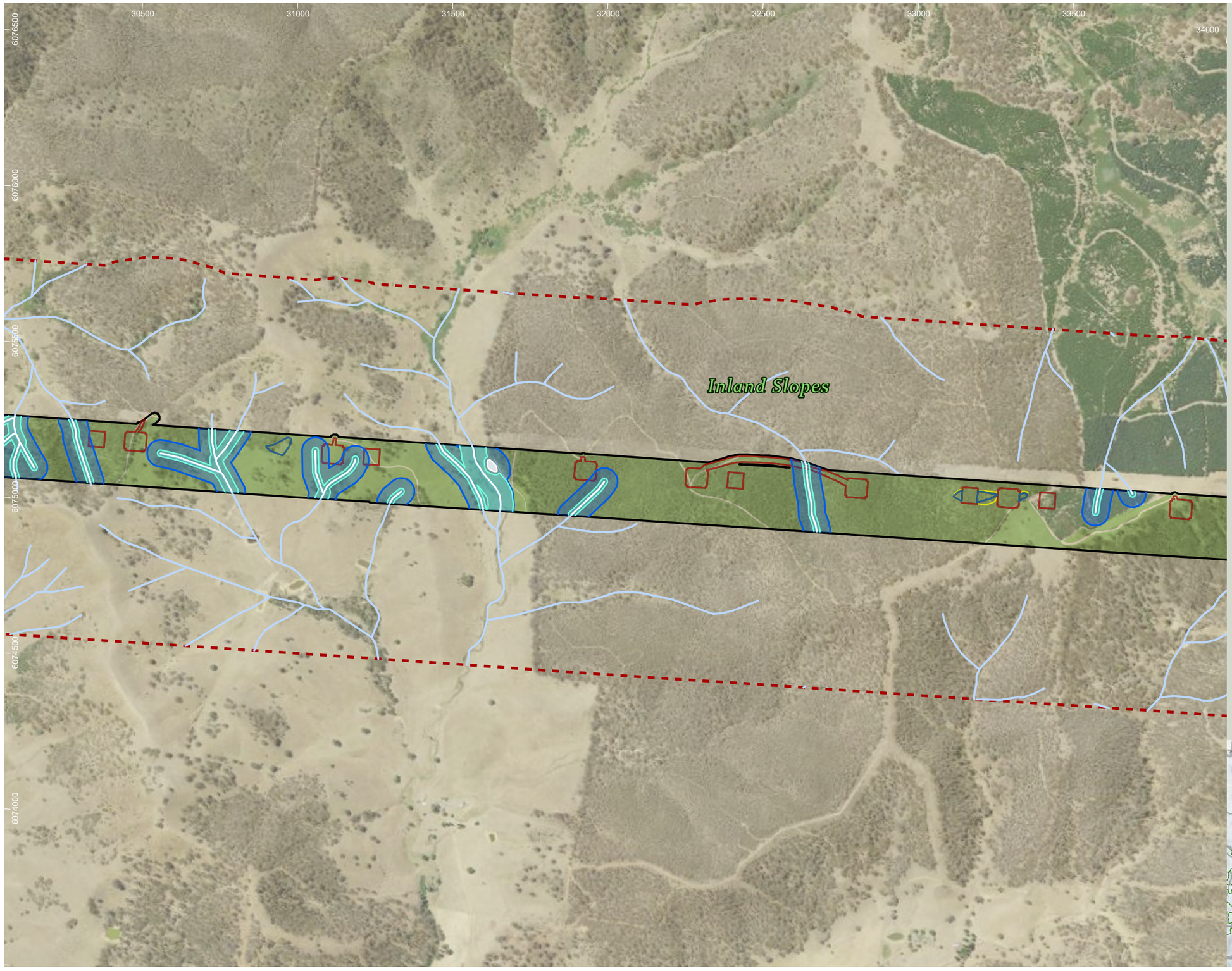
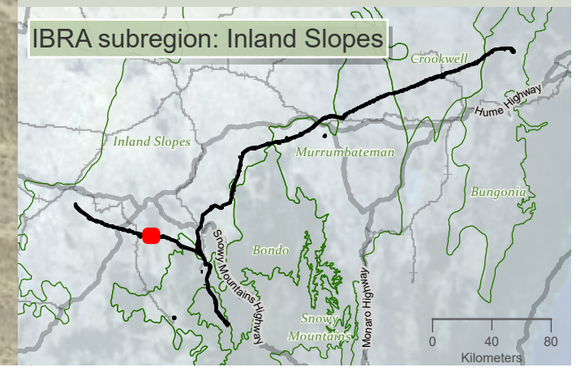


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 14

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34000 34500 35000 35500 36000 36500 37000 37500

6076000 6075500 6075000 6074500 6074000 6073500

Inland Slopes

Turners Creek

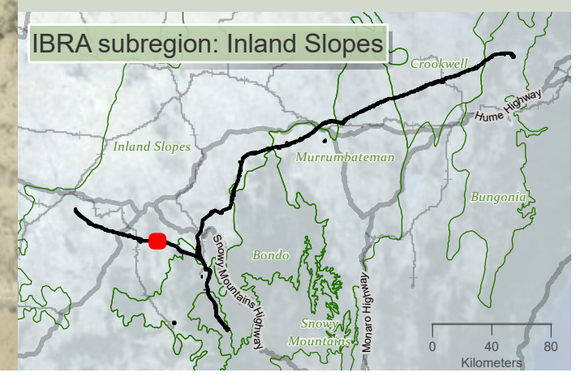
Galvins Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 15

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37500 38000 38500 6076500 39000 39500 40000 40500

6075000 6074500 6074000 6073500

Inland Slopes

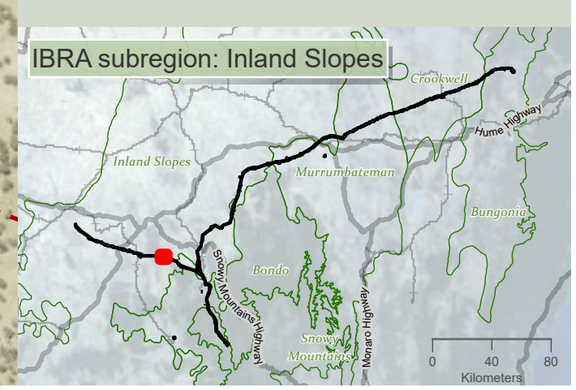
Yaven Yaven Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 16

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Drawn by: MatthewZajaczkowski: Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

40500 41000 41500 42000 42500 43000 43500 44000 44500

6075000 6074500 6074000 6073500 6073000 6072500

Darlows Creek

Sod Hut Creek

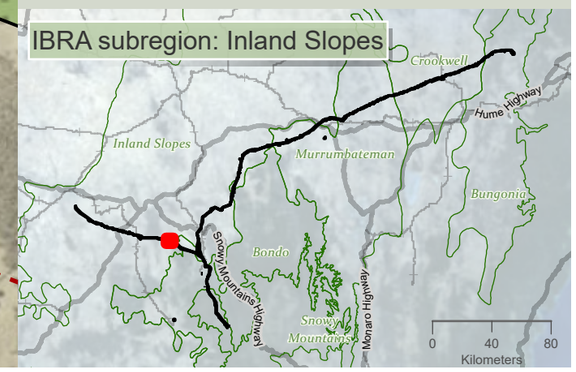
Inland Slopes

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 17

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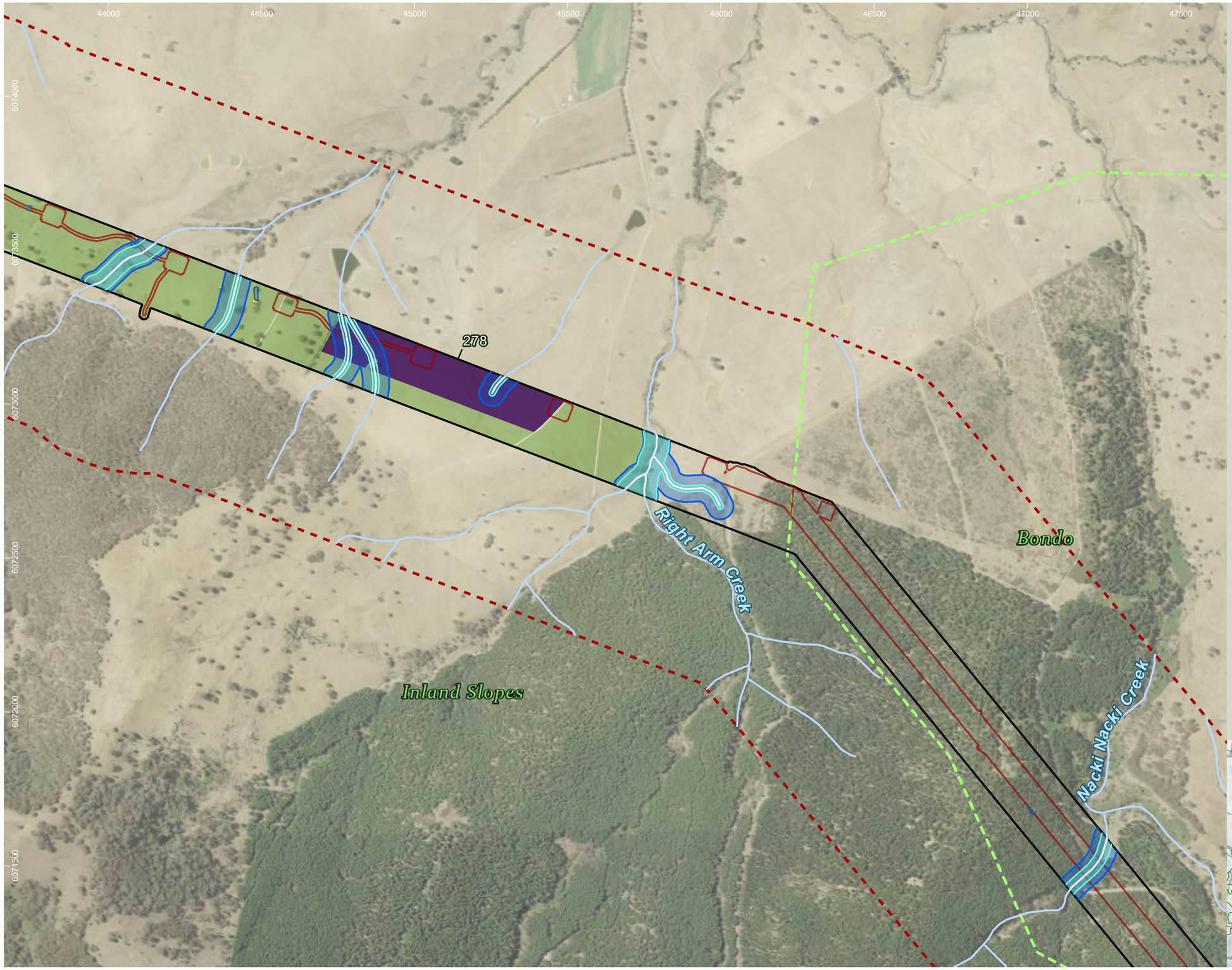


Humelink project areas

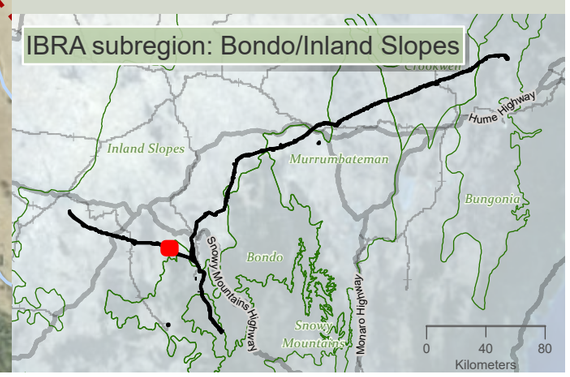
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 18

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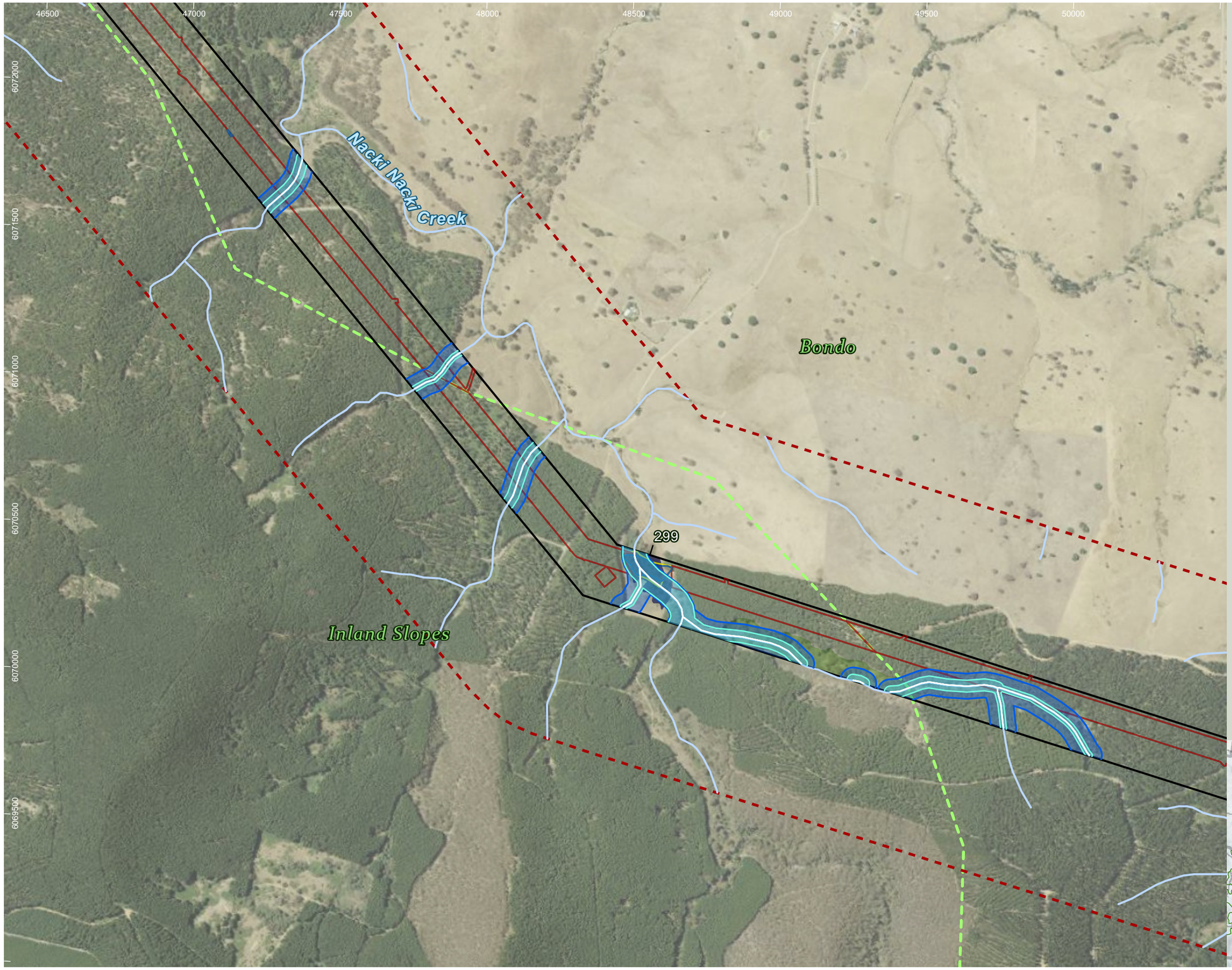


Humelink project areas

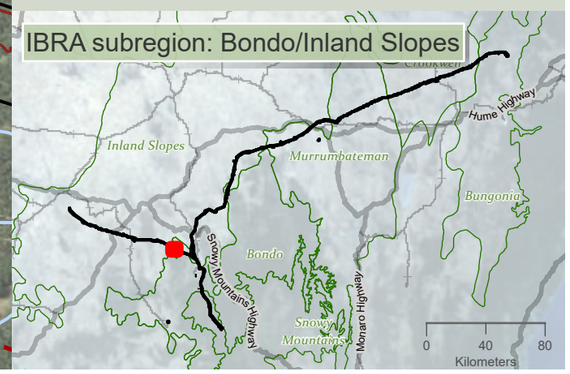
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 19

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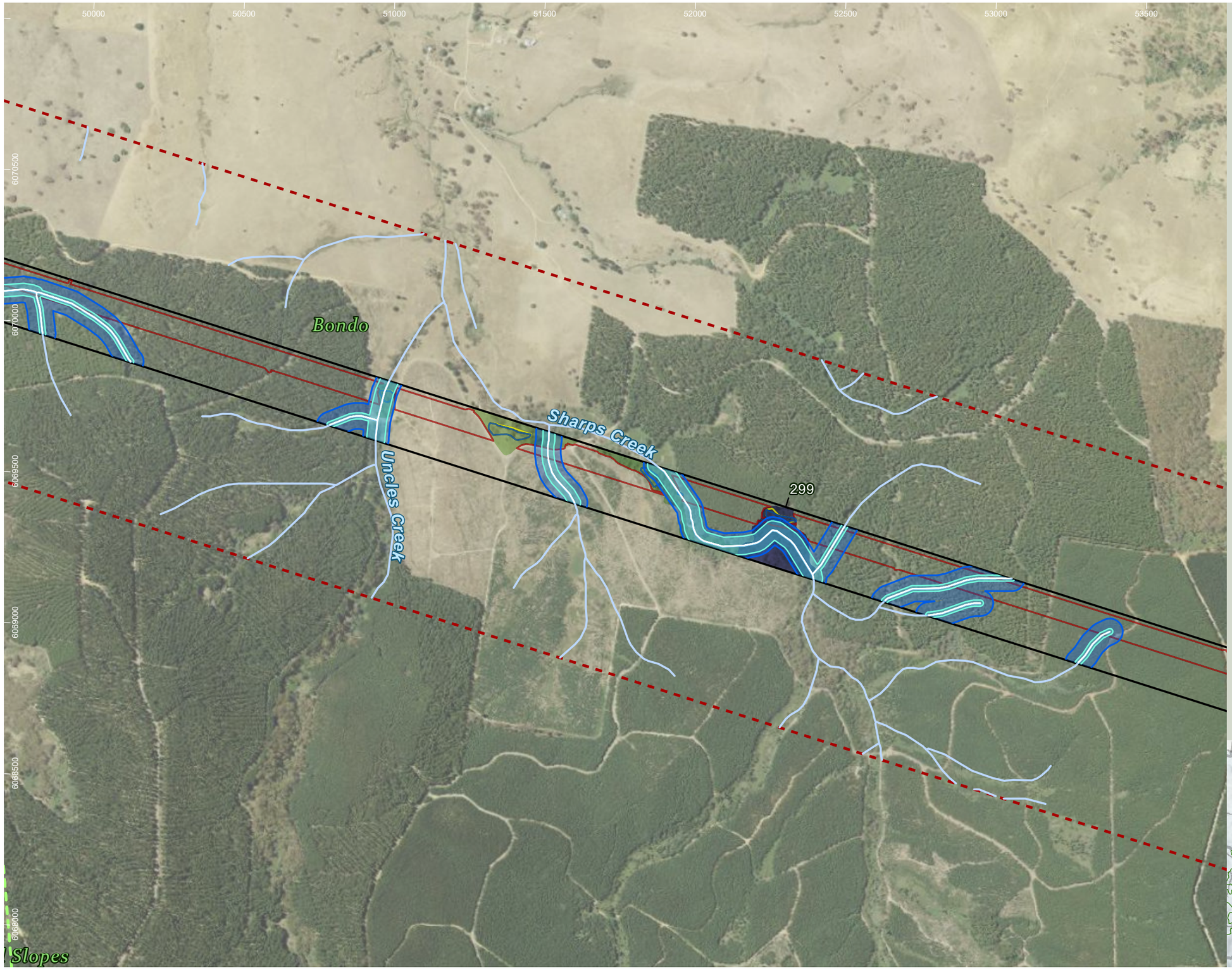
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\FolderNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx



Humelink project areas

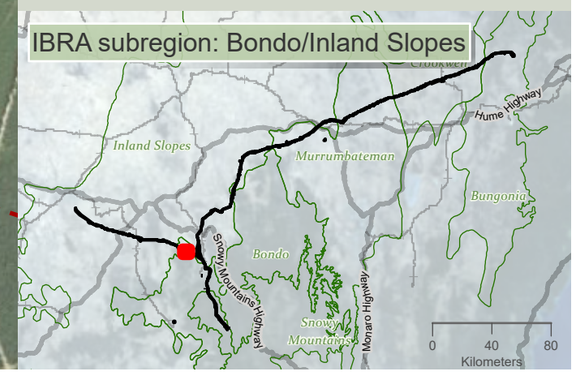
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 20

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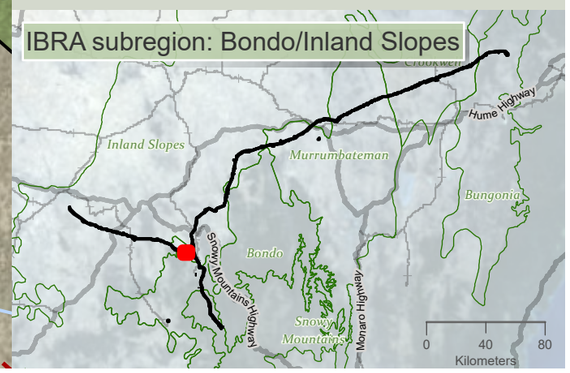
6070000 6069500 6069000 6068500 6068000 6067500

Bondo

299

Adelong Creek

Inland Slopes



Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 21

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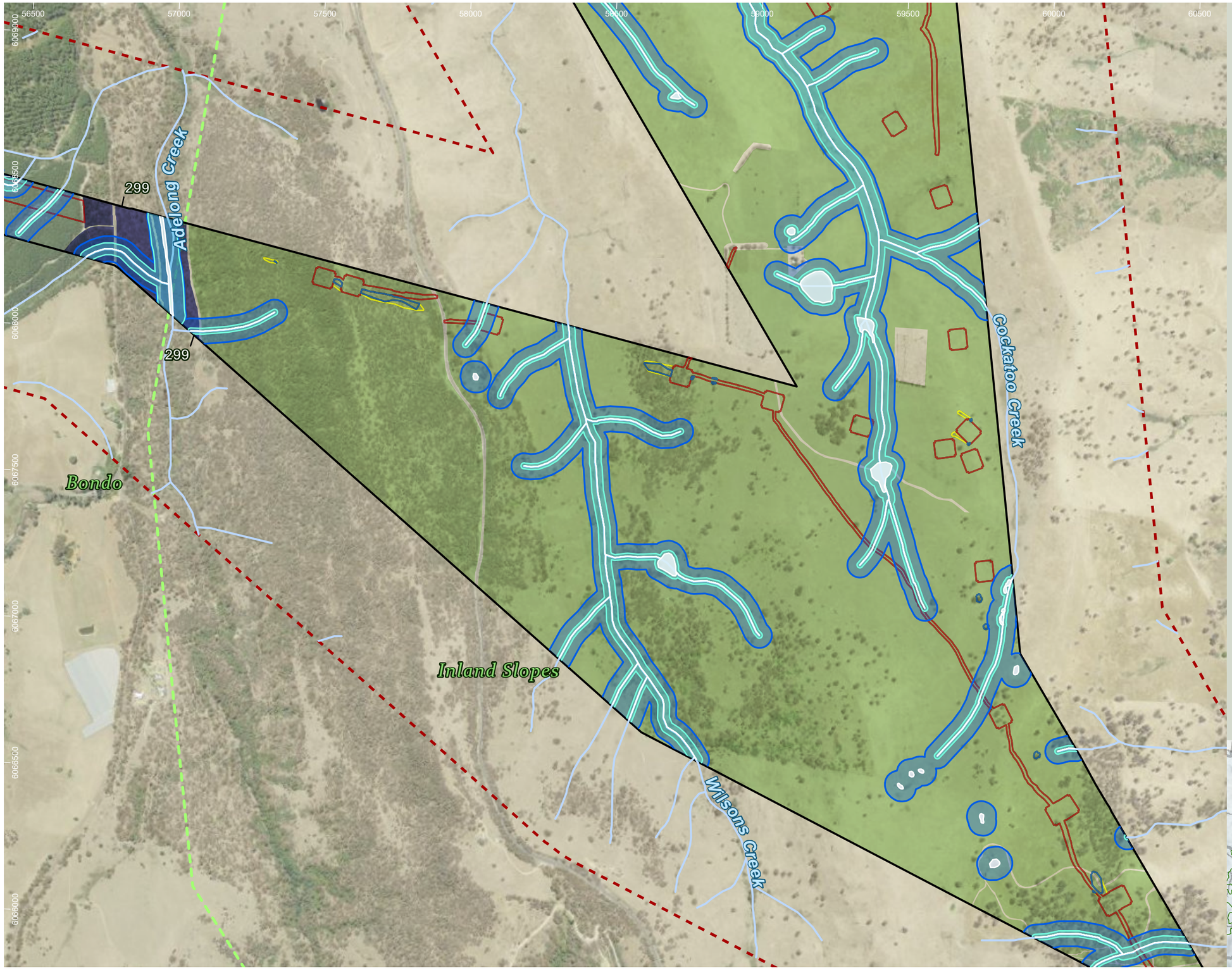


Humelink project areas

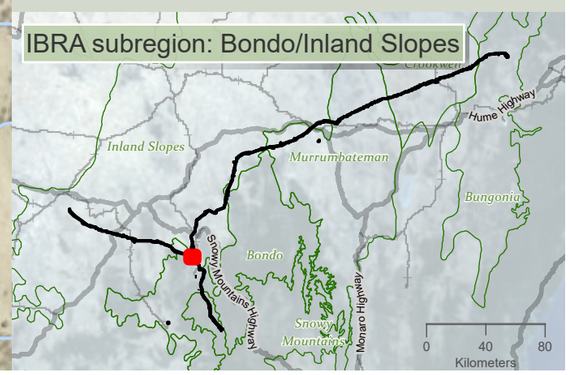
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 22

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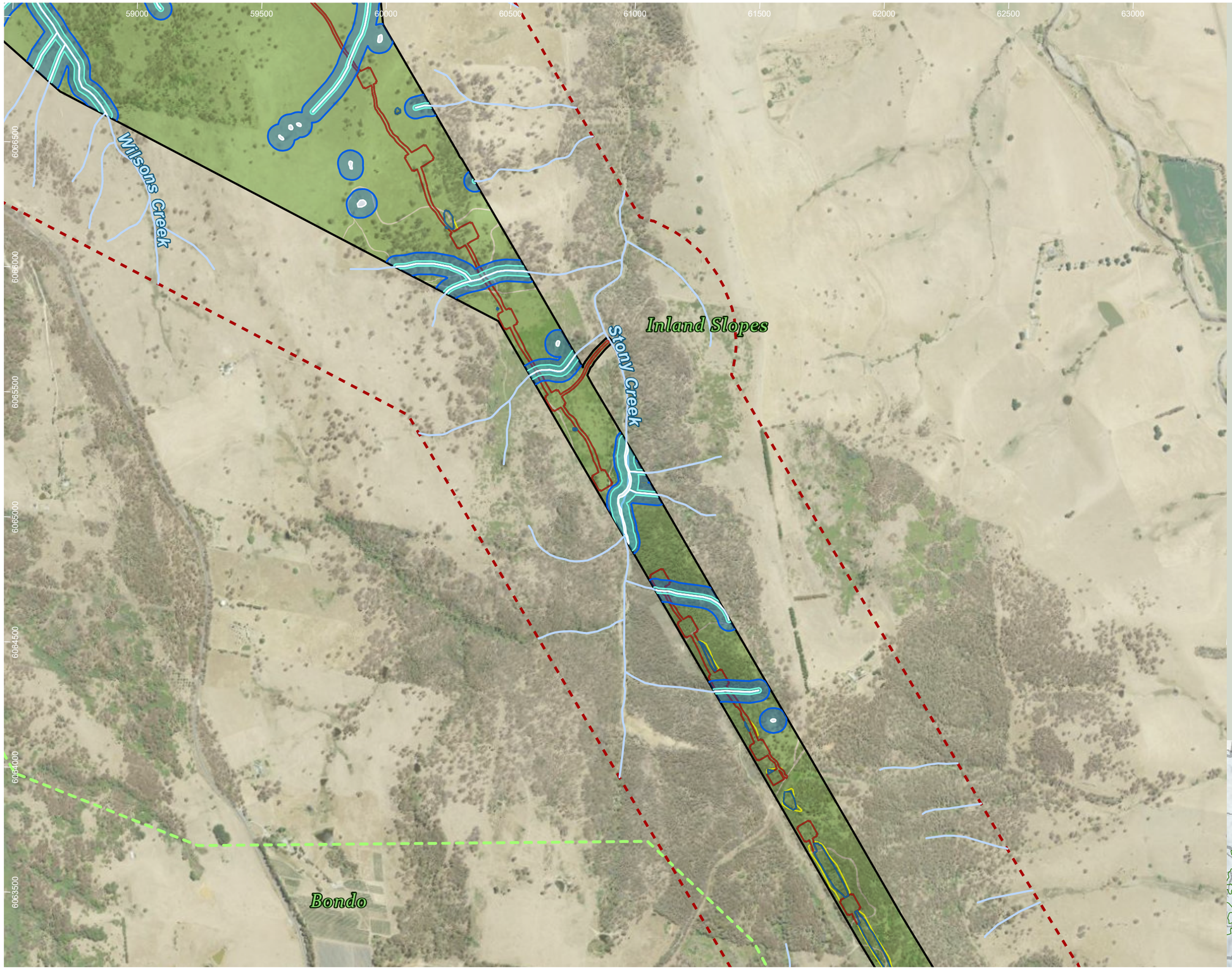
SEC-EXT - BDAR_v2\a6099_Humelink_BDAR_v2_figures Part 3.aprx - Confidential impact assessment

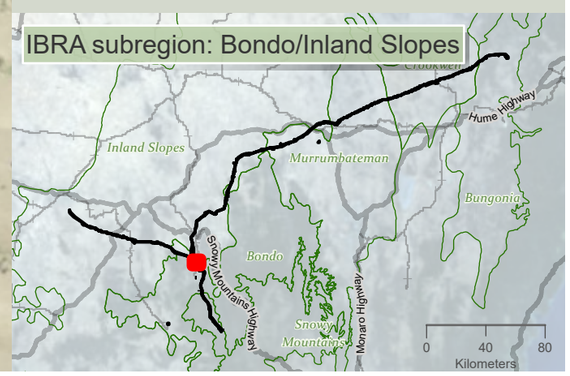


Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 23

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60500 61000 61500 62000 62500 63000 63500 64000 64500 65000

6064000 6063500 6063000 6062500 6062000 6061500 6061000 6060500

Inland Slopes

Leech Gully

Mudhole Creek

Bondo

Gilmore Creek

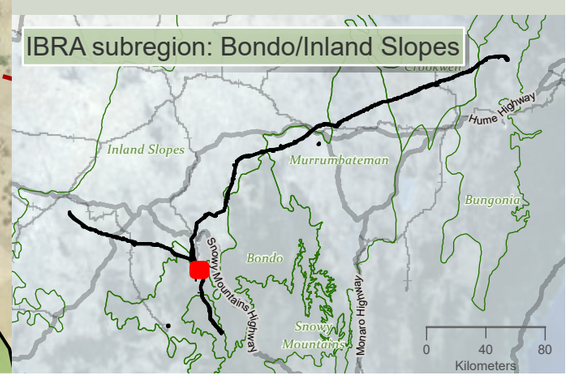
Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 24

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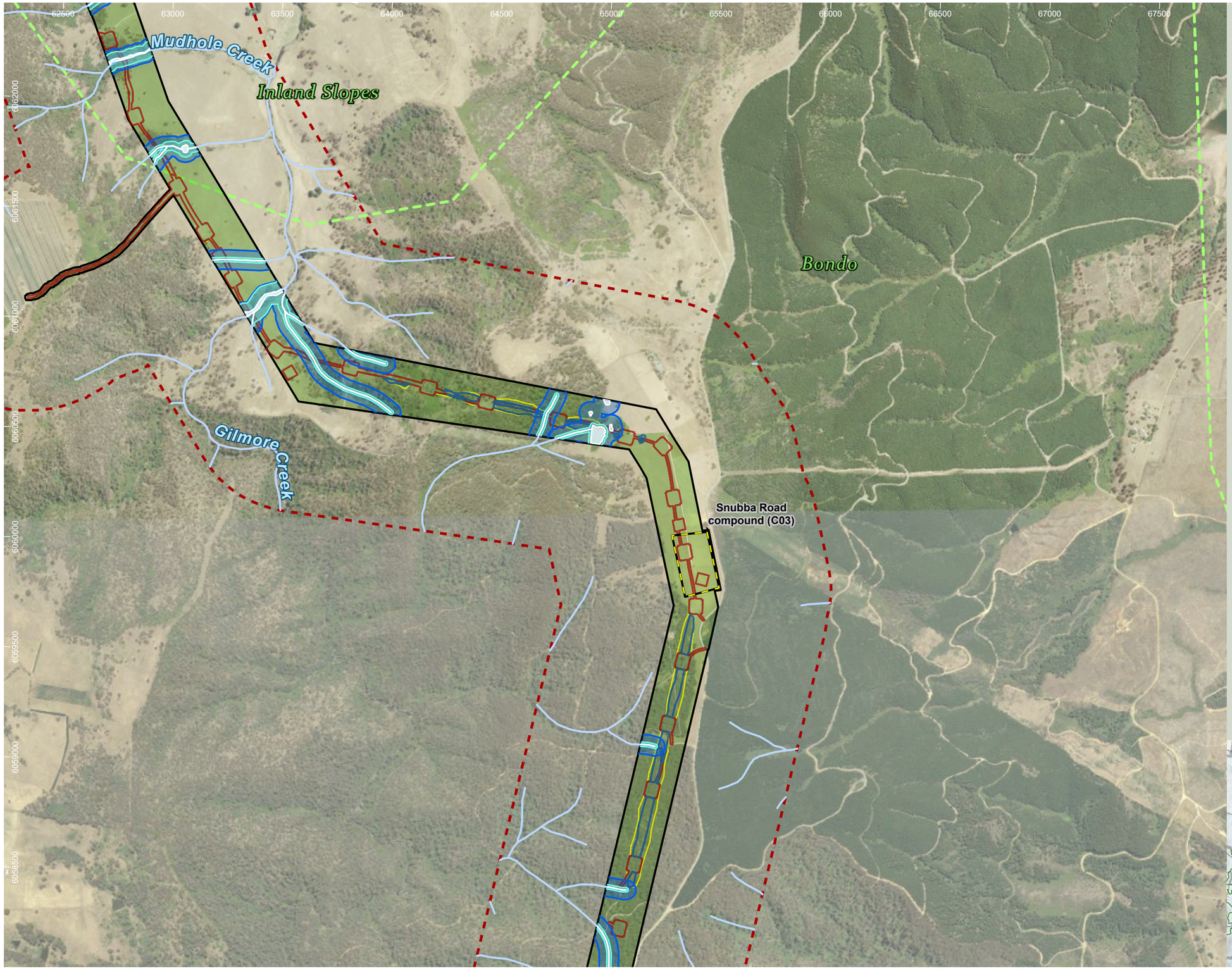
Impact assessment SEC-EXT - BDAR_v2\6699 - Confidential

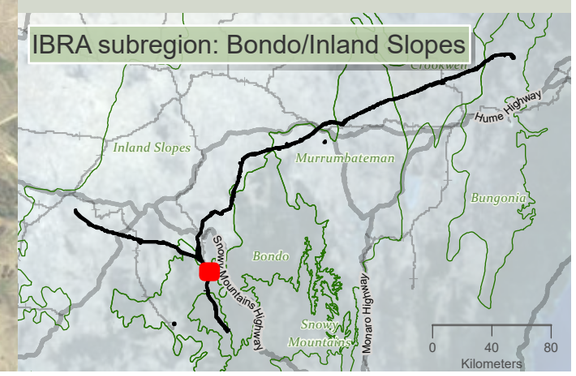


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 25

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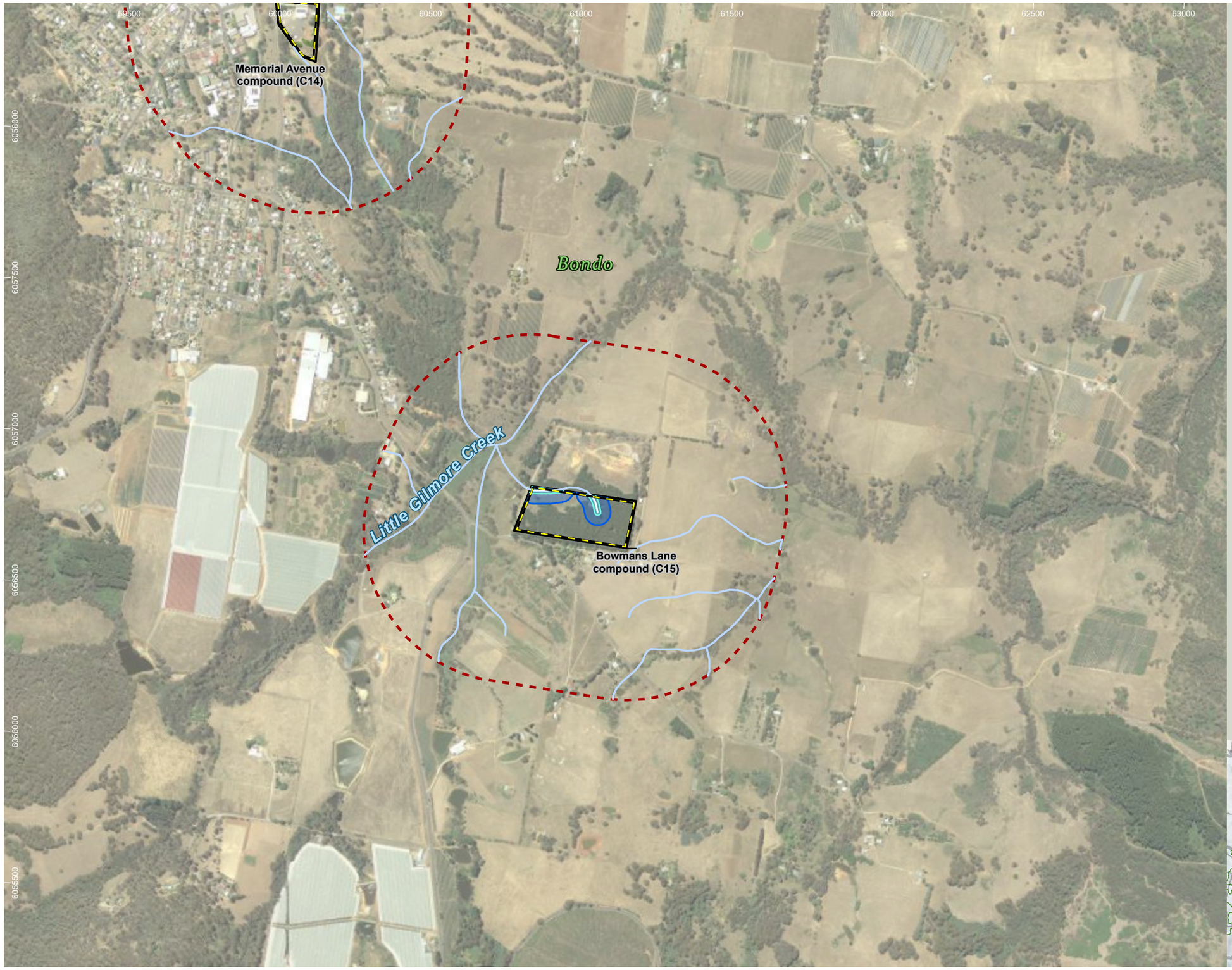
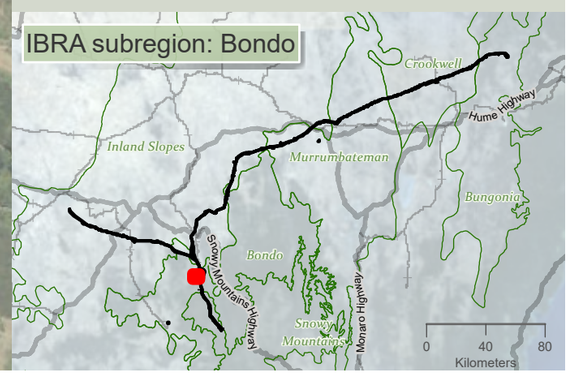


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 27

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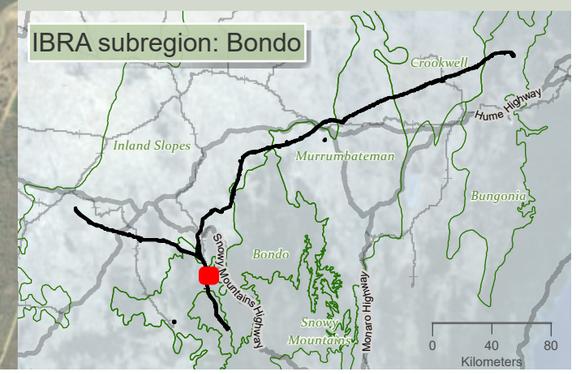
Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 28

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62000 62500 63000 63500 64000 64500 65000 65500 66000 66500

6055500 6055000 6054500 6054000 6053500 6053000 6052500 6052000

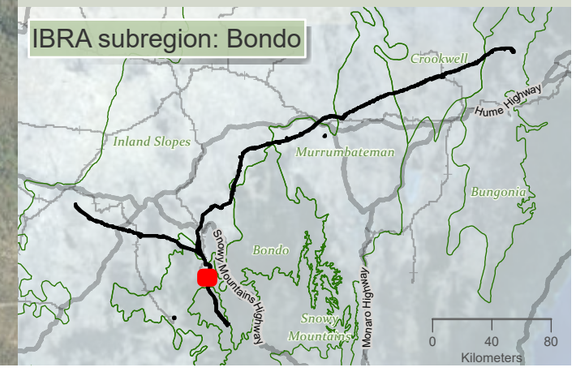
Bondo

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500
m
N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 29

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61500 62000 62500 63000 63500 64000 64500 65000 65500 66000

6052000 6051500 6051000 6050500 6050000 6049500 6049000 6048500

Bondo

Snubba Creek

299

299

Snubba Road compound (C16)

Gilmore Creek

Ridings Creek

Snowy Mountains

Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

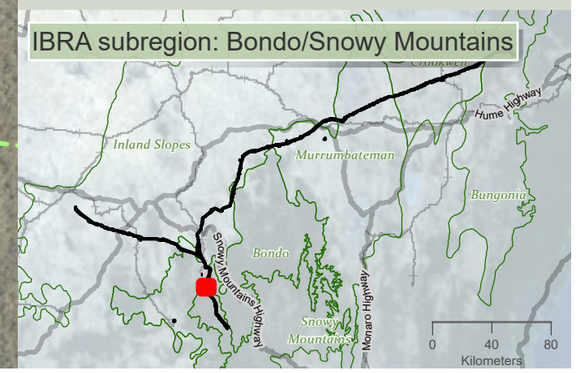
Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone

IBRA subregion: Bondo/Snowy Mountains



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 30

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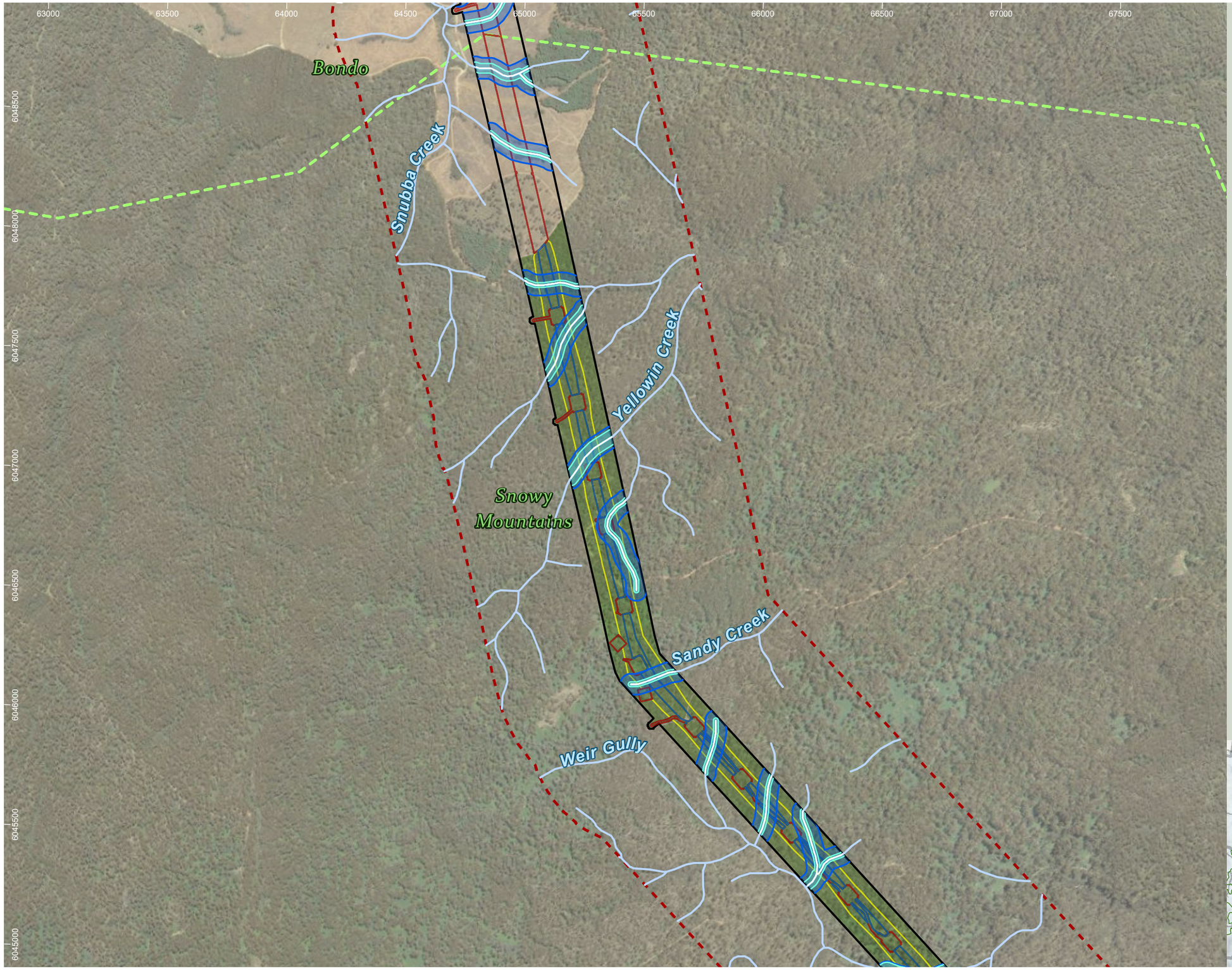
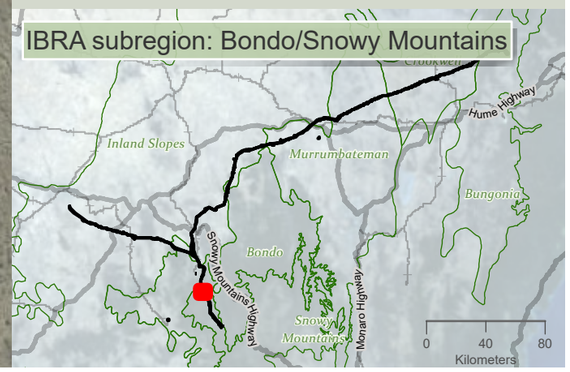


Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 31

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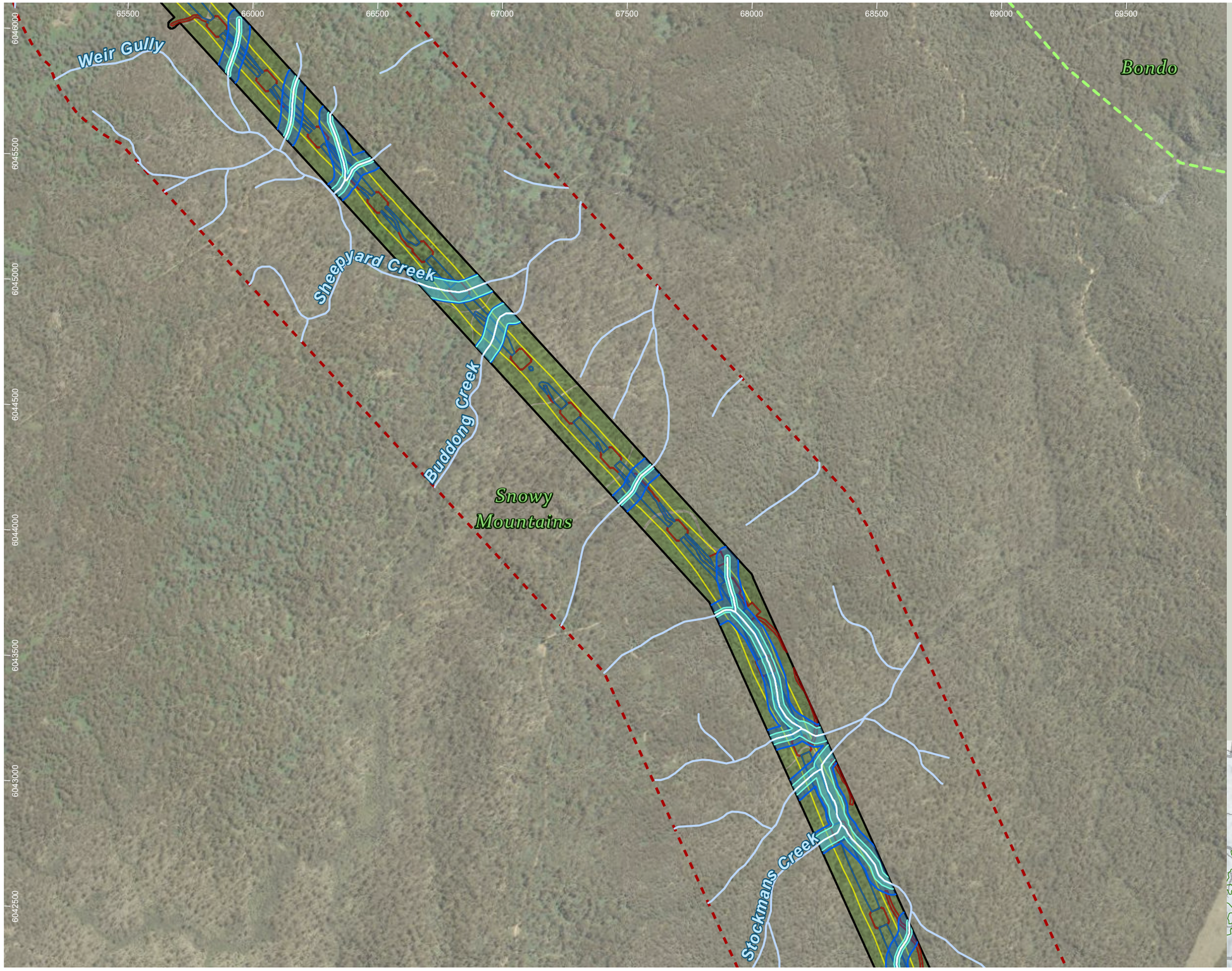
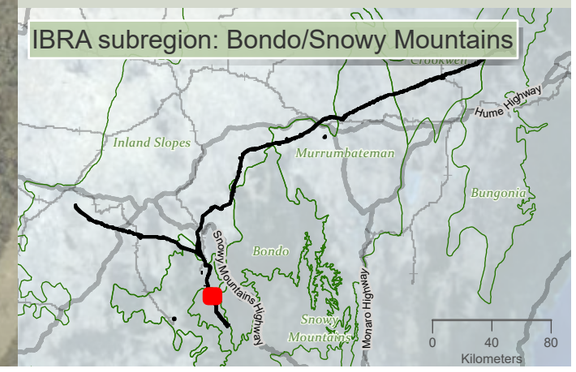


Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 32

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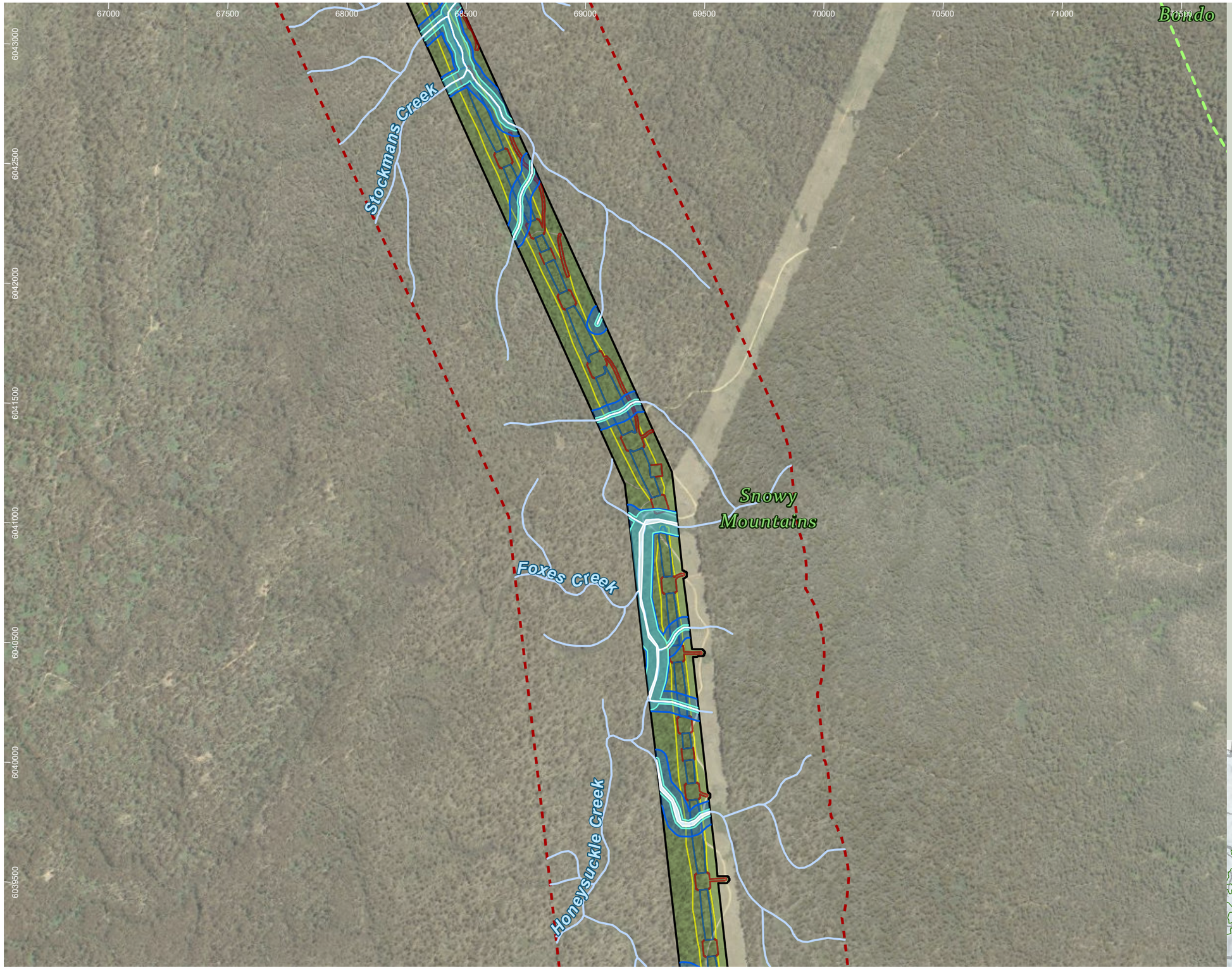
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx

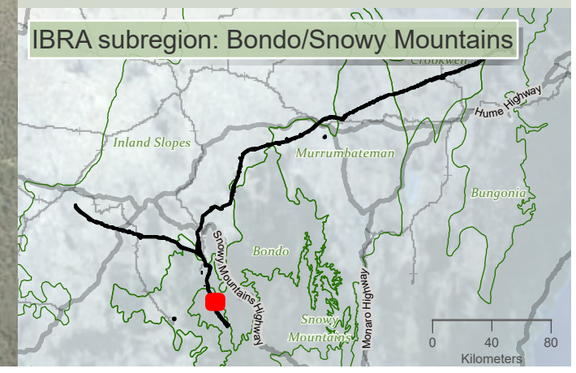


Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 33

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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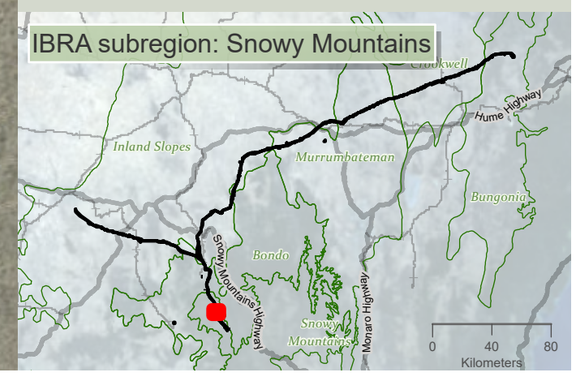
Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 34

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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45000 45500 46000 46500 47000 47500 48000 48500

6032500 6032000 6031500 6031000 6030500 6030000 6029500

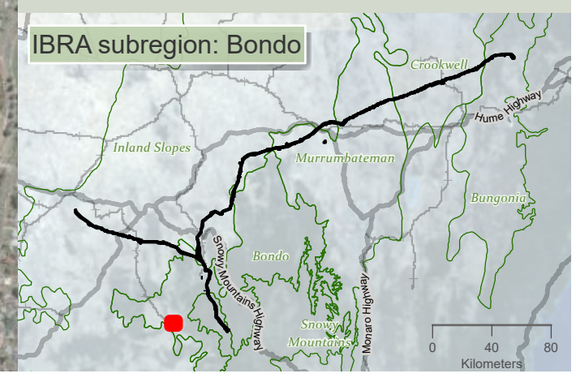
49000

Bondo

Tumbarumba Accommodation Facility (AC1)

Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 35

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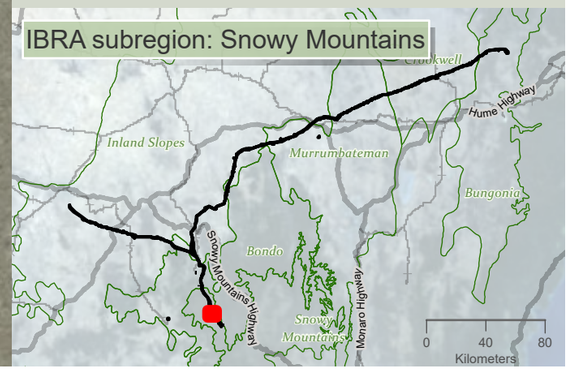
Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 36

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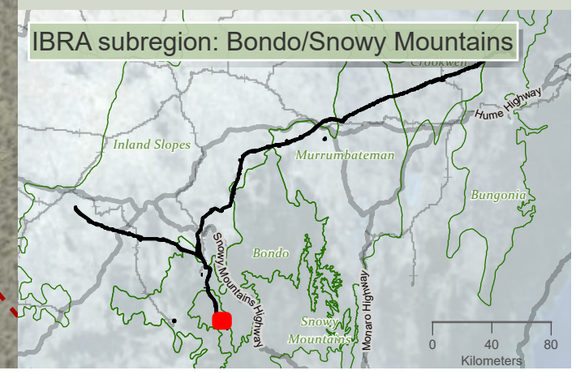
Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 37

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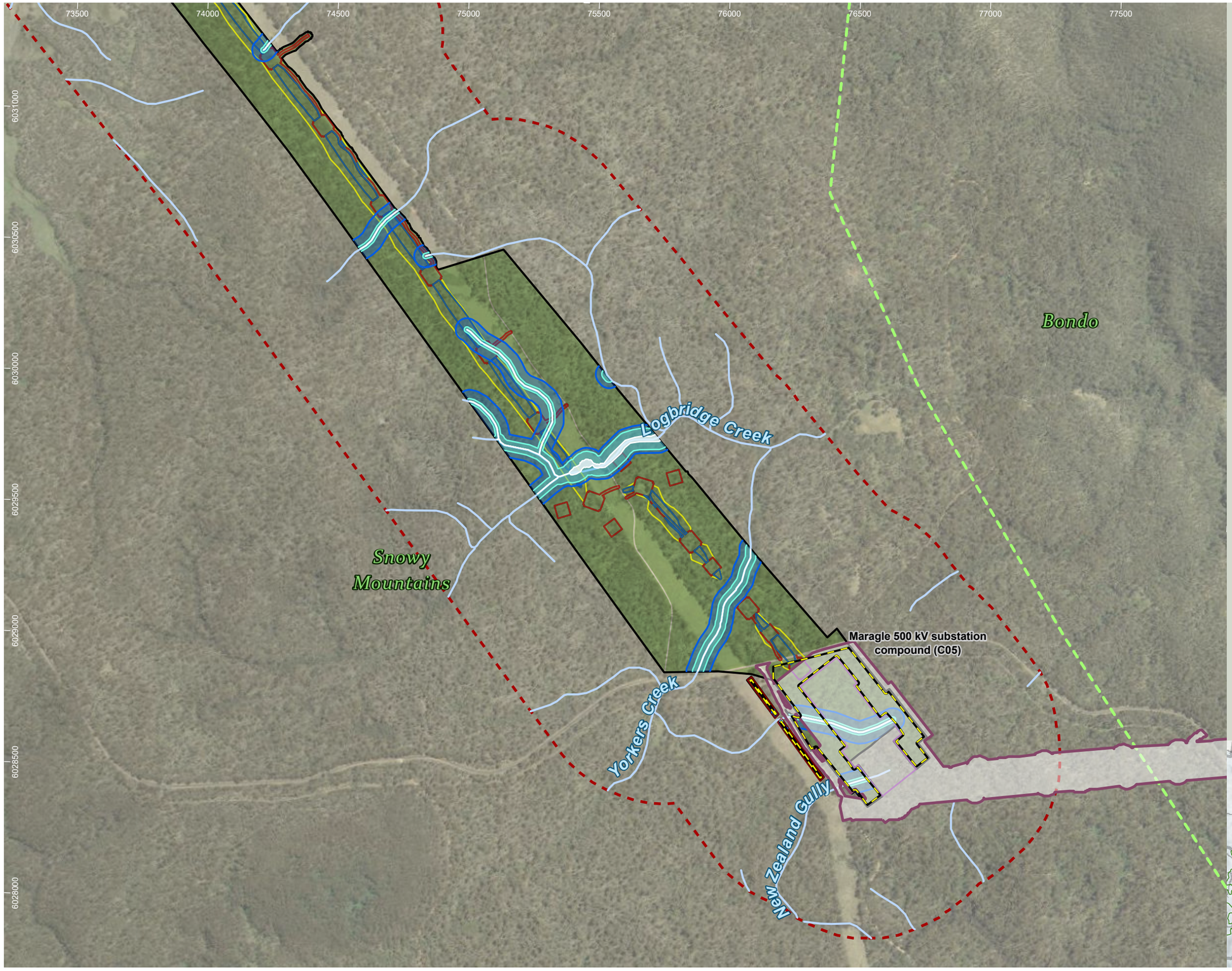
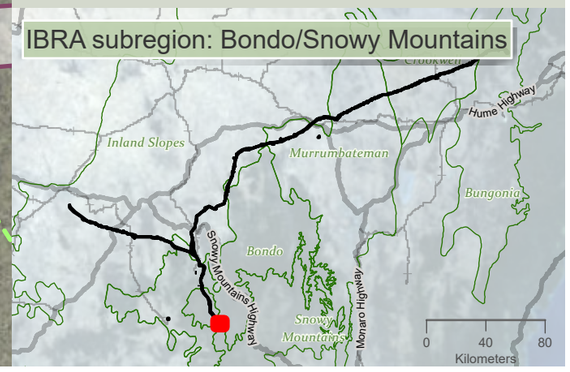


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone
- Snowy 2.0 Transmission Connection zone



Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx

niche Environment and Heritage

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WGS 1984 Web Mercator

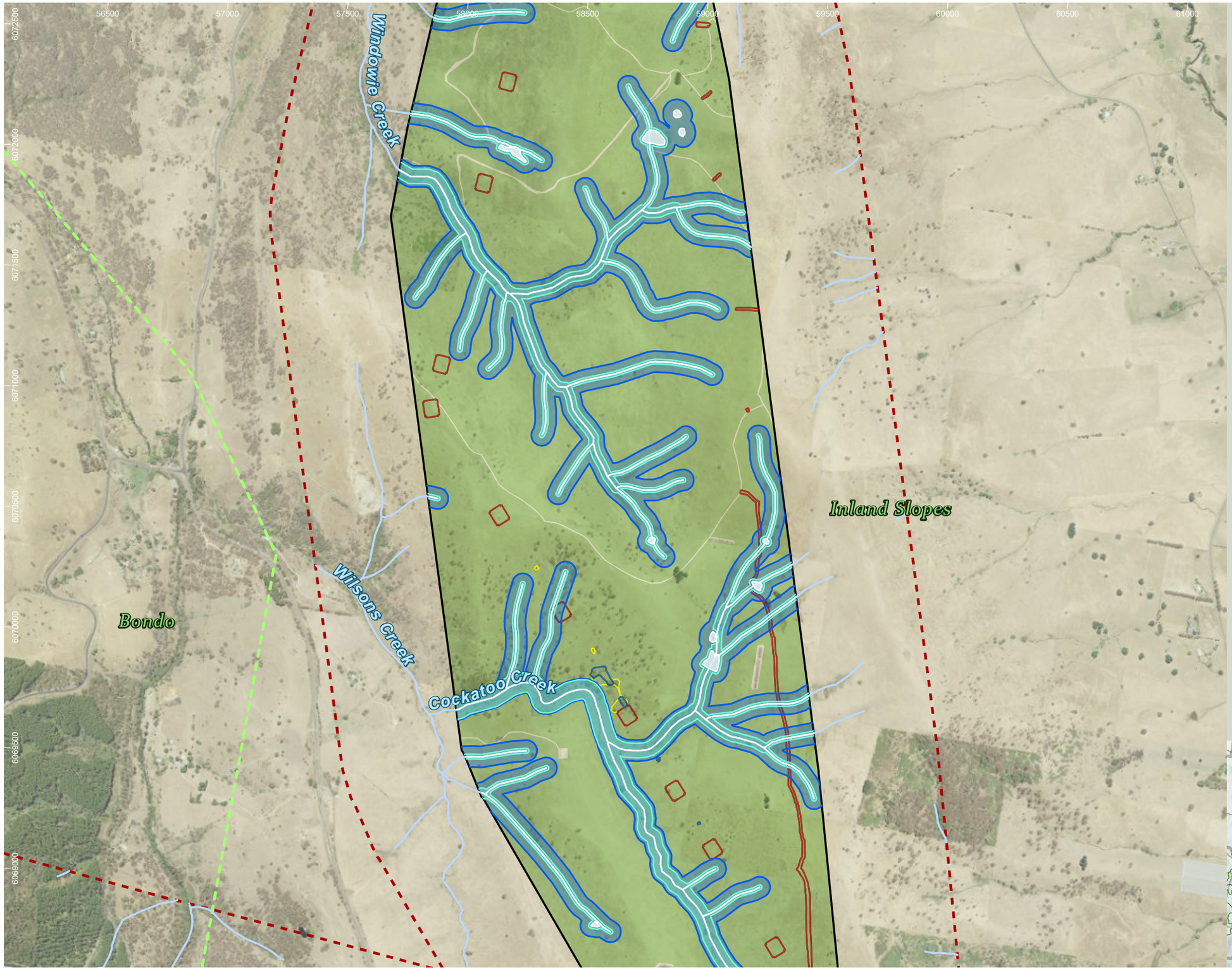
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 38

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

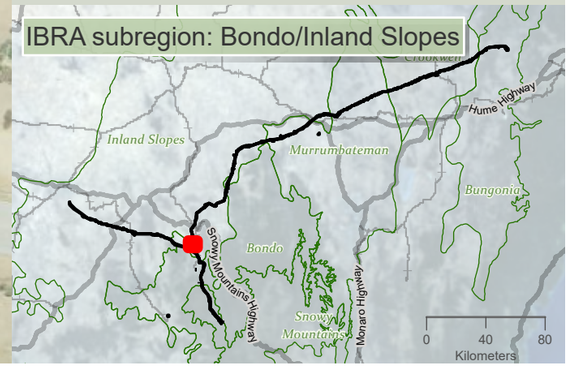


Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 39

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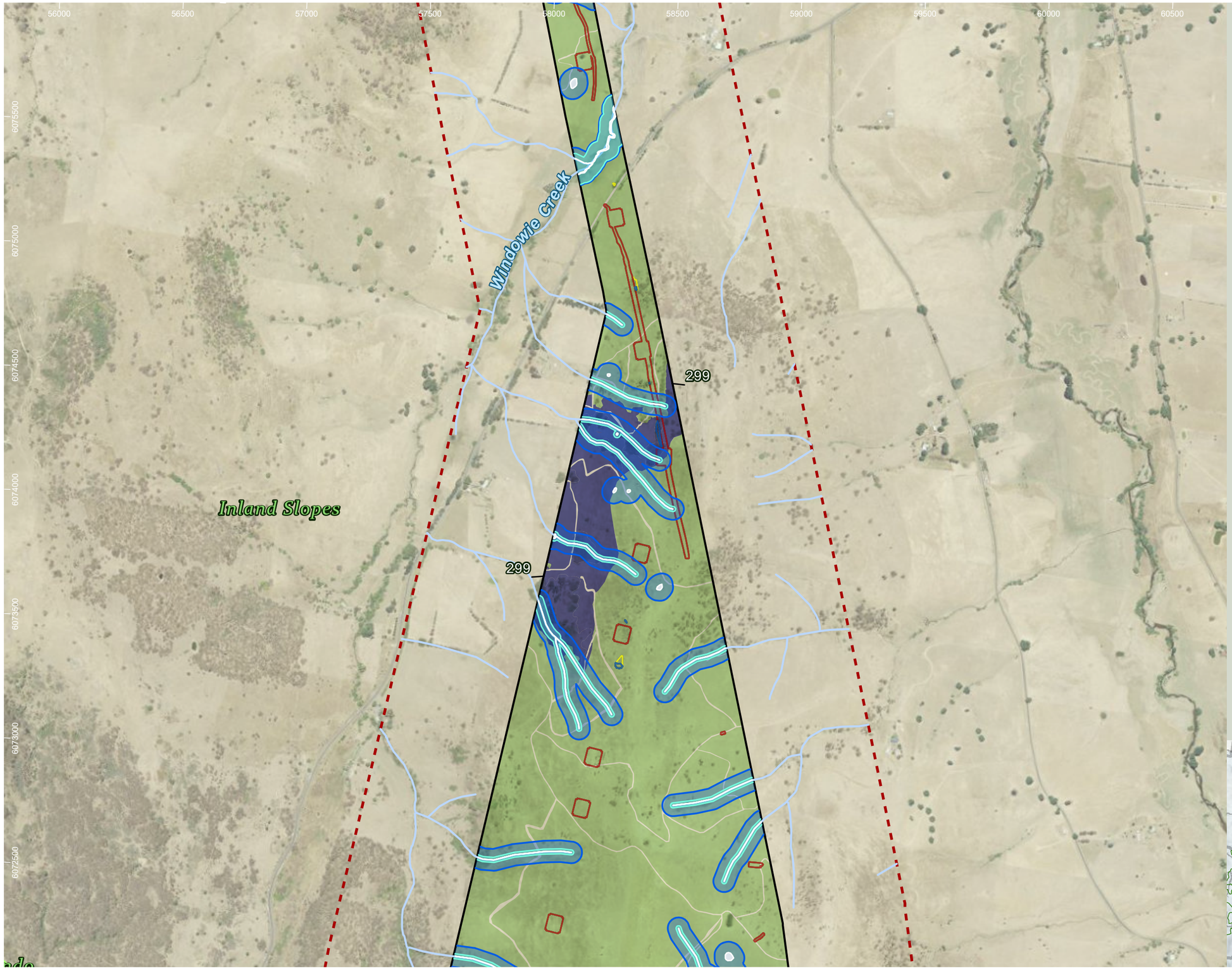


Humelink project areas

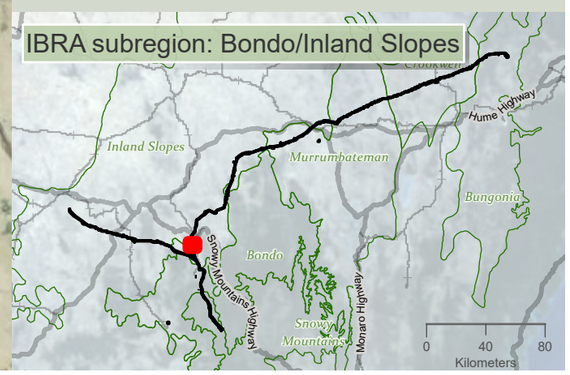
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 40

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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55500 56000 56500 57000 57500 58000 58500 59000 59500 60000

6079000 6078500 6078000 6077500 6077000 6076500 6076000

Inland Slopes

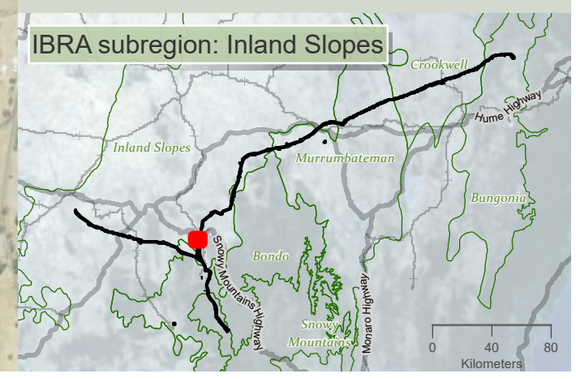
Windowie Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 41

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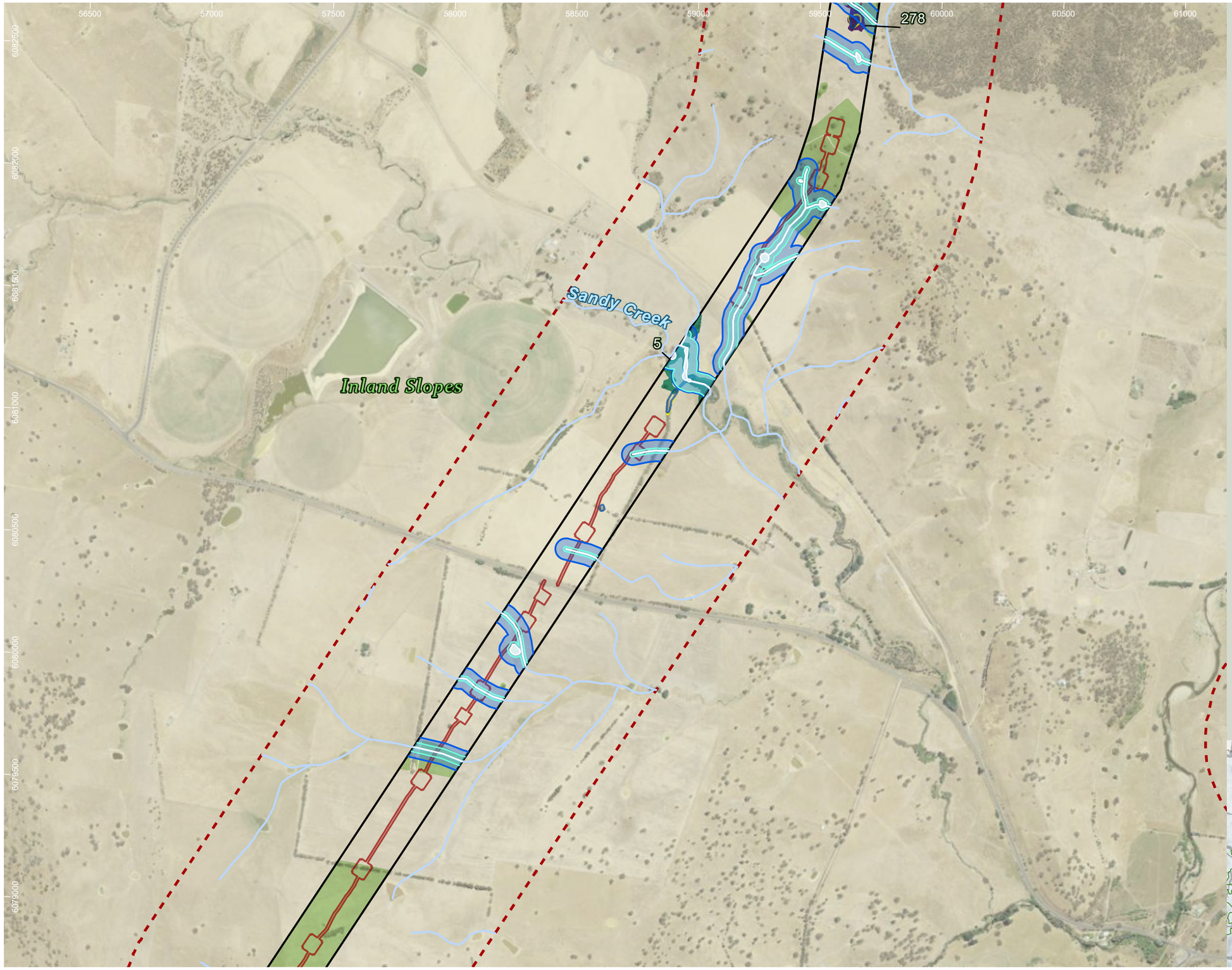


Humelink project areas

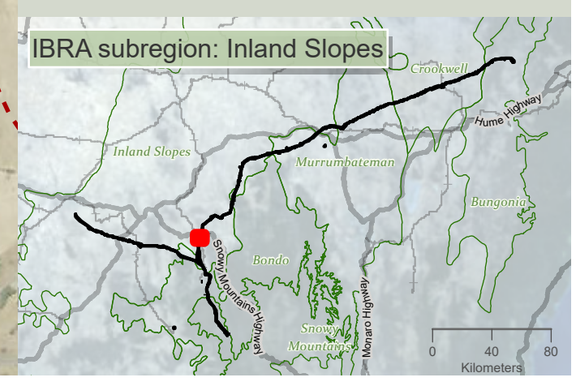
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion
- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 42

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57500 58000 58500 59000 59500 60000 60500 61000 61500 62000

6085500 6085000 6084500 6084000 6083500 6083000 6082500 6082000

Inland Slopes

Gocup Creek

278

Humelink project areas

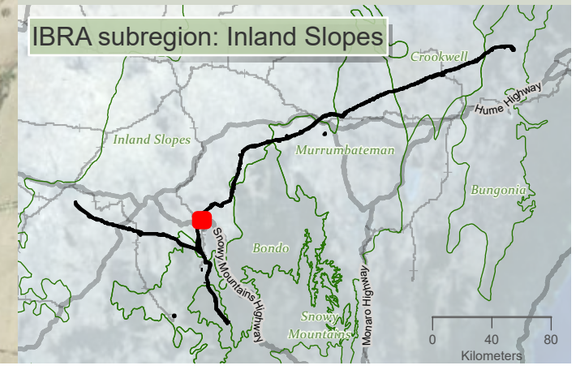
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 44

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

58000 58500 59000 59500 60000 60500 61000 61500 62000 62500

6089000 6088500 6088000 6087500 6087000 6086500 6086000 6085500

Inland Slopes

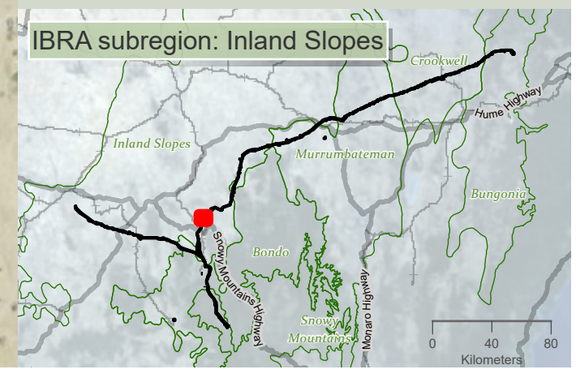
Big Rock Gully

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 45

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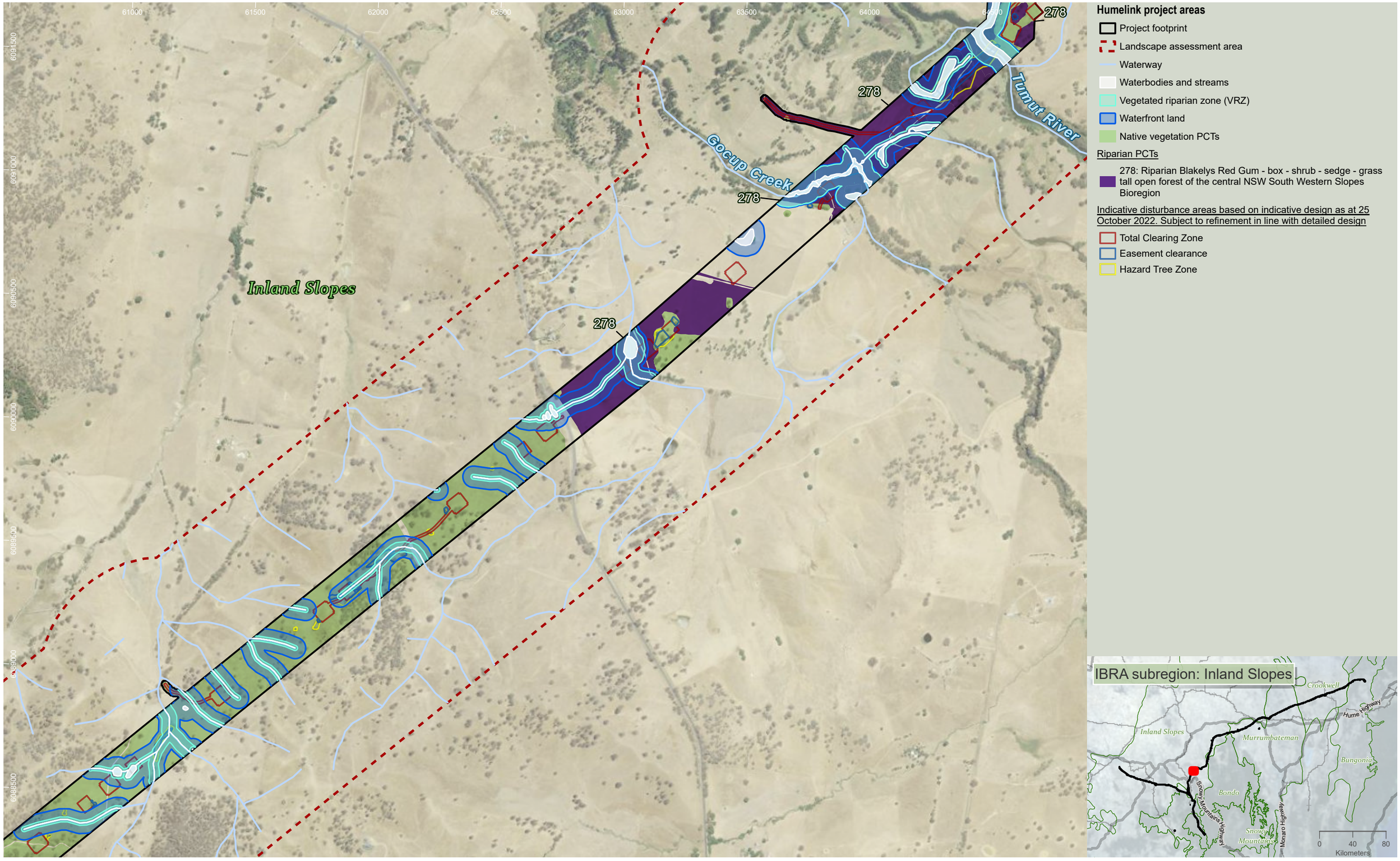

niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 46

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Inland Slopes

278

Tumut River

Gocup Creek

Humelink project areas

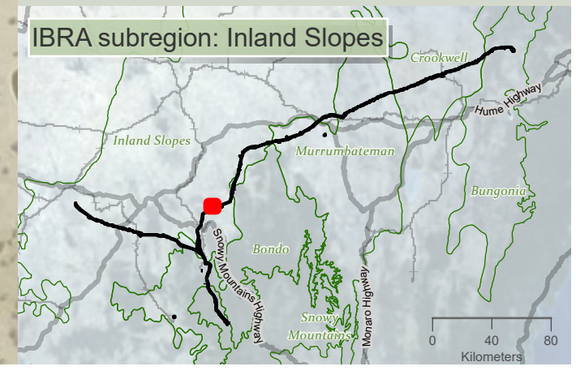
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 47

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66500 67000 67500 68000 68500 69000 69500 70000

6094000 6093500 6093000 6092500 6092000 6091500

Inland Slopes

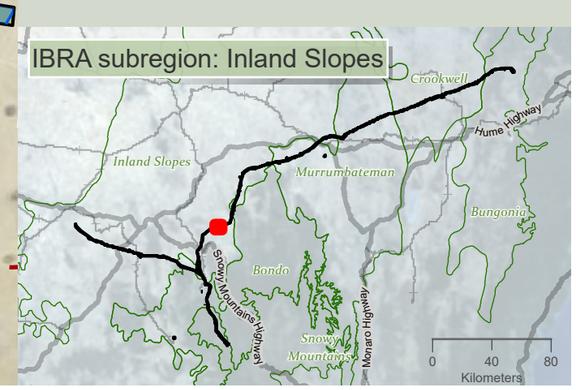
Killimicat Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 48

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70000 70500 71000 71500 72000 72500 73000 73500

6095000 6094500 6094000 6093500 6093000 6092500

Inland Slopes

Sawpit Gully

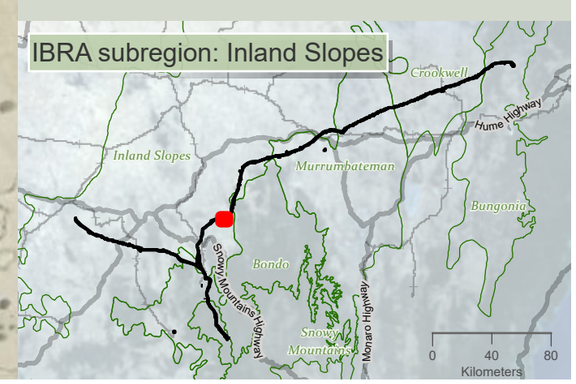
Killimicat Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 49

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72500 73000 73500 74000 74500 75000 75500 76000 76500

6097500 6097000 6096500 6096000 6095500 6095000 6094500 6094000

Brungle Creek

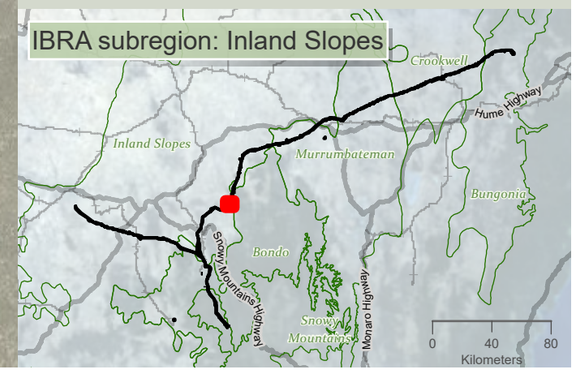
Inland Slopes

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 50

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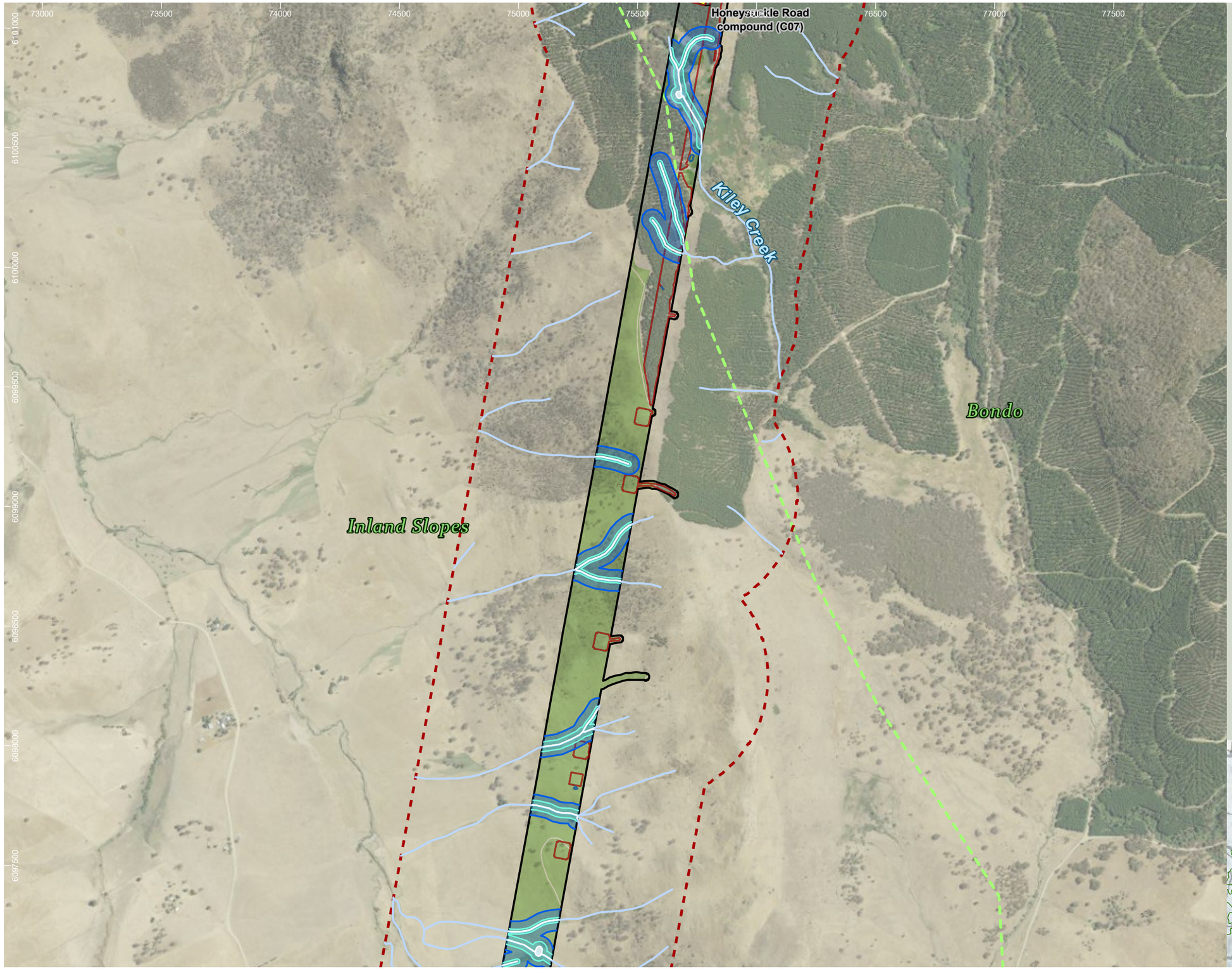
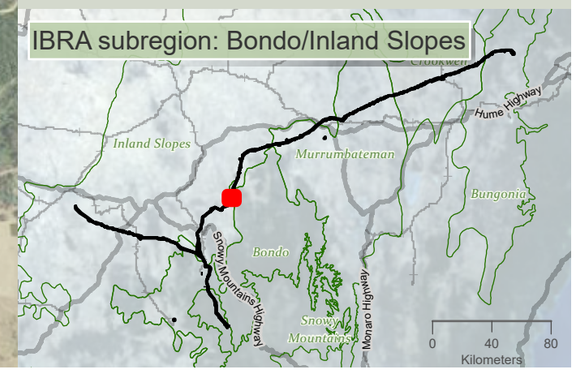


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 51

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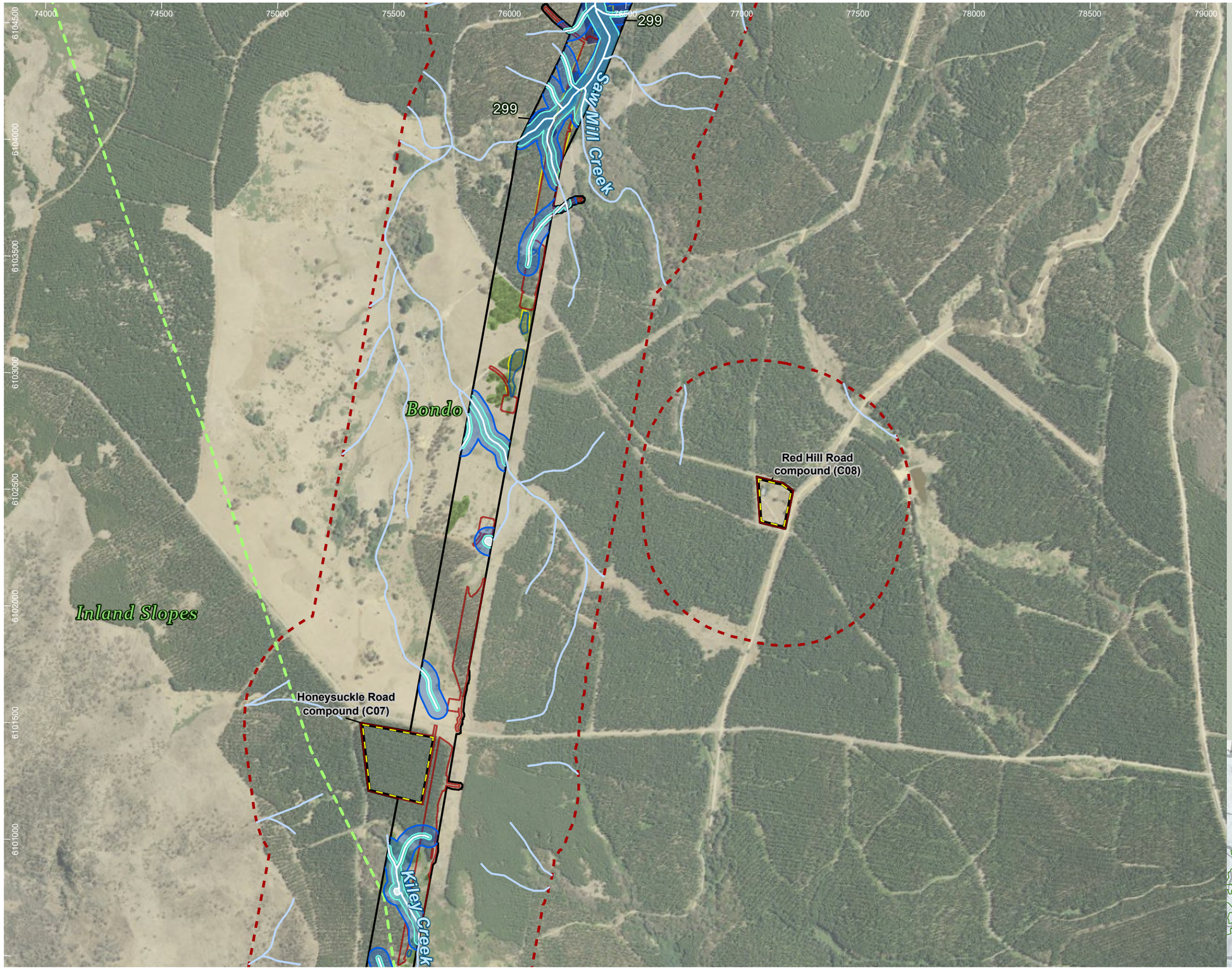


Humelink project areas

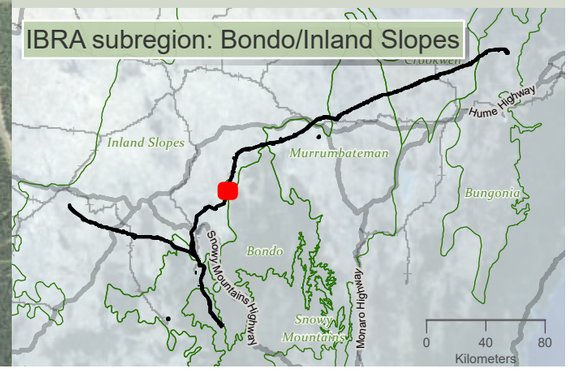
- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 52

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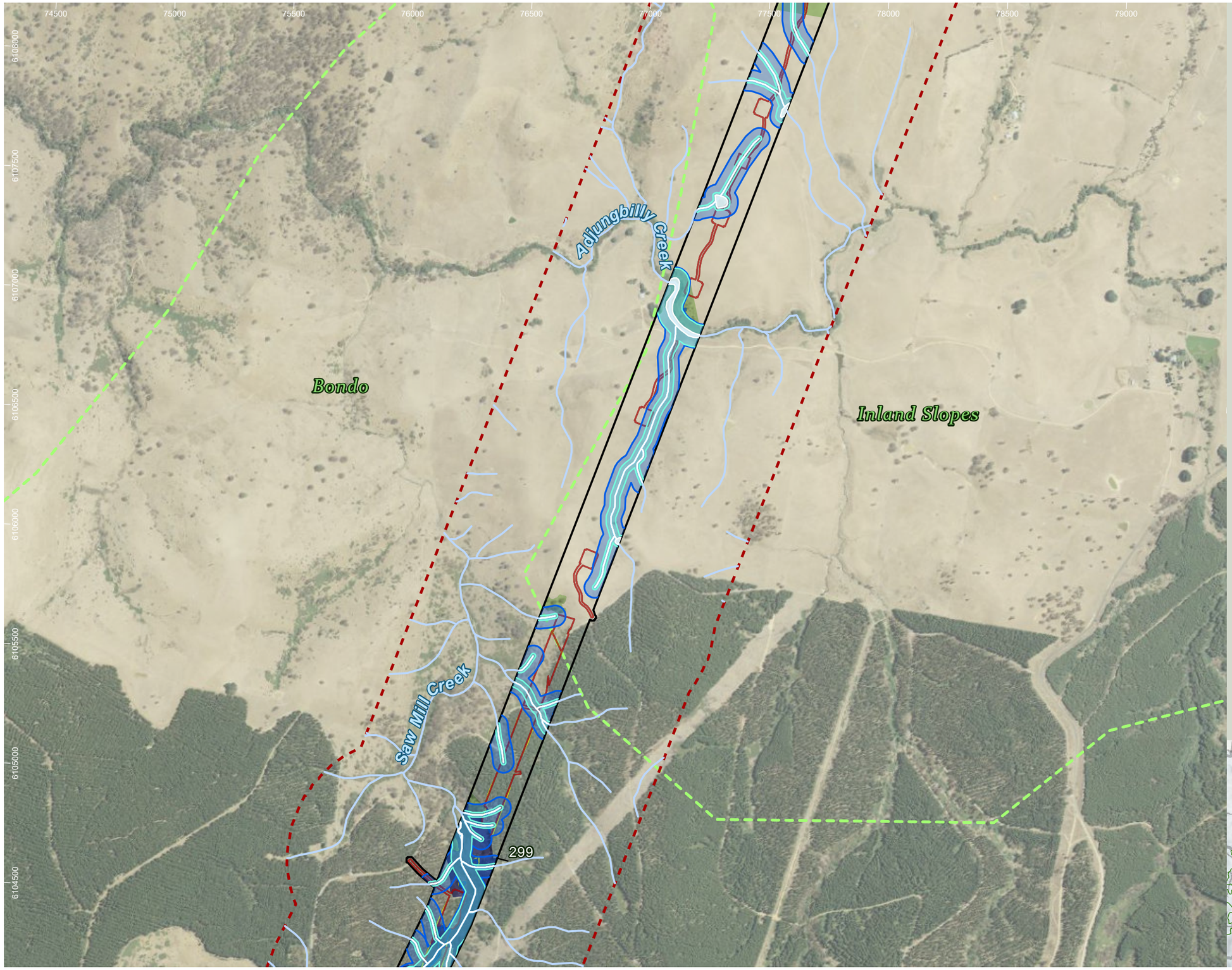


Humelink project areas

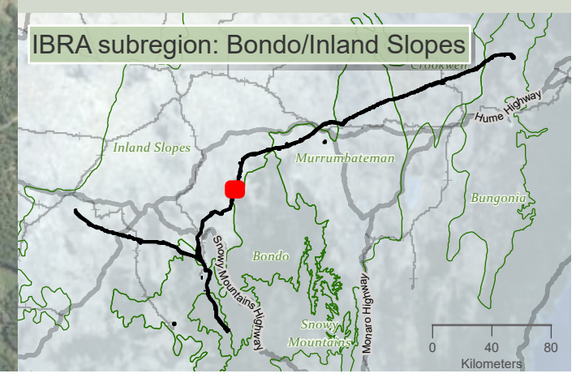
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 299: Riparian Ribbon Gum - Robertsons Peppermint - Apple Box riverine very tall open forest of the NSW South Western Slopes Bioregion and South Eastern Highlands Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 53

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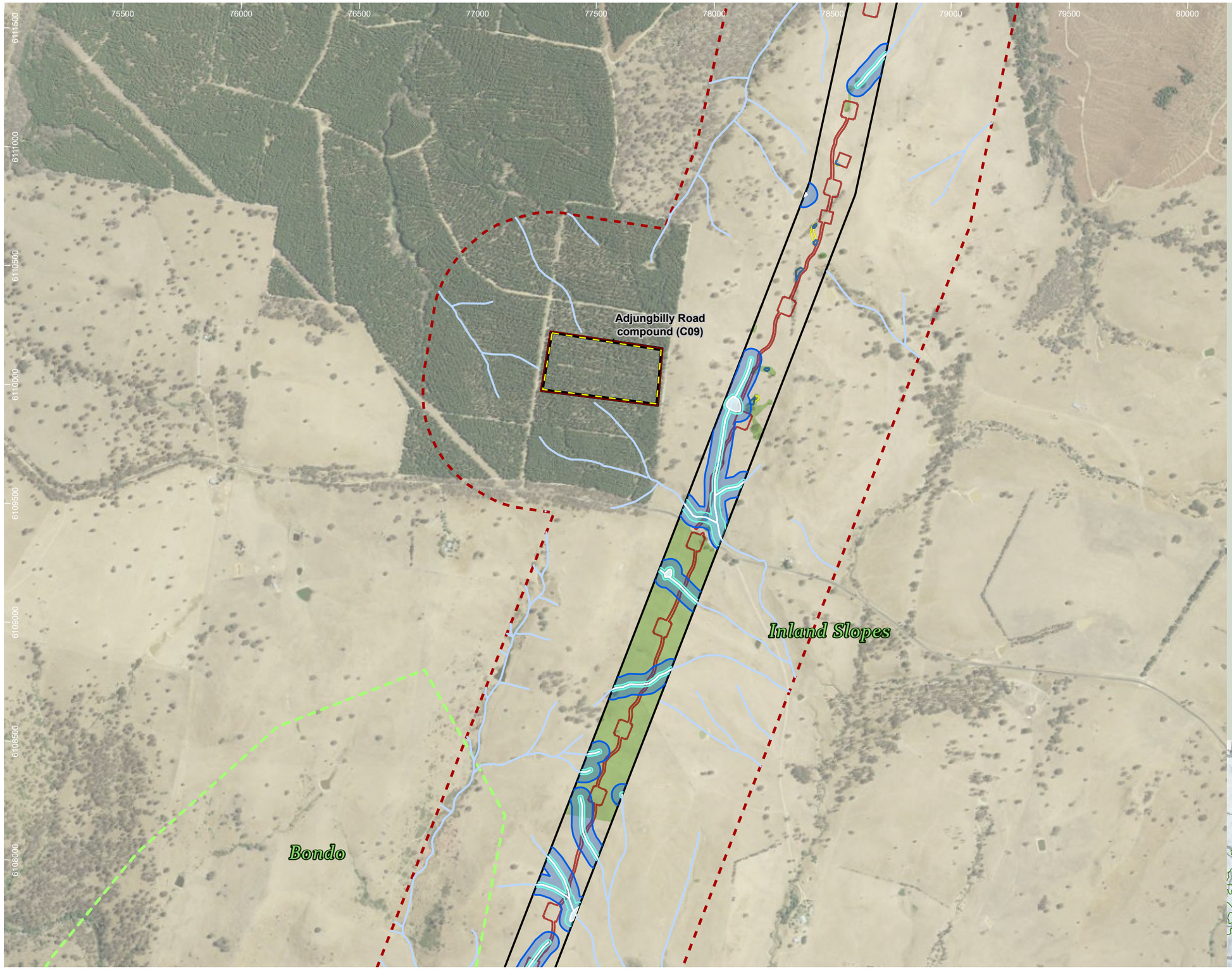
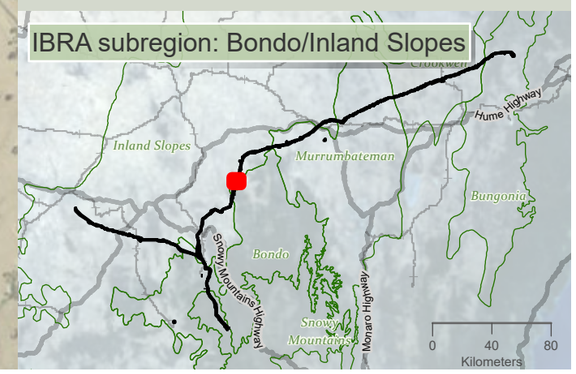


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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niche Environment and Heritage

0 500
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 54

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76500 77000 77500 78000 78500 79000 79500 80000 80500 81000

6114500 6114000 6113500 6113000 6112500 6112000 6111500 6111000

Inland Slopes

278

O'briens Creek

Humelink project areas

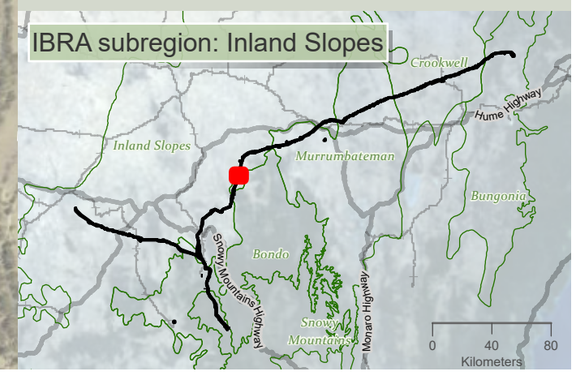
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 55

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDrive\Syne\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

O'briens Gully

Cart Road Creek

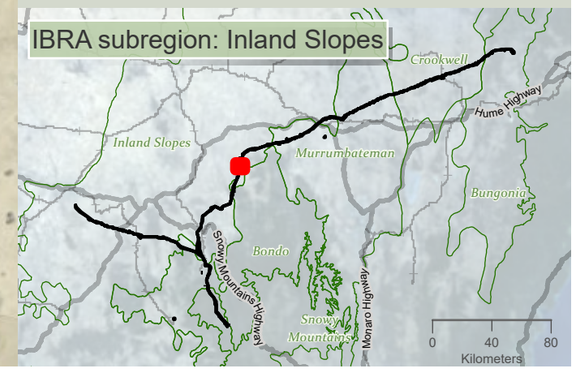
Inland Slopes

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 56

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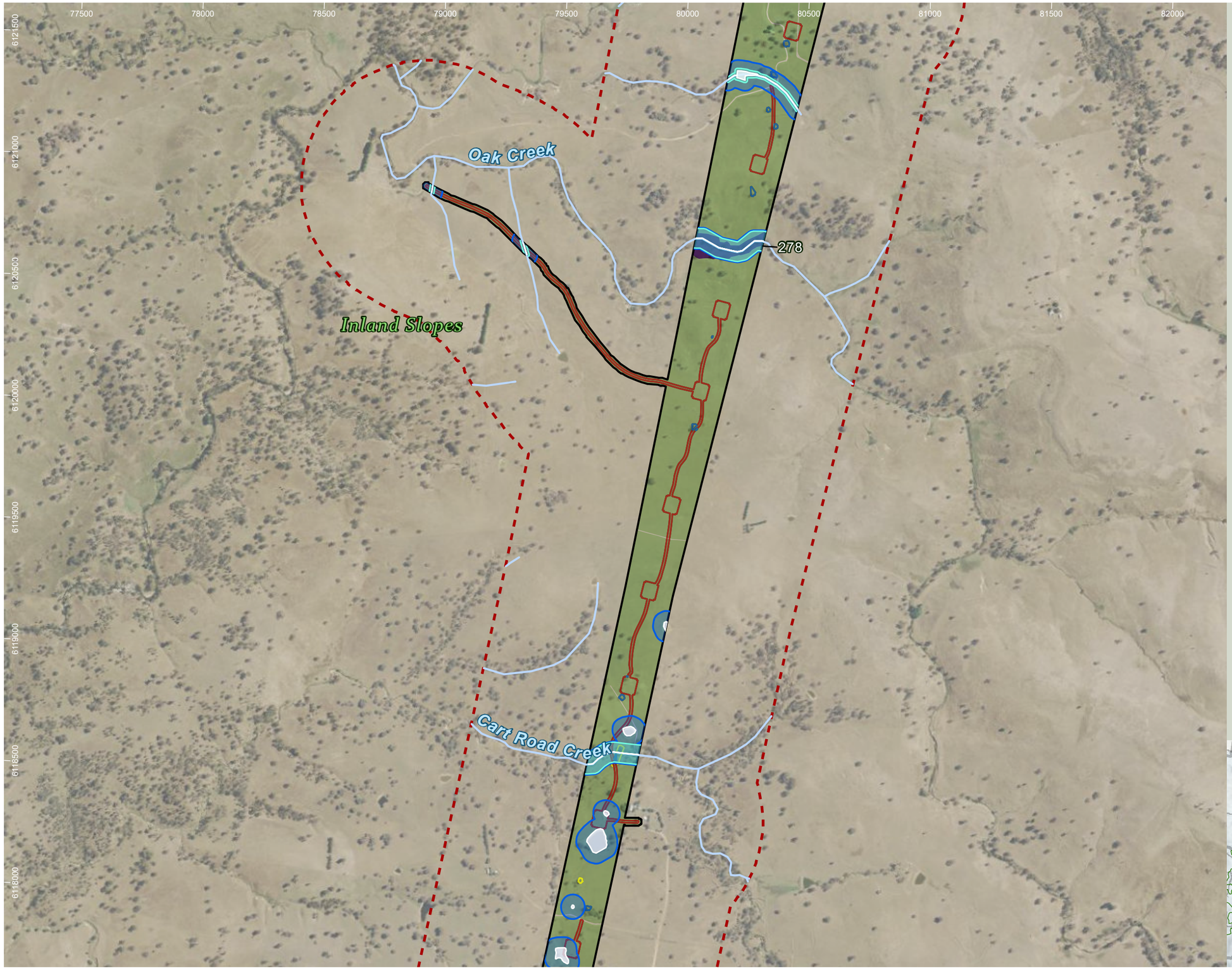


Humelink project areas

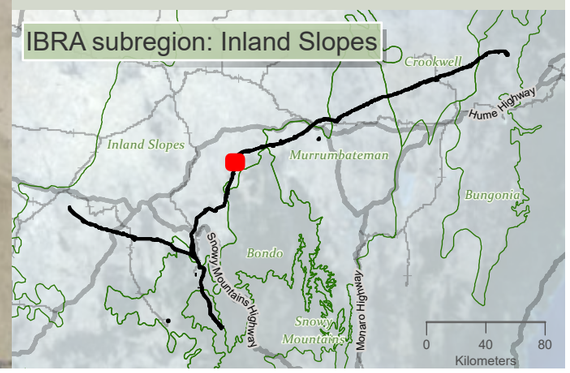
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 57

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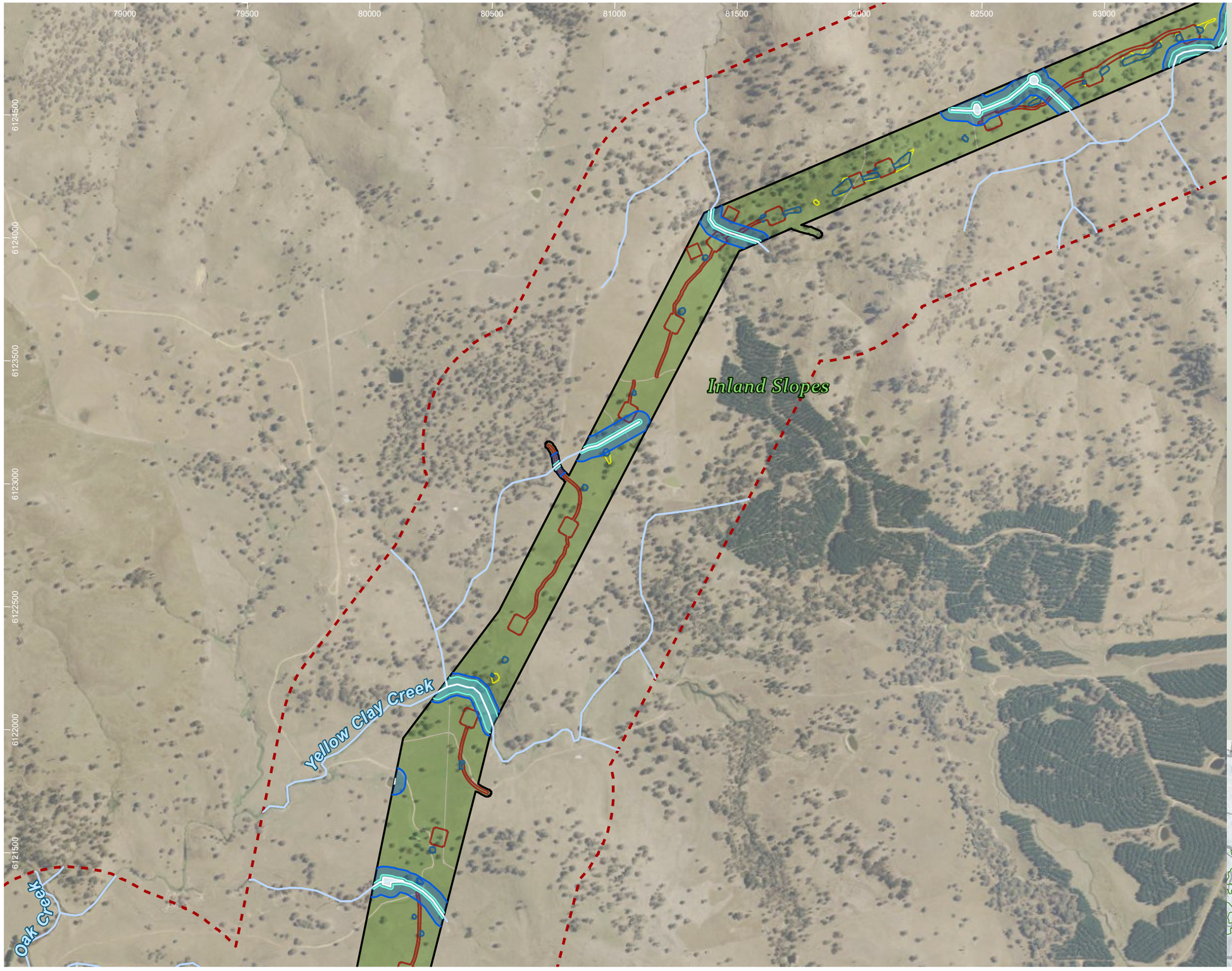
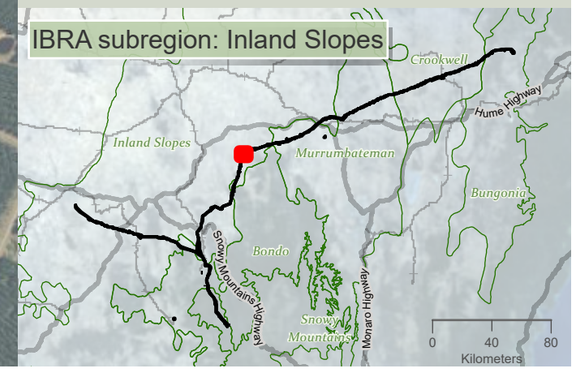


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 58

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82000 82500 83000 83500 84000 84500 85000 85500

6126500 6126000 6125500 6125000 6124500 6124000

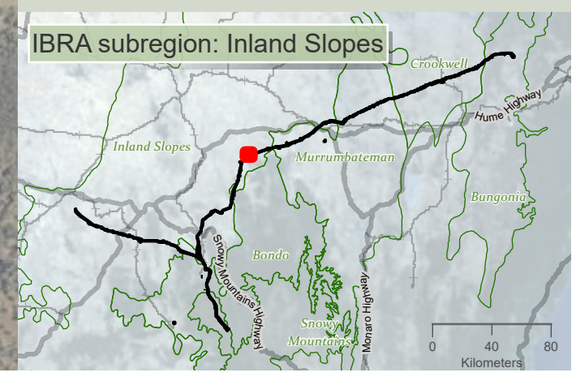
Inland Slopes

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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m
N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 59

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85500 86000 86500 87000 87500 88000 88500

6127500 6127000 6126500 6126000 6125500 6125000

Rocky Creek

Inland Slopes

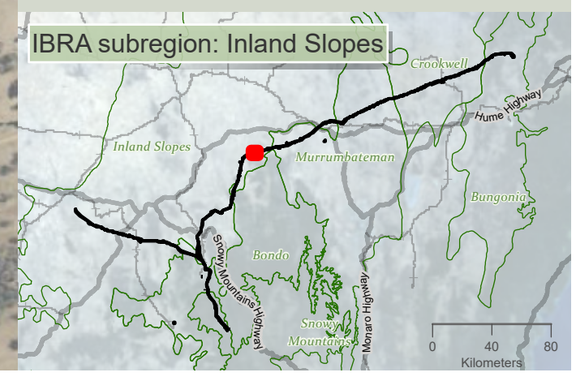
Dicks Gully

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 60

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajeczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6099_Humelink_BDAR_v2_figures Part 3.aprx

88500 89000 89500 90000 90500 91000 91500 92000

6128500 6128000 6127500 6127000 6126500 6126000 6125500

Inland Slopes

Murrumbidgee River

5

Oaky Creek

Humelink project areas

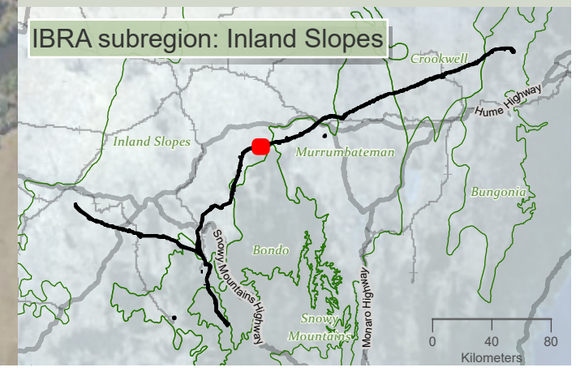
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500 6127000

Oak Creek

Inland Slopes

Murrumbidgee River

5

Oaky Creek

Bondo

Humelink project areas

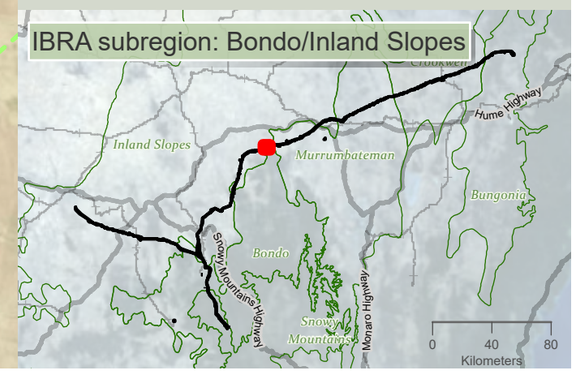
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

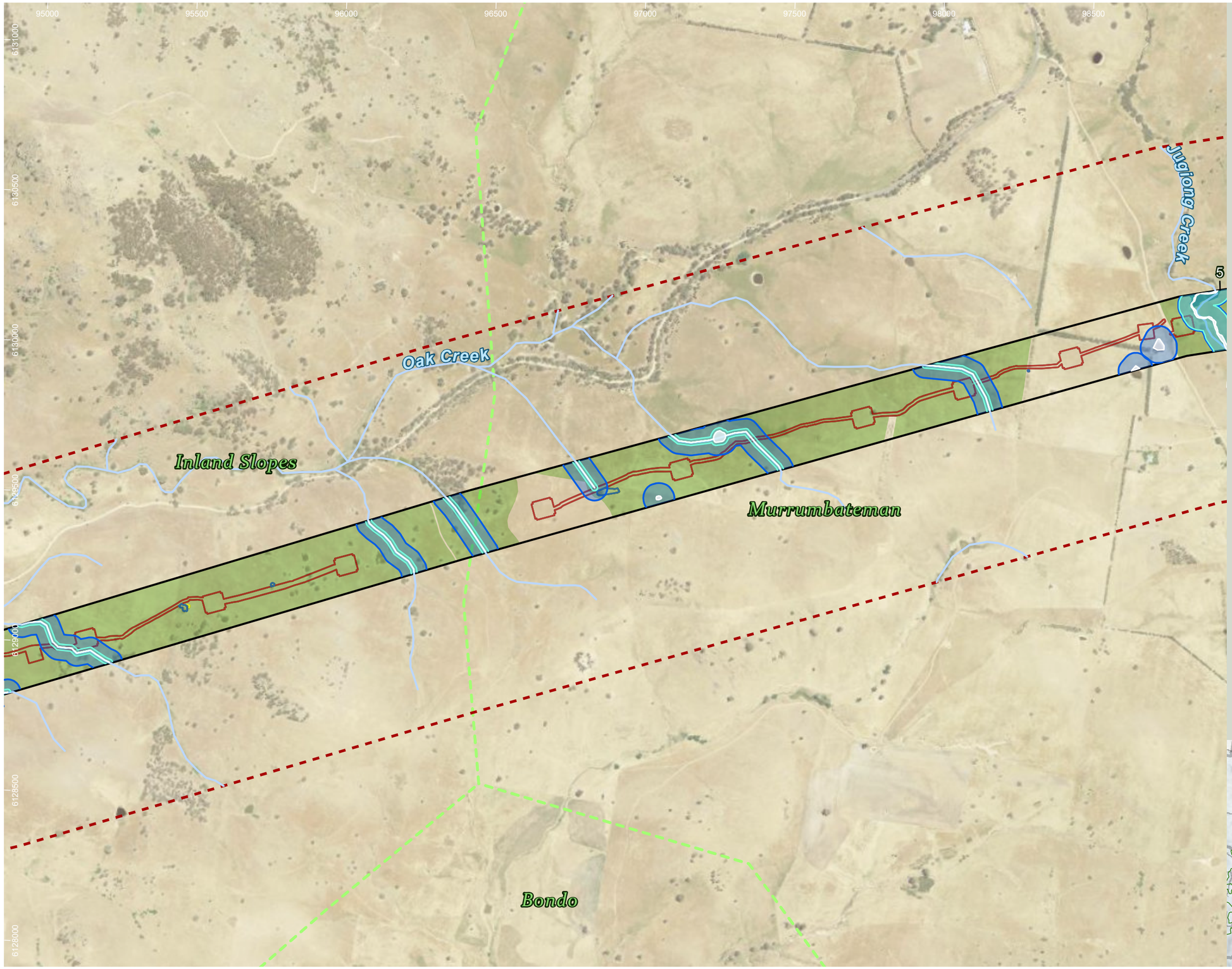
Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential Impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx



Humelink project areas

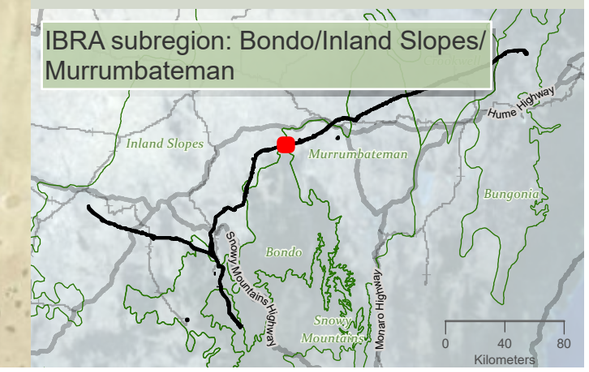
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

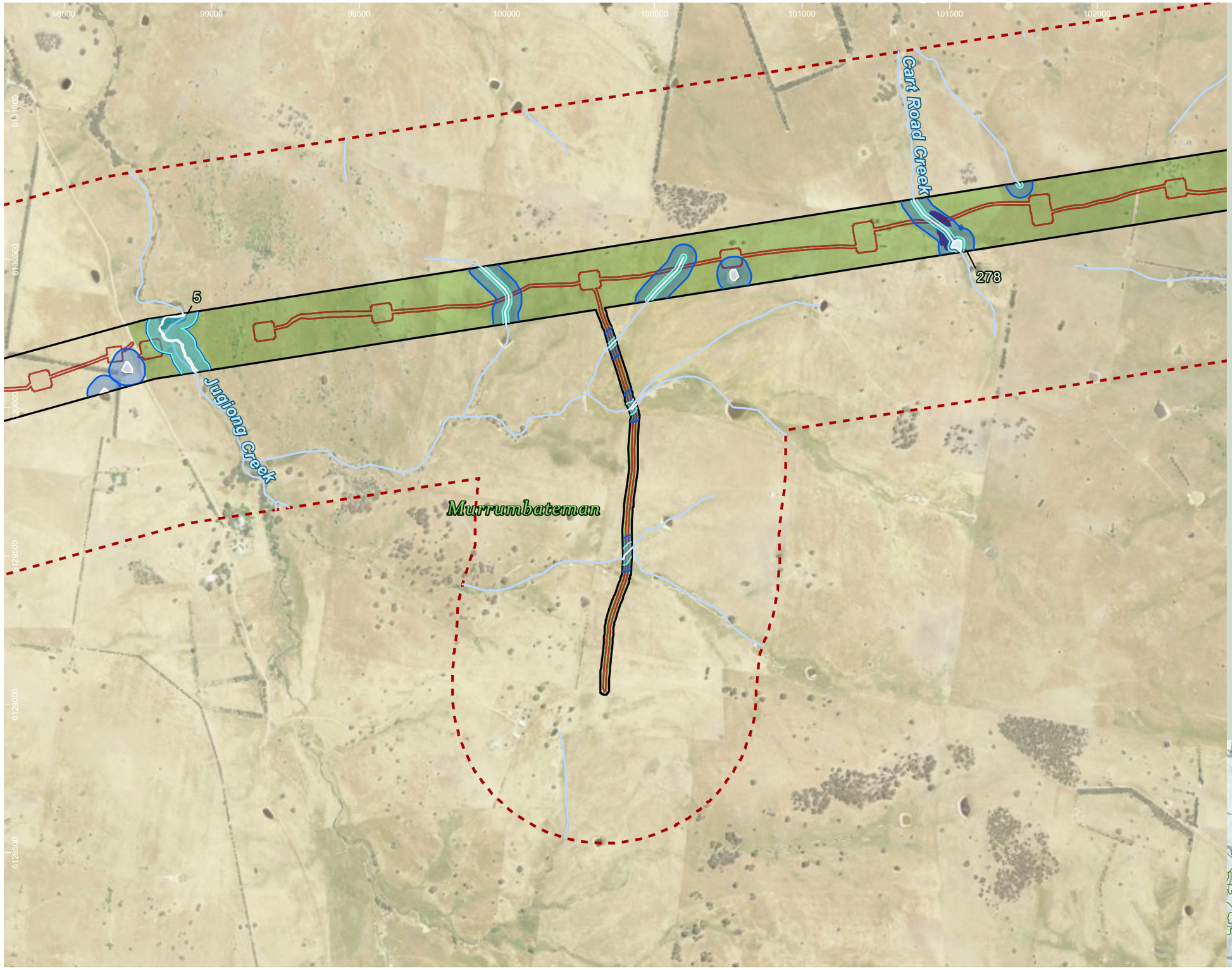
Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\EIS-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx



Humelink project areas

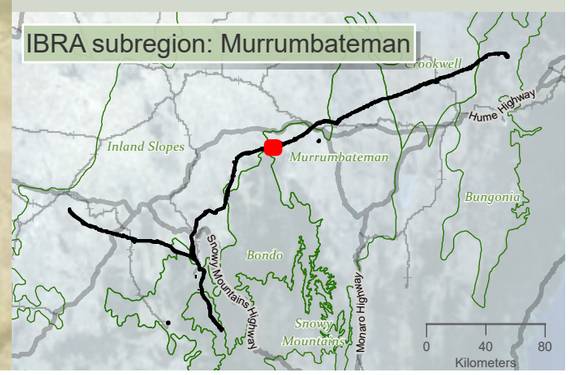
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion
- 5: River Red Gum herbaceous-grassy very tall open forest wetland on inner floodplains in the lower slopes sub-region of the NSW South Western Slopes Bioregion and the eastern Riverina Bioregion.

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 64

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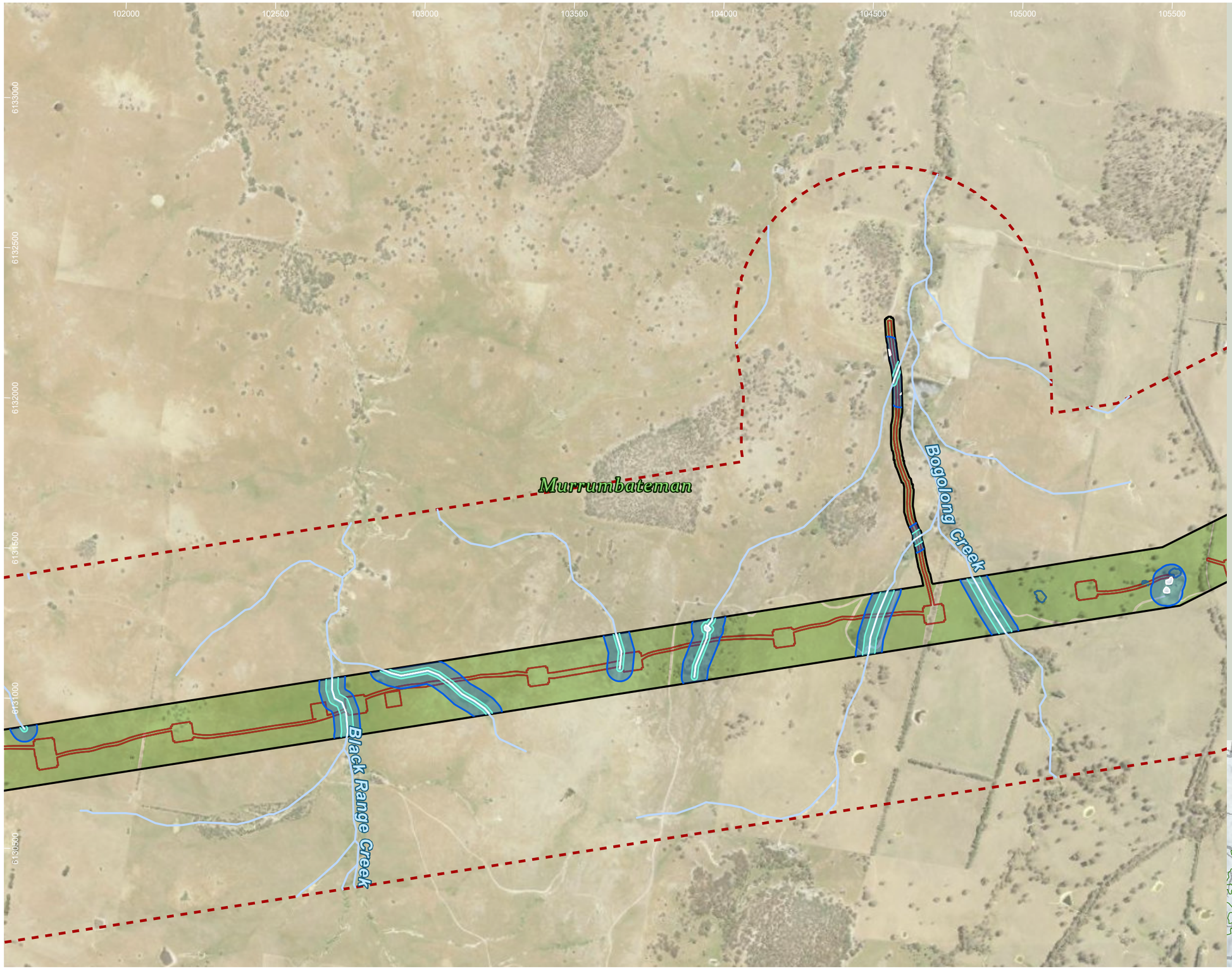
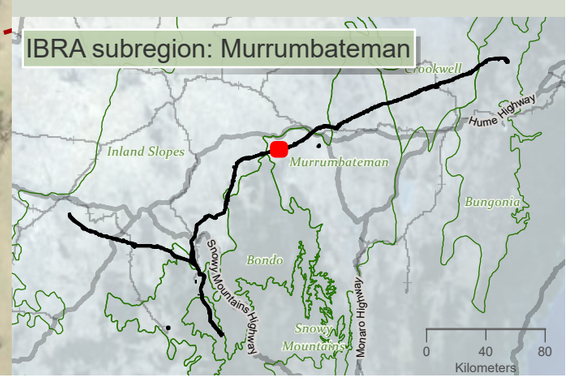


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 65

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai6699_Humelink_BDAR_v2_figures Part 3.aprx

105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Murrumbateman

Woolgarlo Creek

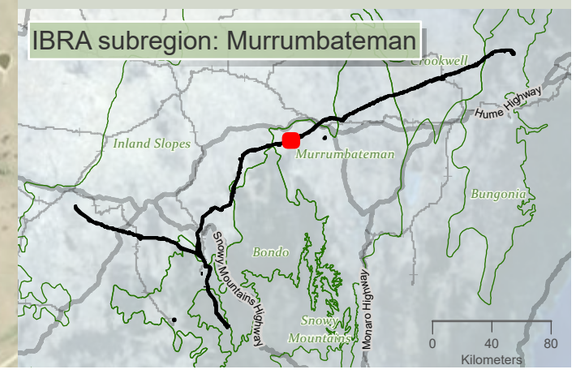
Bogolong Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 66

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

108500 109000 109500 110000 110500 111000 111500 112000

6135000 6134500 6134000 6133500 6133000 6132500

Murrumbateman

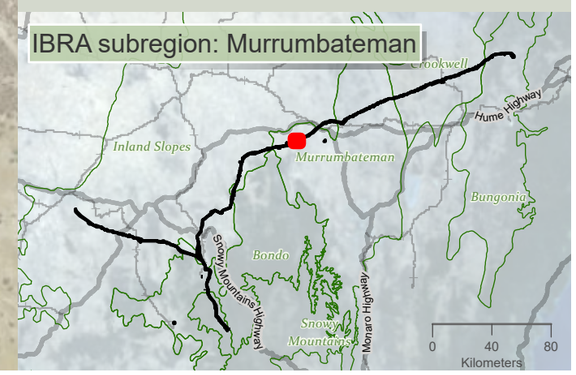
Woolgarlo Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 67

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6099_Humelink_BDAR_v2_figures Part 3.aprx

111500 112000 112500 113000 113500 114000 114500 115000

6136500 6136000 6135500 6135000 6134500 6134000

Murrumbateman

Mccullums Creek

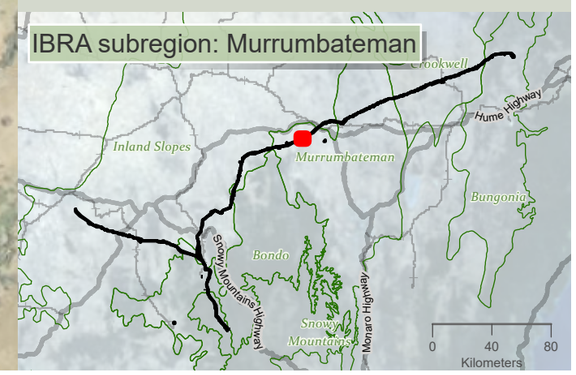
Washpen Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 68

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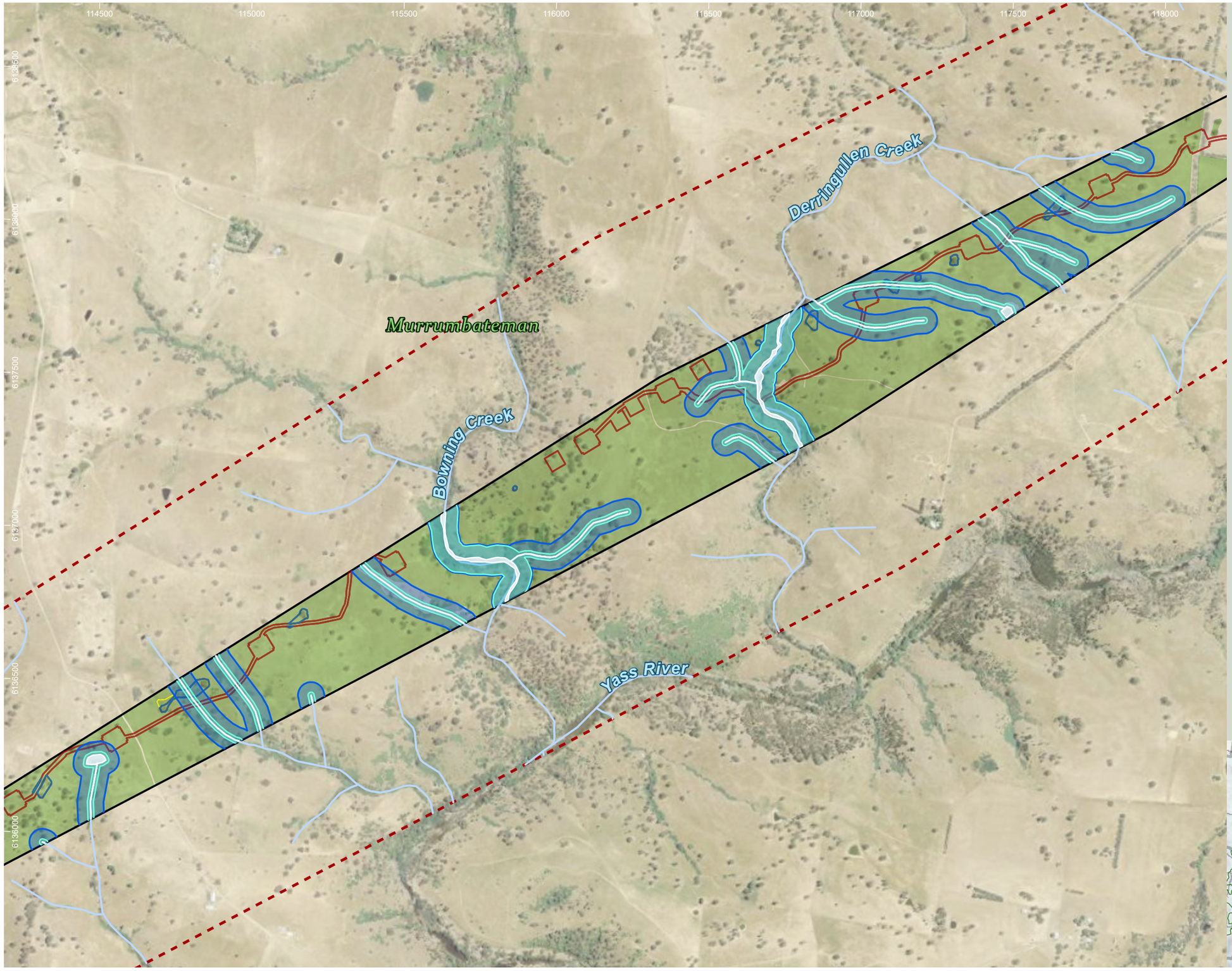
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_v2_figures Part 3.aprx
Humelink_BDAR_v2a6699_Humelink_BDAR_v2_figures Part 3 - Confidential impact assessment SEC-EXT

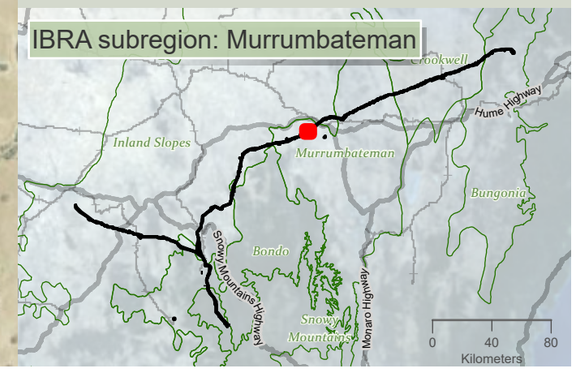


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 69

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117000
117500
118000
118500
119000
119500
120000
120500
121000

6140500
6140000
6139500
6139000
6138500
6138000
6137500

Derringullen Creek

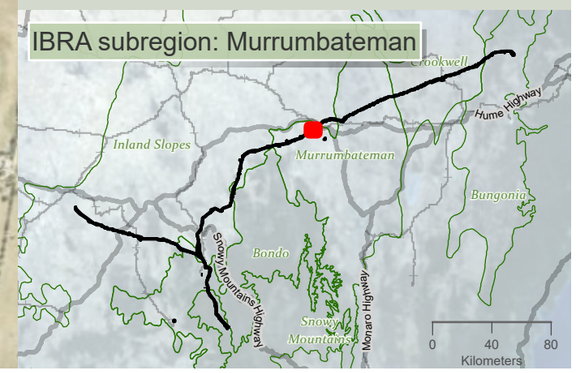
Murrumbateman

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 70

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119500 120000 120500 121000 121500 122000 122500 123000 123500

6143000 6142500 6142000 6141500 6141000 6140500

Inland Slopes

Murrumbateman

Excursion Gully

Derringullen Creek

278

278

Humelink project areas

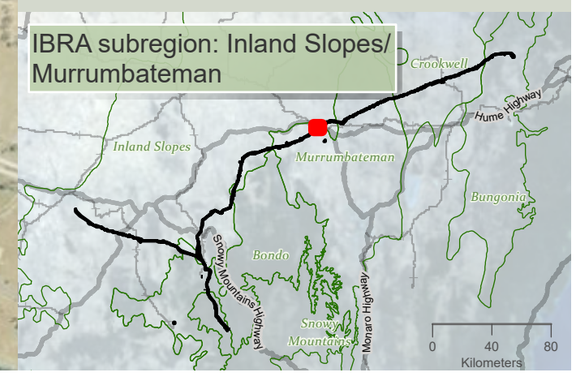
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 71

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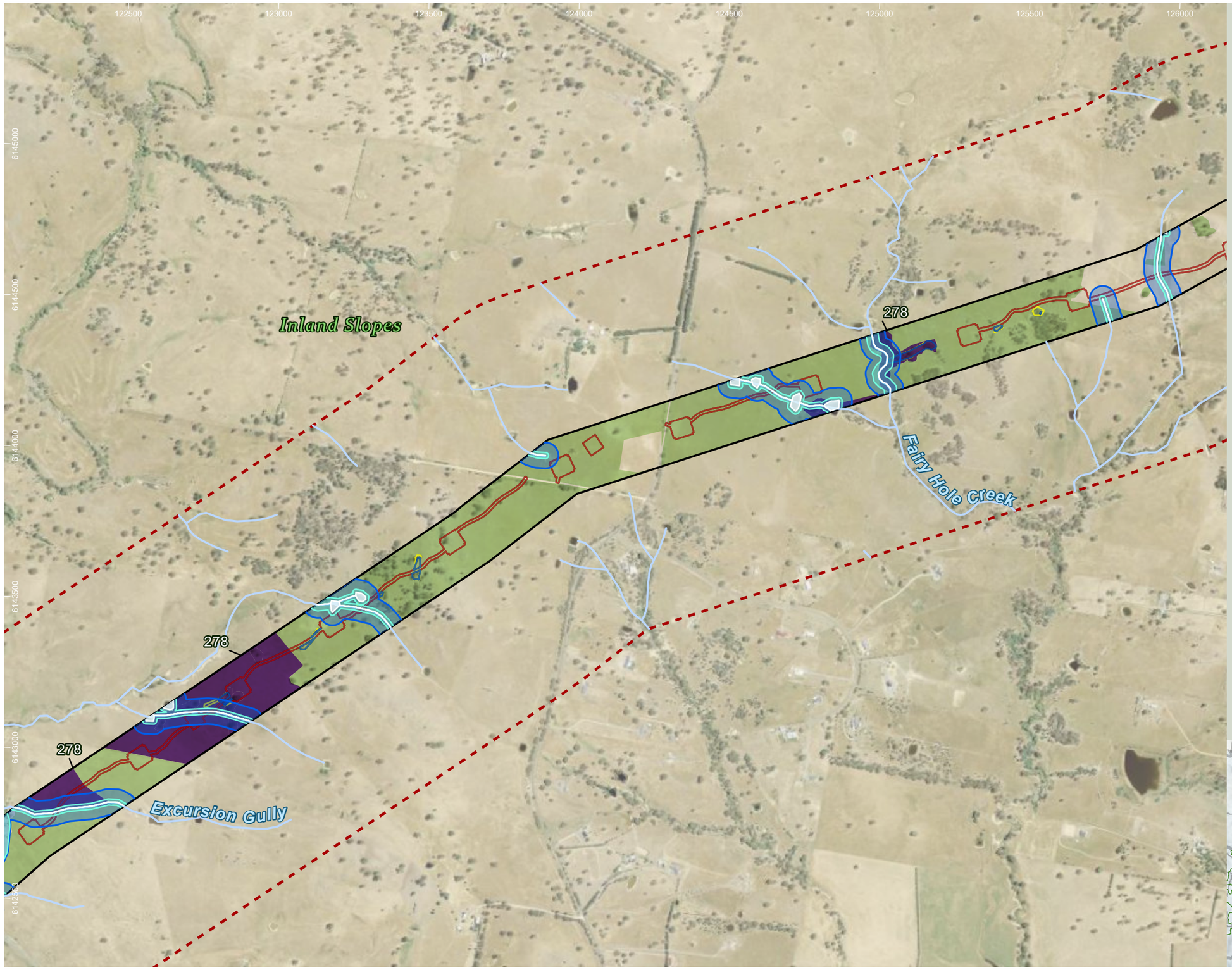
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDrive\Syne\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx



Humelink project areas

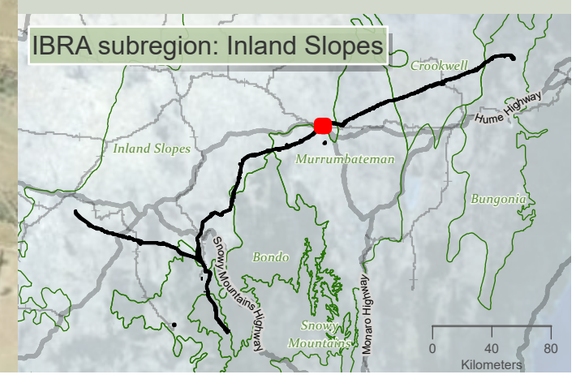
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 73

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125500 126000 126500 127000 127500 128000 128500 129000

6146500 6146000 6145500 6145000 6144500 6144000

Cooks Creek

Inland Slopes

278 278 278

Humelink project areas

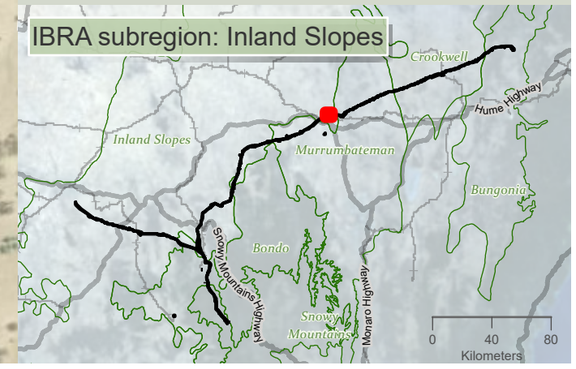
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 74

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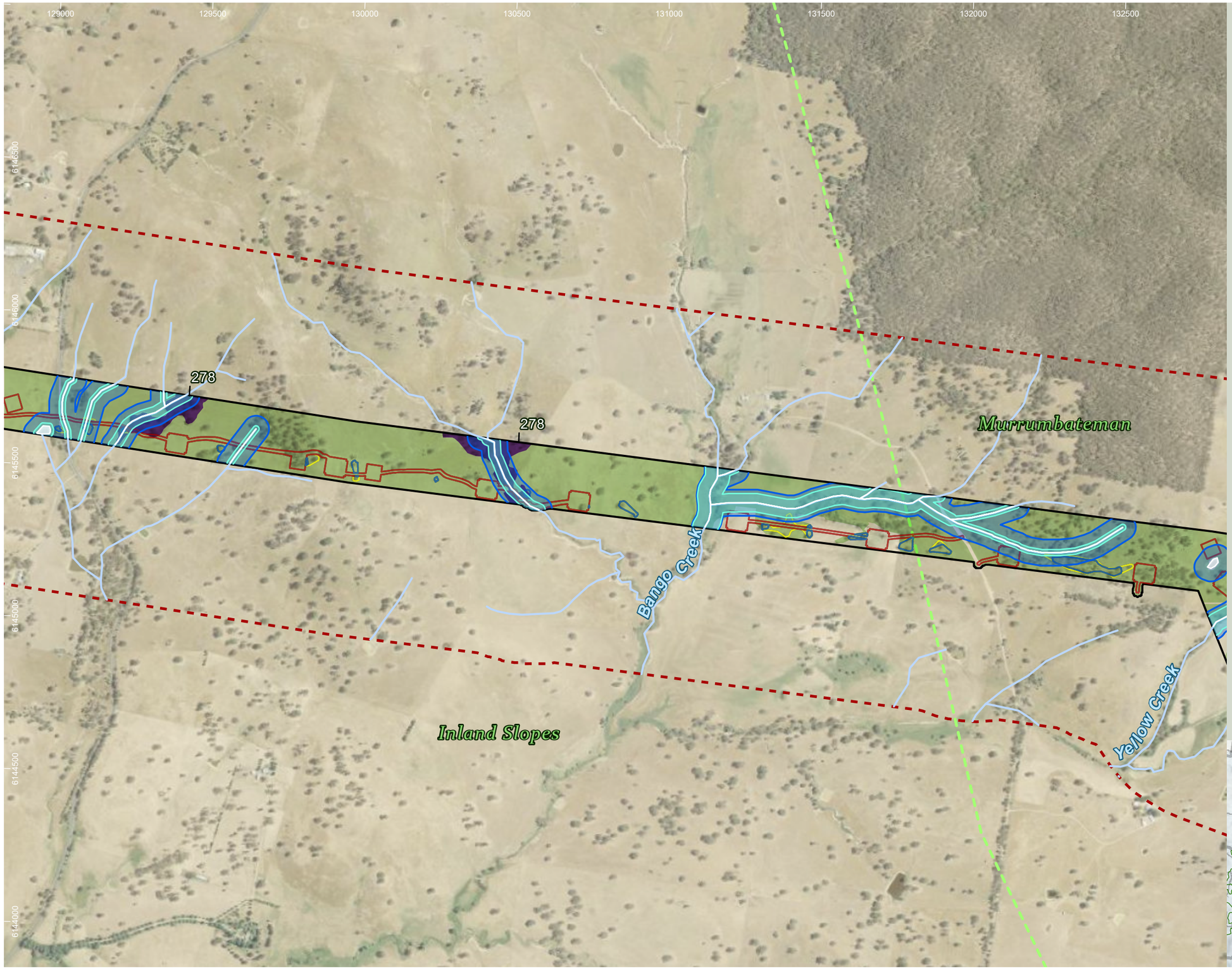


Humelink project areas

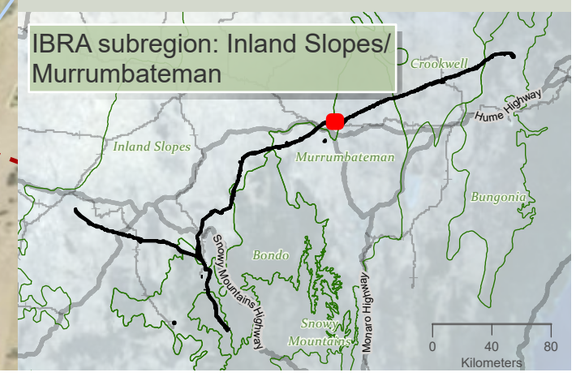
- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 278: Riparian Blakelys Red Gum - box - shrub - sedge - grass tall open forest of the central NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



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niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 75

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132500 133000 133500 134000 134500 135000 135500 136000

6146500 6146000 6145500 6145000 6144500 6144000 6143500

Yellow Creek

Murrumbateman

Three Waterholes Creek

Mantons Creek

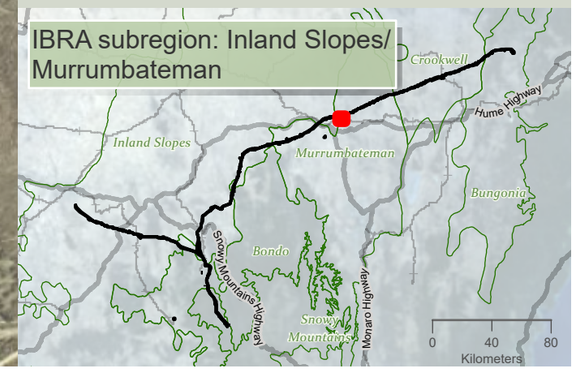
nd Slopes

Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 76

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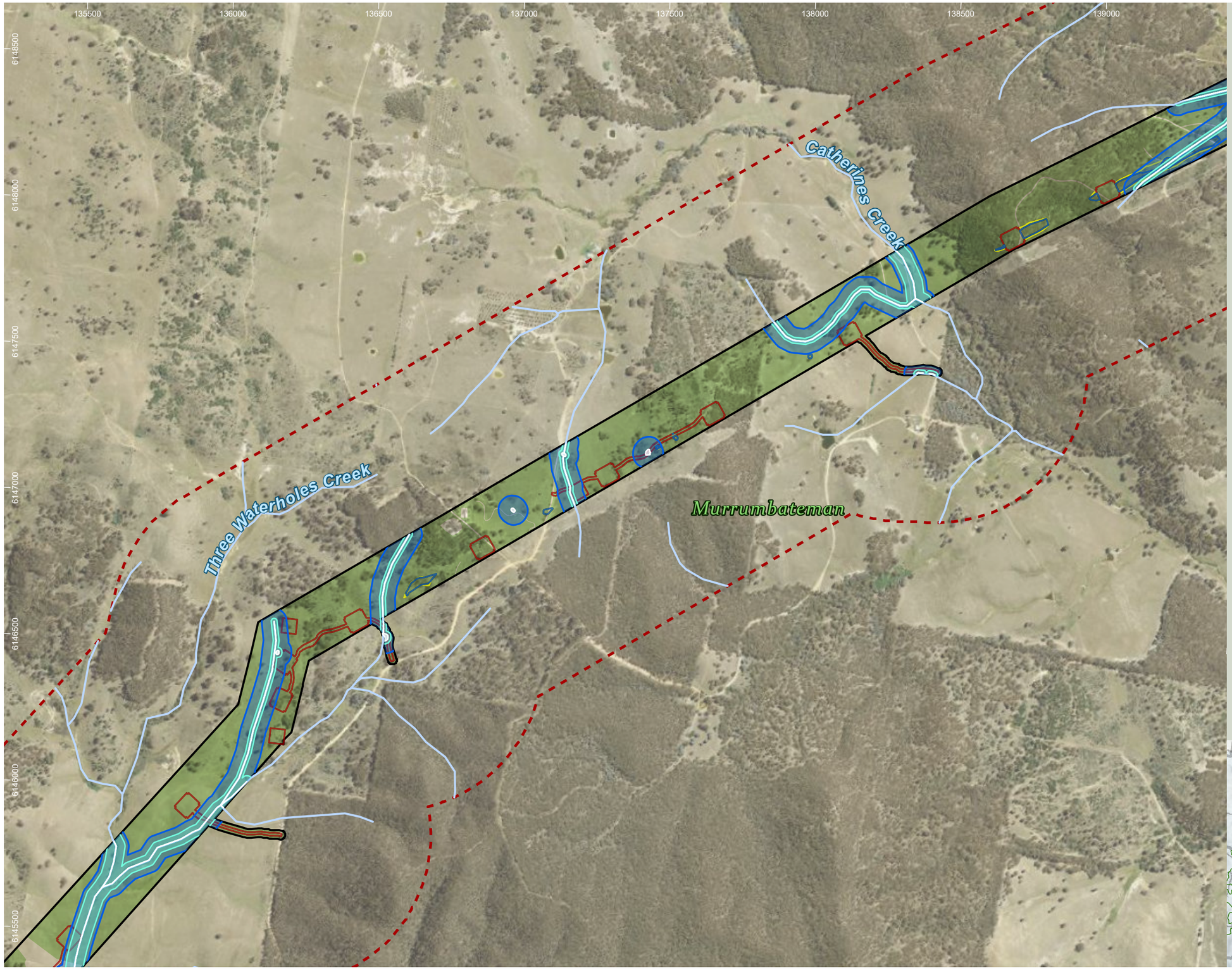
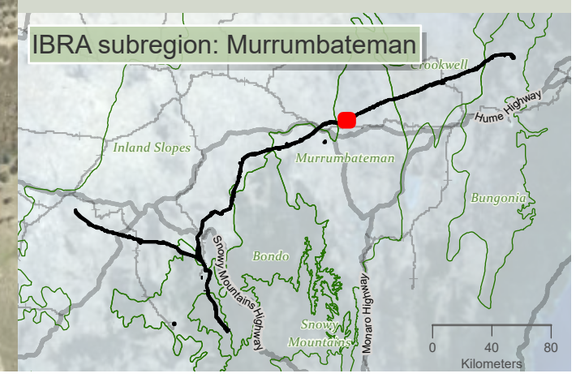


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 77

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138500 139000 139500 140000 140500 141000 141500 142000

6150000 6149500 6149000 6148500 6148000 6147500

Bunton Creek

Murrumbateman

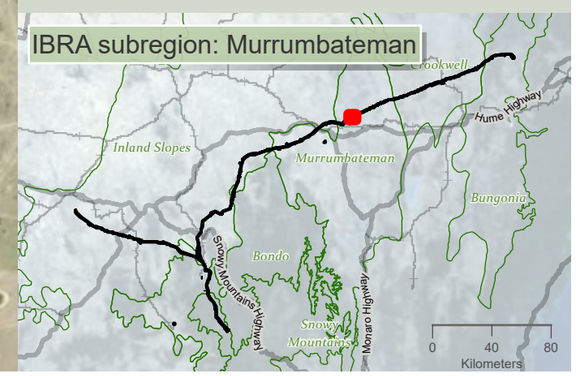
Catherines Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 78

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assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx - Confidential impact

141500 142000 142500 143000 143500 144000 144500 145000

6152000 6151500 6151000 6150500 6150000 6149500 6149000

Murrumbateman

Felled Timber Creek

Flacknell Creek

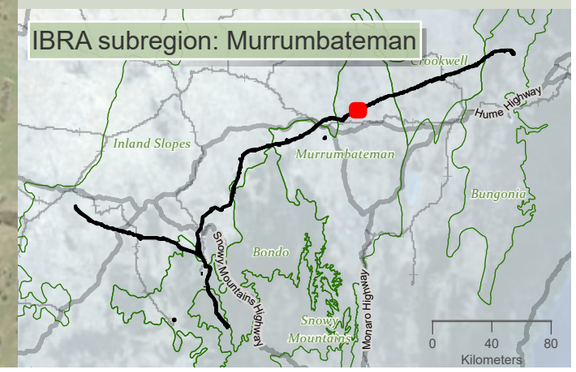
Bunton Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 79

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144500 145000 145500 146000 146500 147000 147500 148000

6153500 6153000 6152500 6152000 6151000

Murrumbateman

Jerrawa Creek

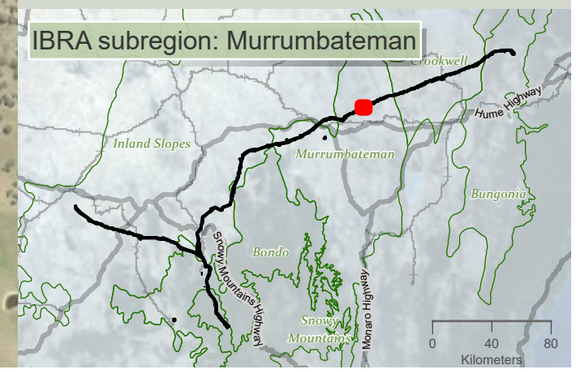
Felled Timber Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

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Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

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Figure 13-17 map reference 80

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148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Murrumbateman

Dowlings Creek

Sams Creek

Oolong Creek

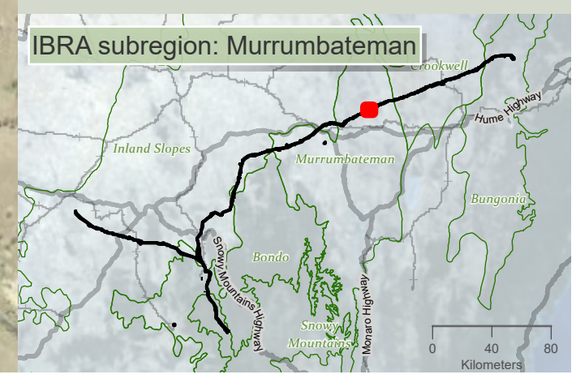
Jerrawa Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 81

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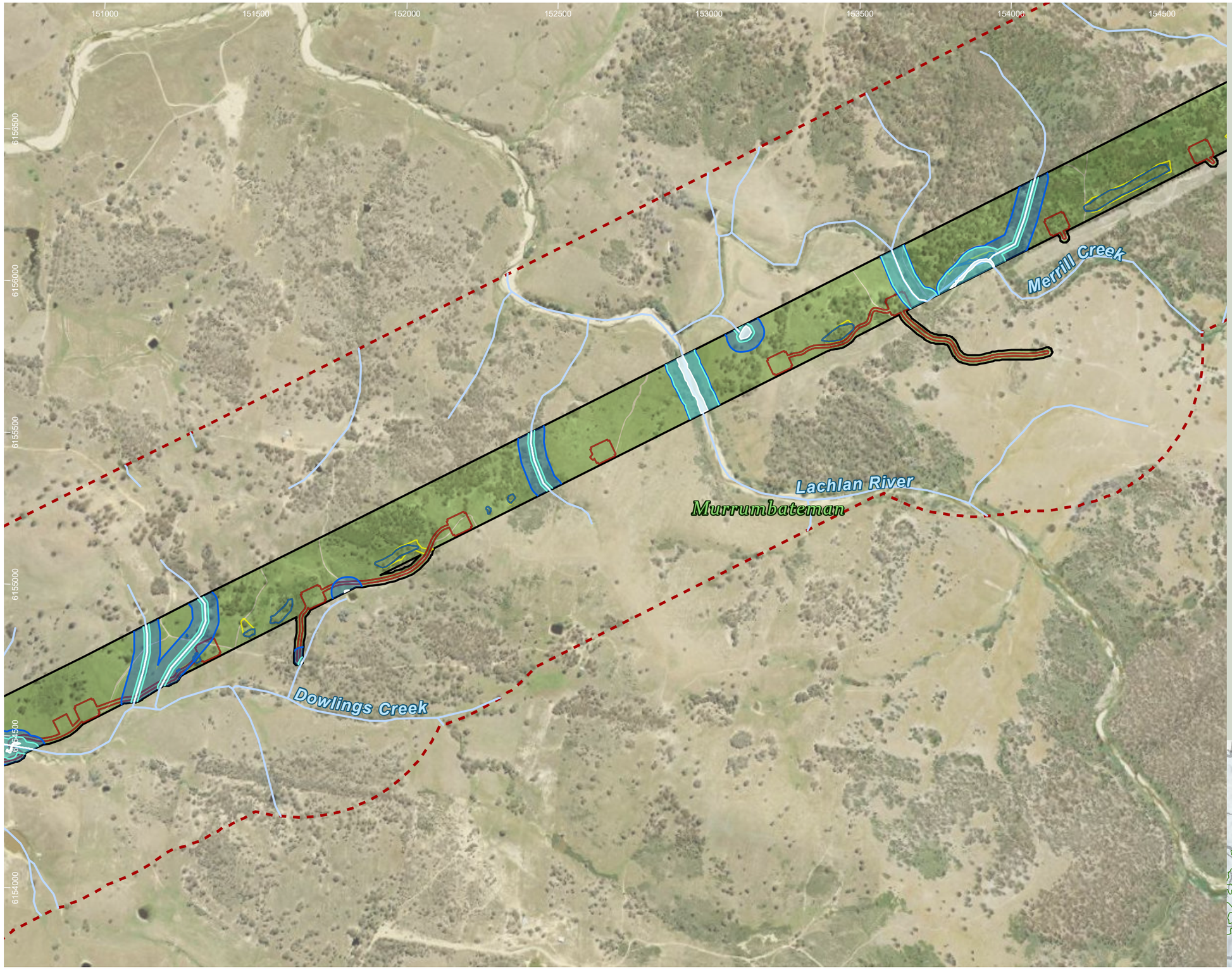
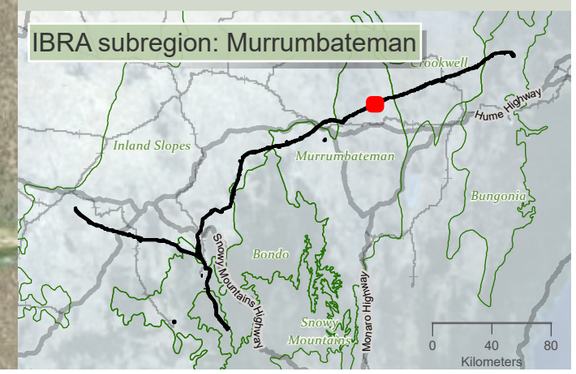


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 82

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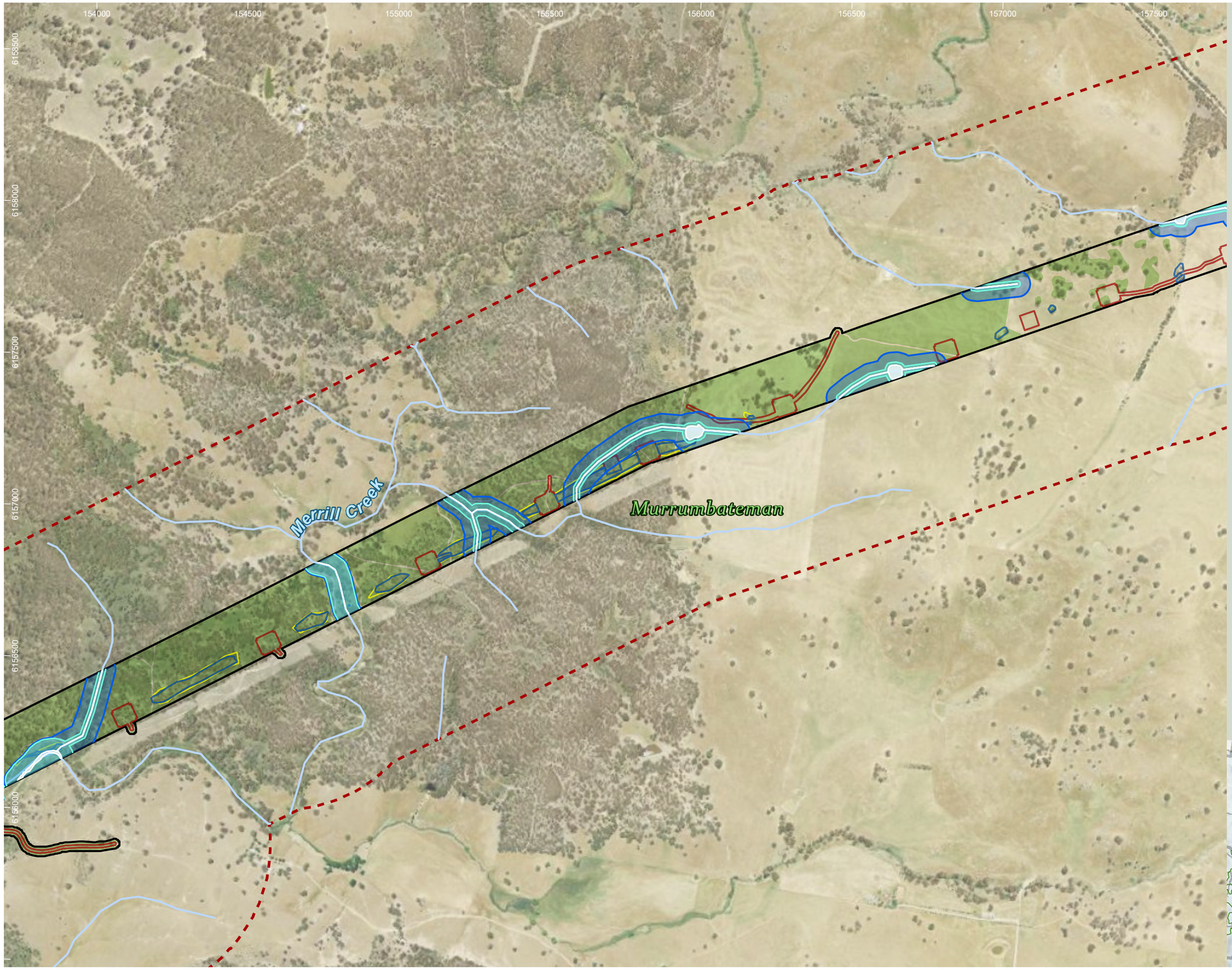
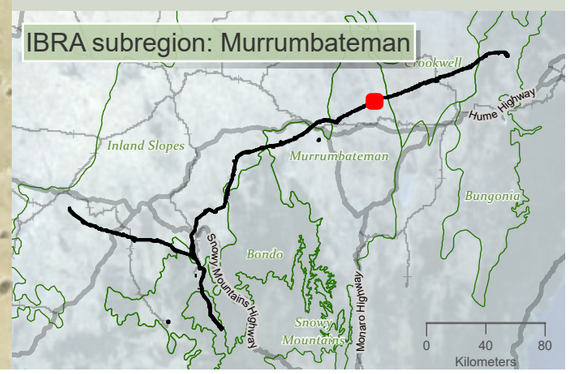


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 83

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157000
157500
158000
158500
159000
159500
160000
160500

6159500
6159000
6158500
6158000
6157500
6157000

Murrumbateman

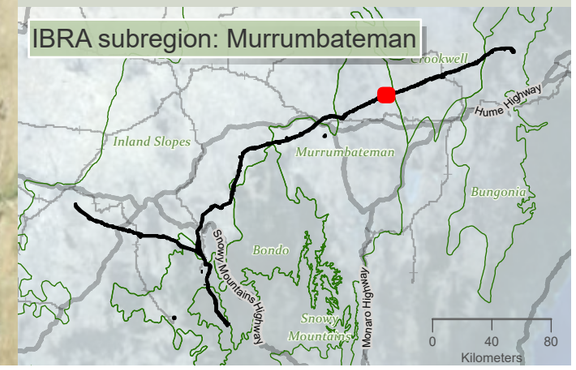
Middle Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 84

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160500 161000 161500 162000 162500 163000 163500 164000

6160500 6160000 6159500 6159000 6158500 6158000

Crookwell

Murrumbateman

Merrill Creek

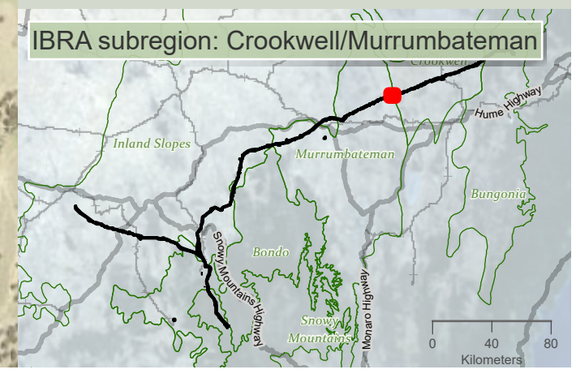
Middle Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

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WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 85

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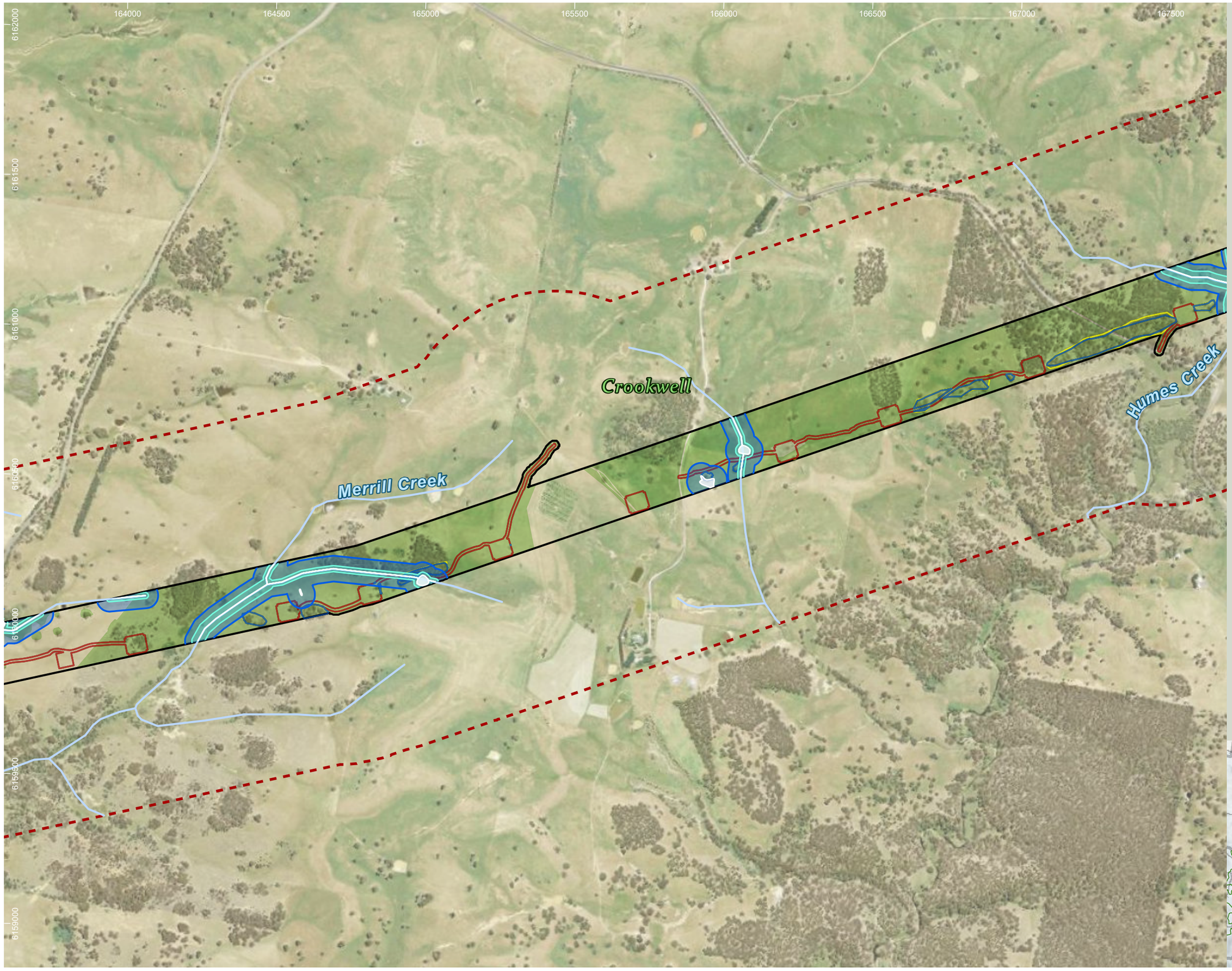
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

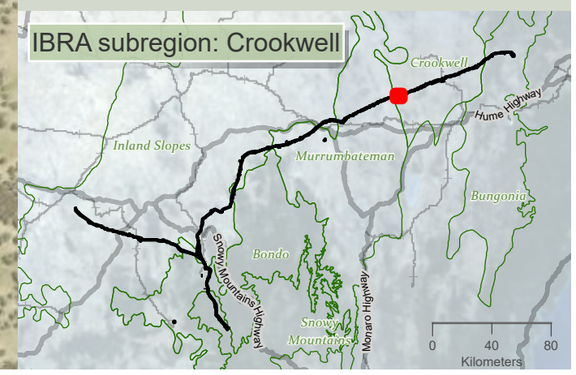


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 86

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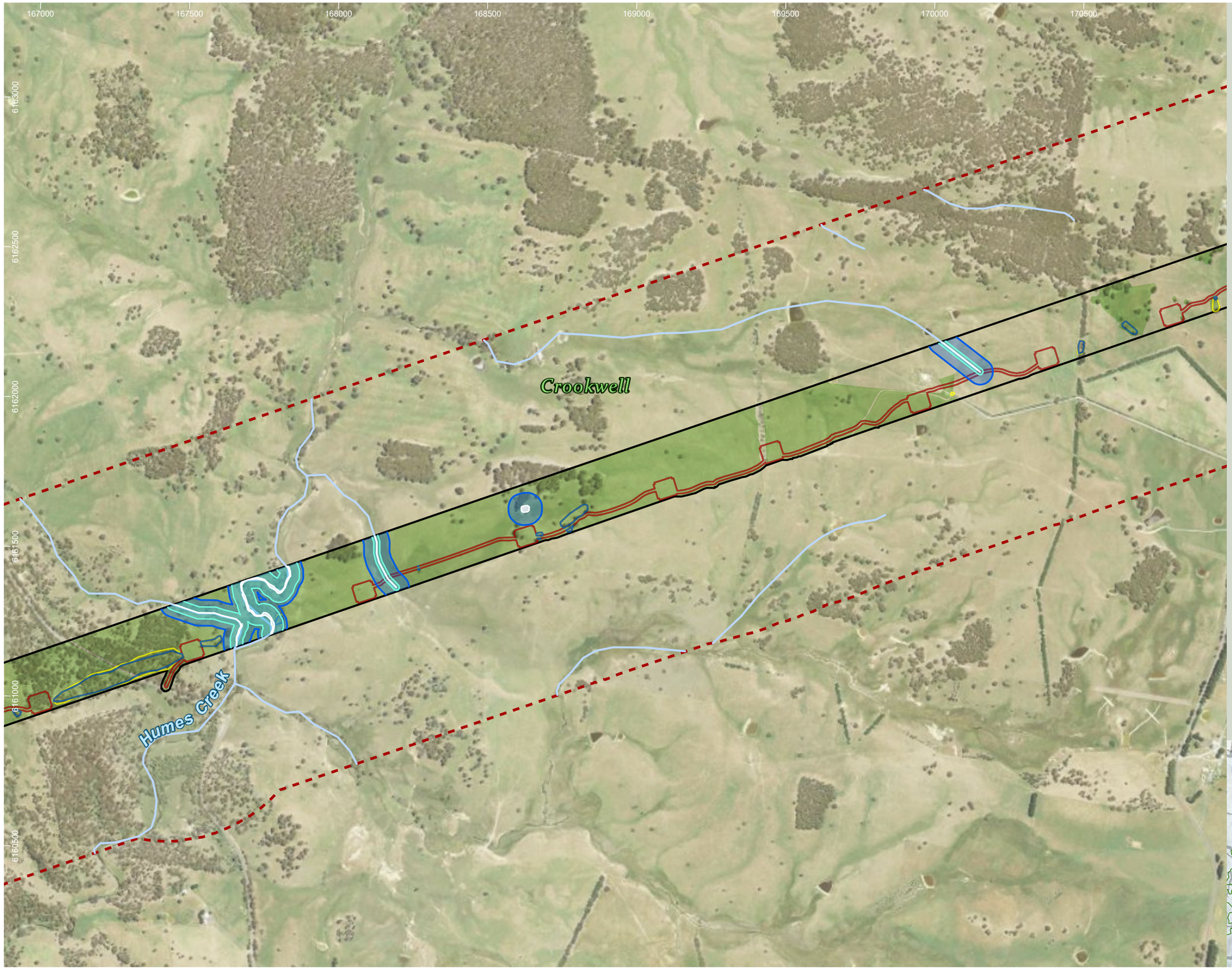
Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\FoldenNiche\6699_Humelink_BDAR_v2_figures Part 3.aprx

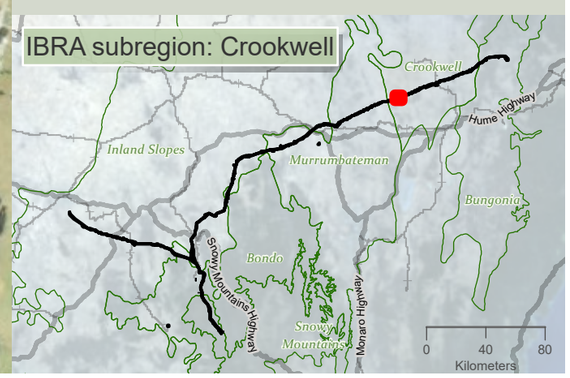


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 87

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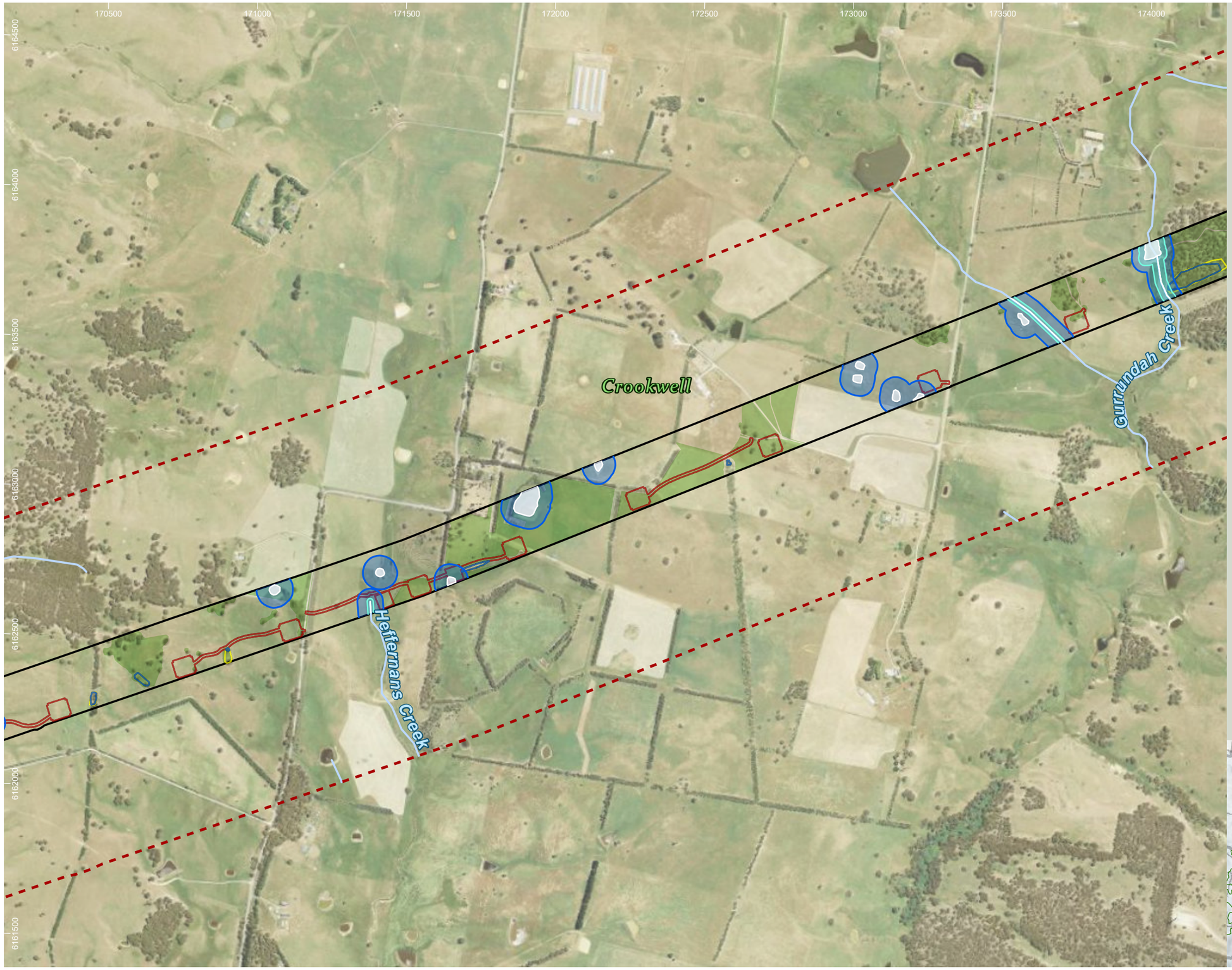
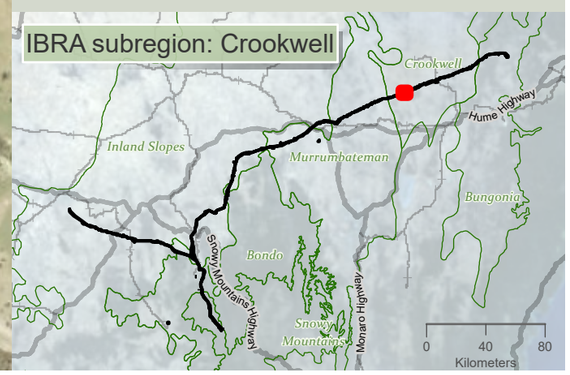


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 88

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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173500 174000 174500 175000 175500 176000 176500 177000

6165500 6165000 6164500 6164000 6163500 6163000

Sawpit Creek

Crookwell

Ryans Creek

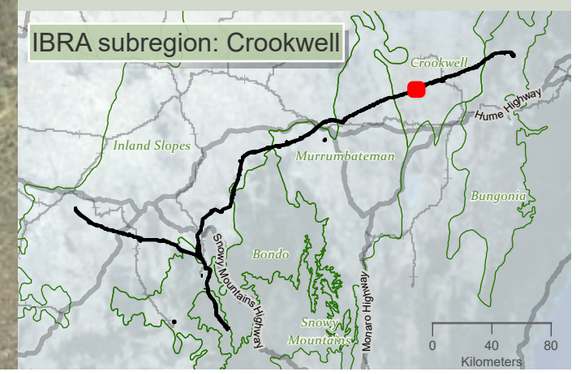
Gurrundah Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 89

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177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

Kialla Creek

Crookwell

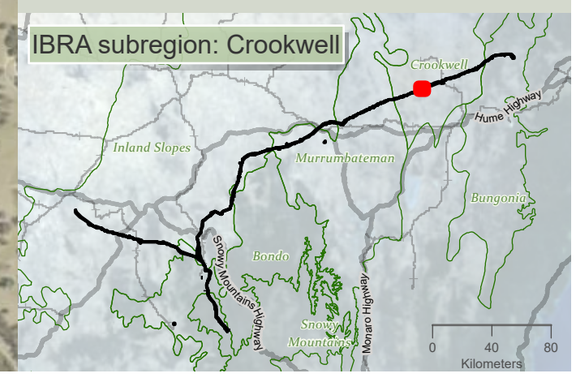
Sawpit Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 90

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180000 180500 181000 181500 182000 182500 183000 183500

6169000 6168500 6168000 6167500 6167000 6166500

Back Creek

Crookwell

Middle Creek

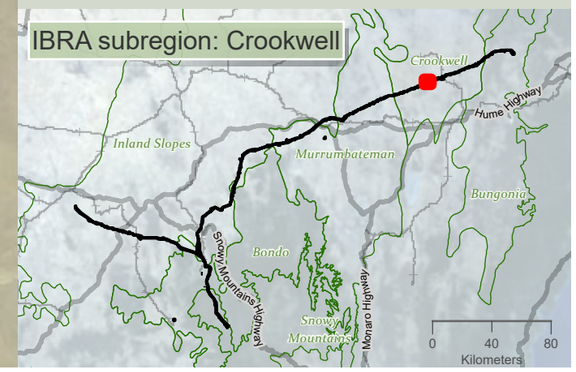
Kialla Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 91

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183000 183500 184000 184500 185000 185500 186000 186500

6170000 6169500 6169000 6168500 6168000 6167500

First Creek

Crookwell

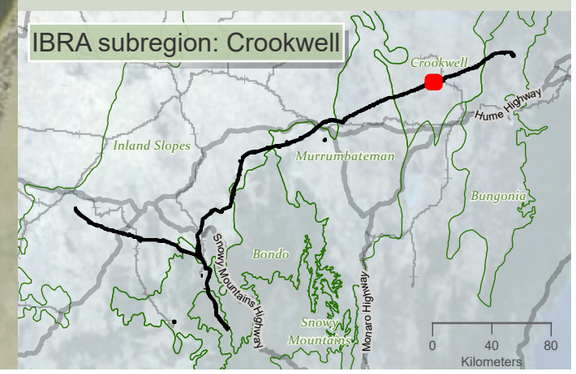
Wollondilly River

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 92

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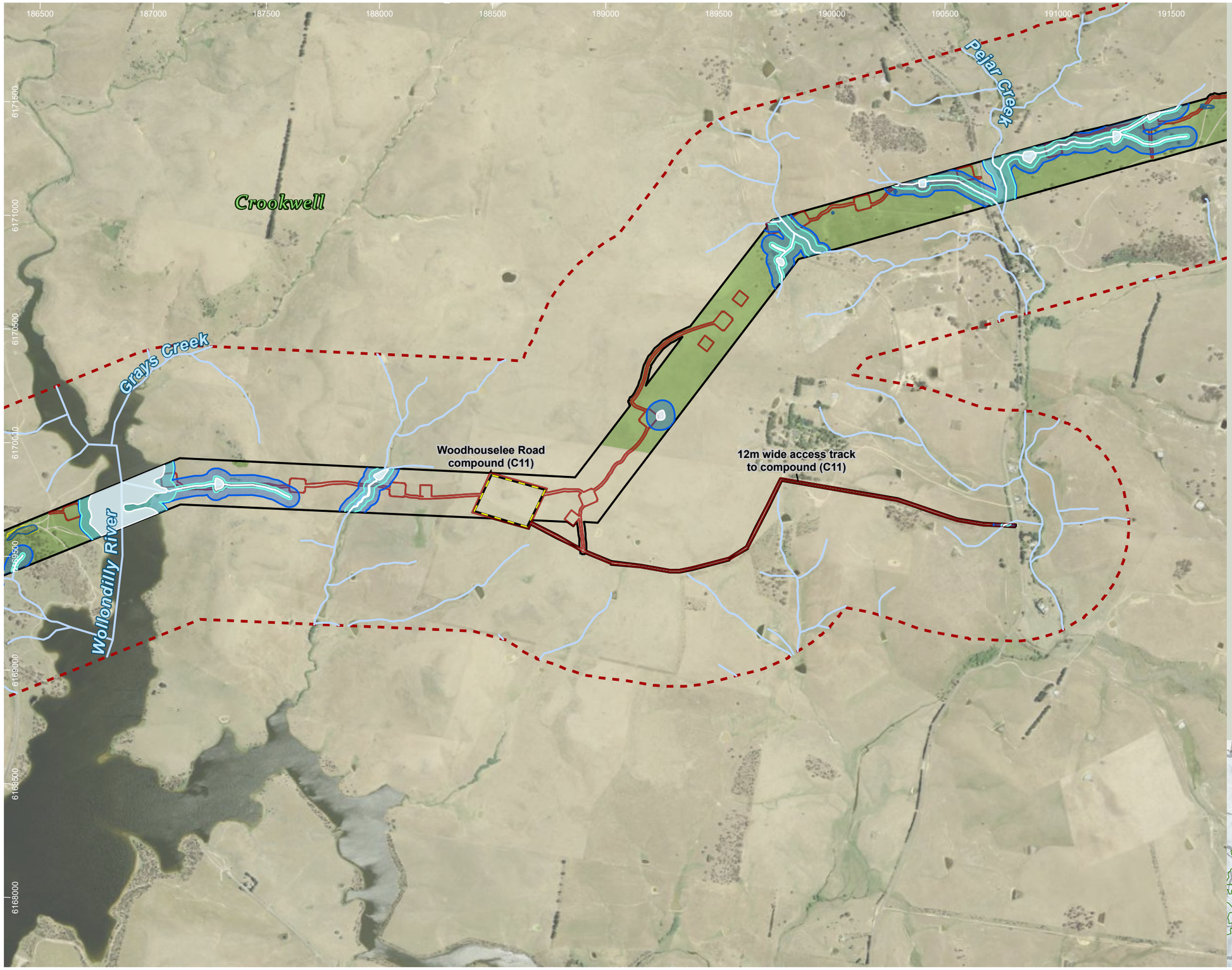
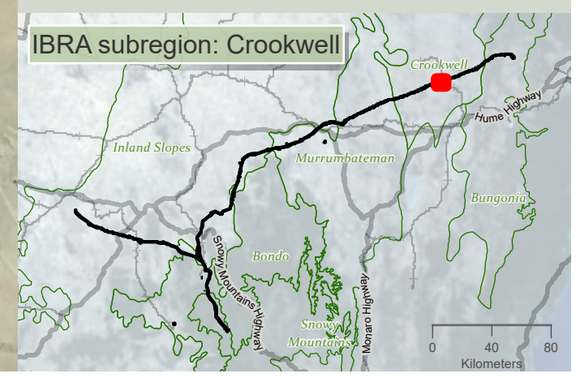


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 93

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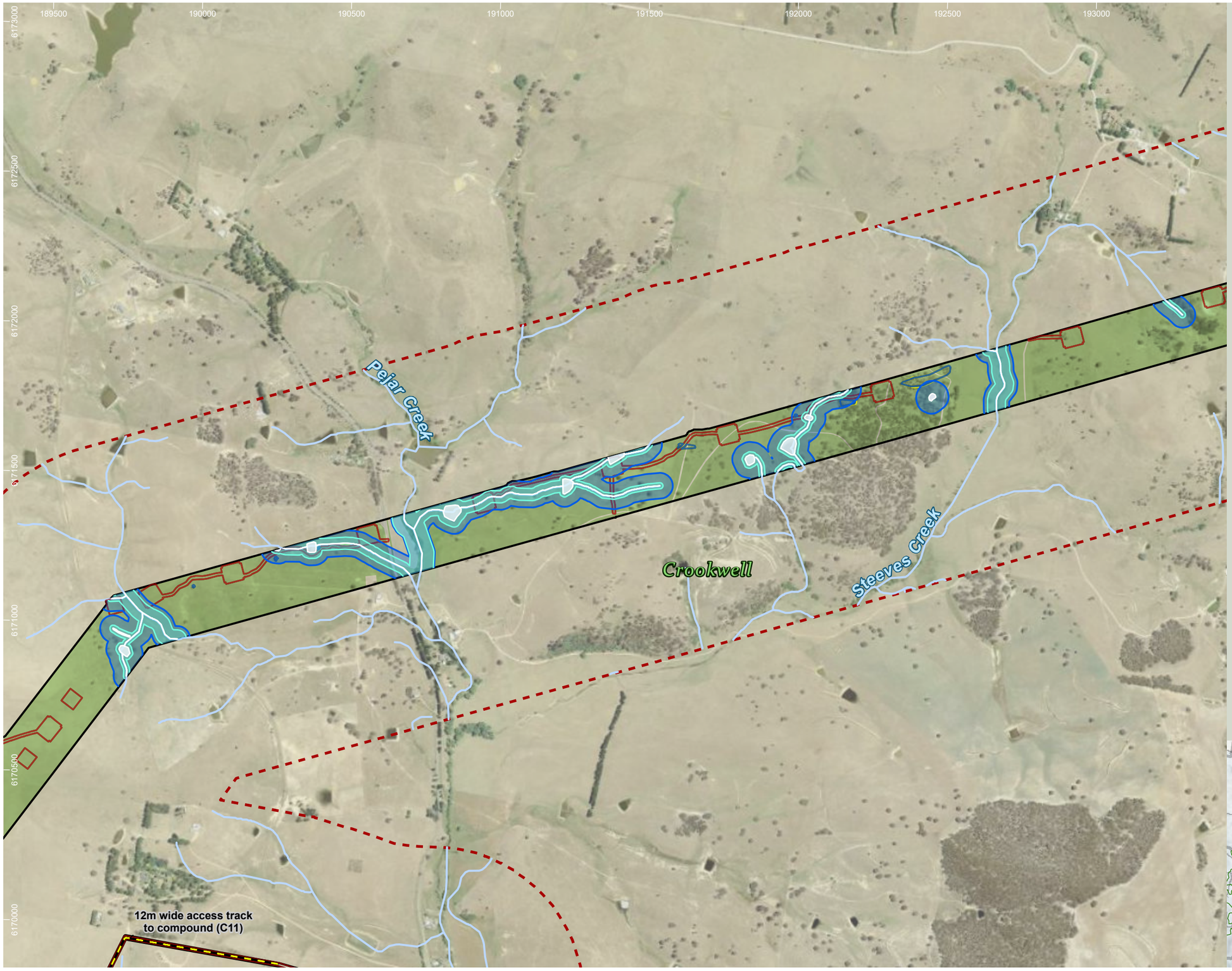
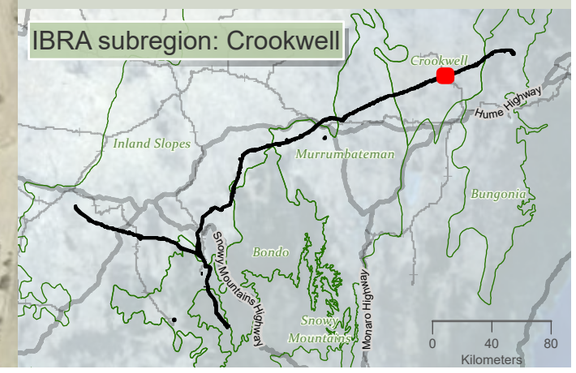


Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 94

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193000 193500 194000 194500 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

Crookwell

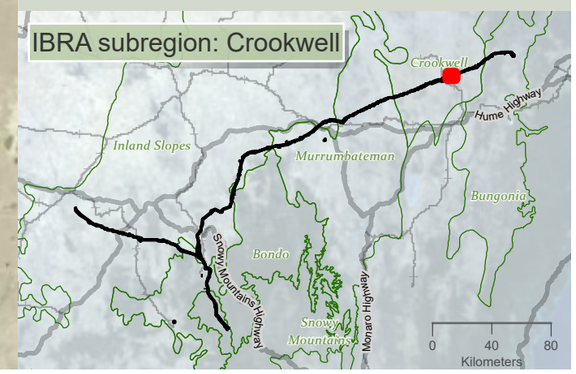
Melamalong Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 95

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196000 196500 197000 197500 198000 198500 199000 199500

6175000 6174500 6174000 6173500 6173000 6172500

Tarlo River

Crookwell

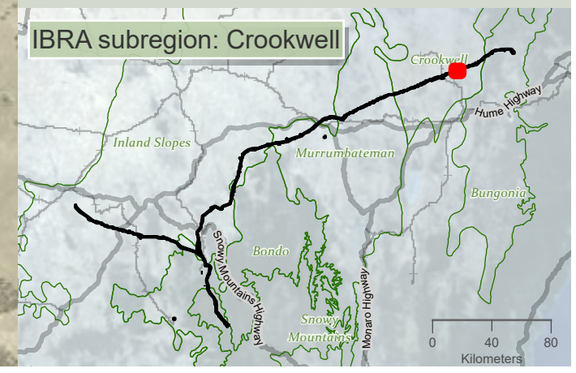
Sawpit Gully

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 96

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199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Crookwell

Turrallo Creek

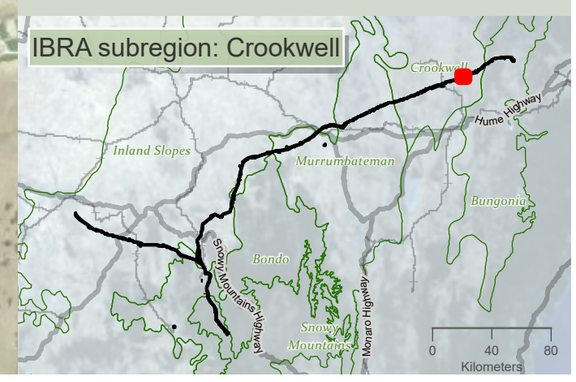
Tarlo River

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 97

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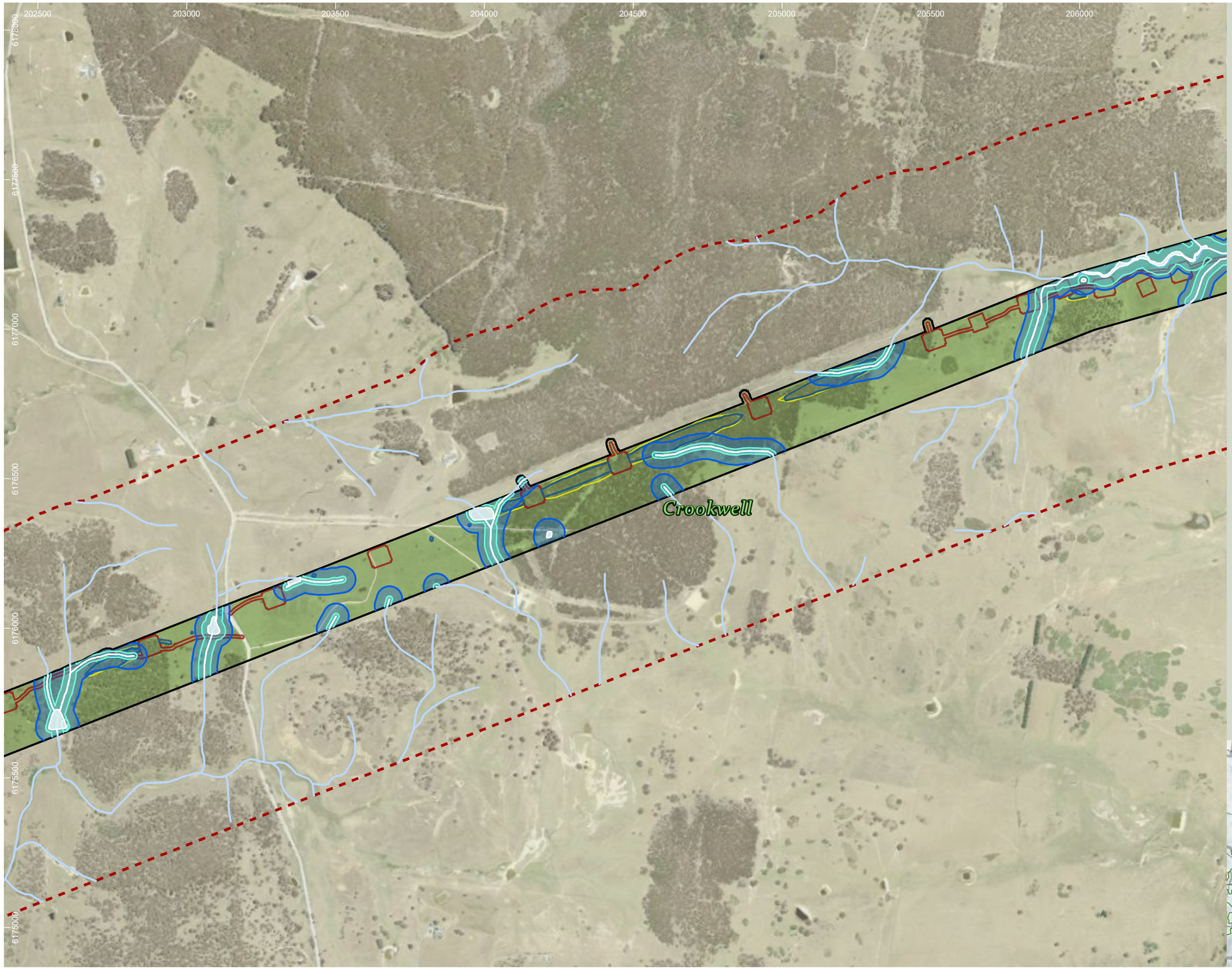
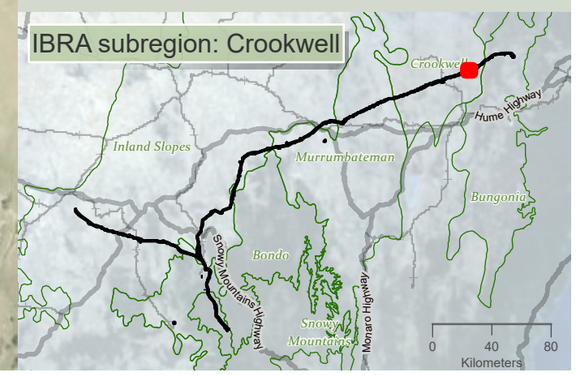


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Myrtle Creek

Cowpers Creek

Crookwell

356

Humelink project areas

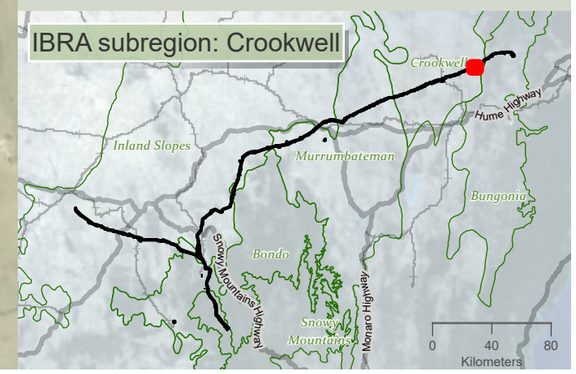
- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Riparian PCTs

- 356: Blakelys Red Gum x Dirty Gum - White Cypress Pine tall riparian woodland, NSW South Western Slopes Bioregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 99

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai6699_Humelink_BDAR_v2_figures Part 3.aprx

208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Crookwell

Dawsons Flat Creek

Myrtle Creek

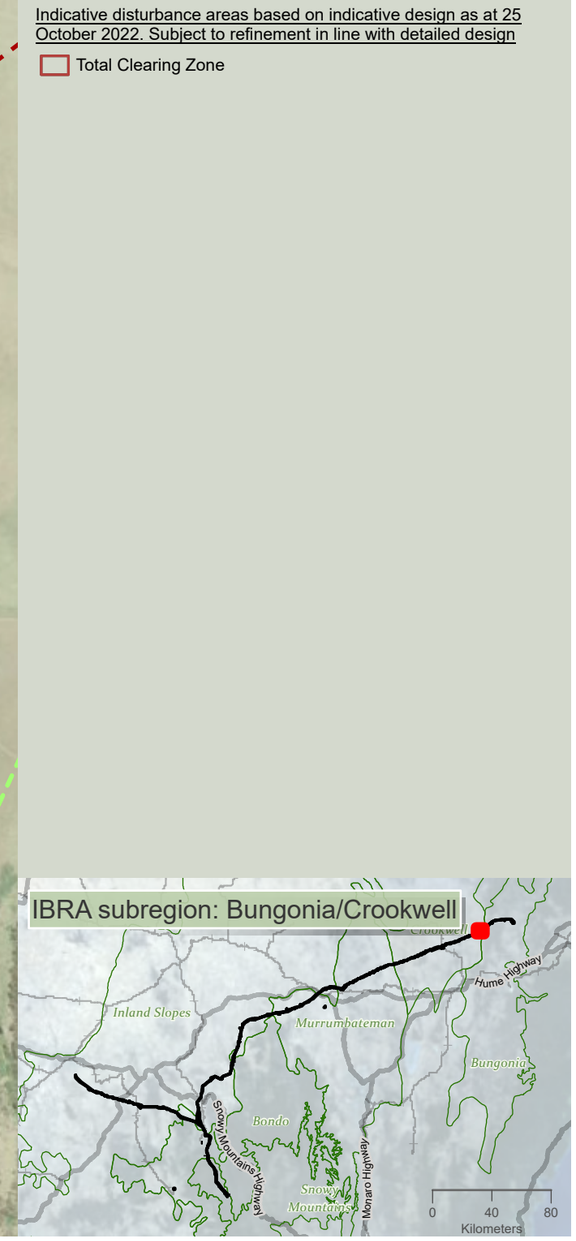
Bungonia

Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 100

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

211500 212000 212500 213000 213500 214000 214500 215000

6183500 6183000 6182500 6182000 6181500 6181000 6180500

Crookwell

Forest Creek

Bungonia

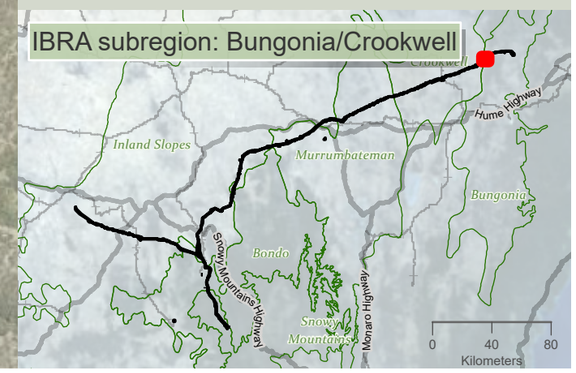
Cow Horn Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 101

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

214000 214500 215000 215500 216000 216500 217000 217500 218000

6185500 6185000 6184500 6184000 6183500 6183000 6182500

Kerrawary Creek

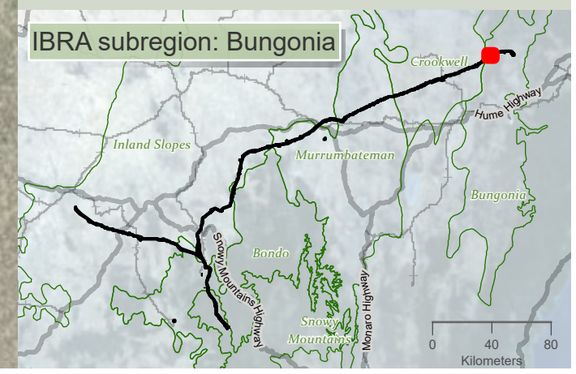
Bungonia

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 102

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\FoldenNiche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

217500 218000 218500 219000 219500 220000 220500 221000

6187000 6186500 6186000 6185500 6185000 6184500

Bannaby Creek

Bungonia

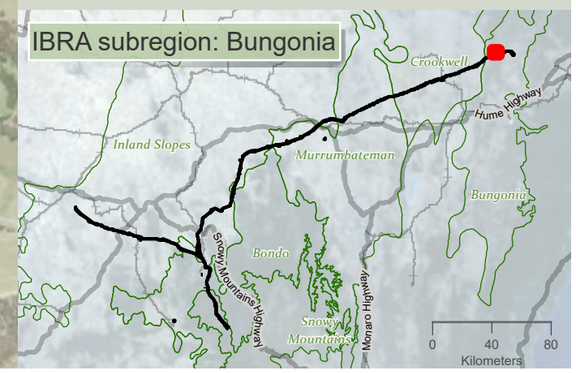
Connors Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 103

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Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSync\FolderNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

221000
221500
222000
222500
223000
223500
224000

6187500
6187000
6186500
6186000
6185500
6185000

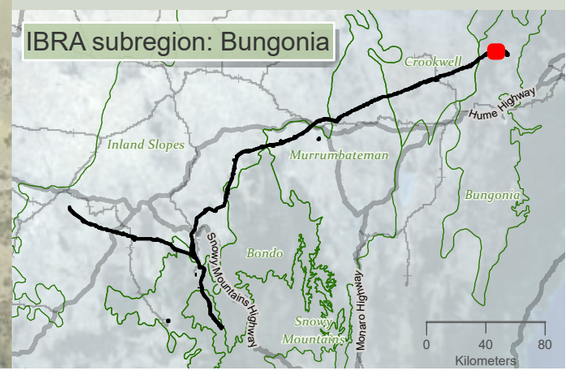
Bungonia
Connors Creek
Wills Gully
Bannaby Creek

Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

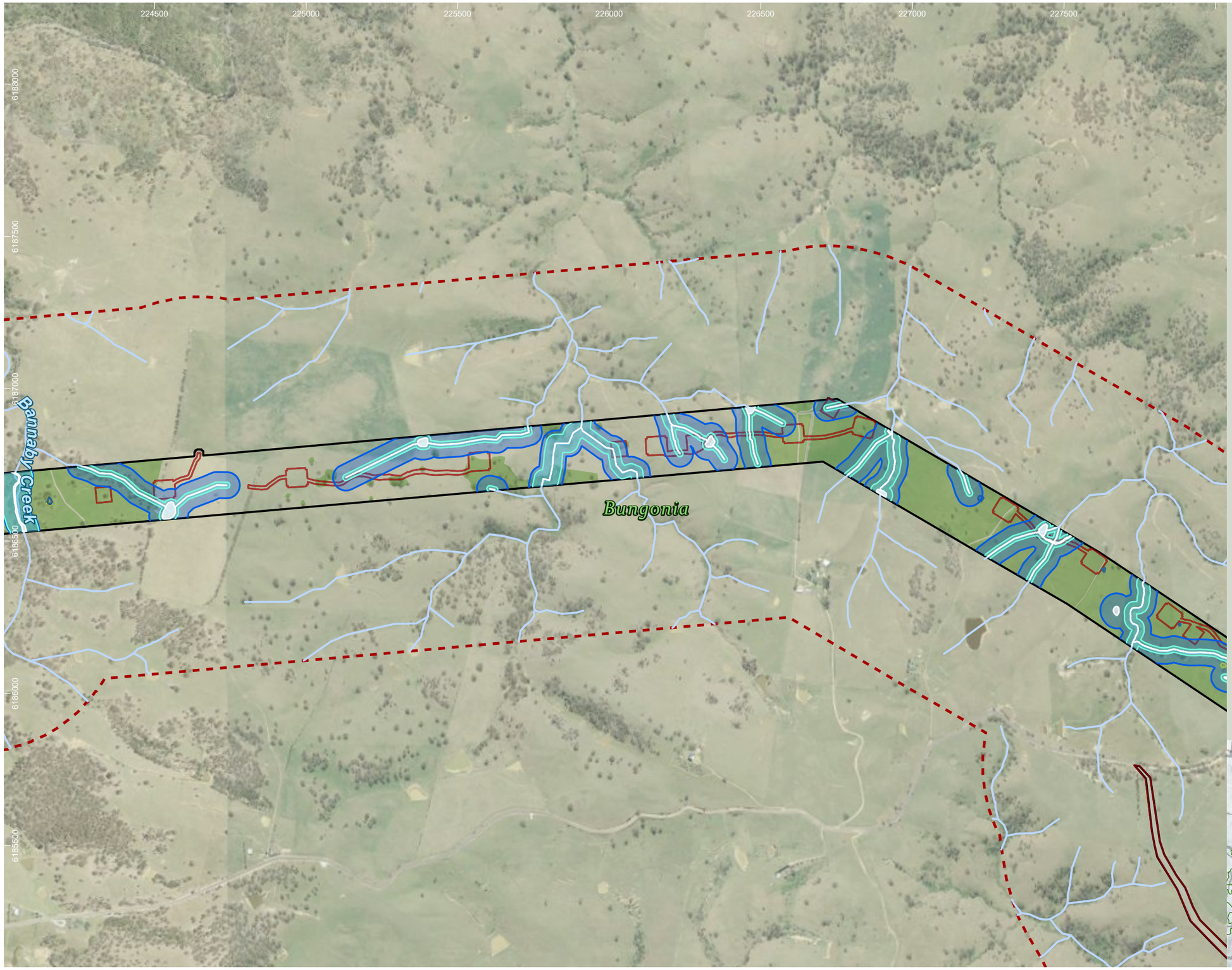
Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 104

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx

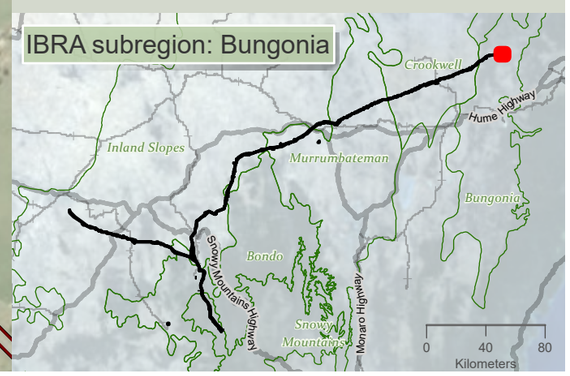


Humelink project areas

- Project footprint
- Landscape assessment area
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Vegetated Riparian Zones

HumeLink BDAR

Figure 13-17 map reference 105

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Drawn by: MatthewZajaczkowski; Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_v2_figures Part 3.aprx

227000 227500 228000 228500 229000 229500 230000 230500

6186500 6186000 6185500 6185000 6184500 6184000

Bungonia

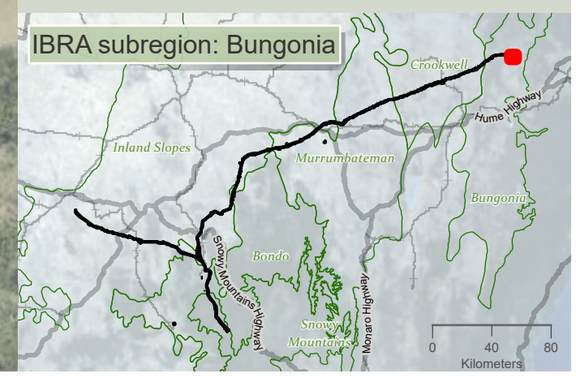
Bannaby 500 kV substation compound (C12)

Humelink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Waterway
- Waterbodies and streams
- Vegetated riparian zone (VRZ)
- Waterfront land
- Native vegetation PCTs

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement clearance
- Hazard Tree Zone



niche Environment and Heritage

0 350 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

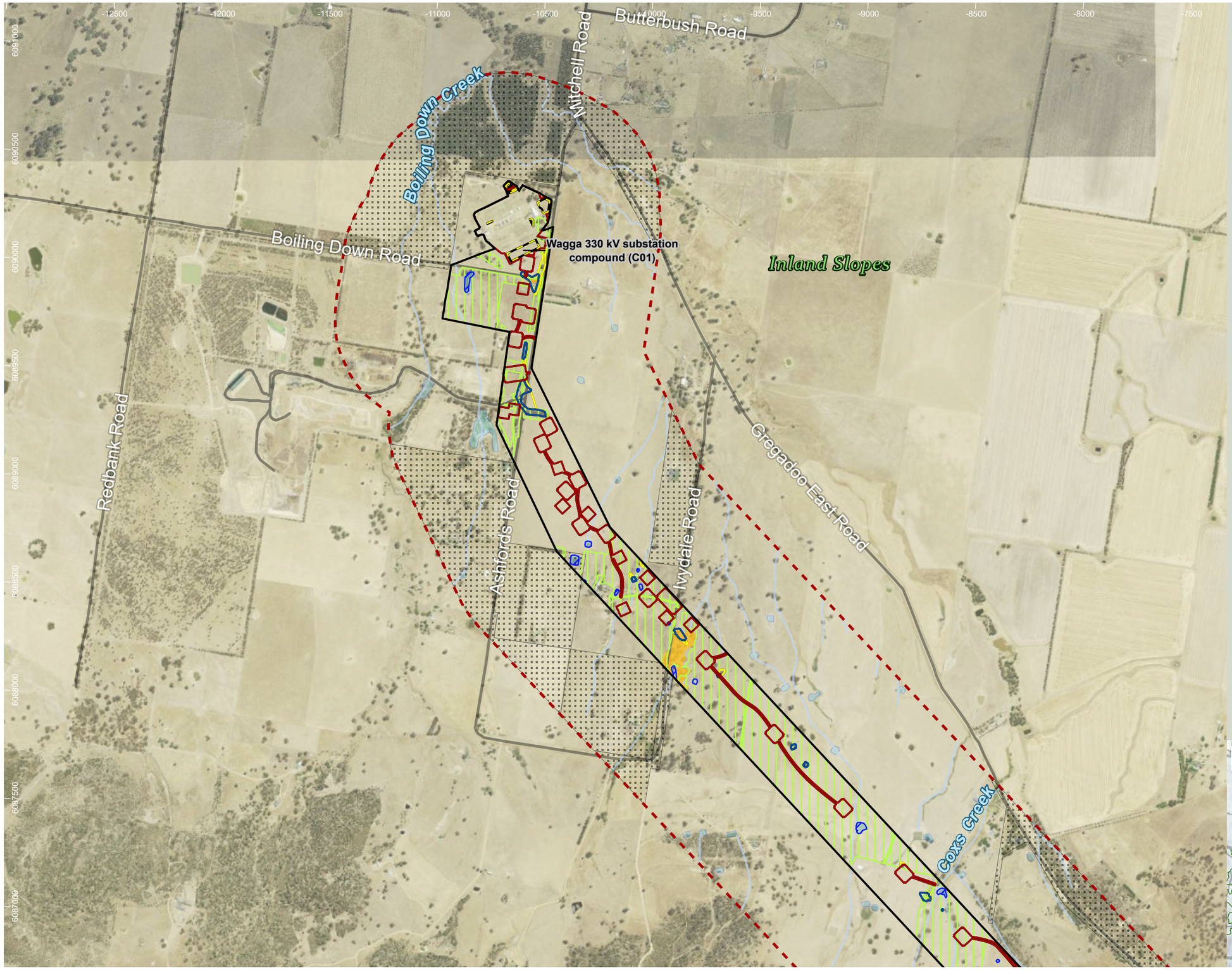
Vegetated Riparian Zones

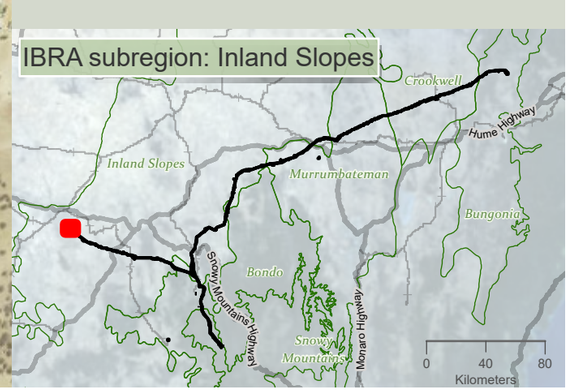
HumeLink BDAR

Figure 13-17 map reference 106

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 11/05/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_v2_figures Part 3.aprx





HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata

niche Environment and Heritage

0 550
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

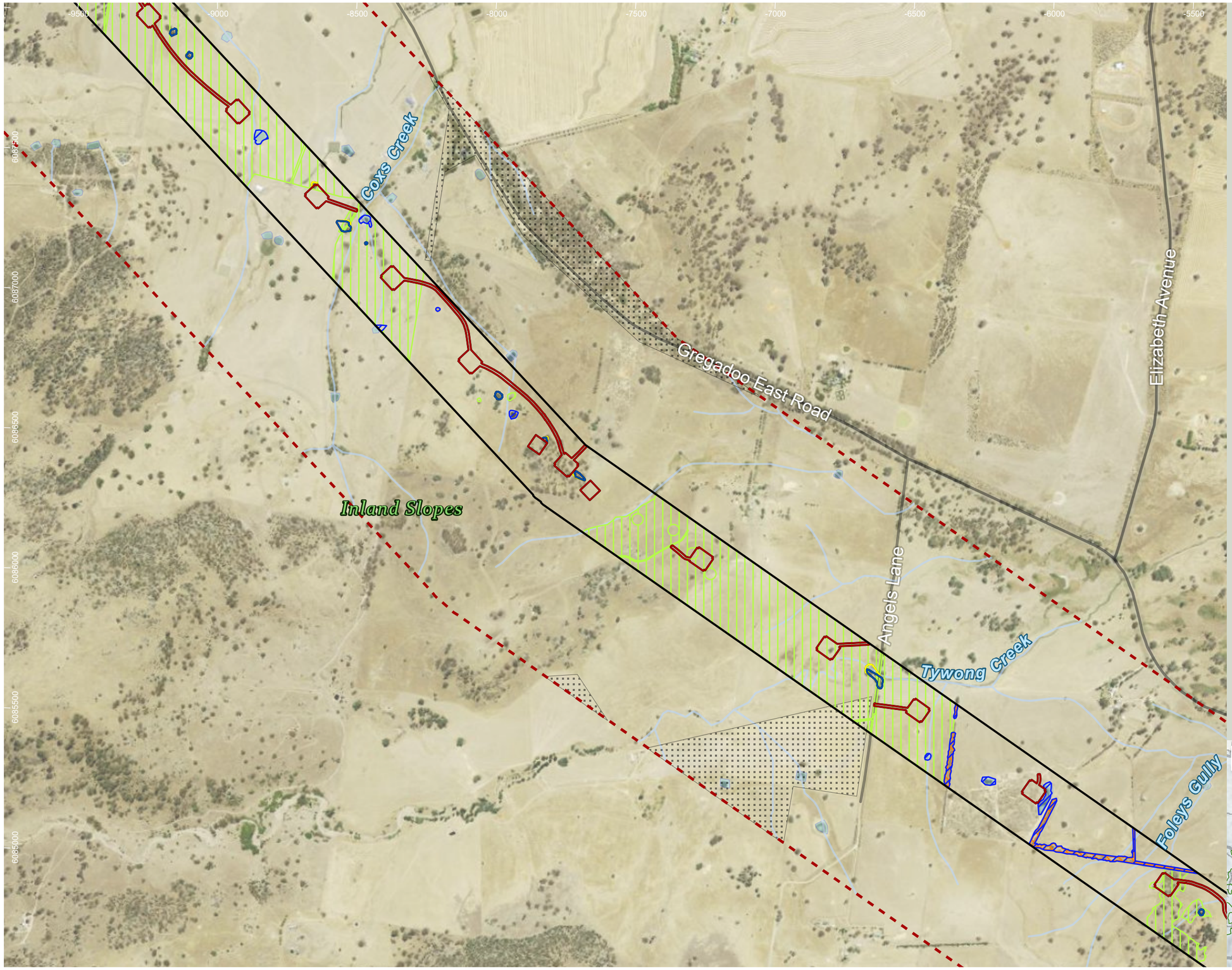
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 1

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

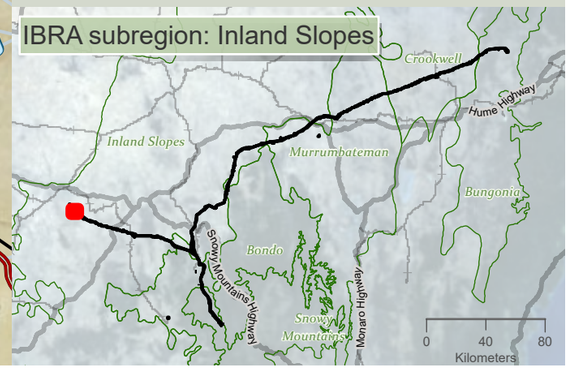
Transport

Road

- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 2

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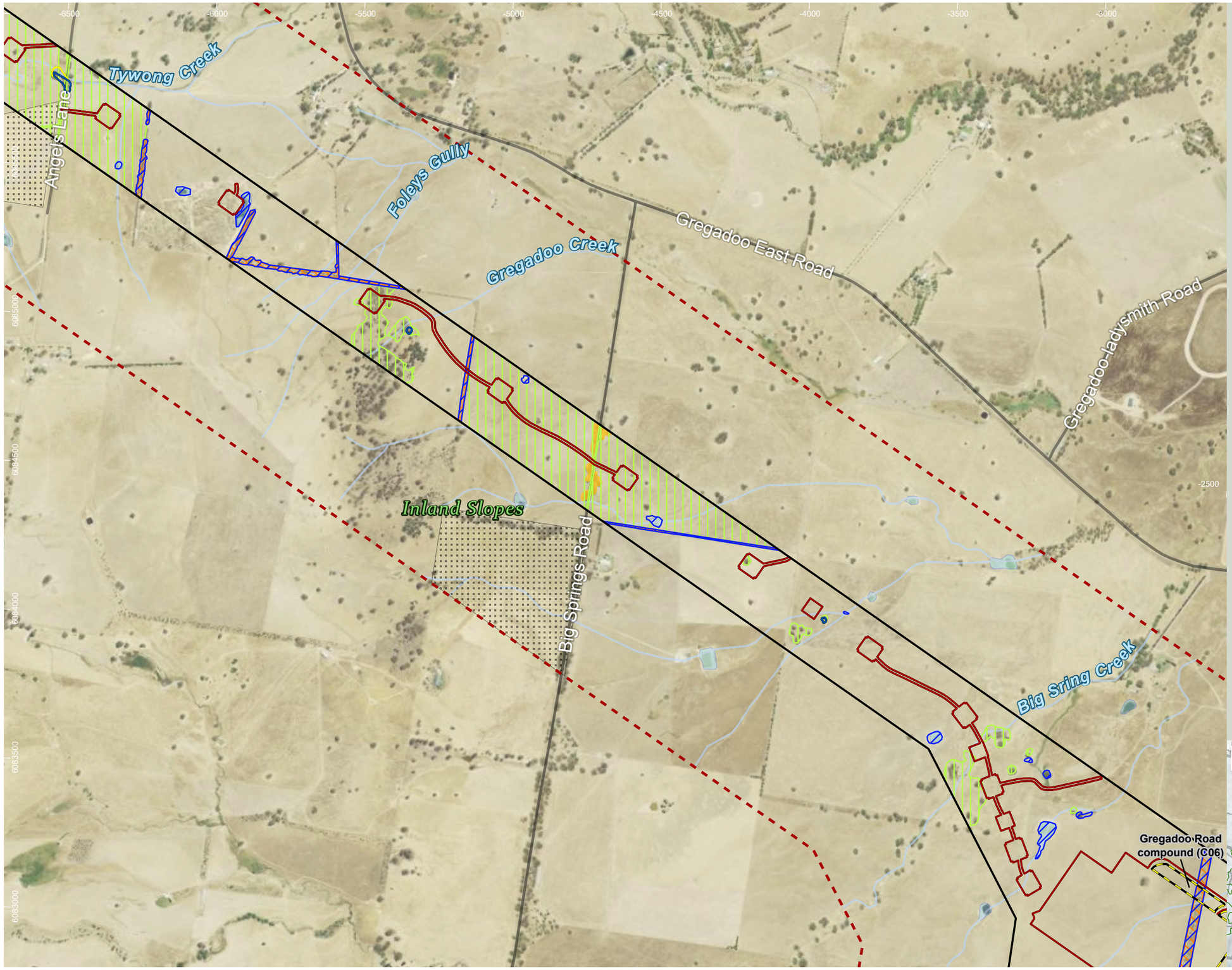
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

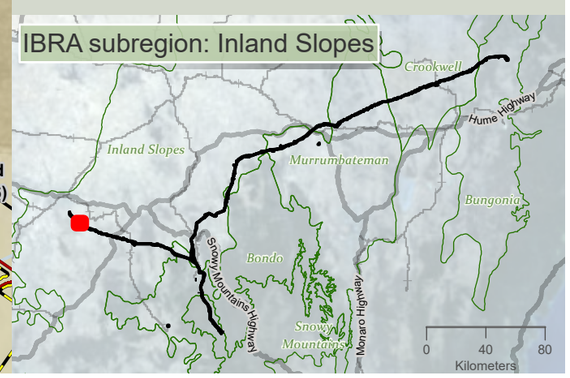
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 3

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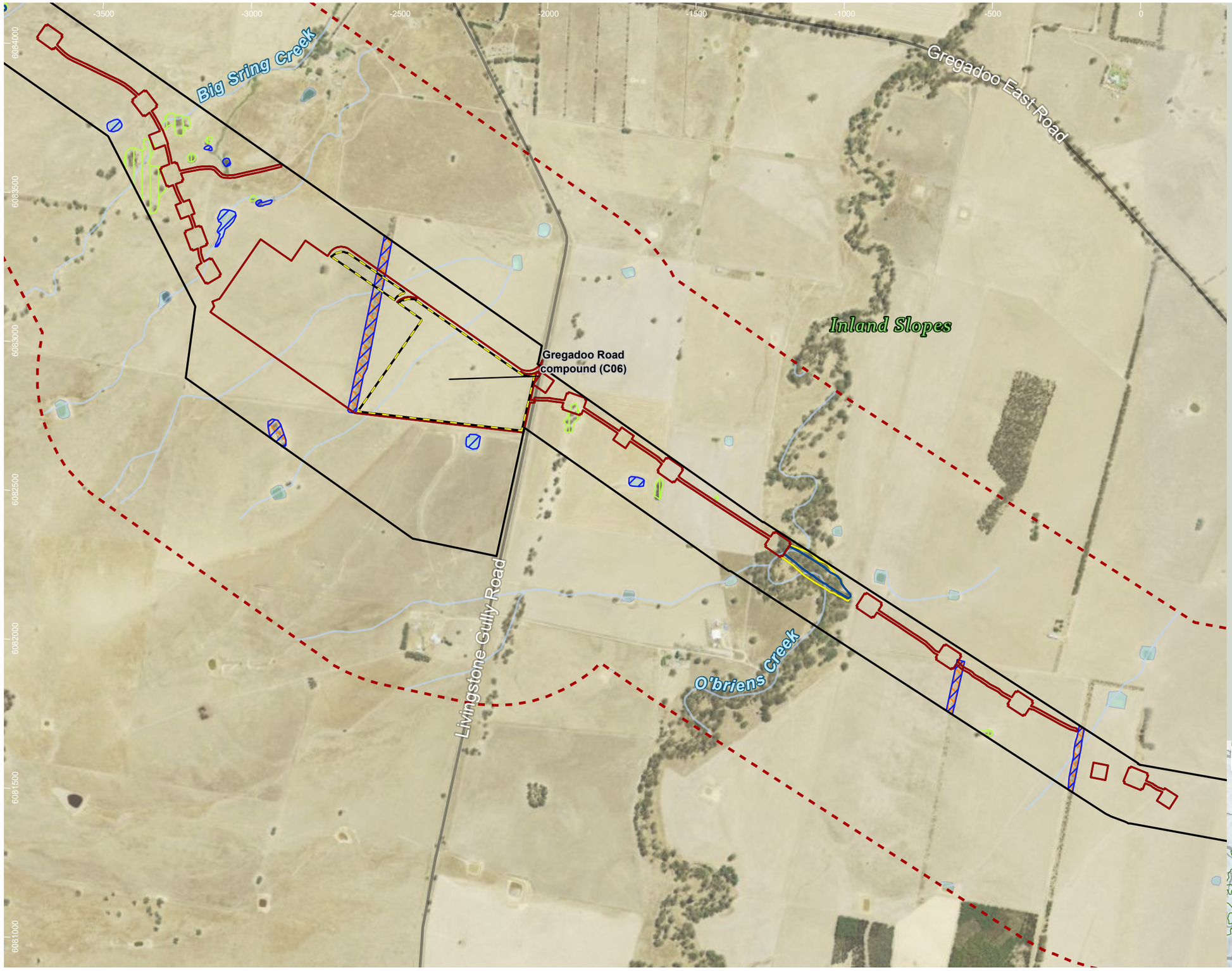
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

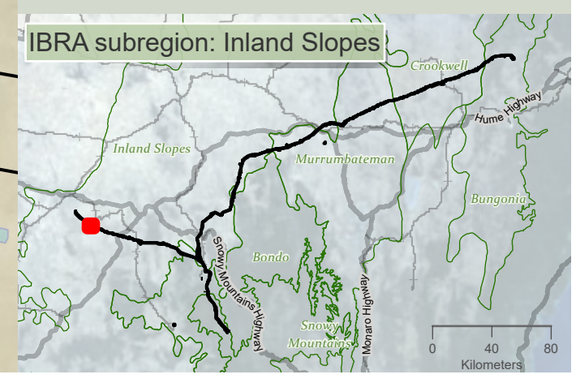
Transport

Road

- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 4

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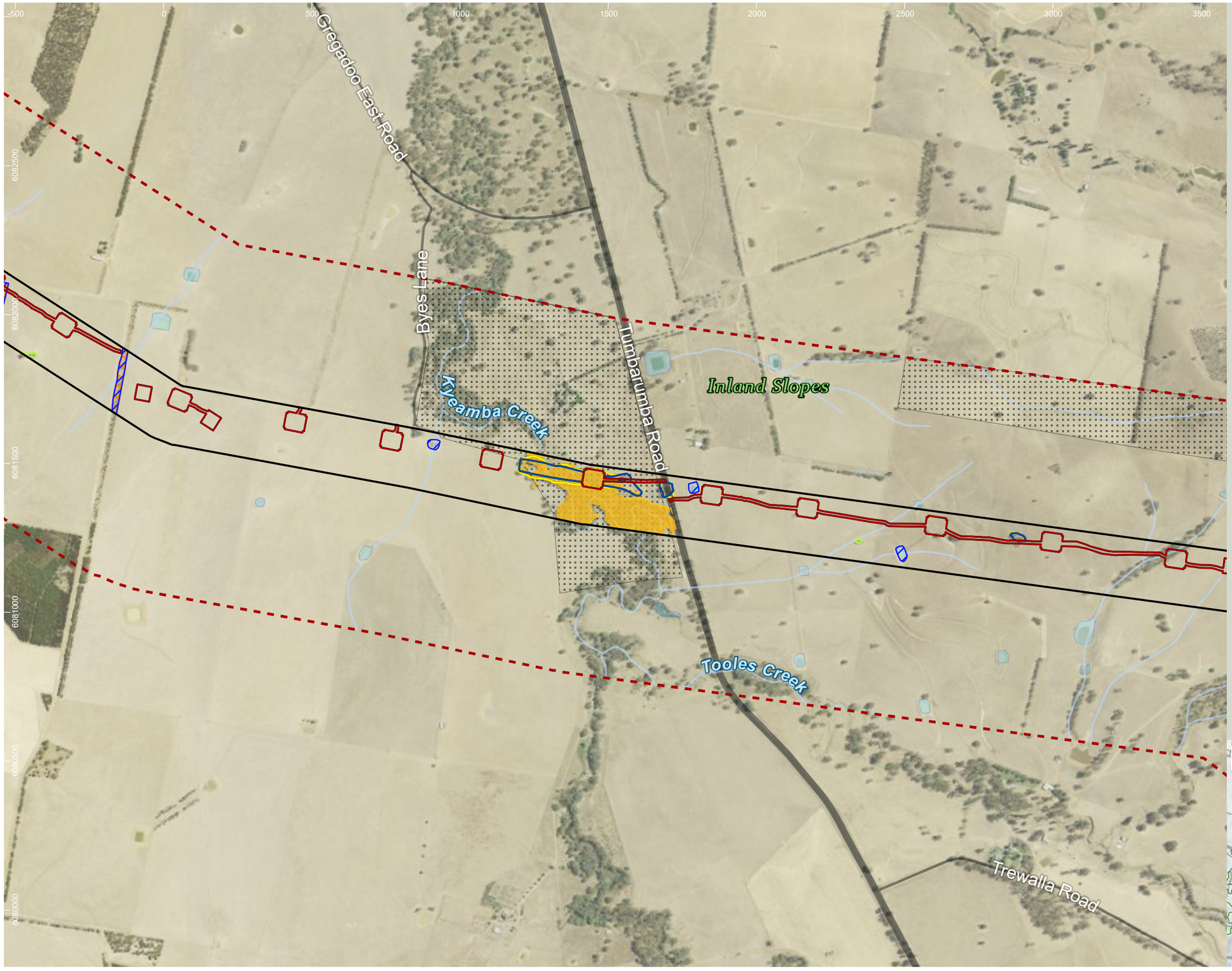
Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

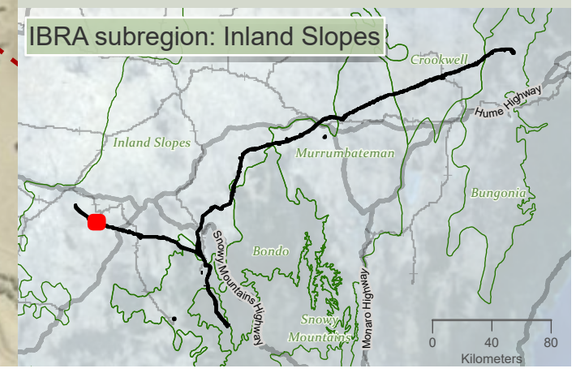
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 5

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3000 3500 4000 4500 5000 5500 6000 6500

6081500
6081000
6080500
6080000
6079500

Inland Slopes

Trewalla Road

Tooles Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

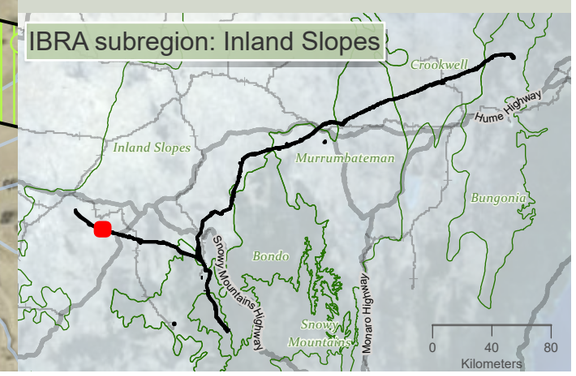
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 350
m
N
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

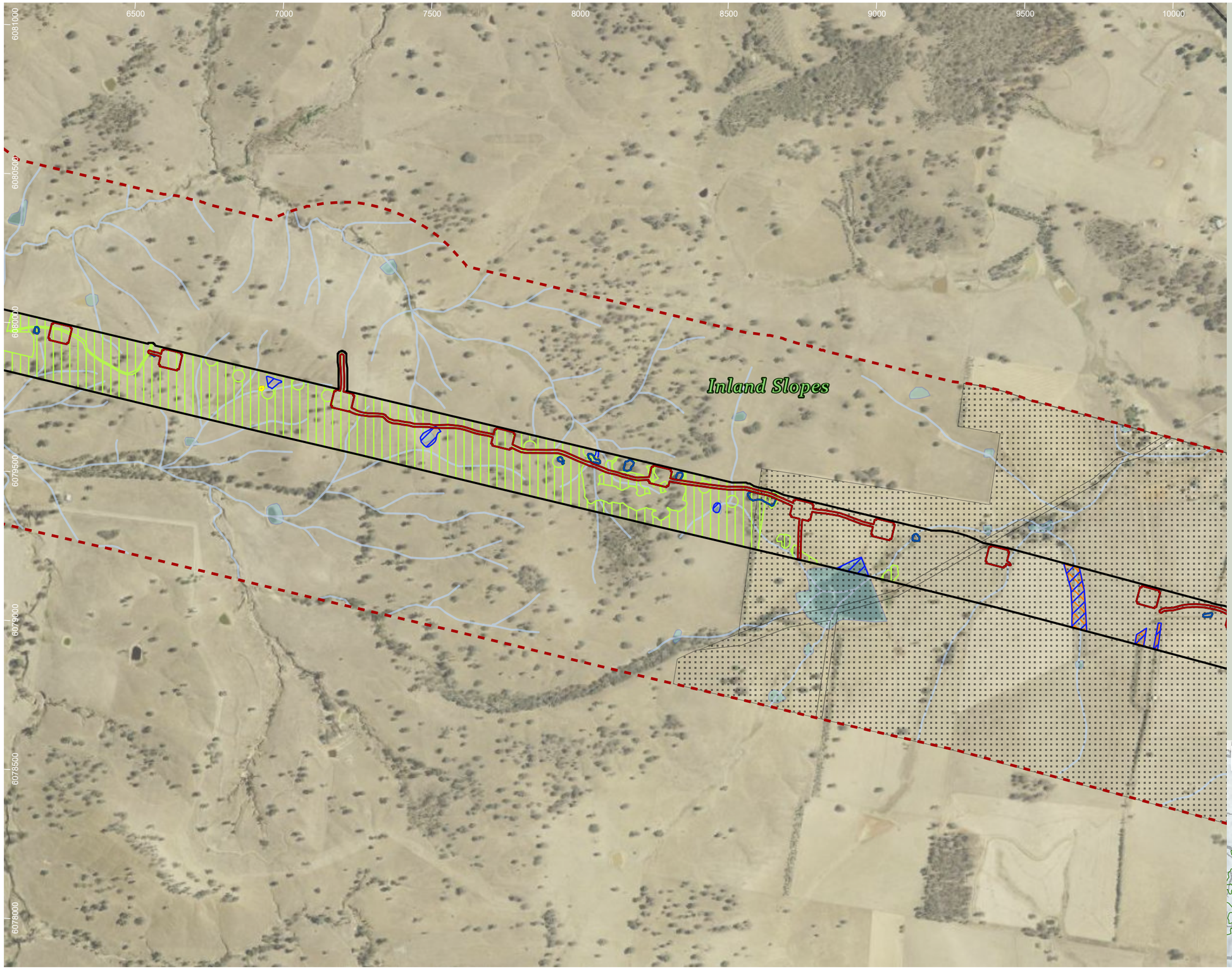
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 6

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

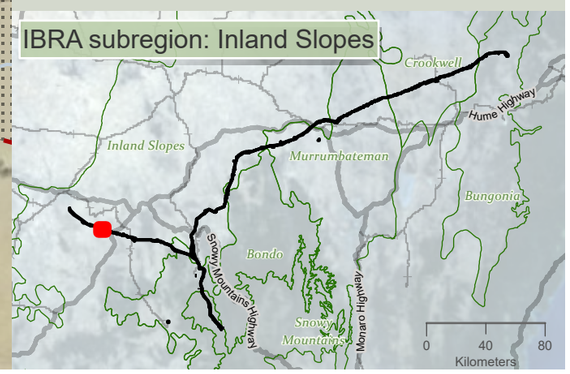
Transport

Road

- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 7

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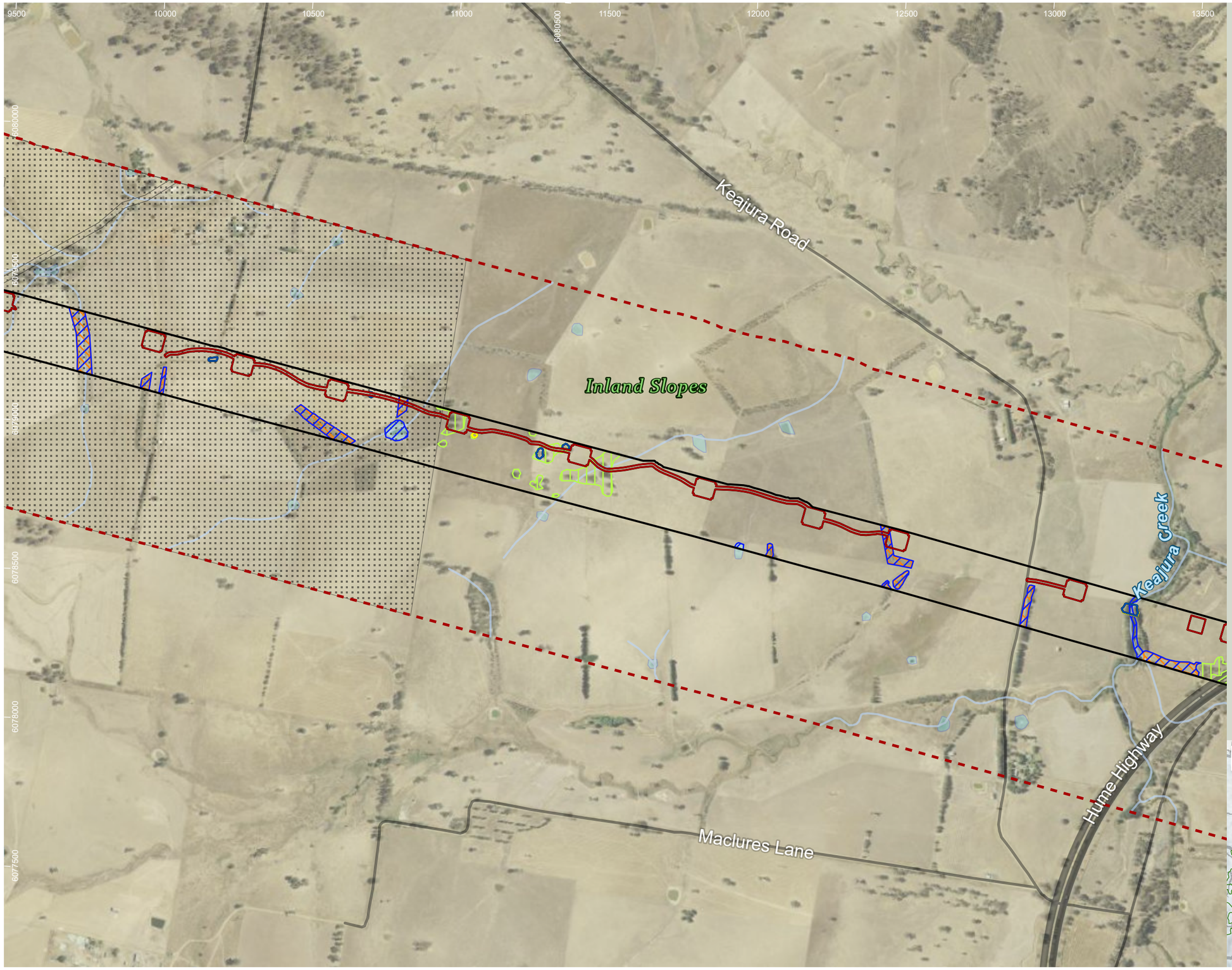


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

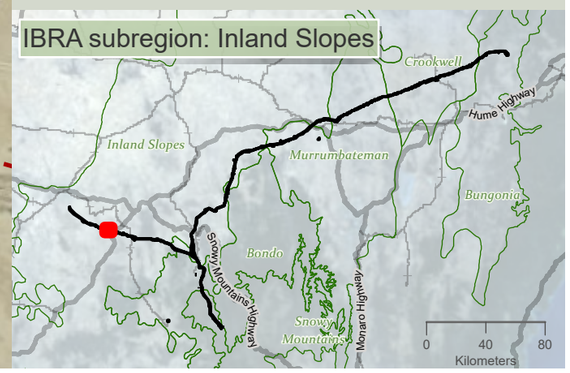
Transport

Road

- Major road
- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 8

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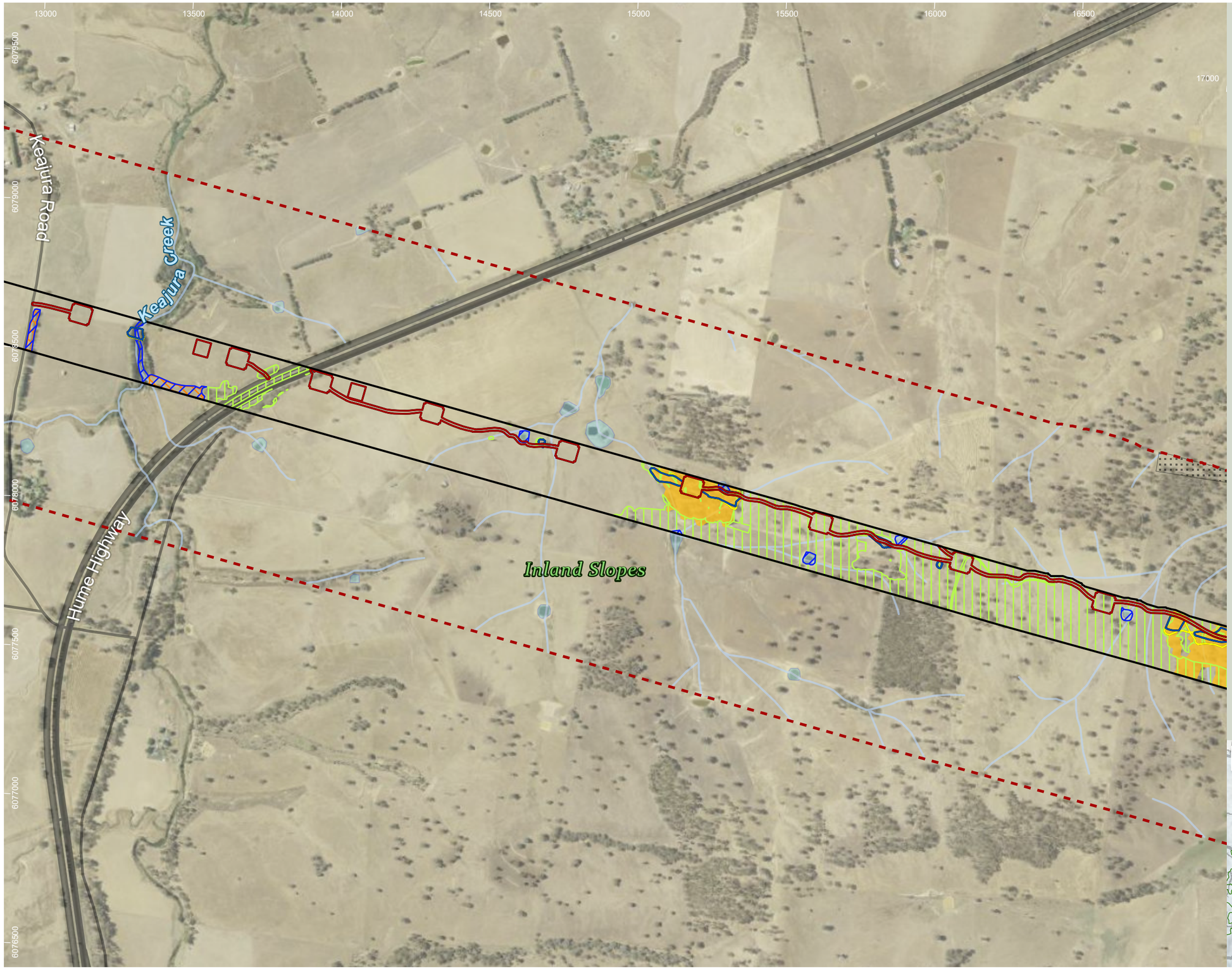


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

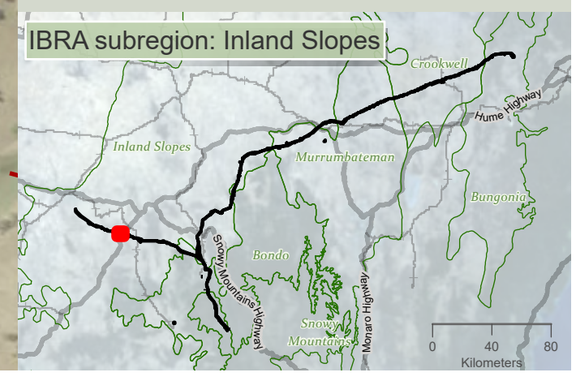
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 9

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16500 17000 17500 18000 6079000 18500 19000 19500 20000

6078500 6078000 6077500 6077000 6076500 6076000

Wilds Road

Comatawa Road

Inland Slopes

Comataw Creek

20500

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

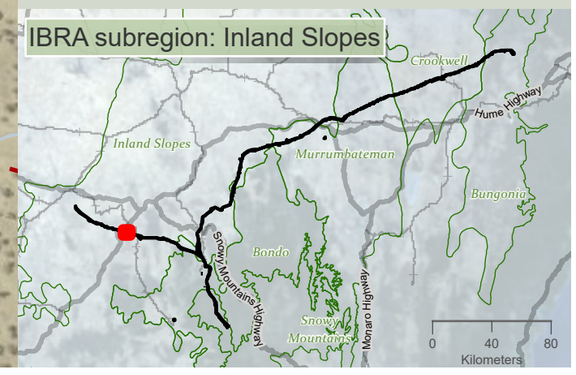
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 10

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

20000 20500 21000 21500 22000 22500 23000 23500

6078000 6077500 6077000 6076500 6076000 6075500 6075000

Inland Slopes

Humula Road

College Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

- Rail

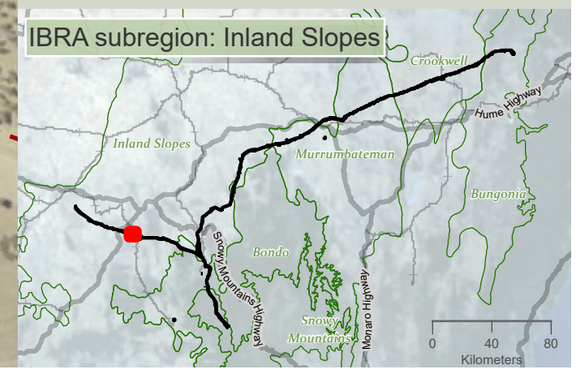
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor

IBRA subregion: Inland Slopes



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

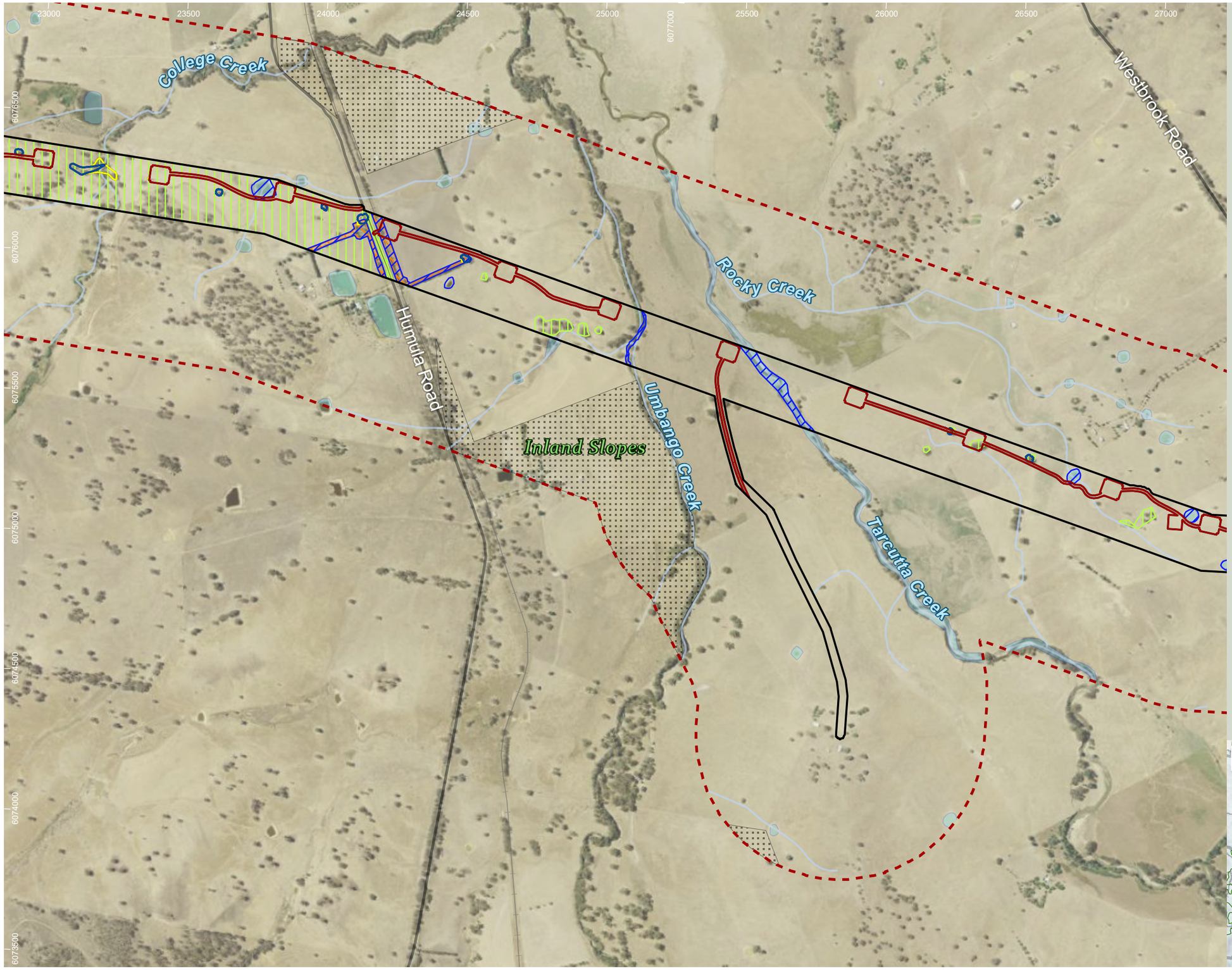
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 11

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

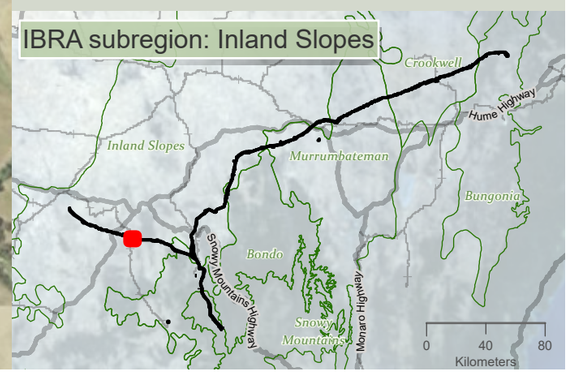
Transport

Road

- Minor road
- Rail

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

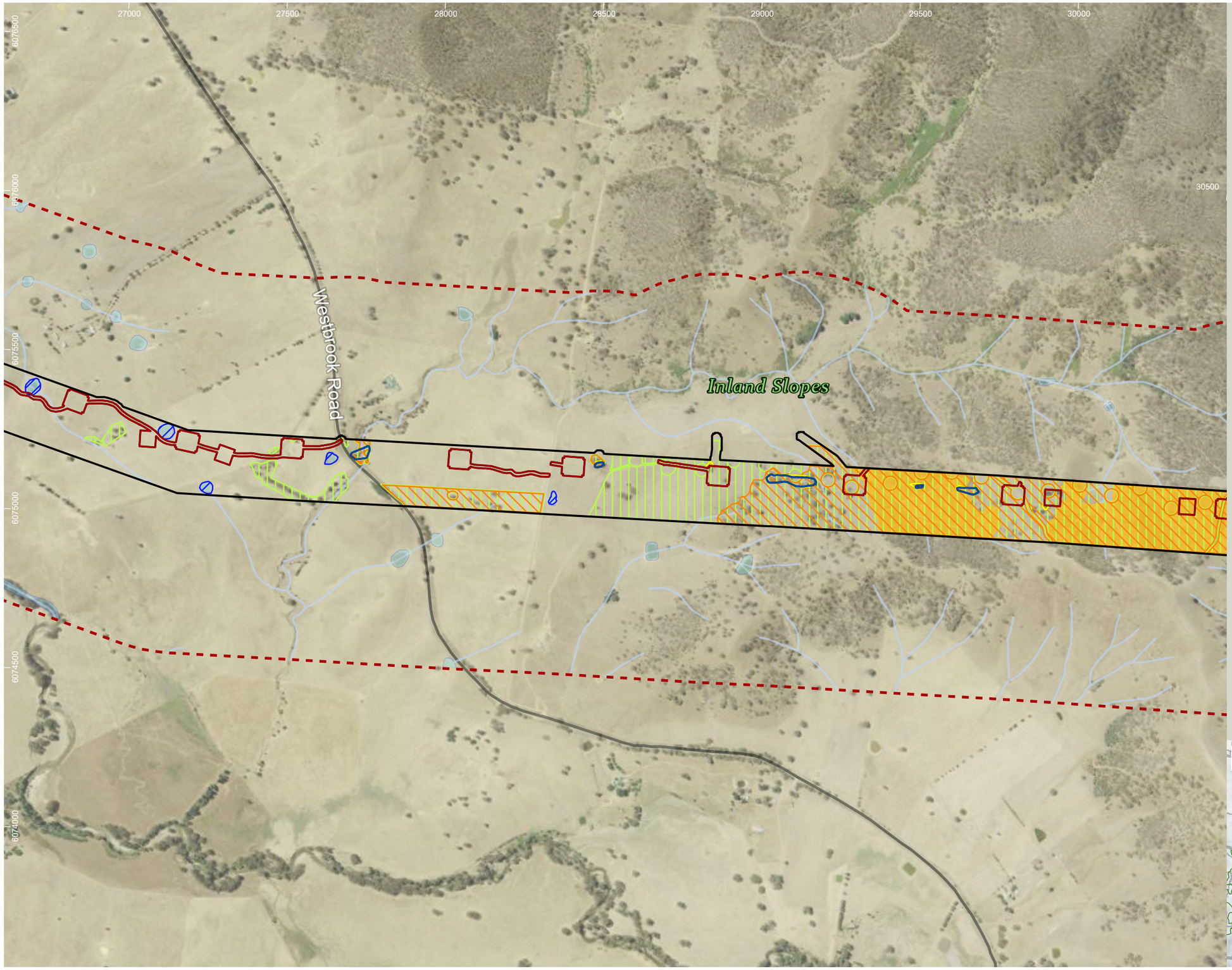
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 12

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

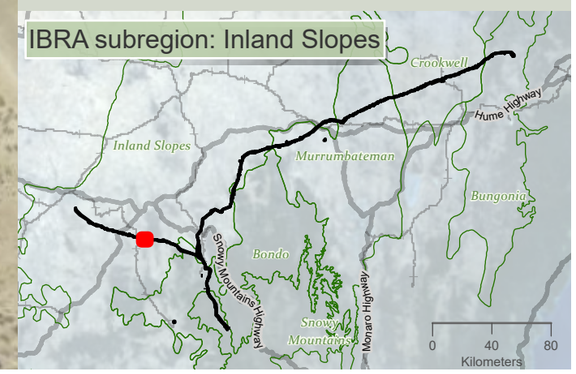
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 13

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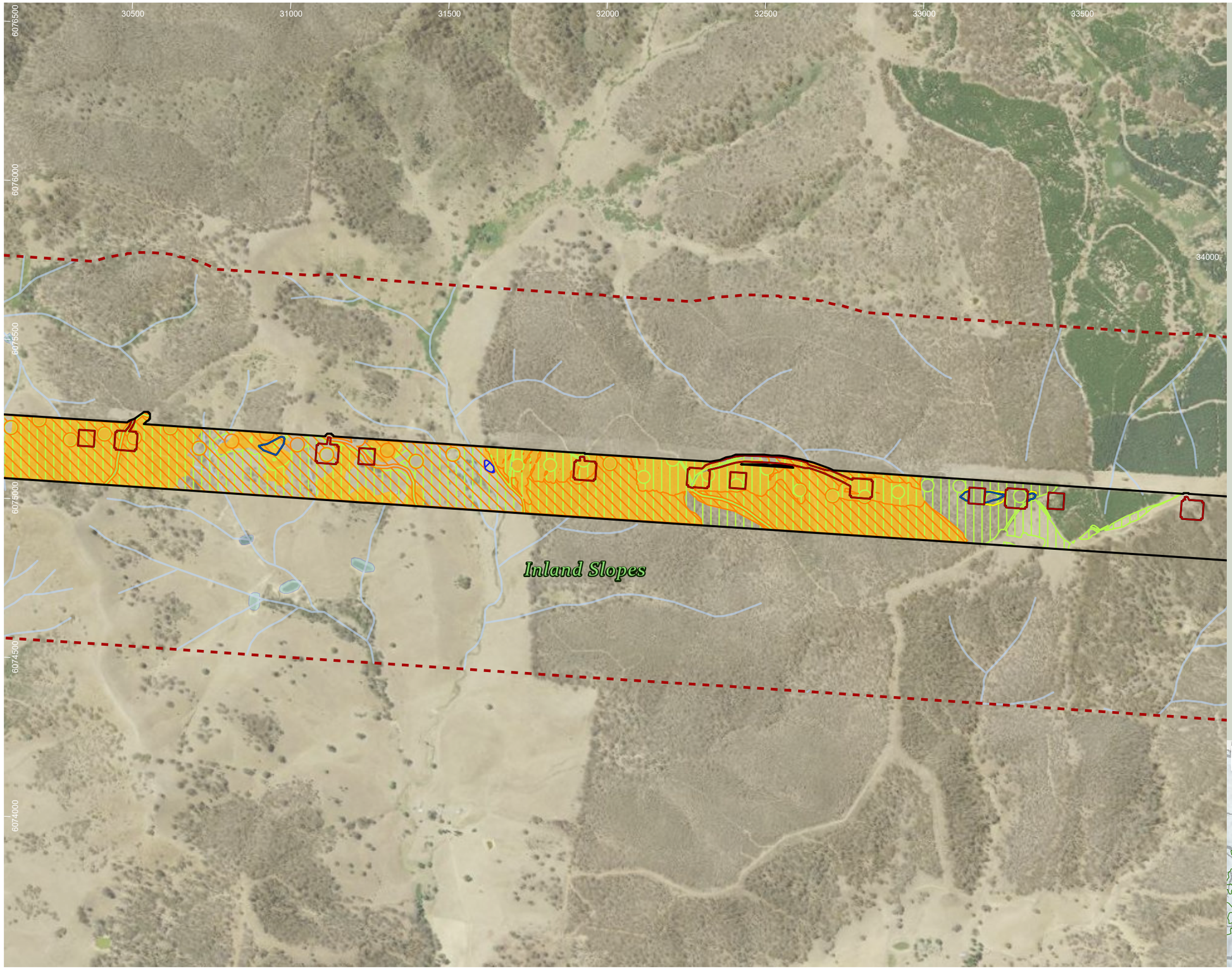


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

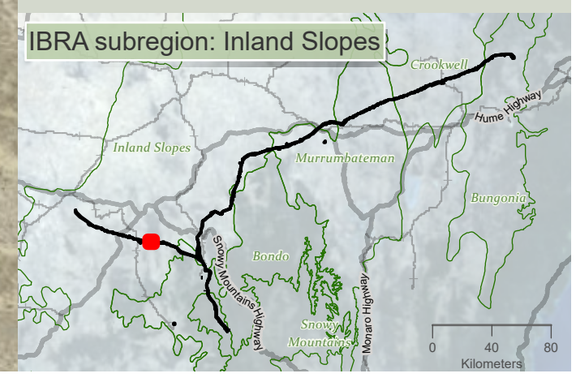
- Waterway
- Waterbody

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



Niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 14

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34000 34500 35000 35500 36000 36500 37000

6076000 6075500 6075000 6074500 6074000

37500

Inland Slopes

Turners Creek

Galvins Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

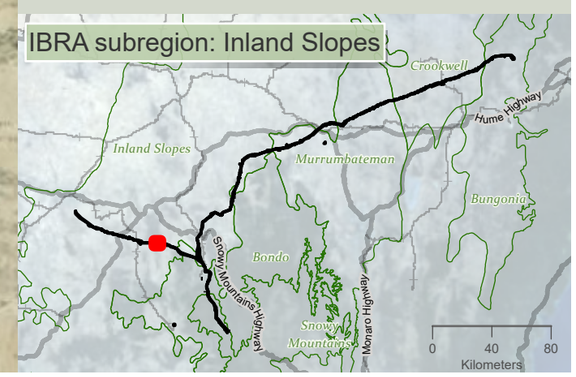
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 15

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37000 37500 38000 38500 39000 39500 40000 40500 41000

6076500 6076000 6075500 6075000 6074500 6074000 6073500

Ellerslie Road

Yaven Yaven Creek

Inland Slopes

Yaven Creek Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

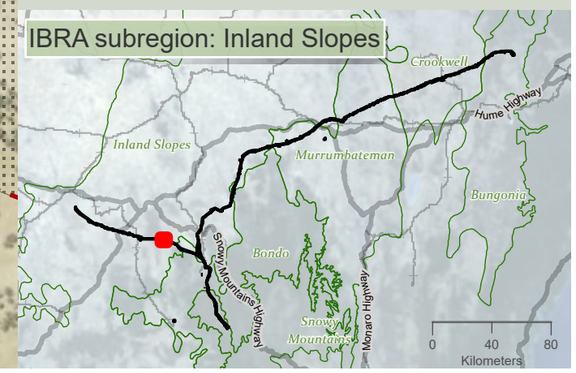
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata

IBRA subregion: Inland Slopes



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 16

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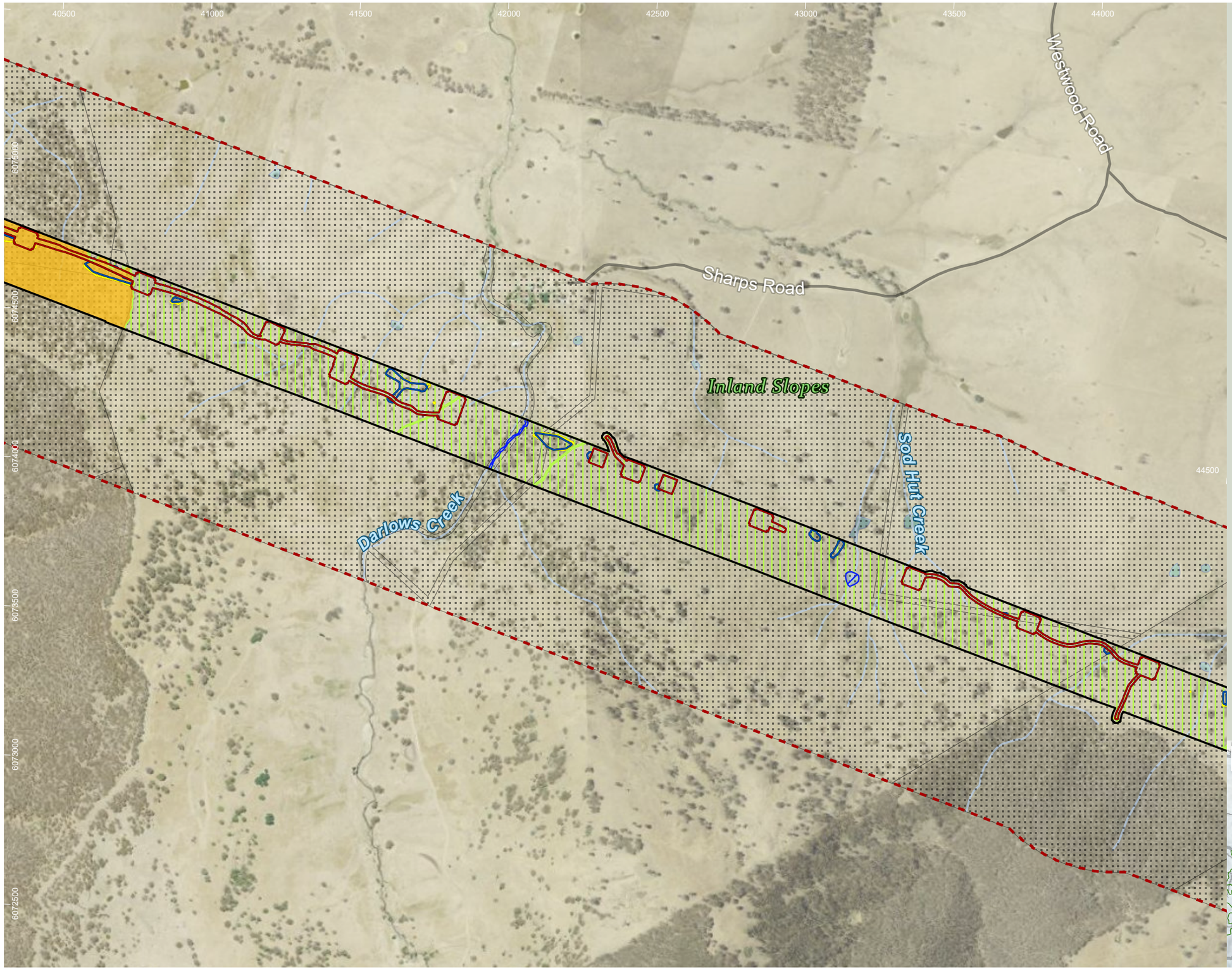


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

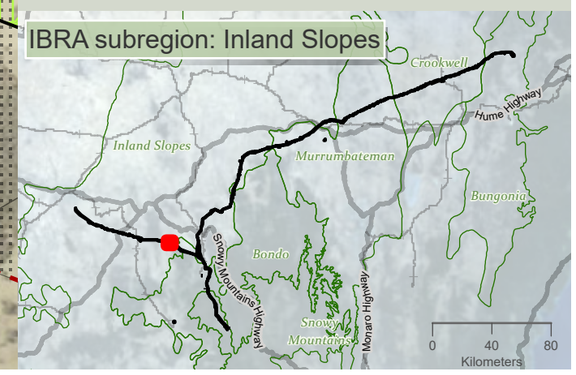
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 17

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

44000 44500 45000 45500 46000 46500 47000 47500

6073000 6072500 6072000 6071500

Right Arm Creek
Green Hills State Forest
Inland Slopes
Bondo
Prickle Road
Nacki Nacki Creek
Right Arm Creek Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

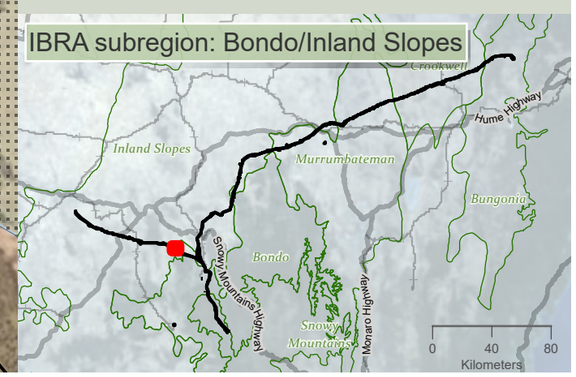
Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 350
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

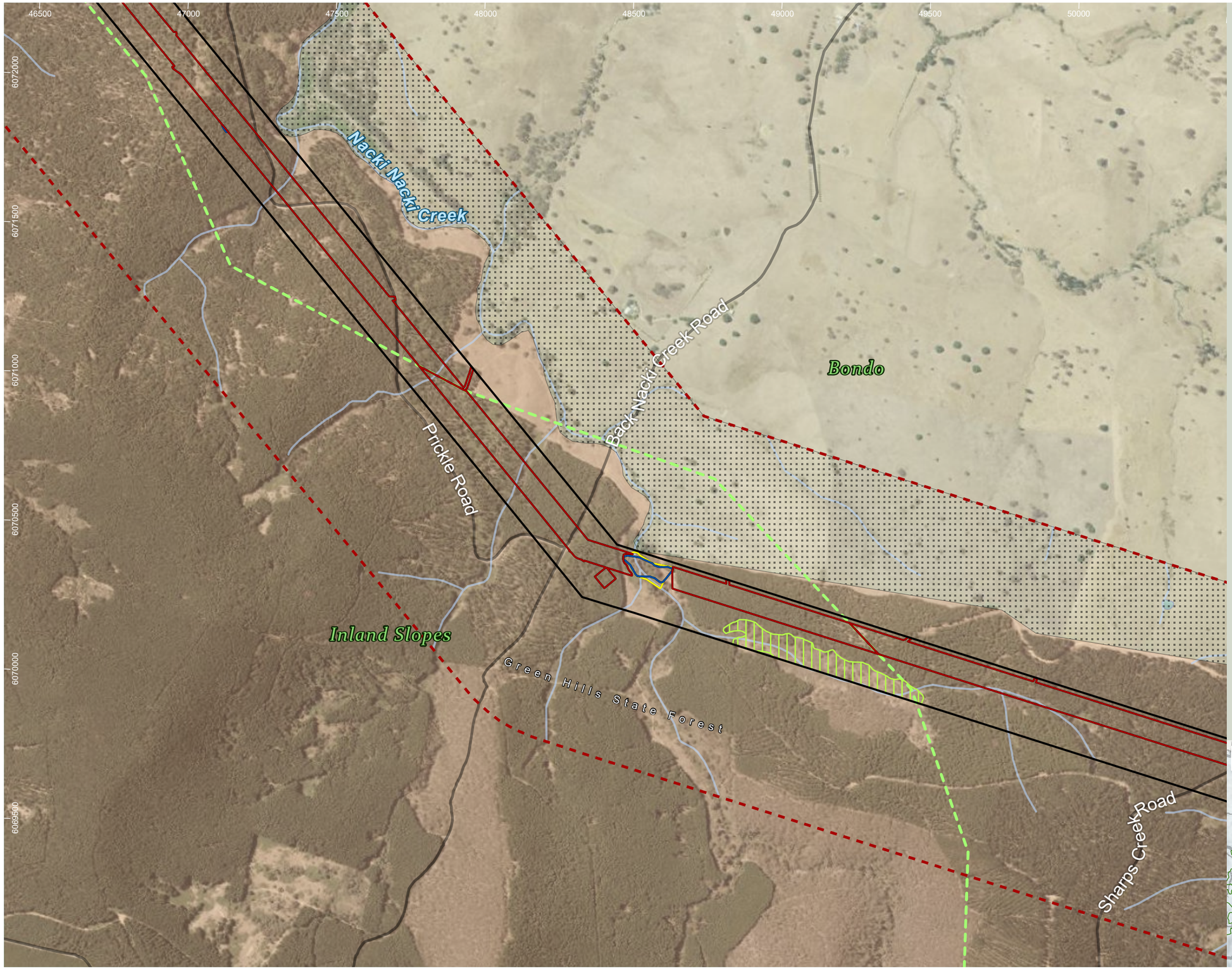
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 18

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

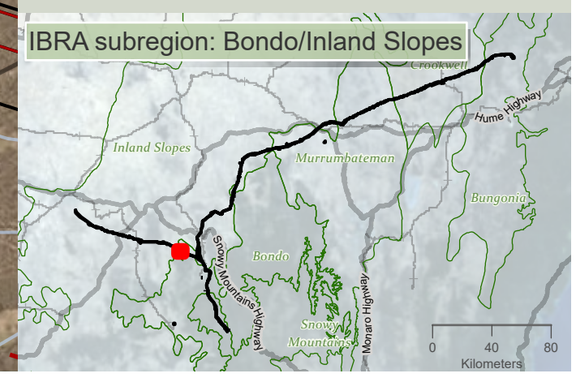
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

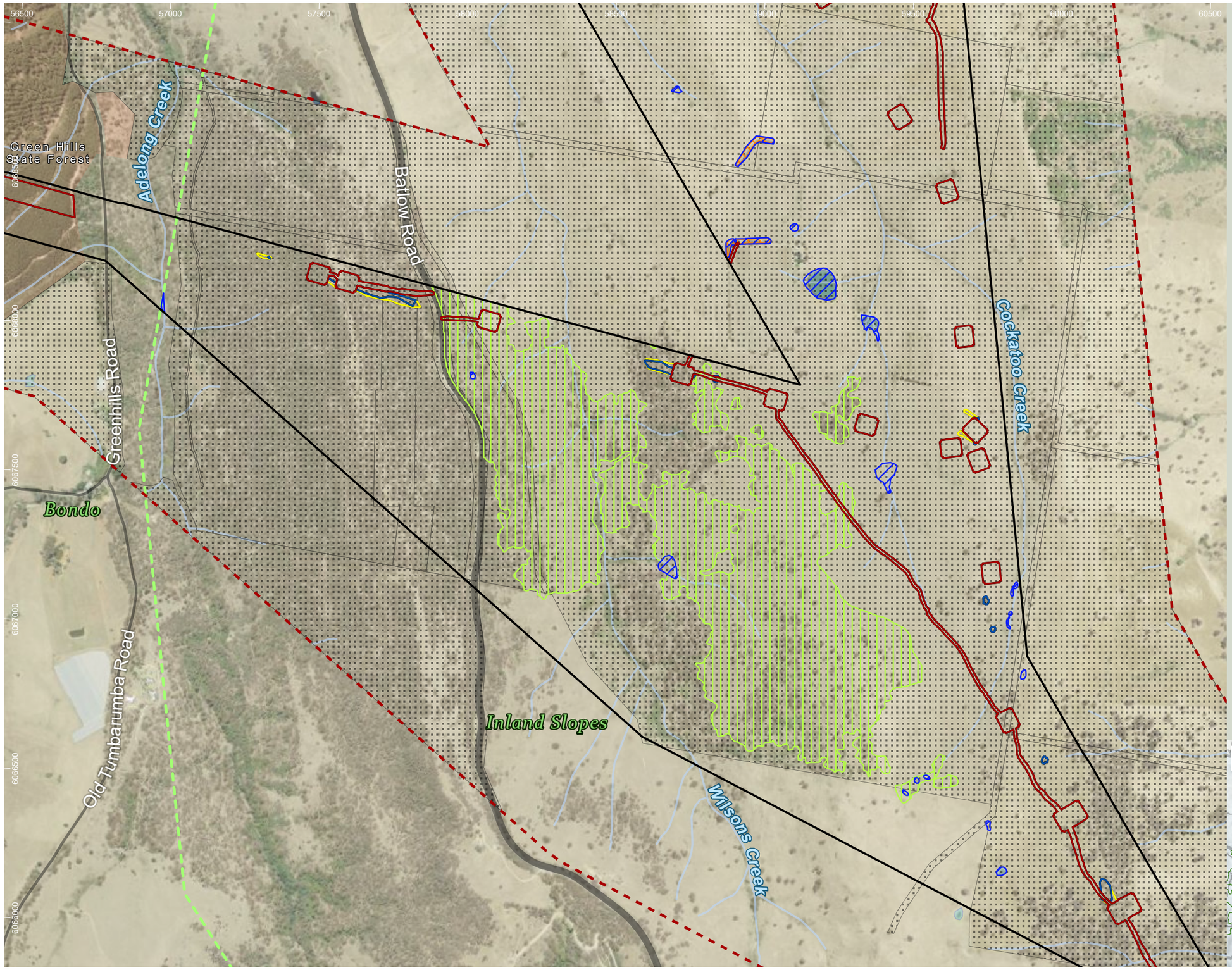
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

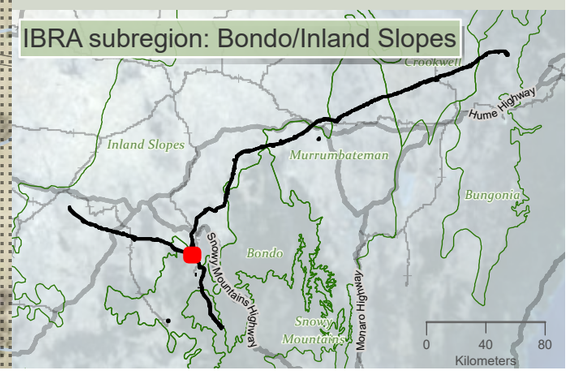
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 19

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.





HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 22

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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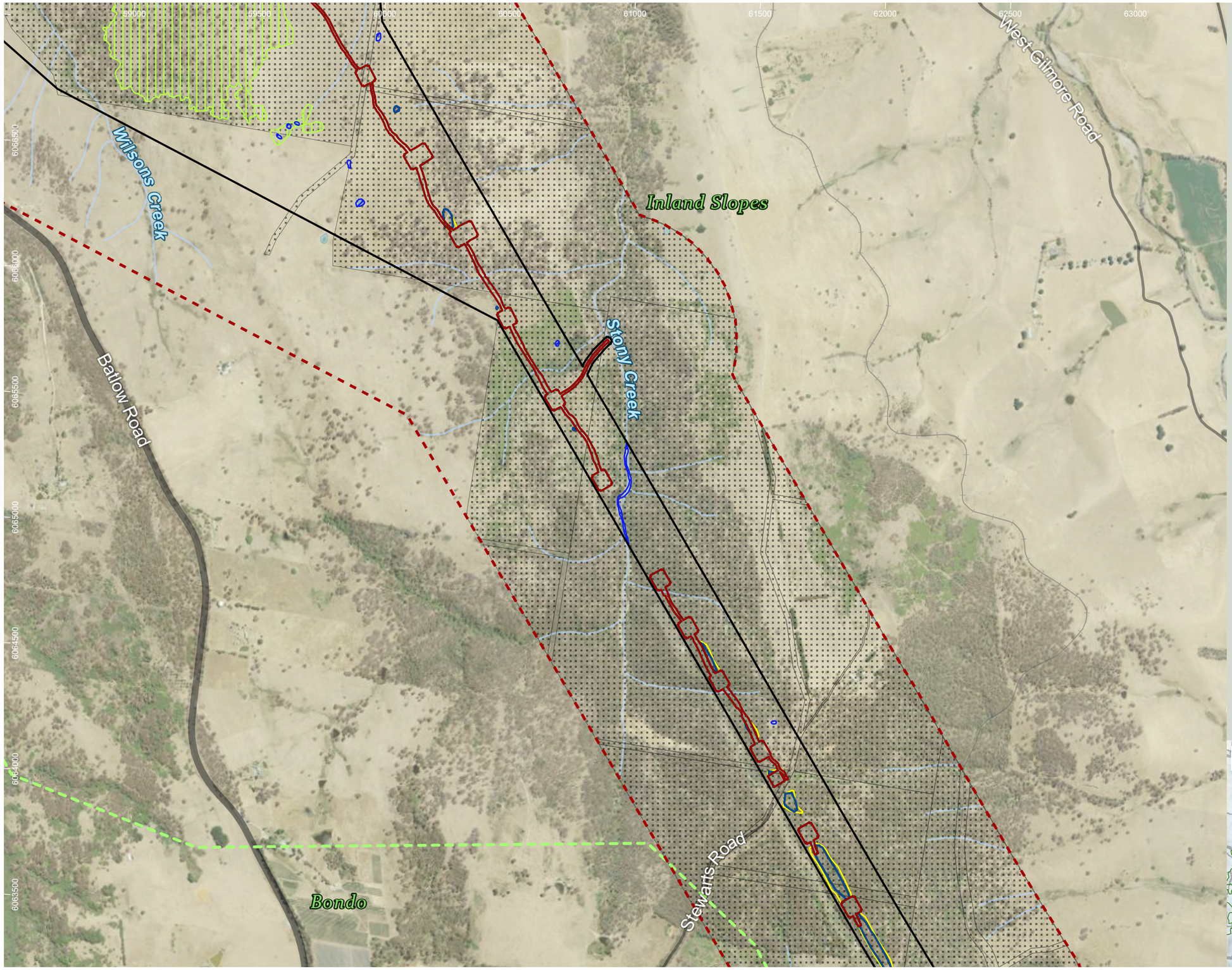


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

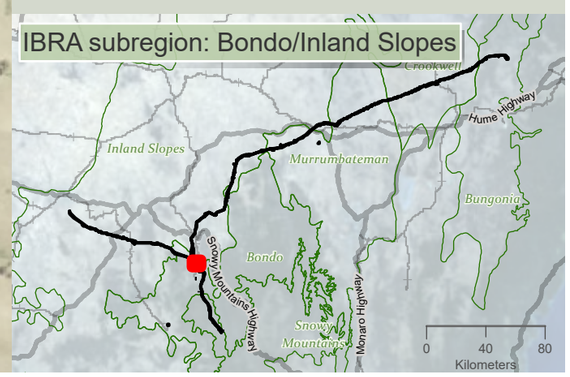
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

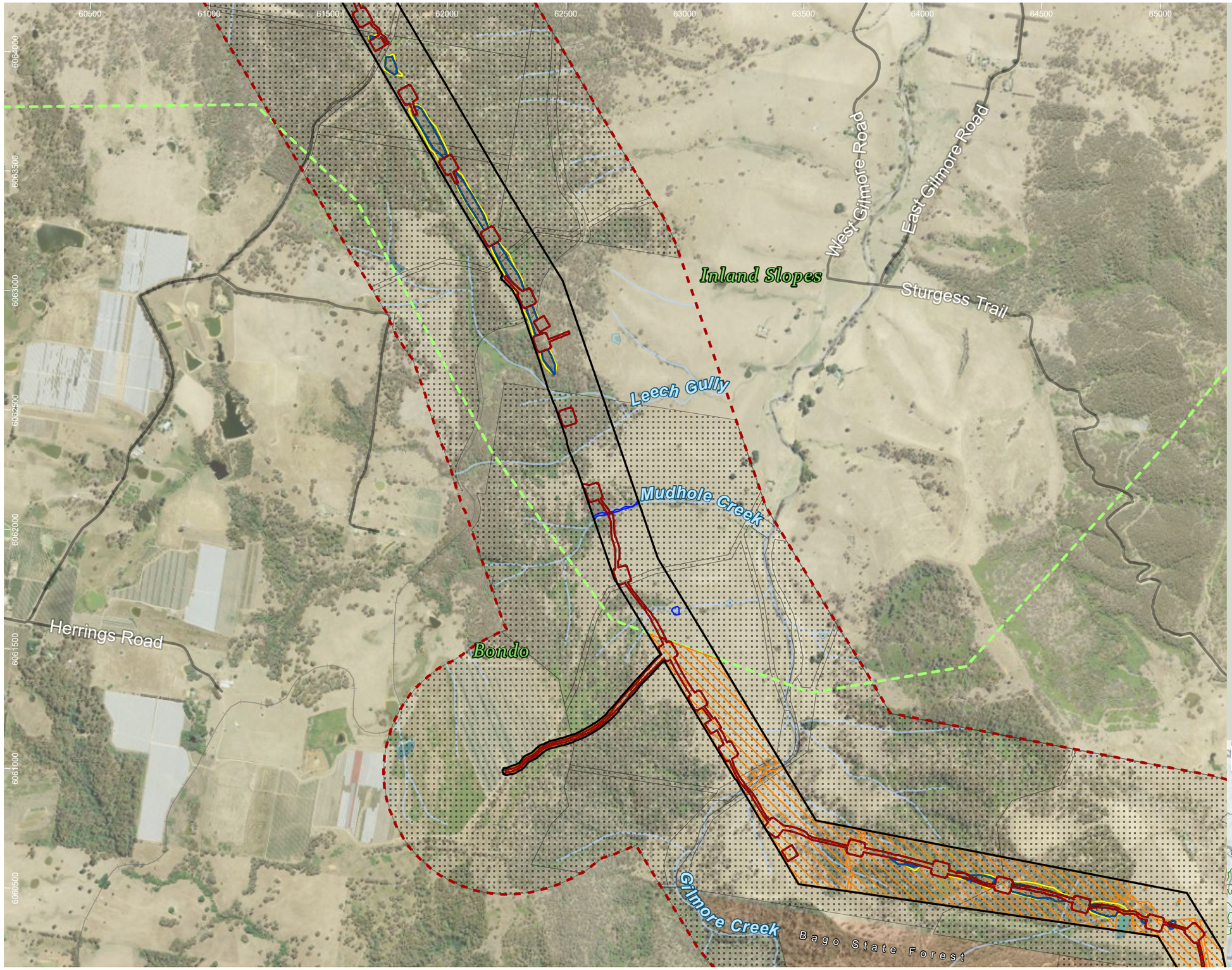
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 23

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

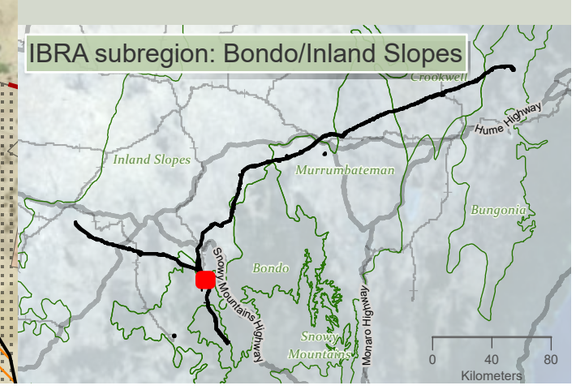
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

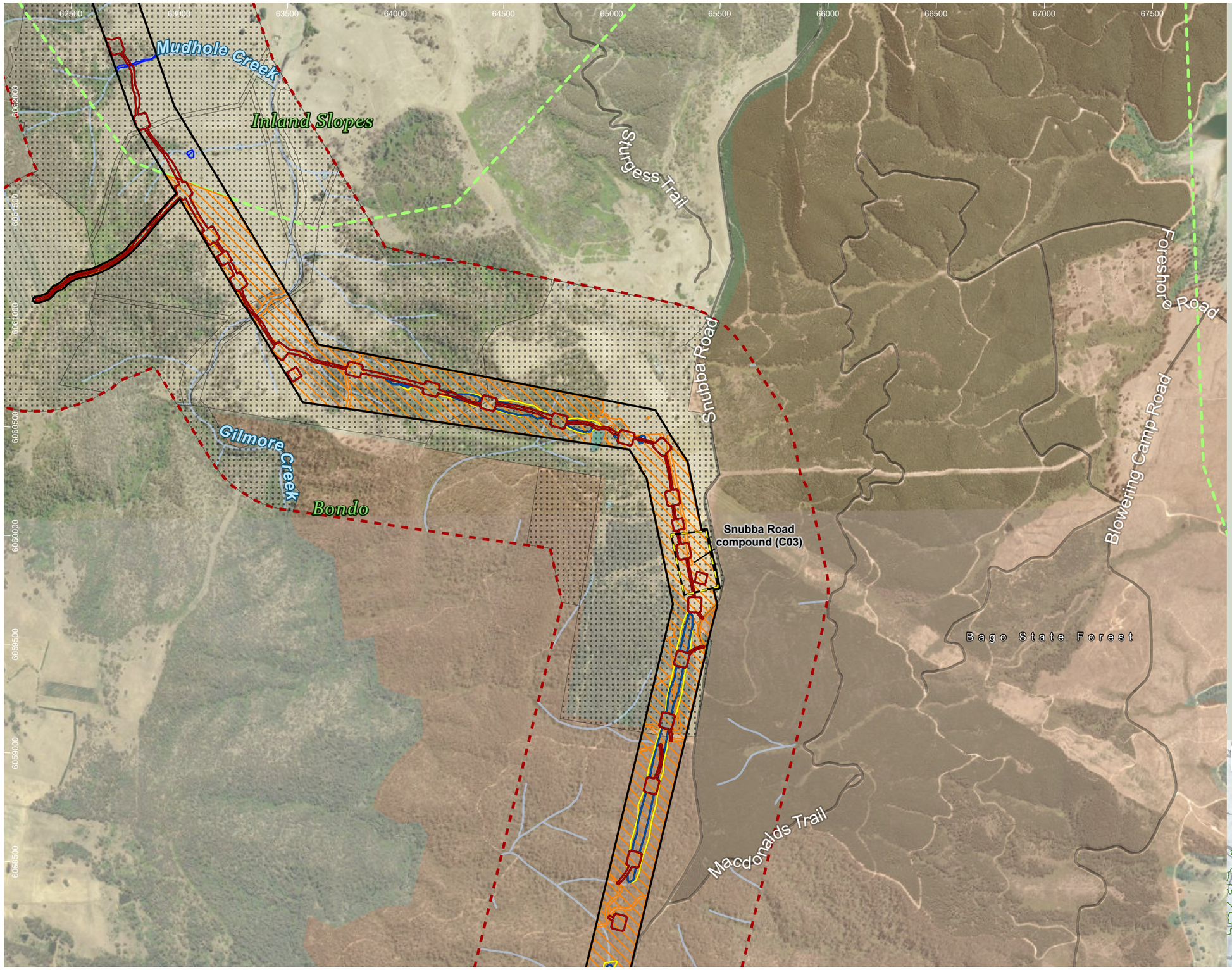
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 24

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

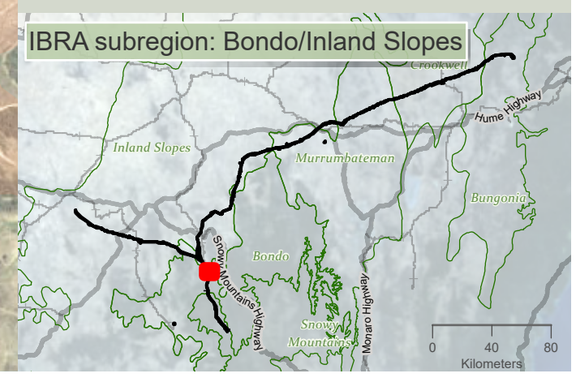
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 25

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

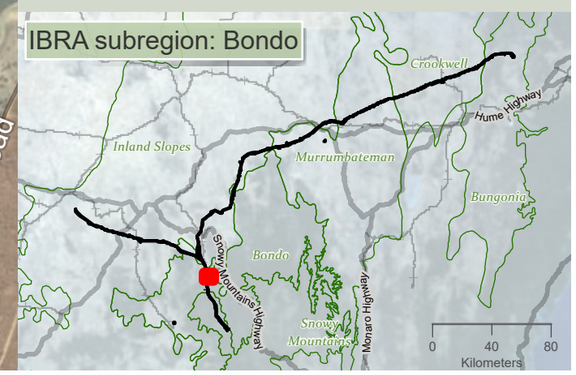
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

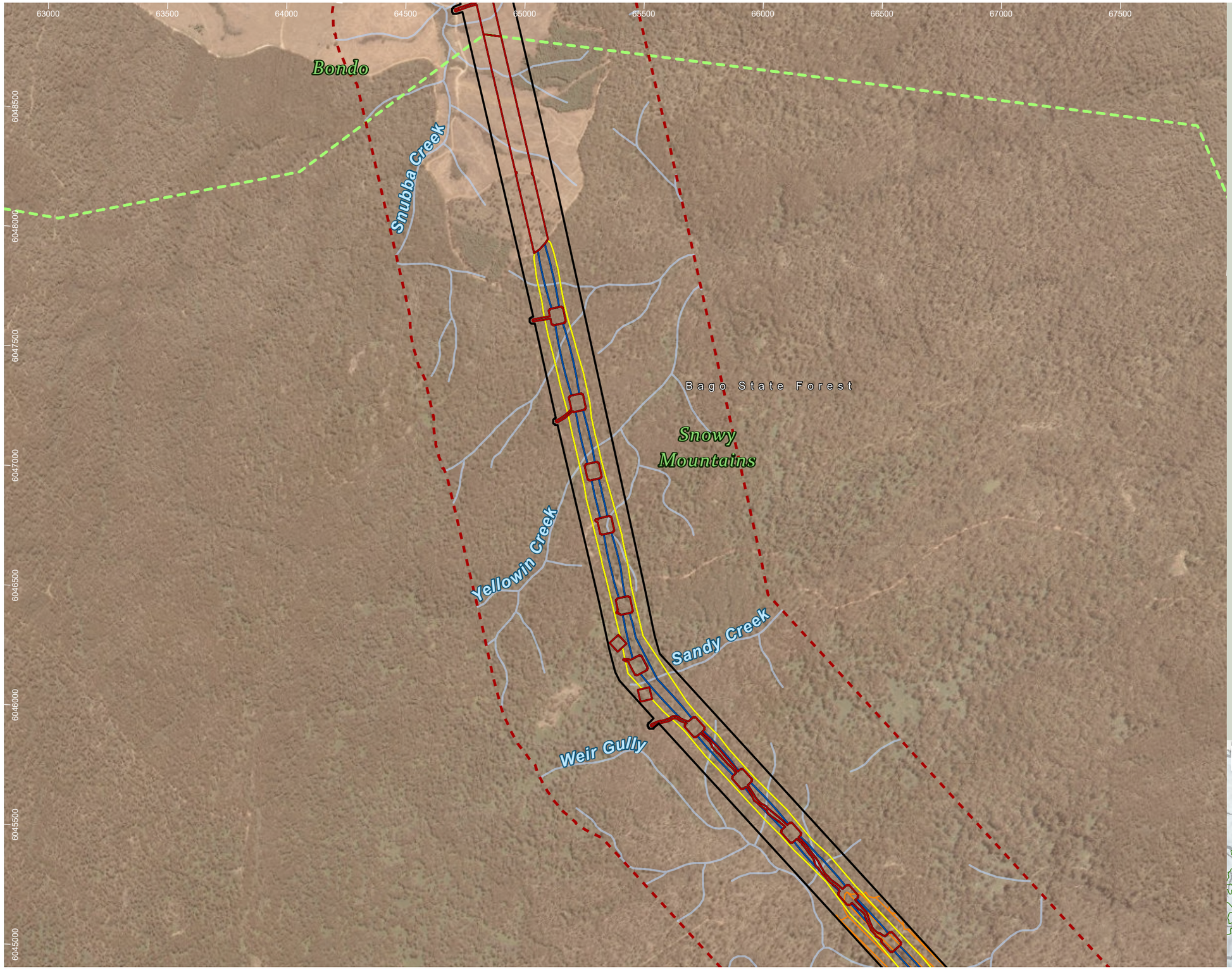
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 28

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

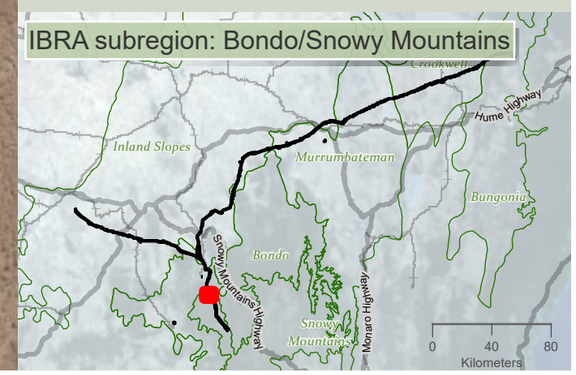
- Waterway

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

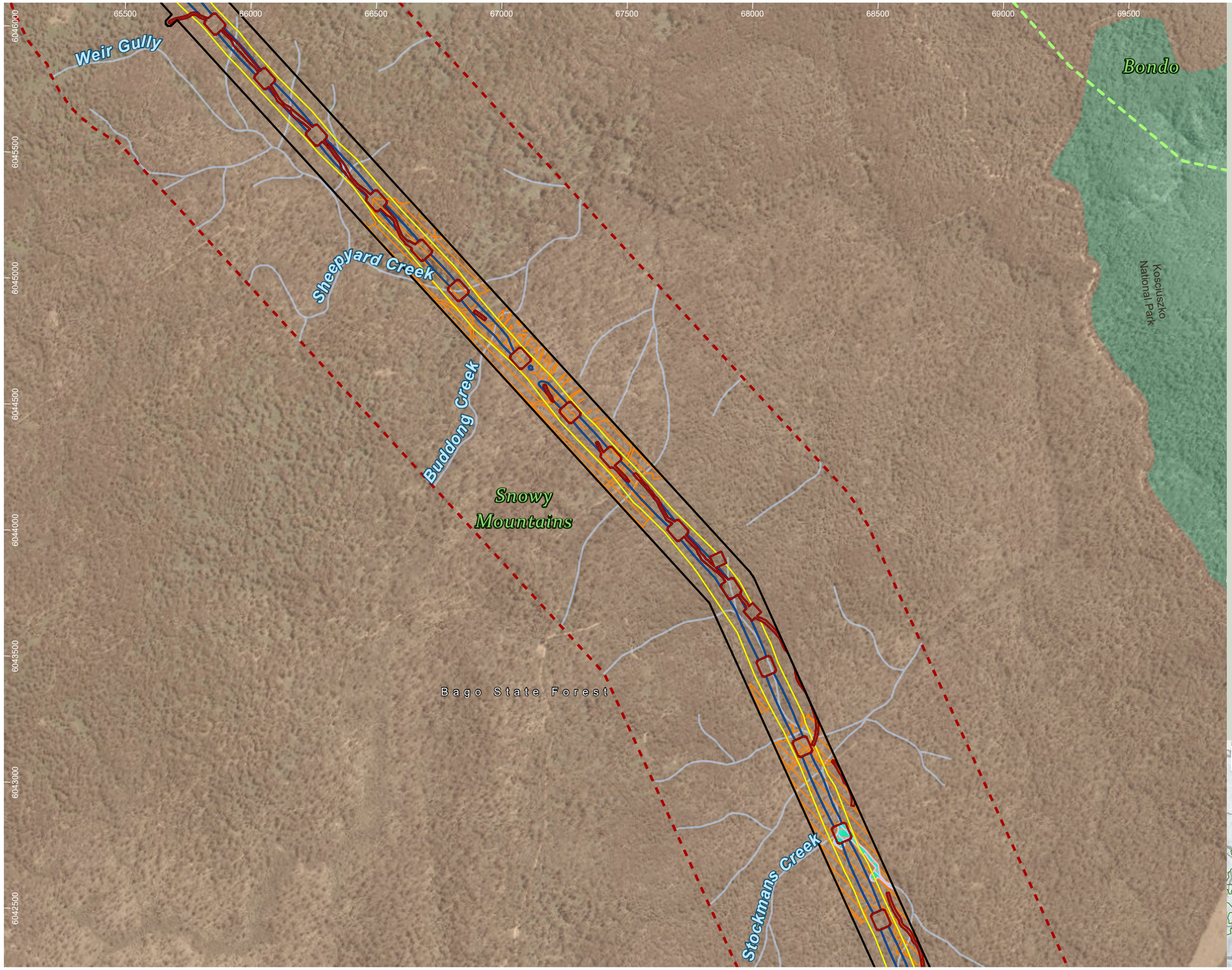
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 31

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

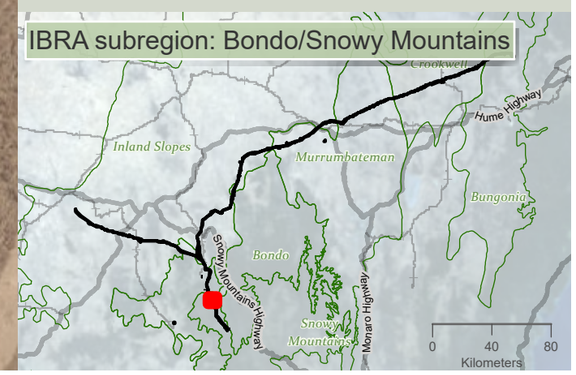
- National Park

EPBC Act TECs

- Alpine Sphagnum Bogs and Associated Fens

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Pterostylis oreophila
- Xerochrysum palustre



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

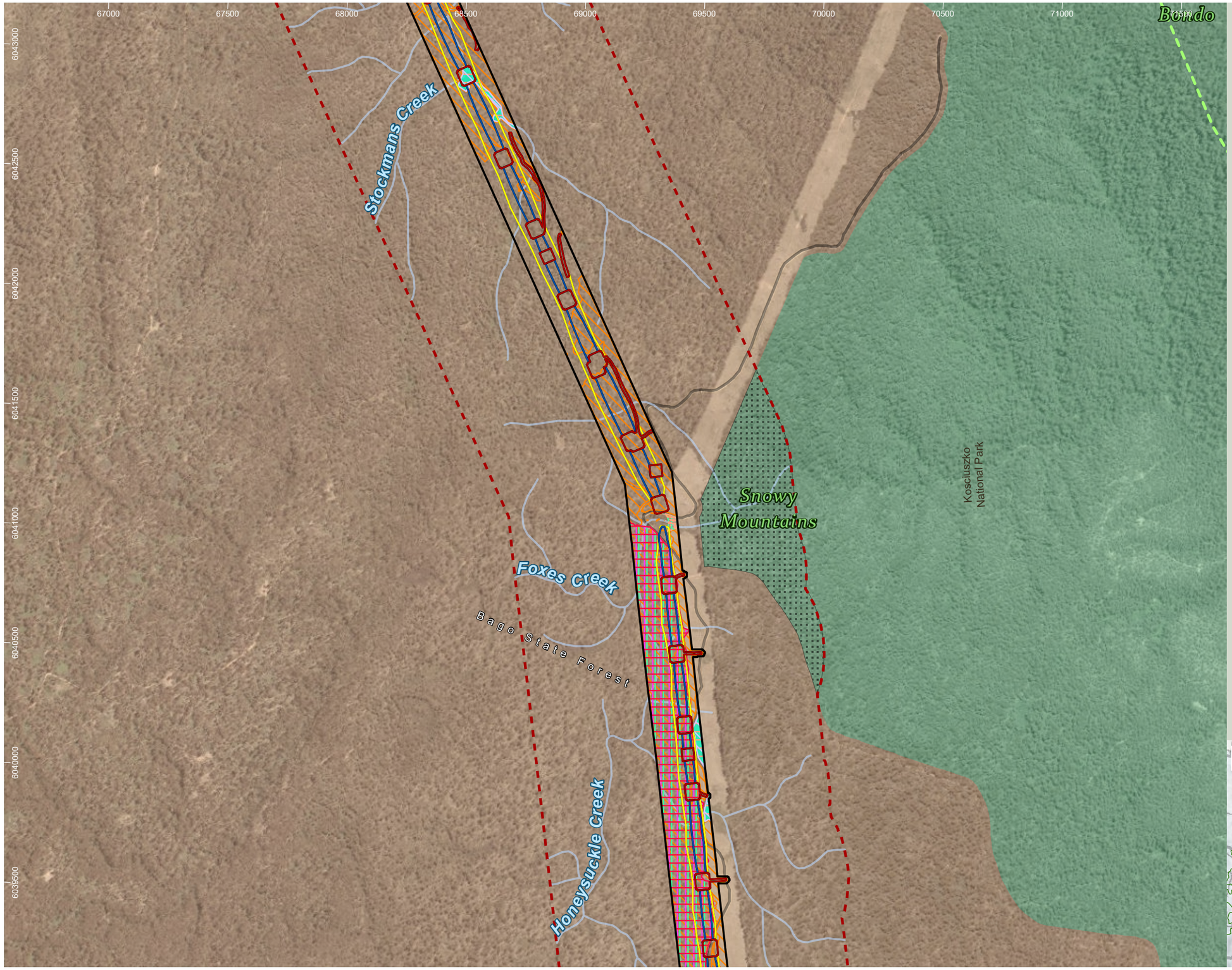
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 32

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

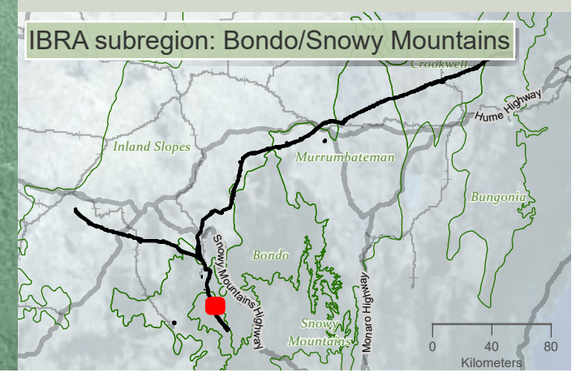
- National Park

EPBC Act TECs

- Alpine Sphagnum Bogs and Associated Fens

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Prasophyllum bagoense
- Prasophyllum keltonii
- Pterostylis oreophila
- Thesium australe
- Xerochrysum palustre



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 33

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

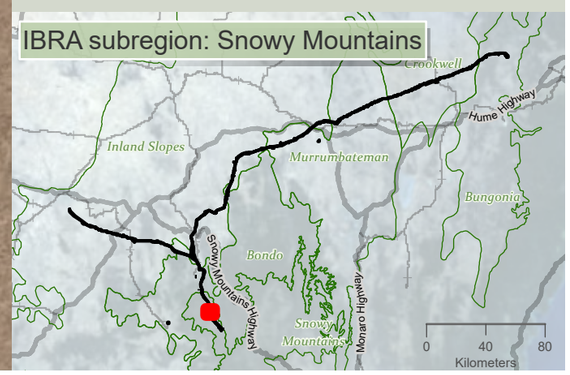
- National Park

EPBC Act TECs

- Alpine Sphagnum Bogs and Associated Fens

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Prasophyllum bagoense
- Prasophyllum keltonii
- Pterostylis oreophila
- Thesium australe
- Xerochrysum palustre



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 34

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

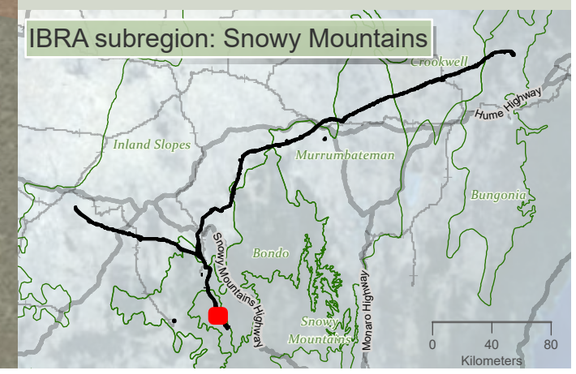
- State Forest

EPBC Act TECs

- Alpine Sphagnum Bogs and Associated Fens

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Prasophyllum bagoense
- Prasophyllum keltonii
- Pterostylis oreophila
- Thesium australe
- Xerochrysum palustre



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 36

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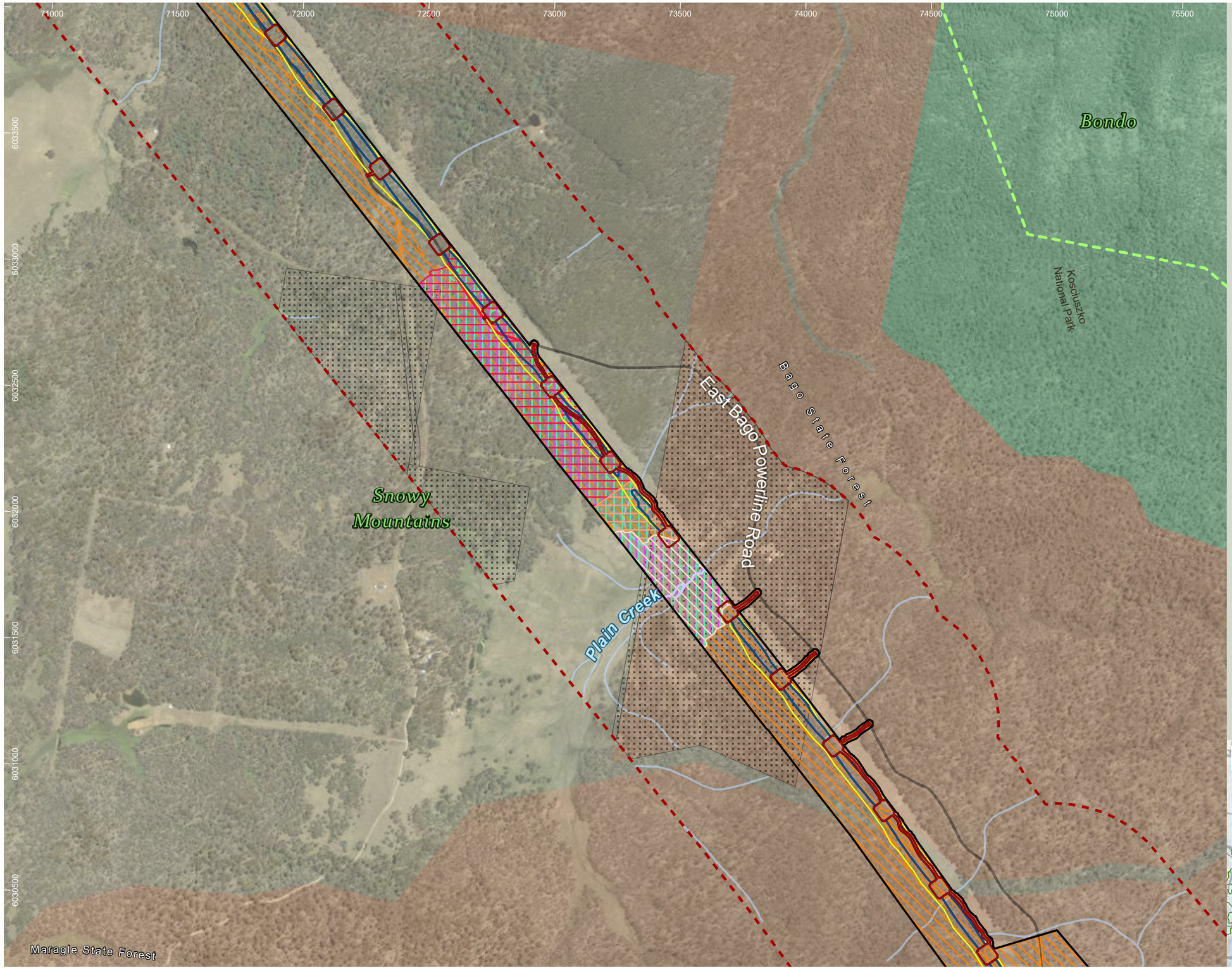


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act flora species habitat

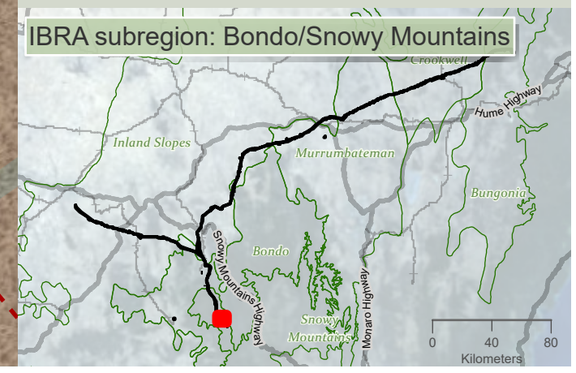
- Leucochrysum albicans var tricolor
- Prasophyllum bagoense
- Prasophyllum innubum
- Prasophyllum keltonii
- Pterostylis oreophila
- Thesium australe
- Xerochrysum palustre

Sensitive species - Forestry (no. of records) - locations not shown

- Prasophyllum bagoense (Bago Leek Orchid) (119)
- Prasophyllum keltonii (Kelton's Leek Orchid) (18)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not shown

- Prasophyllum bagoense (Bago Leek Orchid) (25)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 37

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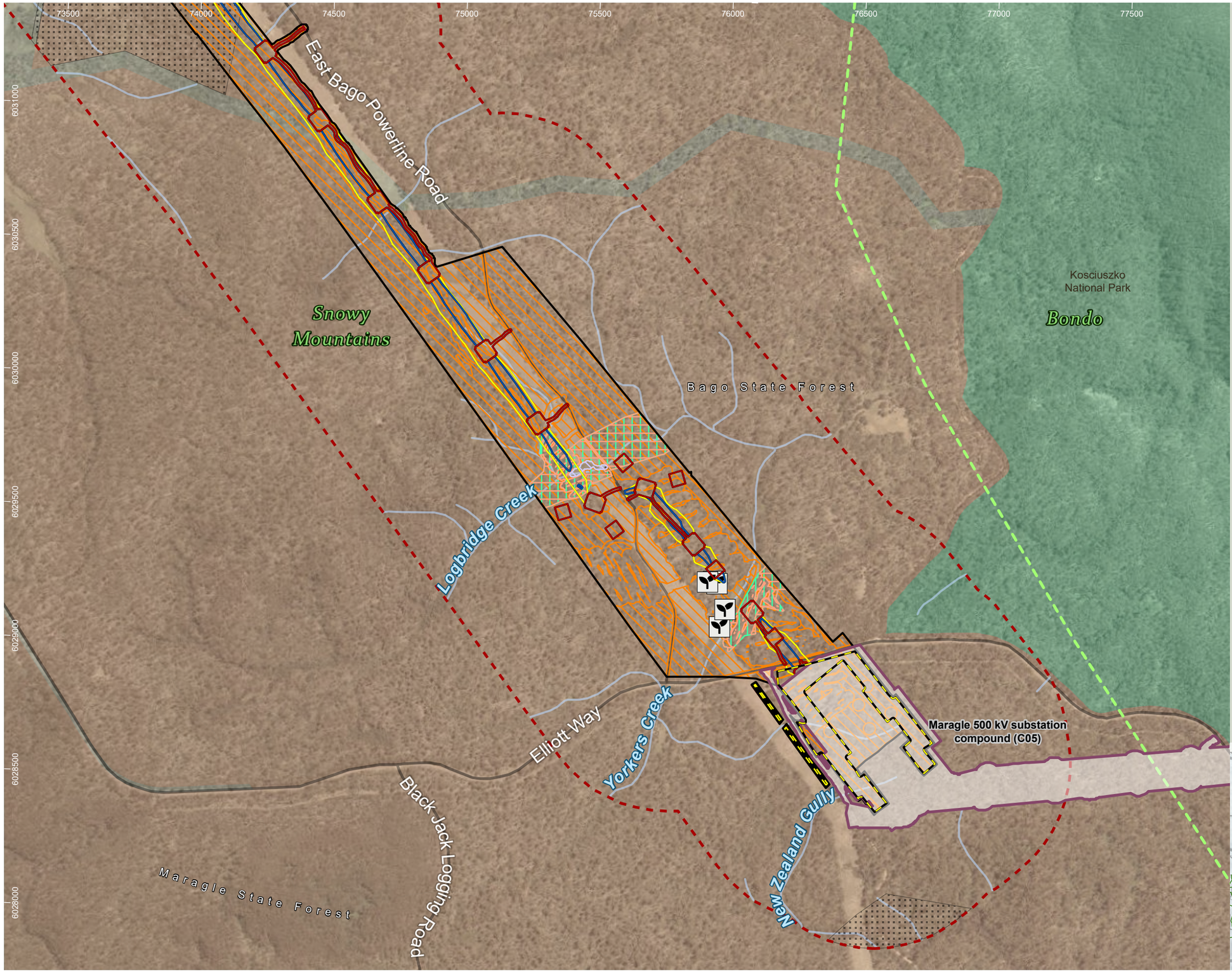
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Prasophyllum bagoense
- Prasophyllum keltonii
- Pterostylis oreophila
- Thesium australe
- Xerochrysum palustre

Threatened flora species - Niche and ELA, 2022 (no. of records)

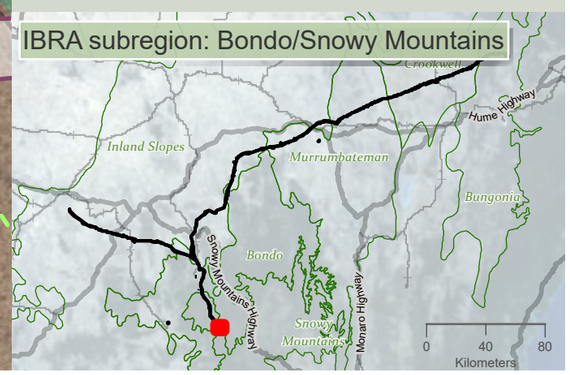
- Xerochrysum palustre (Swamp Everlasting)

Sensitive species - Forestry (no. of records) - locations not shown

Prasophyllum bagoense (Bago Leek Orchid) (58)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not shown

Prasophyllum bagoense (Bago Leek Orchid) (18)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 38

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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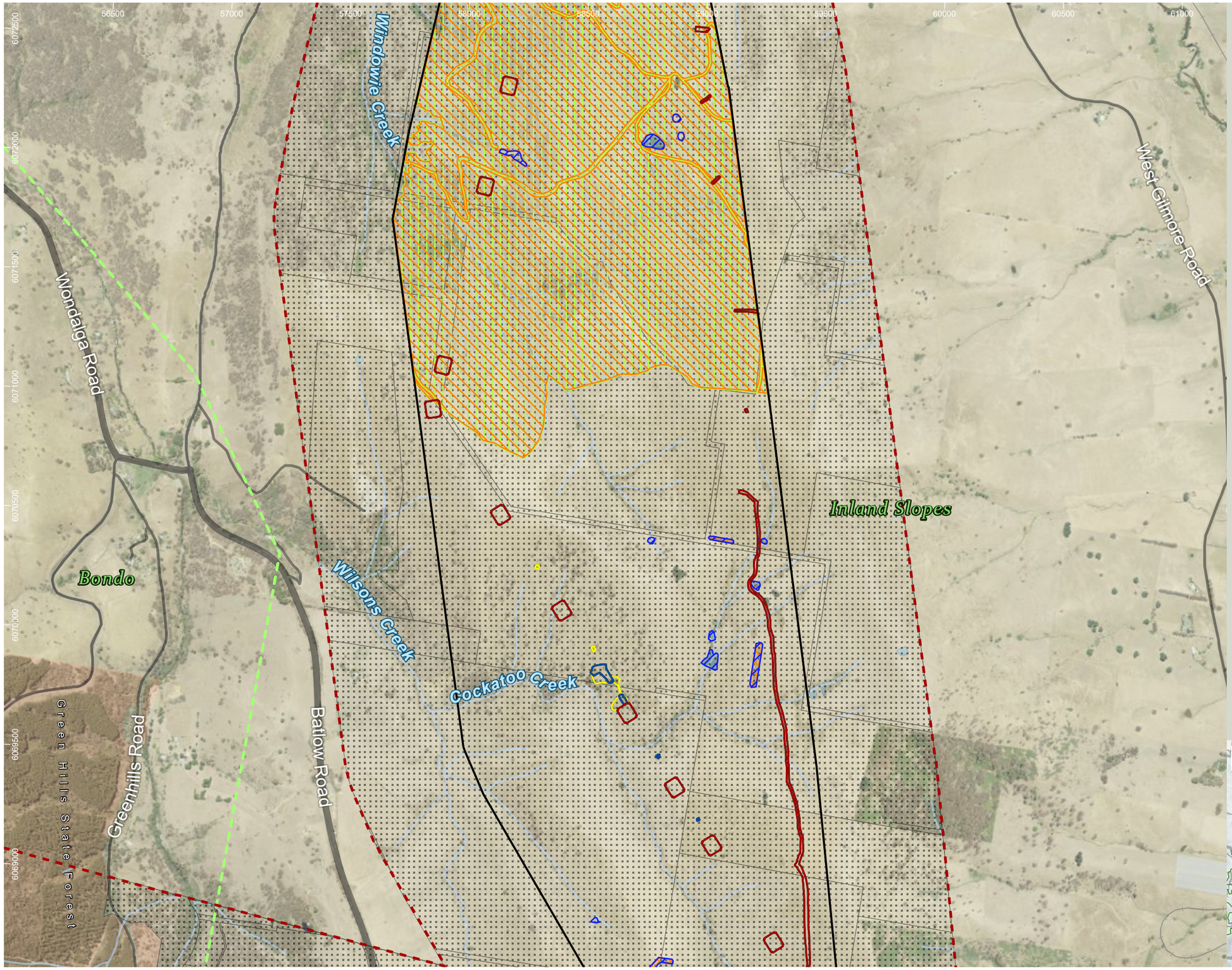


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

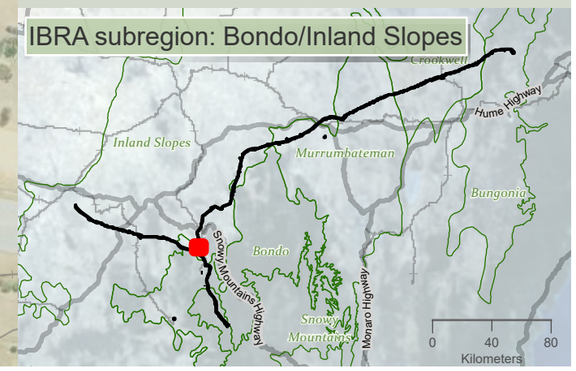
- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 39

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56000 56500 57000 57500 58000 58500 59000 59500 60000 60500

6075500 6075000 6074500 6074000 6073500 6073000 6072500

Windowie Creek
Batlow Road
Inland Slopes
West Gilmore Road
East Gilmore Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

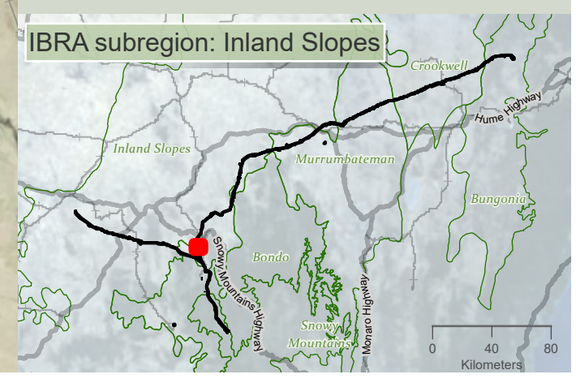
- Minor road
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 450
m
N
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 40

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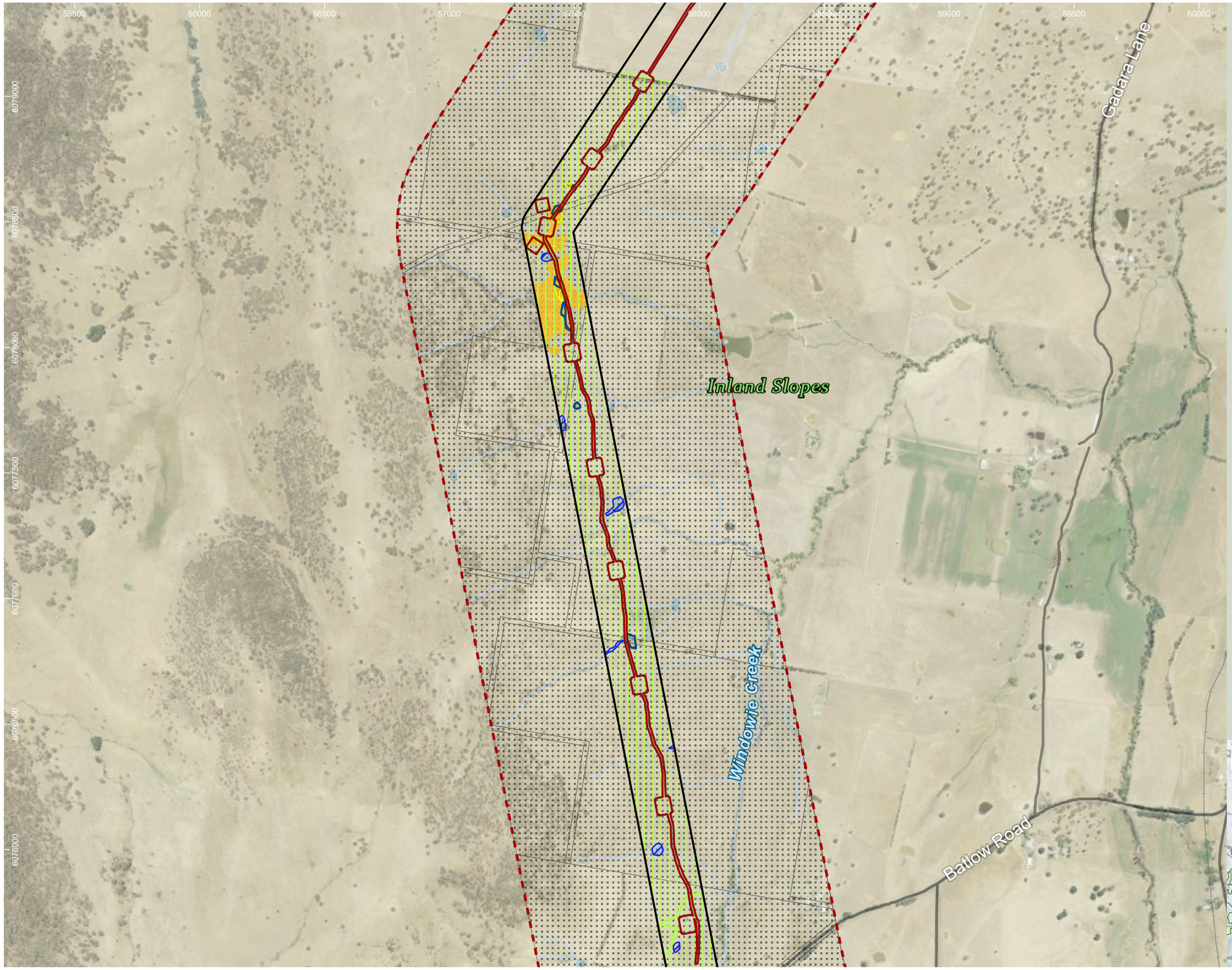
Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

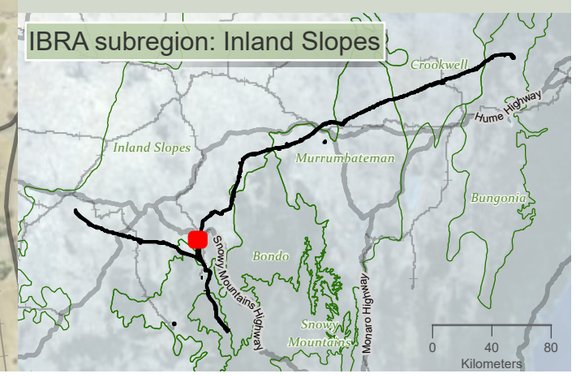
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 41

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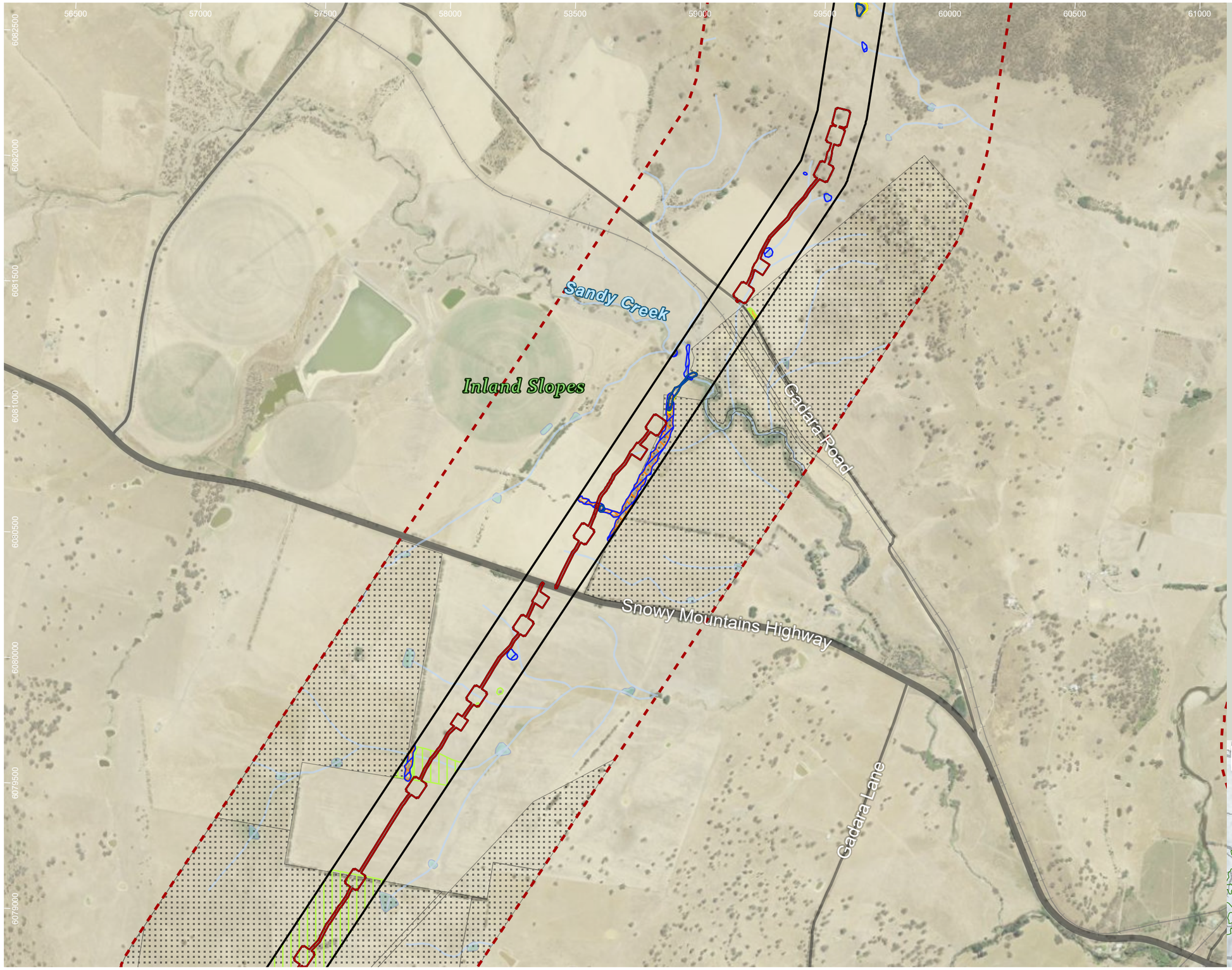


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

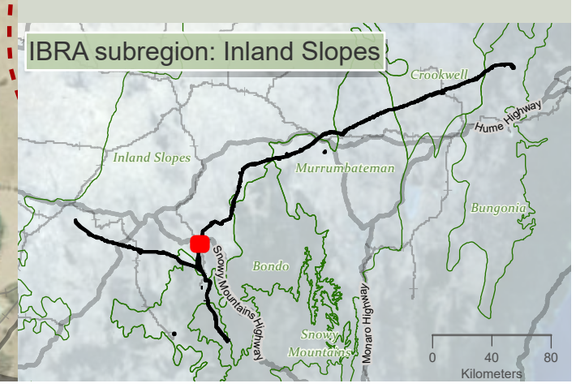
- Major road
- Minor road
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 42

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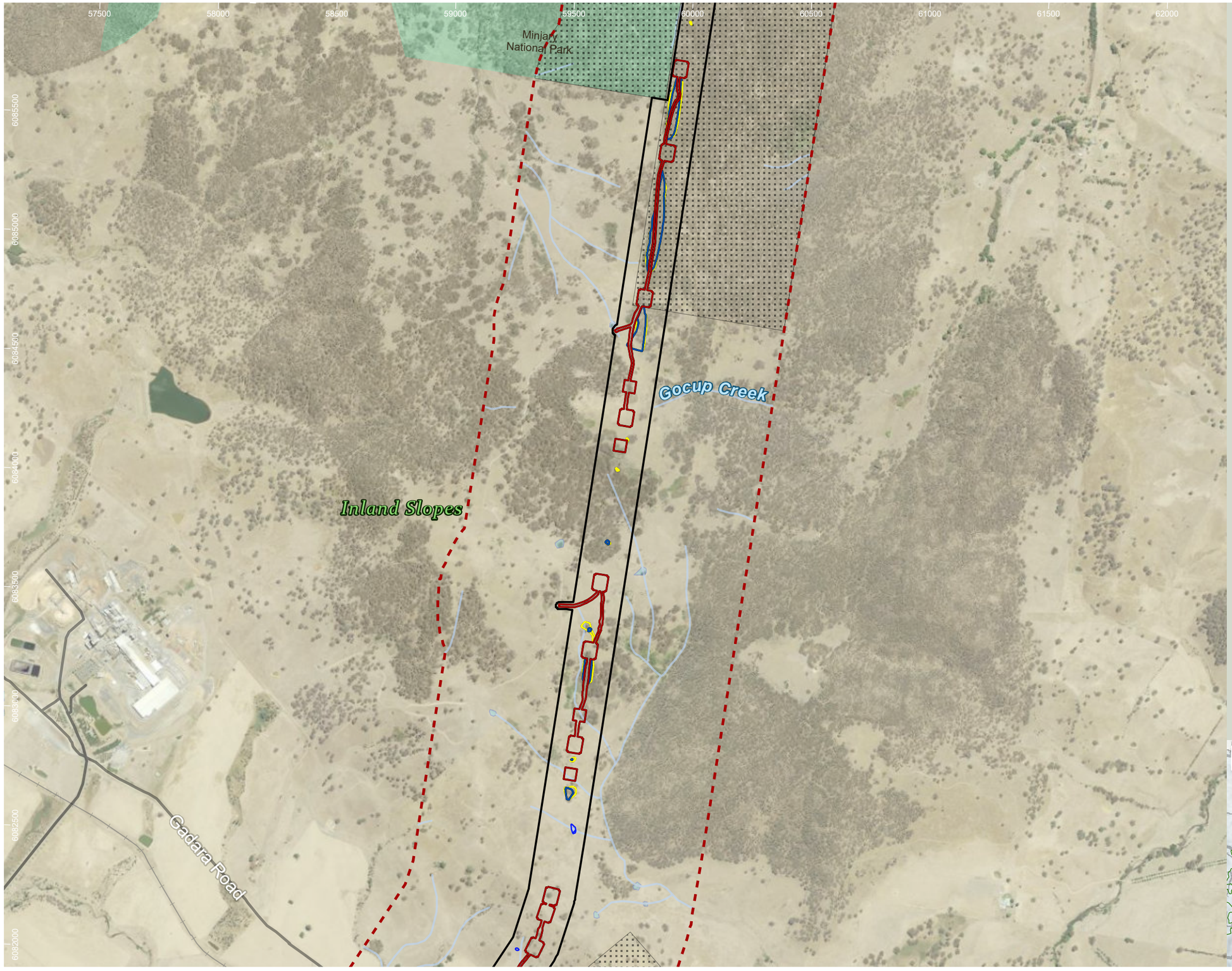
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

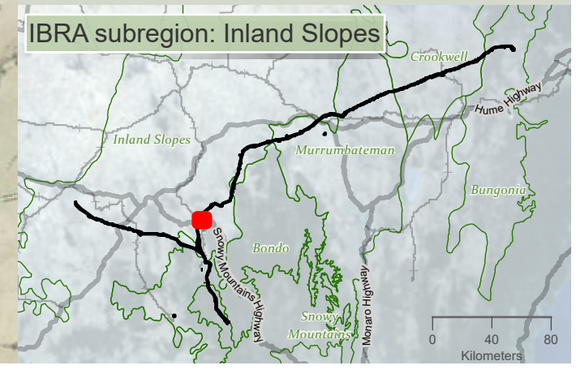
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act flora species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 44

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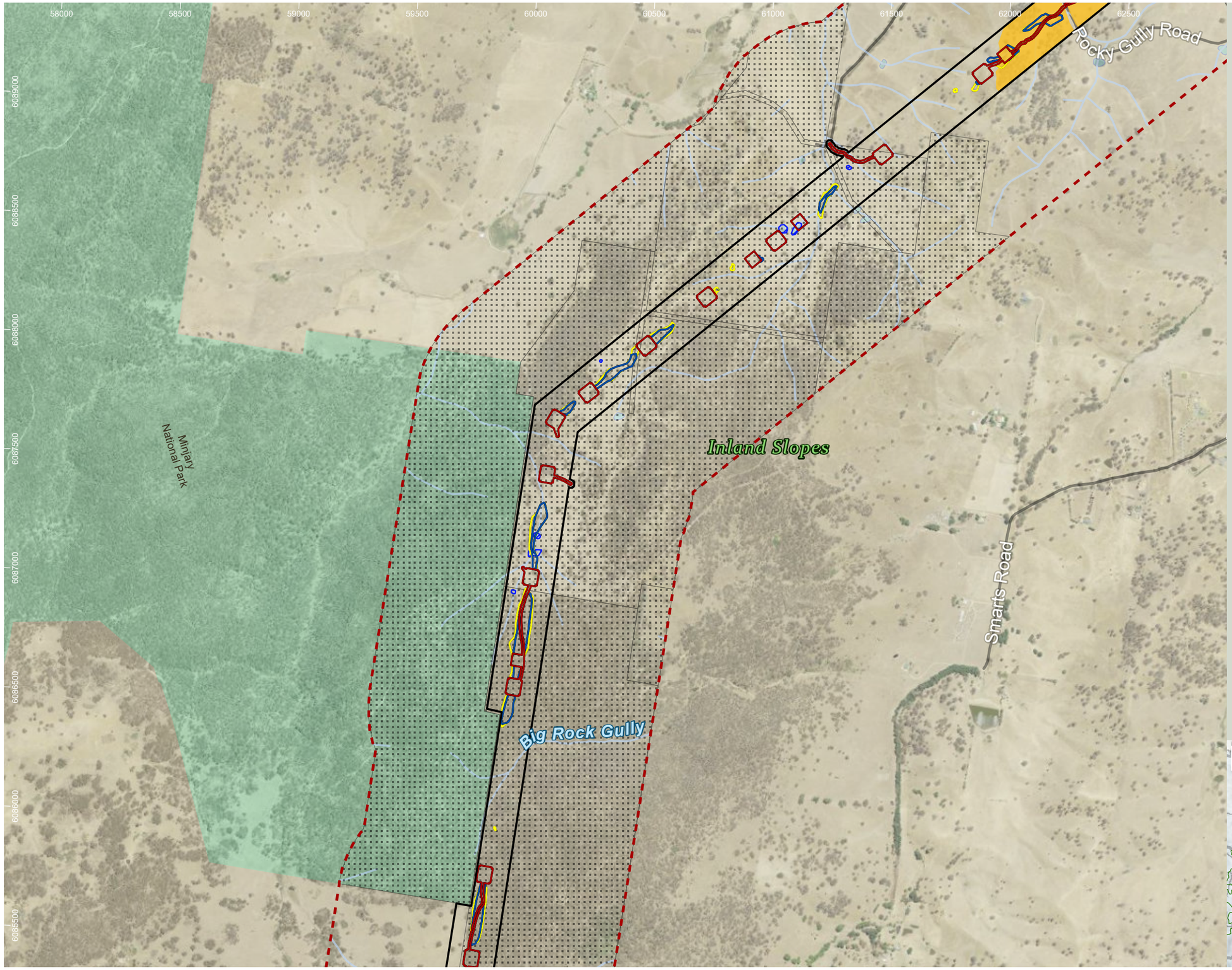


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

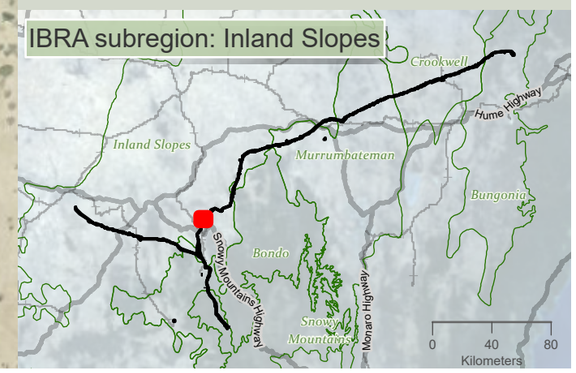
- National Park

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 45

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61000 61500 62000 62500 63000 63500 64000 64500

6091500 6091000 6090500 6090000 6089500 6089000 6088500

Inland Slopes

Meadow Creek Road

Gocup Road

Gocup Creek

Tumut River

Rocky Gully Road

Gocup Farms Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

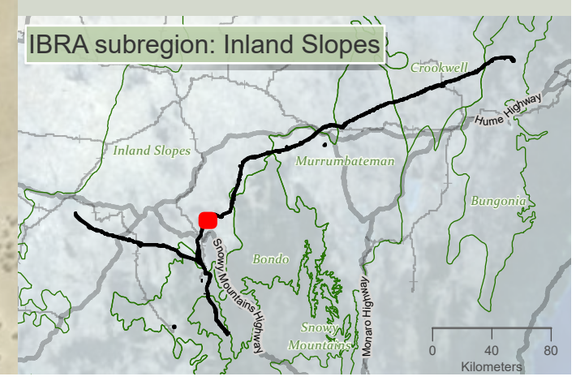
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Eucalyptus aggregata

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 46

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63500 64000 64500 65000 65500 66000 66500 67000

6094000 6093500 6093000 6092500 6092000

Mudjarn Nature Reserve

Inland Slopes

Tumut River

Cocup Creek

Cockatoo Road

Brungle Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

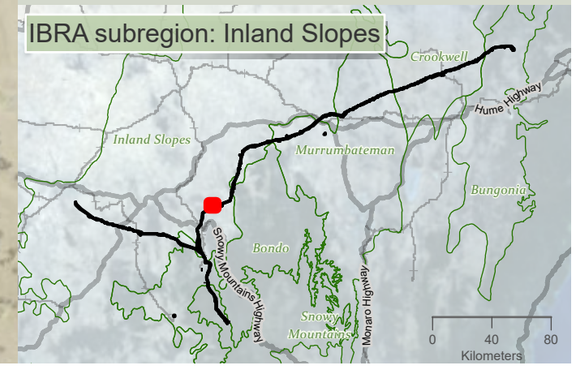
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Eucalyptus aggregata

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 47

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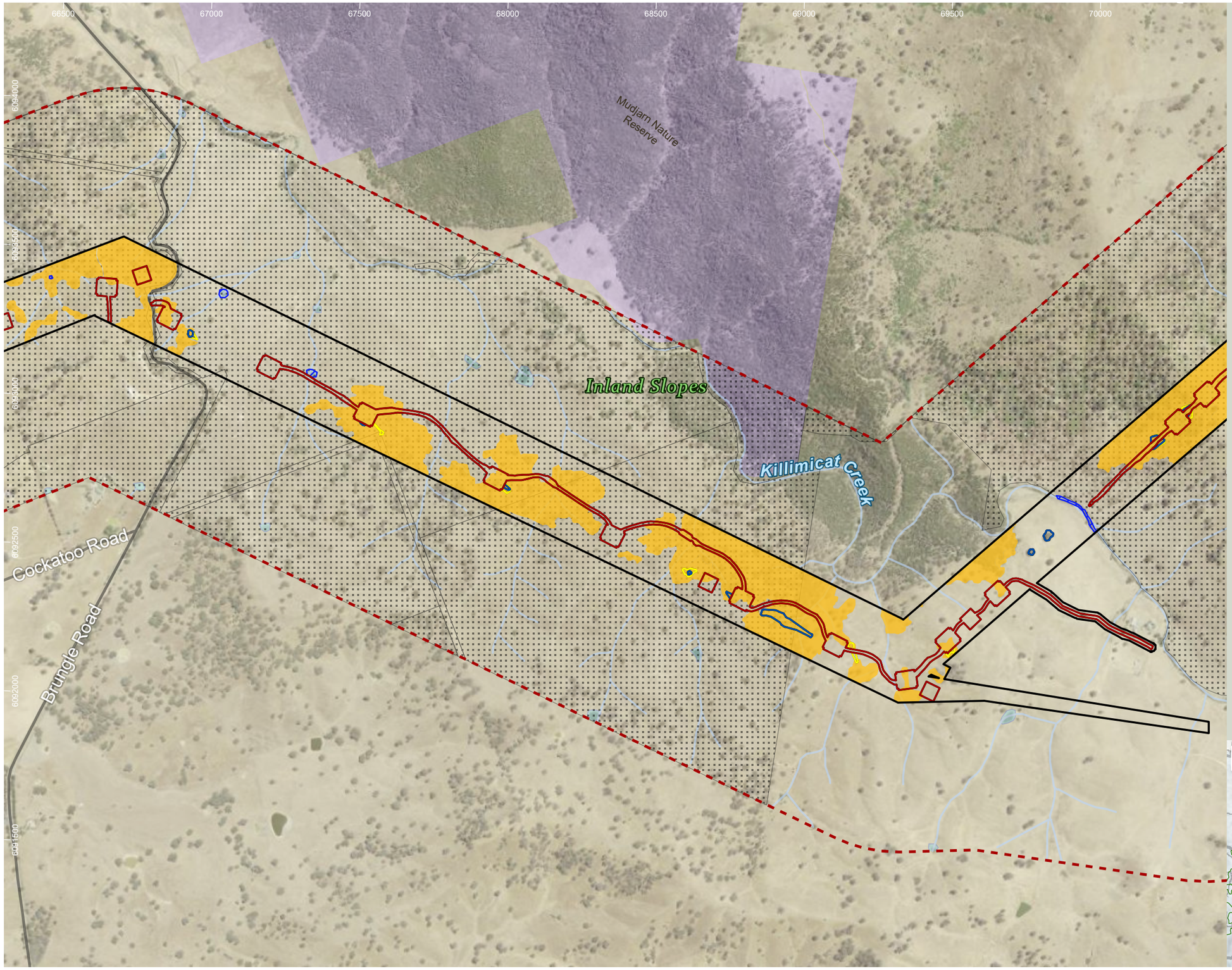
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

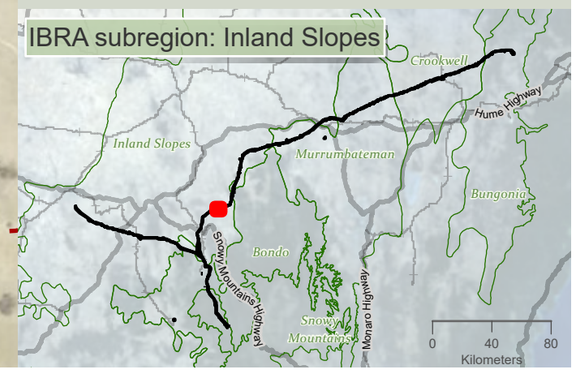
- Nature Reserve

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 48

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70000 70500 71000 71500 72000 72500 73000 73500

6094000 6094500 6095000

6093500 6093000 6092500

Inland Slopes

Sawpit Gully

Killimicat Creek

Webbs Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

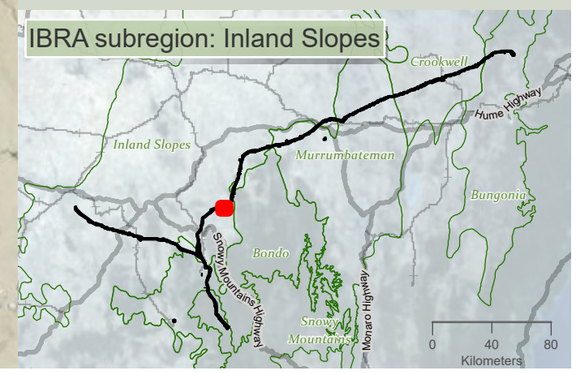
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 49

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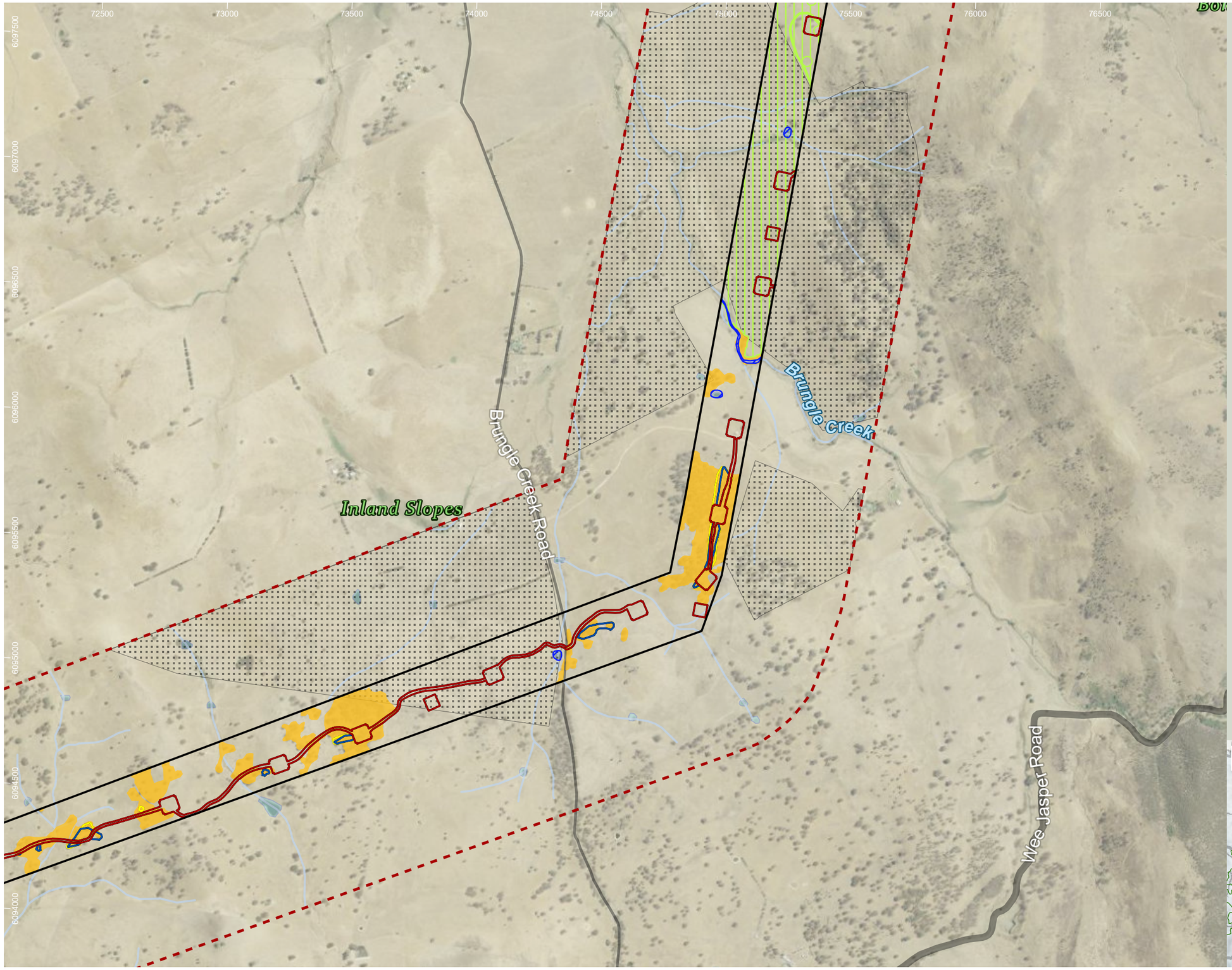


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

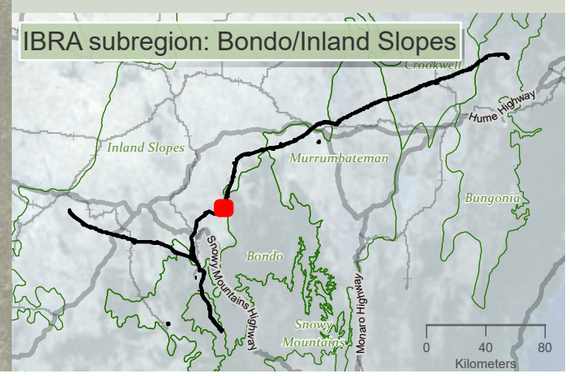
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 50

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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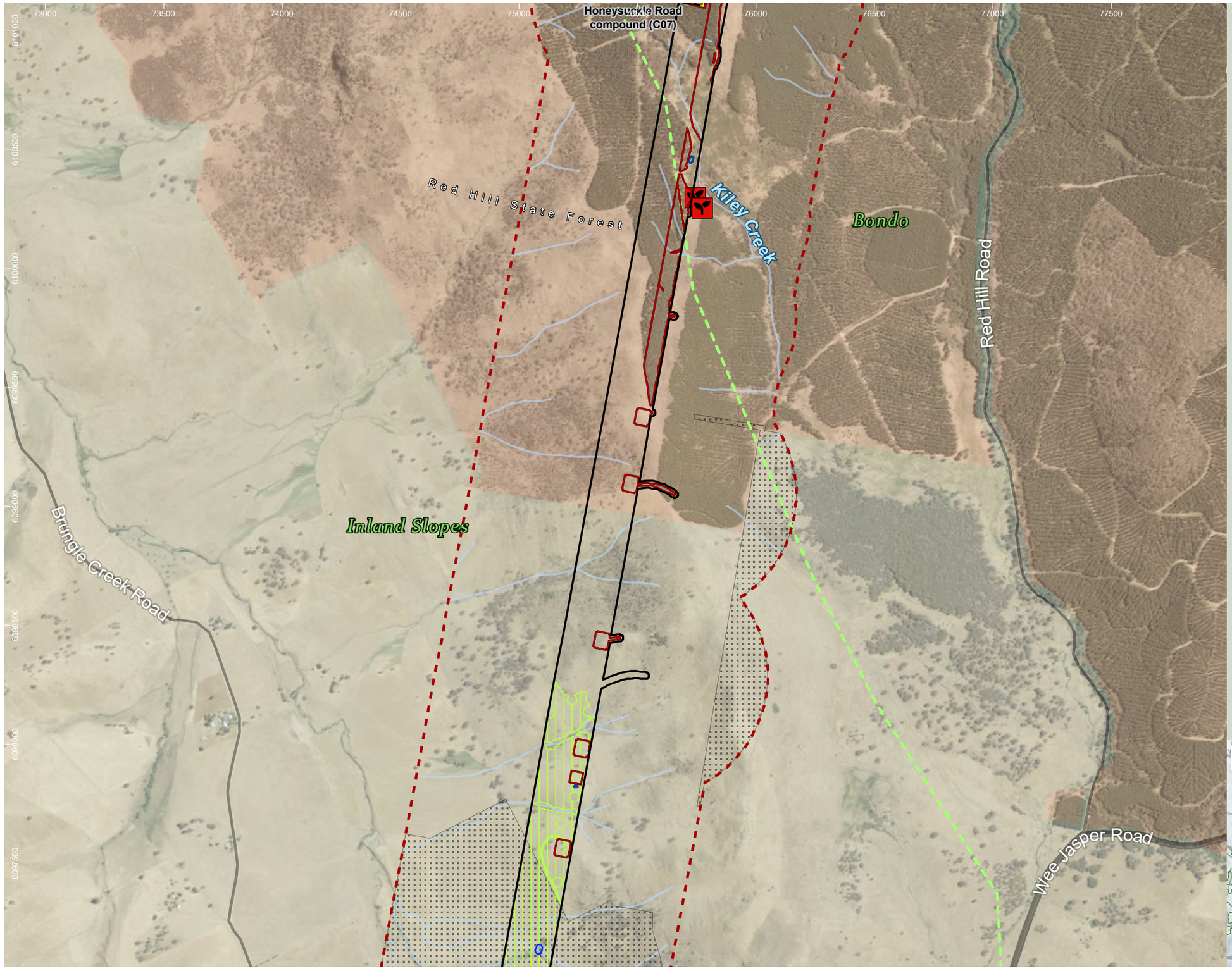


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

Administrative and Property Boundaries

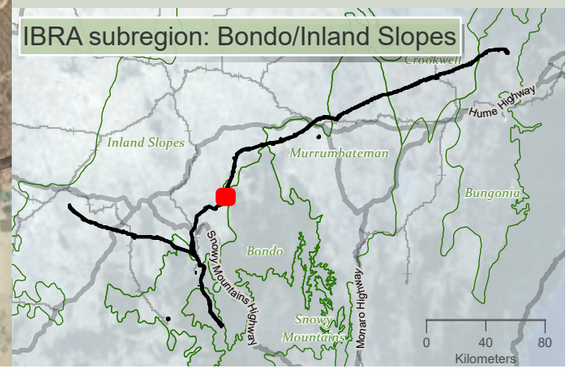
- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 51

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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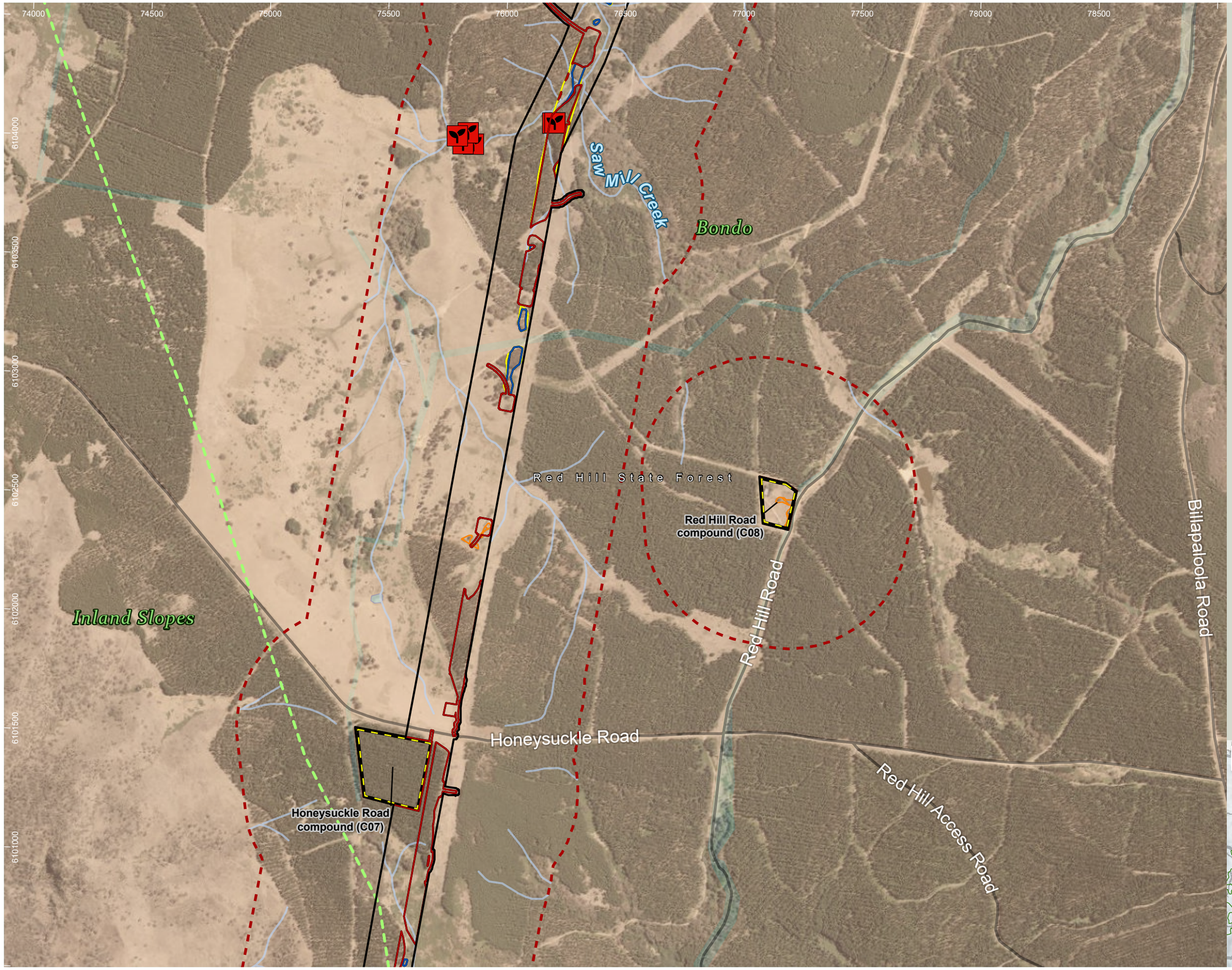


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

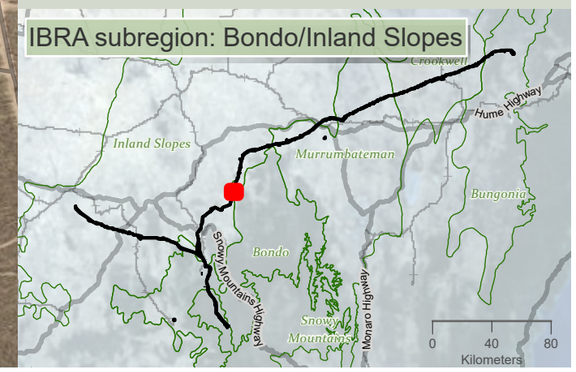
- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides
- Leucochrysum albicans var tricolor

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 52

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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74500 75000 75500 76000 76500 77000 77500 78000 78500 79000

6108000 6107500 6107000 6106500 6106000 6105500 6105000 6104500

Adjungbilly Creek

Inland Slopes

Fernhill Road

Red Hill Road

Bondo

Saw Mill Creek

Red Hill State Forest

Billapaloola Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

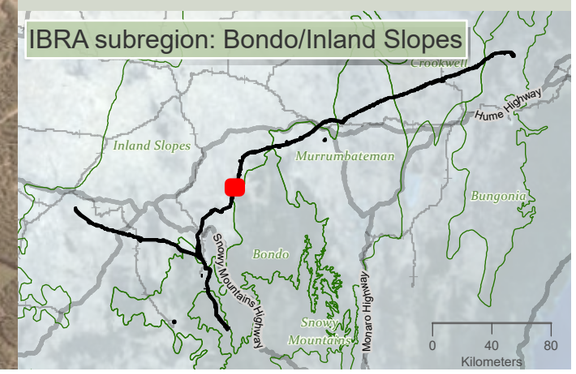
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

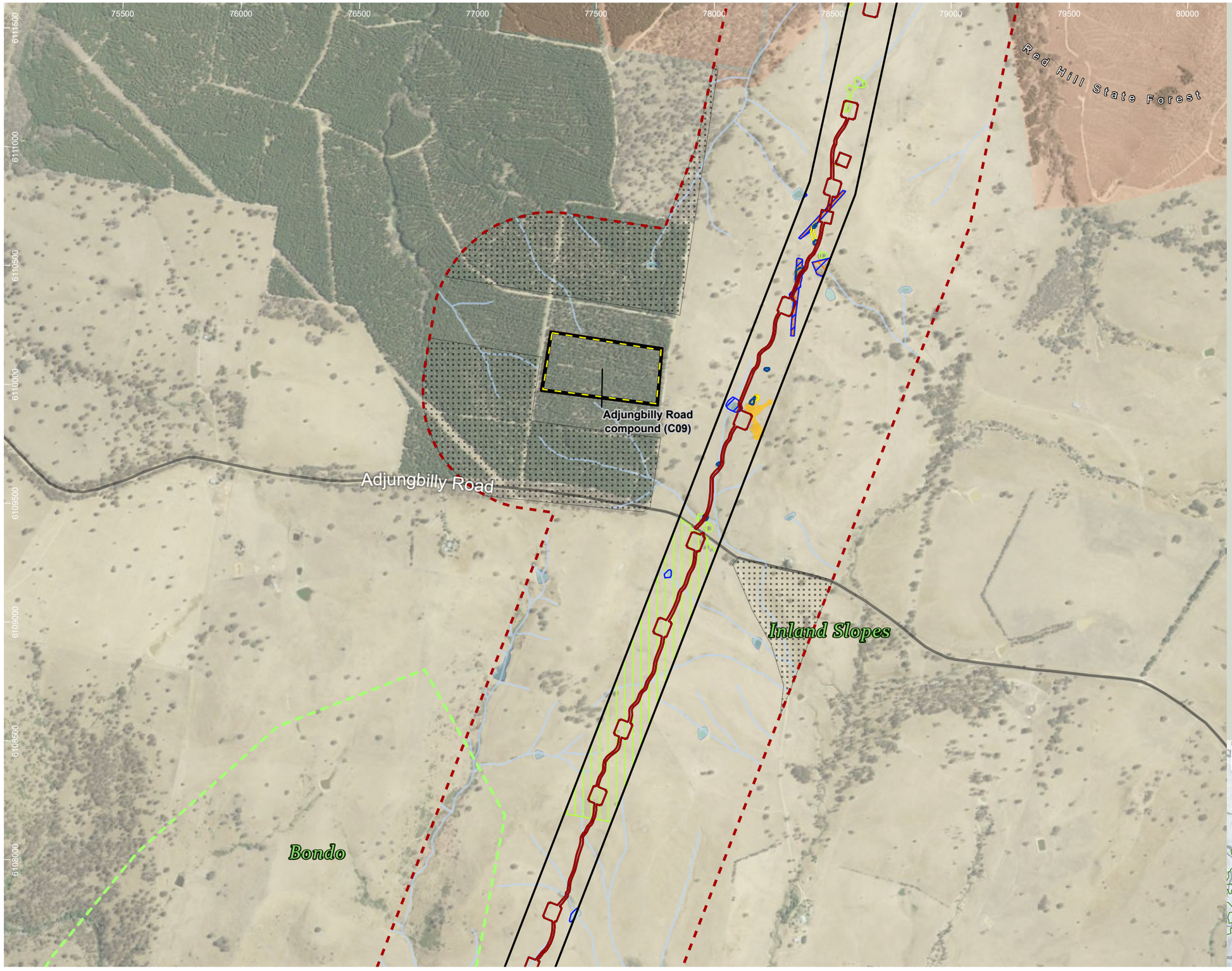
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 53

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

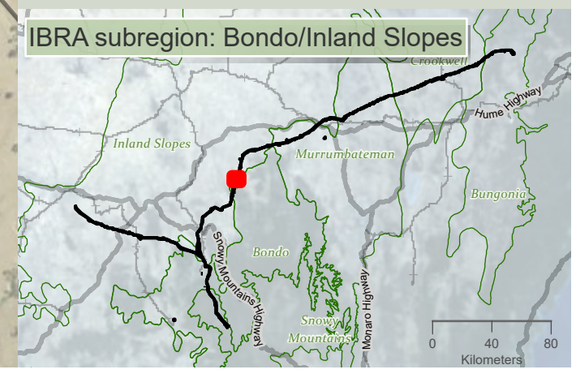
- State Forest

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 54

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

76500 77000 77500 78000 78500 79000 79500 80000 80500 81000

6114500 6114000 6113500 6113000 6112500 6112000 6111500 6111000

Parsons Creek Road

Inland Slopes

O'briens Creek

Red Hill State Forest

Nanangroe Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

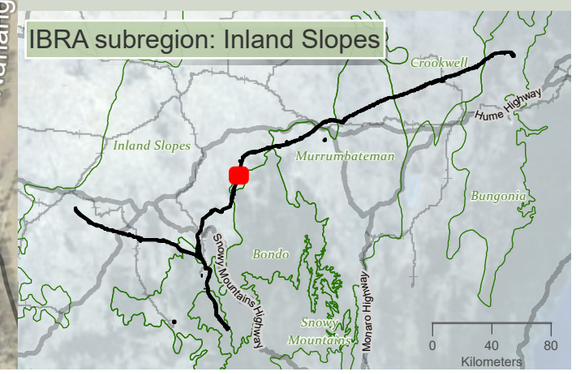
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 55

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

O'briens Gully

Cart Road Creek

Inland Slopes

Parsons Creek Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

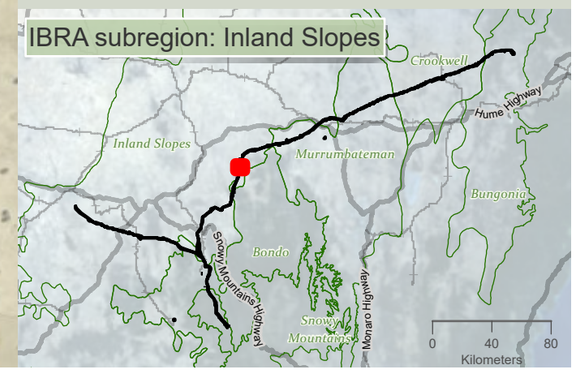
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 56

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77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

Oak Creek

Inland Slopes

Cart Road Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

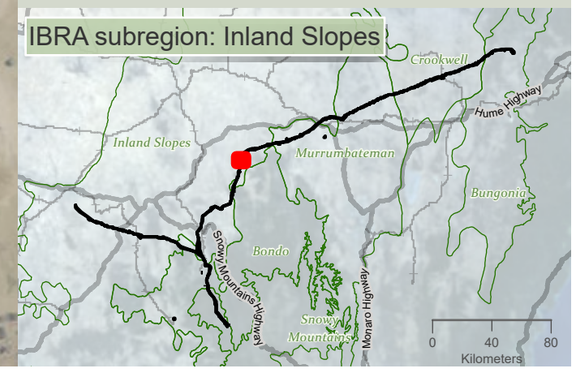
Hydrography

- Waterway
- Waterbody

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

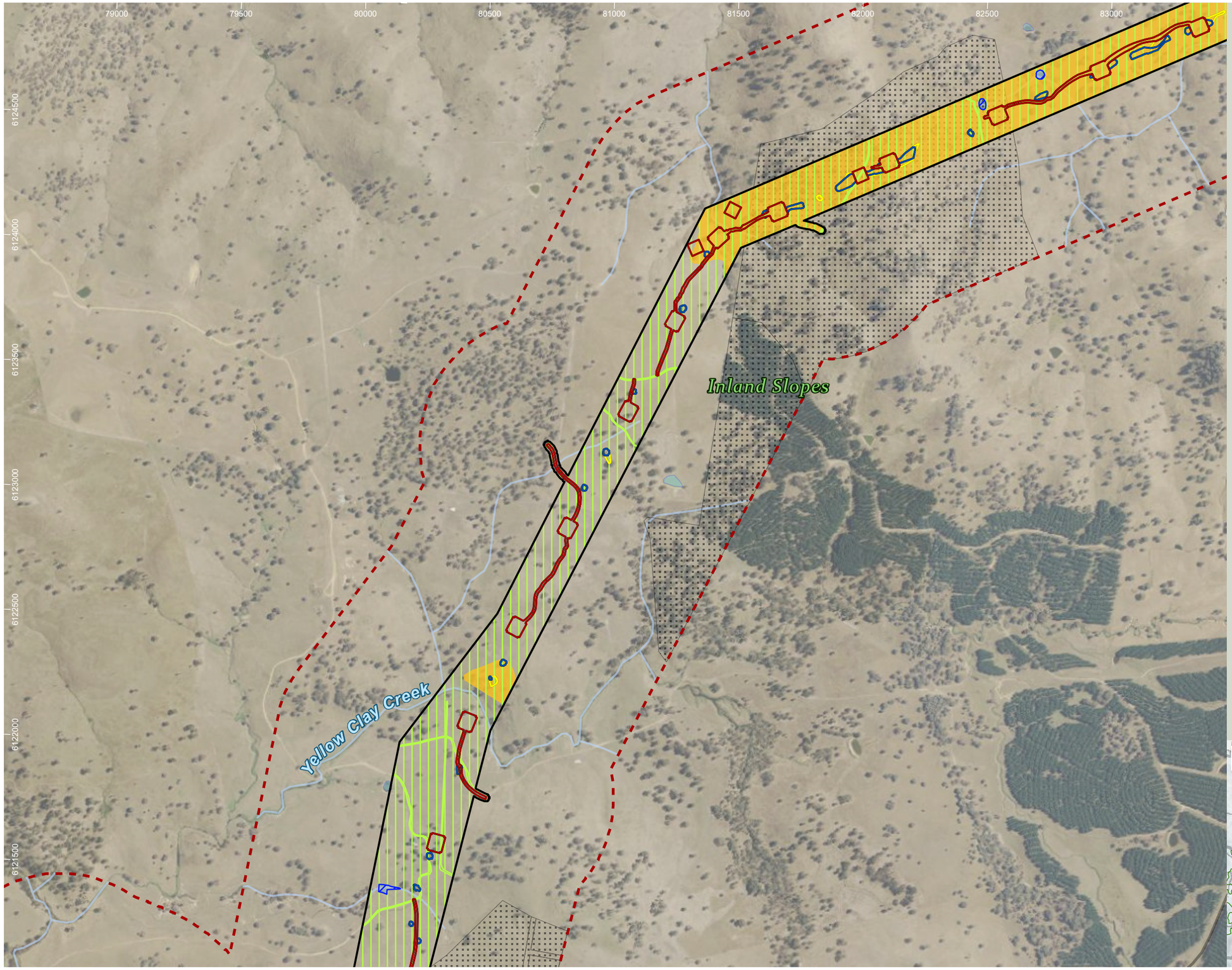
Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajeczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

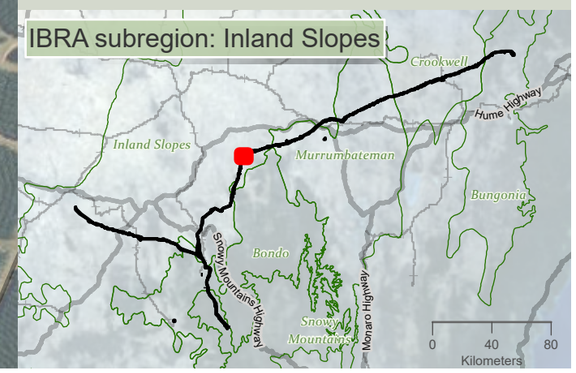
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 58

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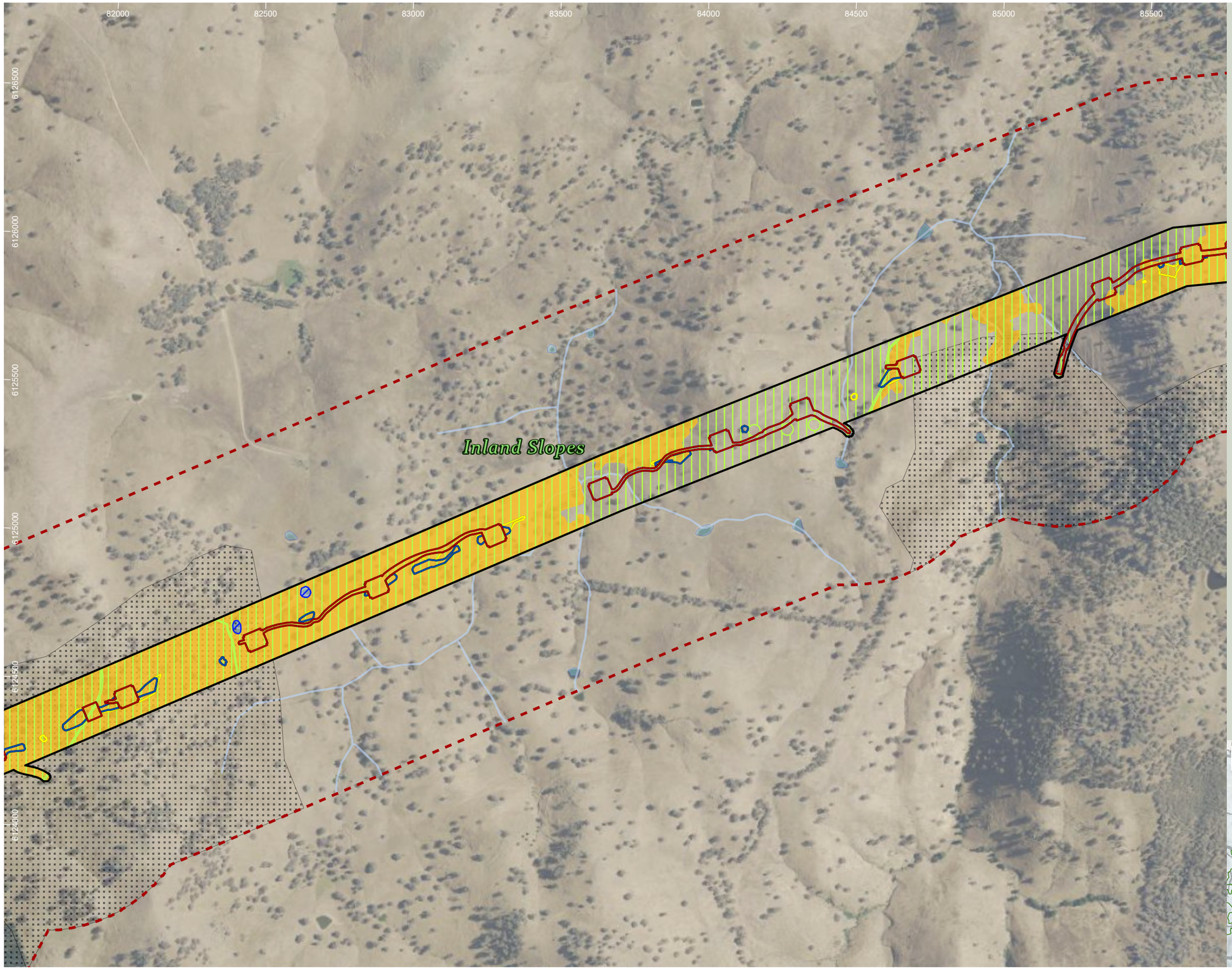


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

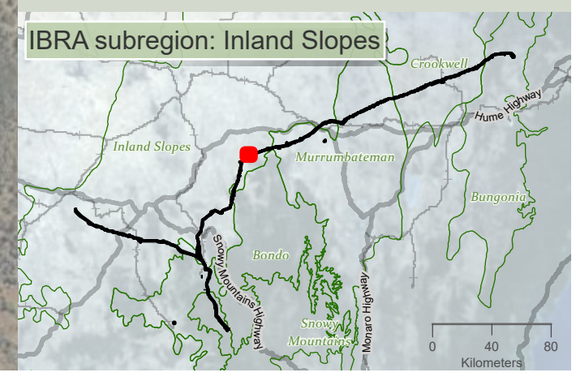
- Waterway
- Waterbody

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 59

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85000 85500 86000 86500 87000 87500 88000 88500 89000

6127500 6127000 6126500 6126000 6125500 6125000

Rocky Creek

Inland Slopes

Dicks Gully

Nanangroe Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

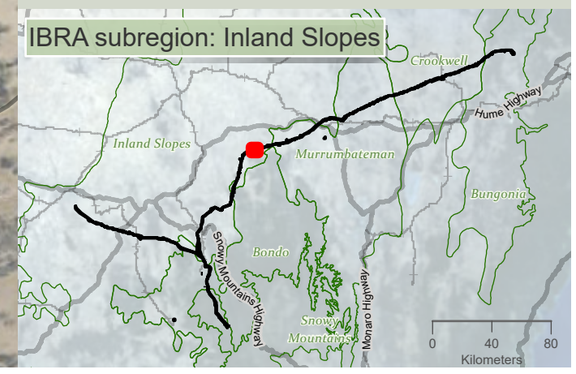
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 60

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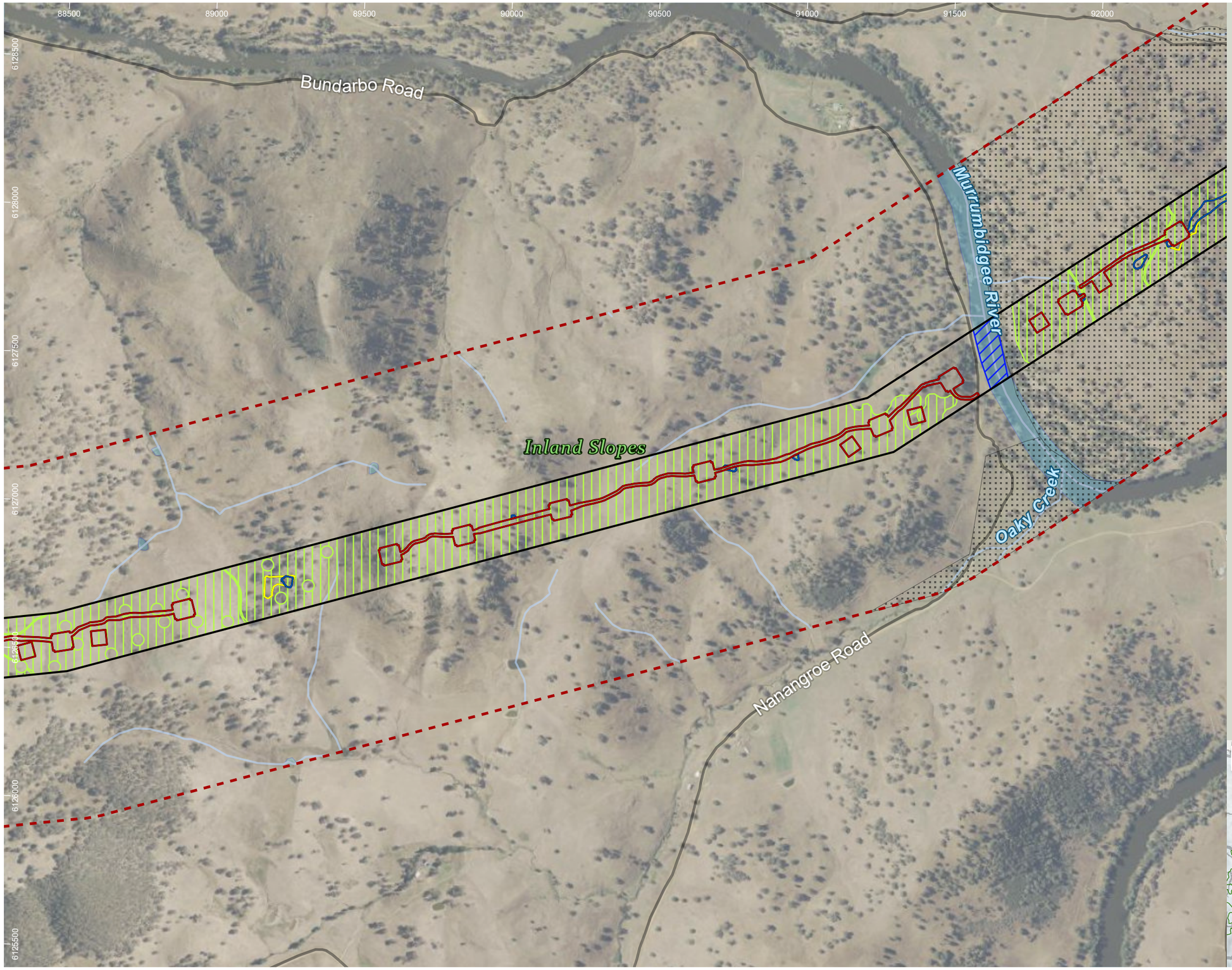
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

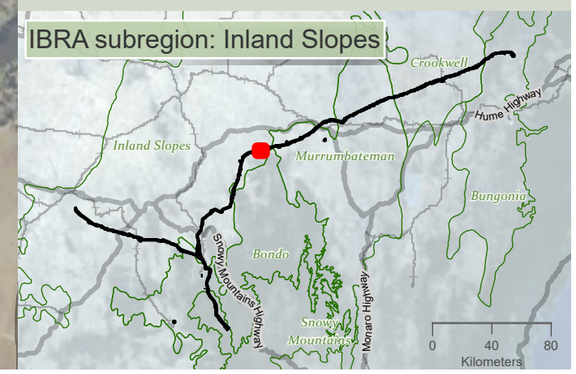
Transport

Road

- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500

Nanangroe Road

Childowla Road

Oak Creek

Inland Slopes

Bundarbo Road

Murrumbidgee River

Oaky Creek

Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

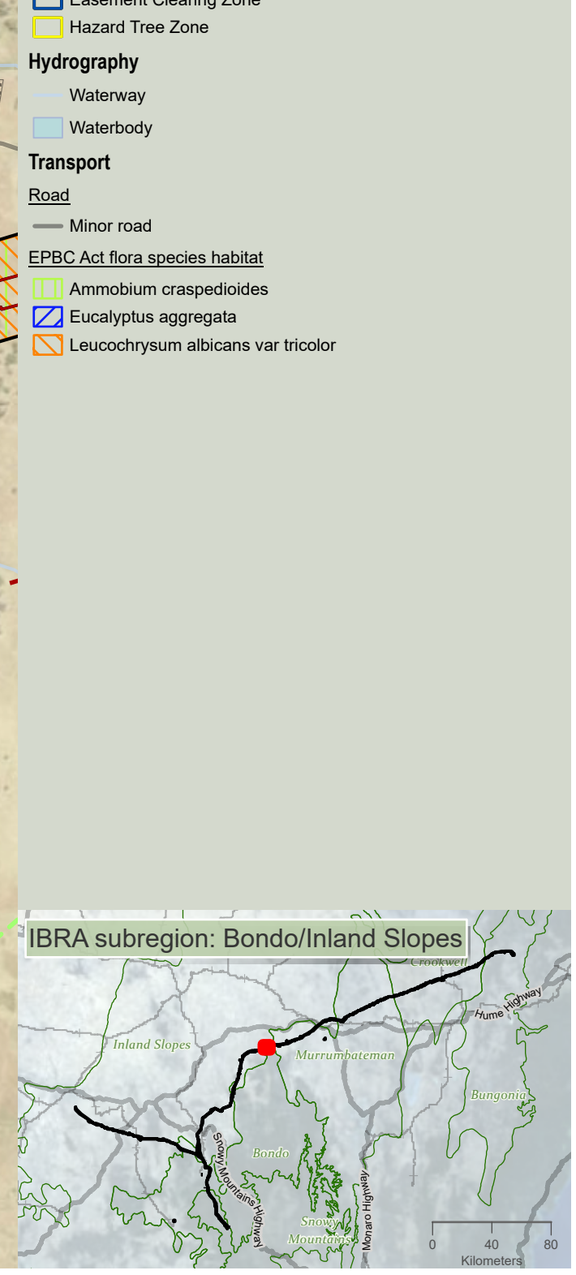
Transport

Road

- Minor road

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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95000 95500 96000 96500 97000 97500 98000 98500

6131000 6130500 6130000 6129500 6129000 6128500 6128000

Talmo Road

Jugiong Creek

Oak Creek

Childowla Road

Inland Slopes

Murrumbateman

Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

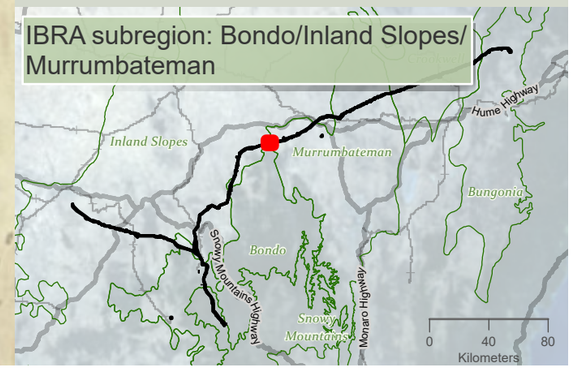
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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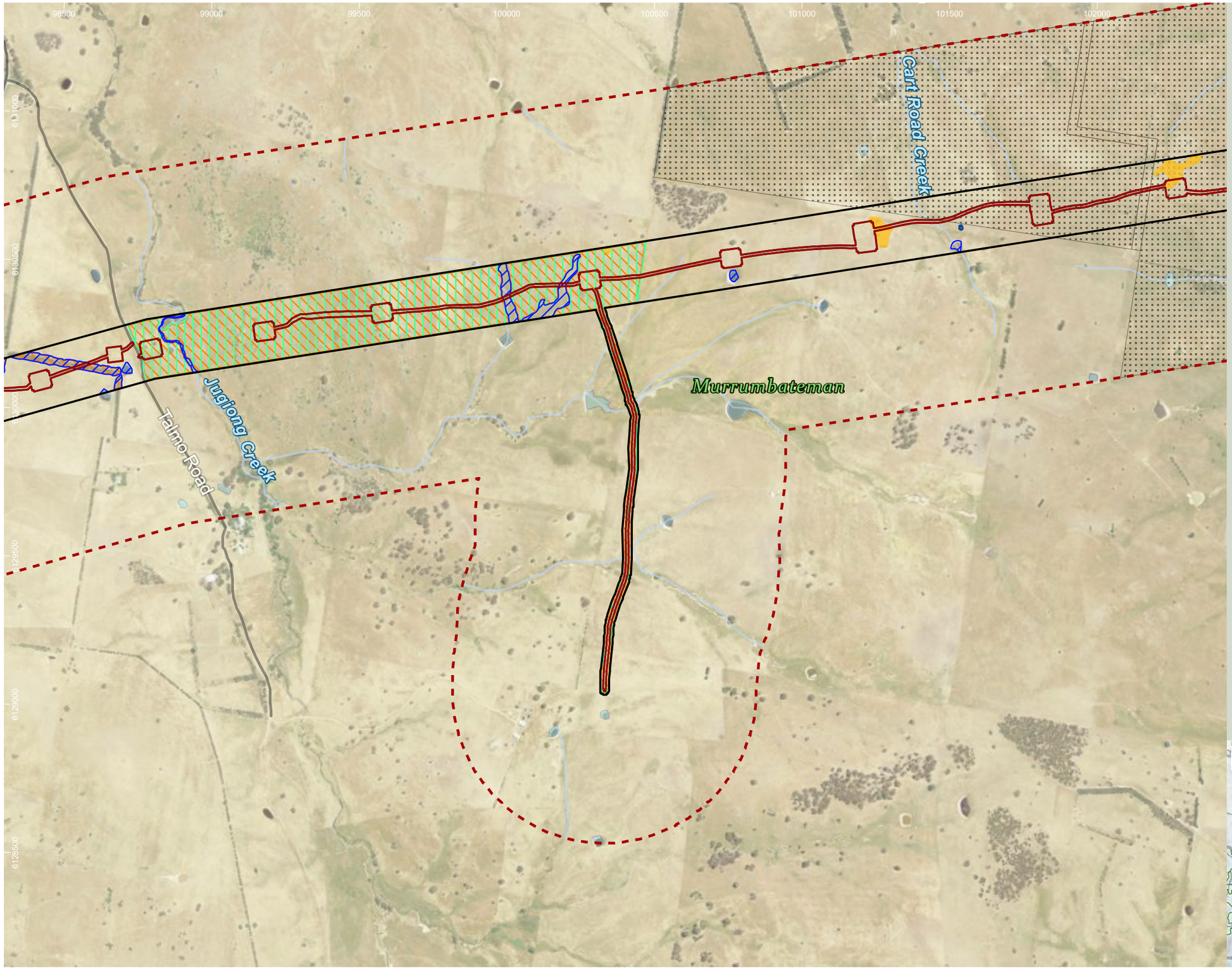


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

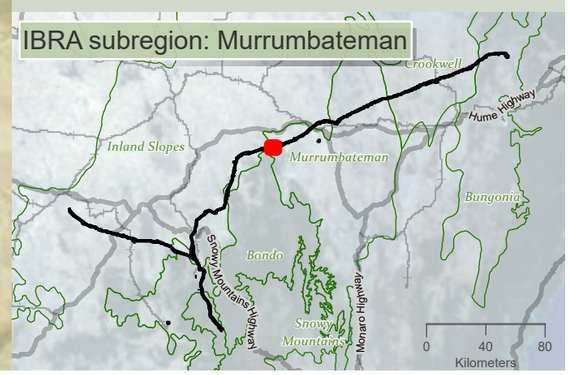
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx
Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 64

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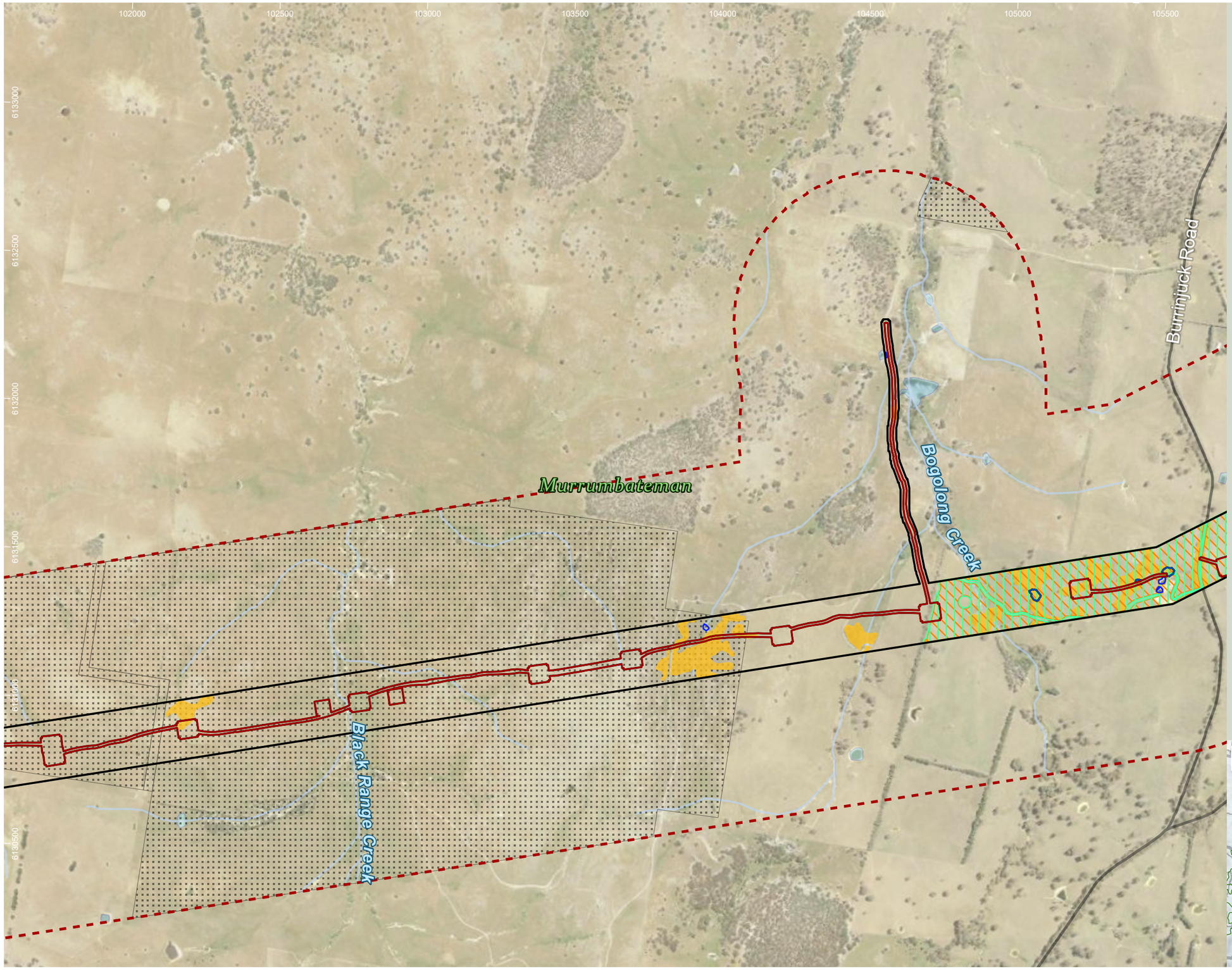

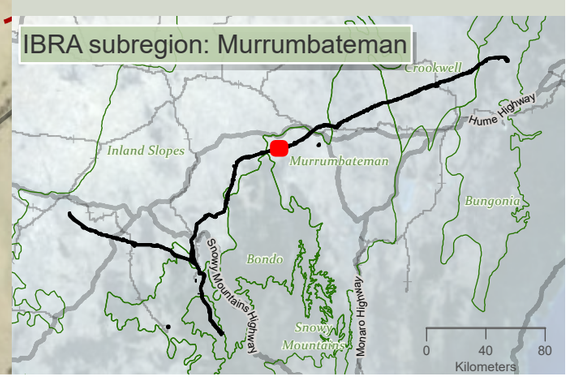

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 65

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105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Murrumbateman

Sutton Grange Road

Woolgarlo Creek

Ammobium craspedioides (Yass Daisy)

Ammobium craspedioides (Yass Daisy)

Burrinjuck Road

Bogolong Creek

Black Range Road

Woolgarlo Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

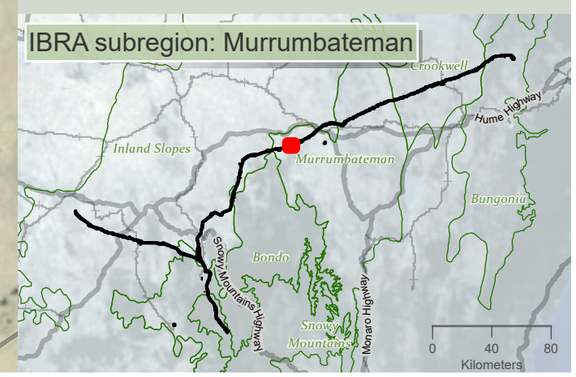
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 66

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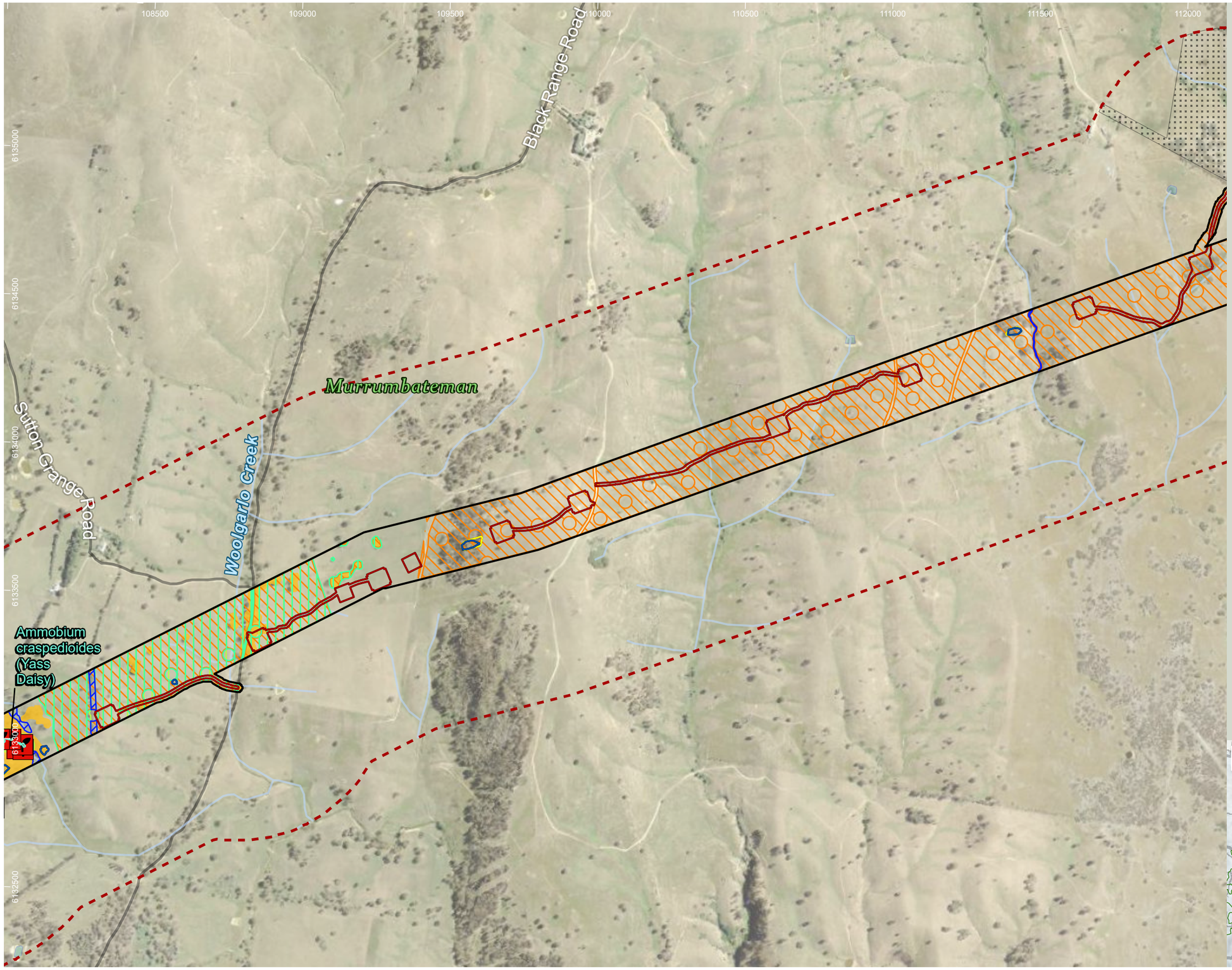
Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

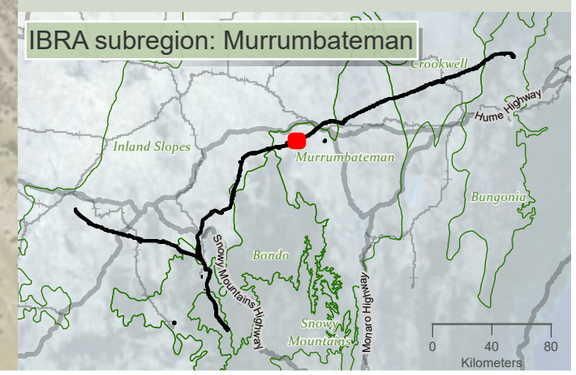
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 67

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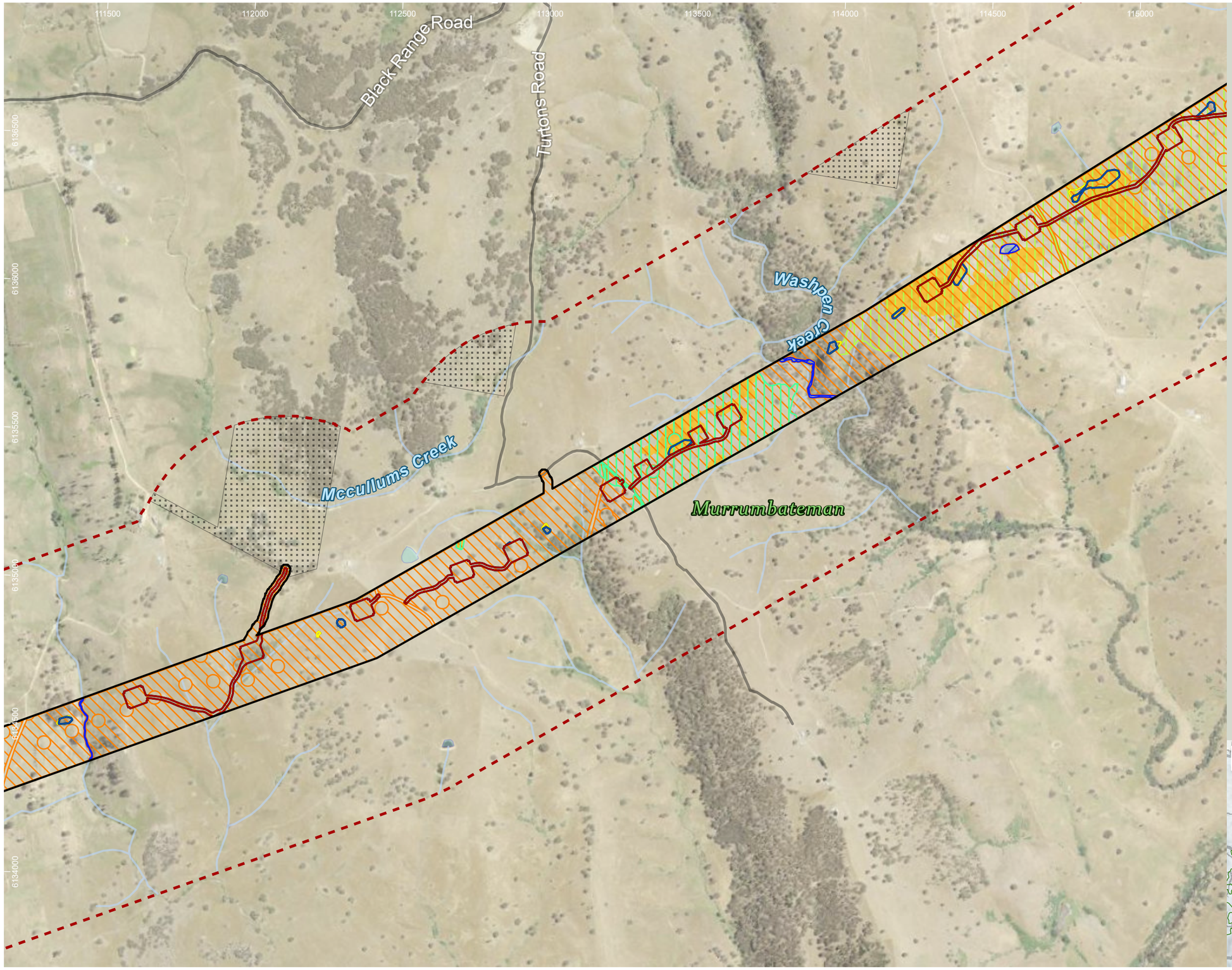


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

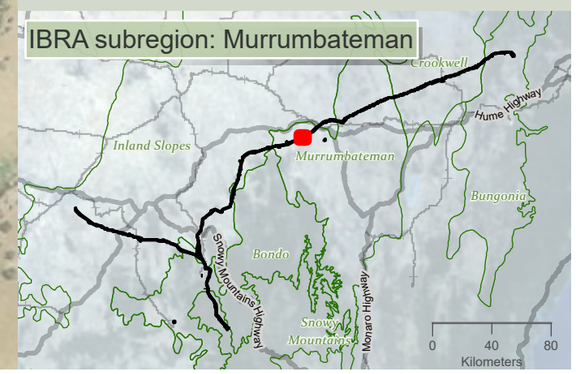
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 68

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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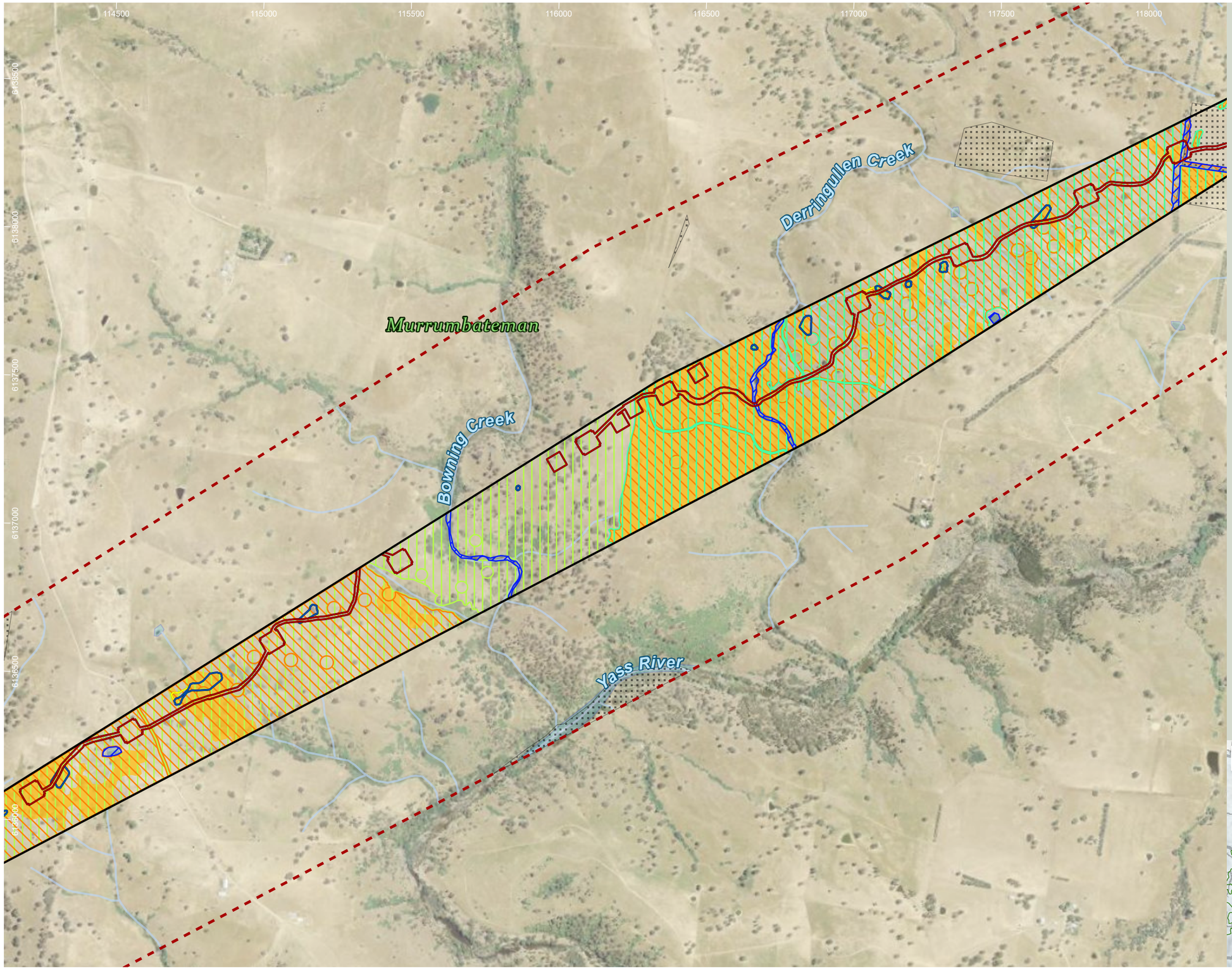
Landscape assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential impact assessment



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

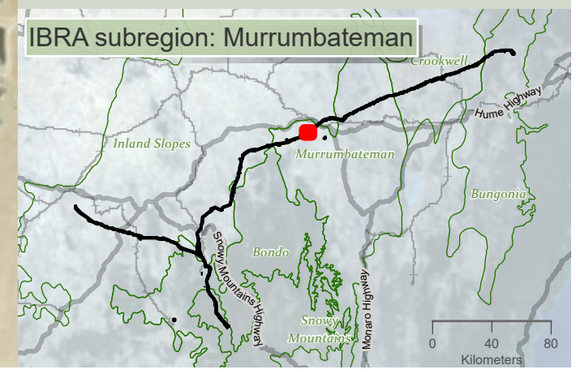
- Waterway
- Waterbody

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT- BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 69

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117000
117500
118000
118500
119000
119500
120000
120500
121000

6140500
6140000
6139500
6139000
6138500
6138000
6137500

Murrumbateman

Derringullen Creek

Black Range Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

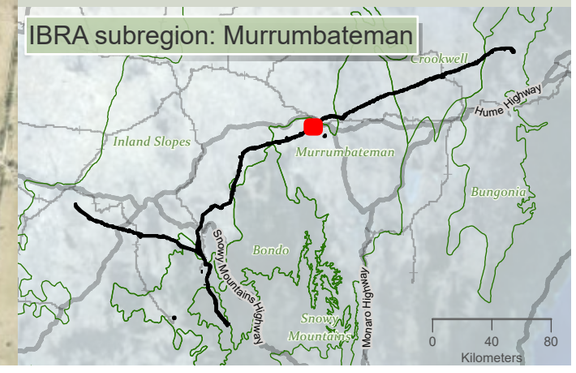
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



0
450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 70

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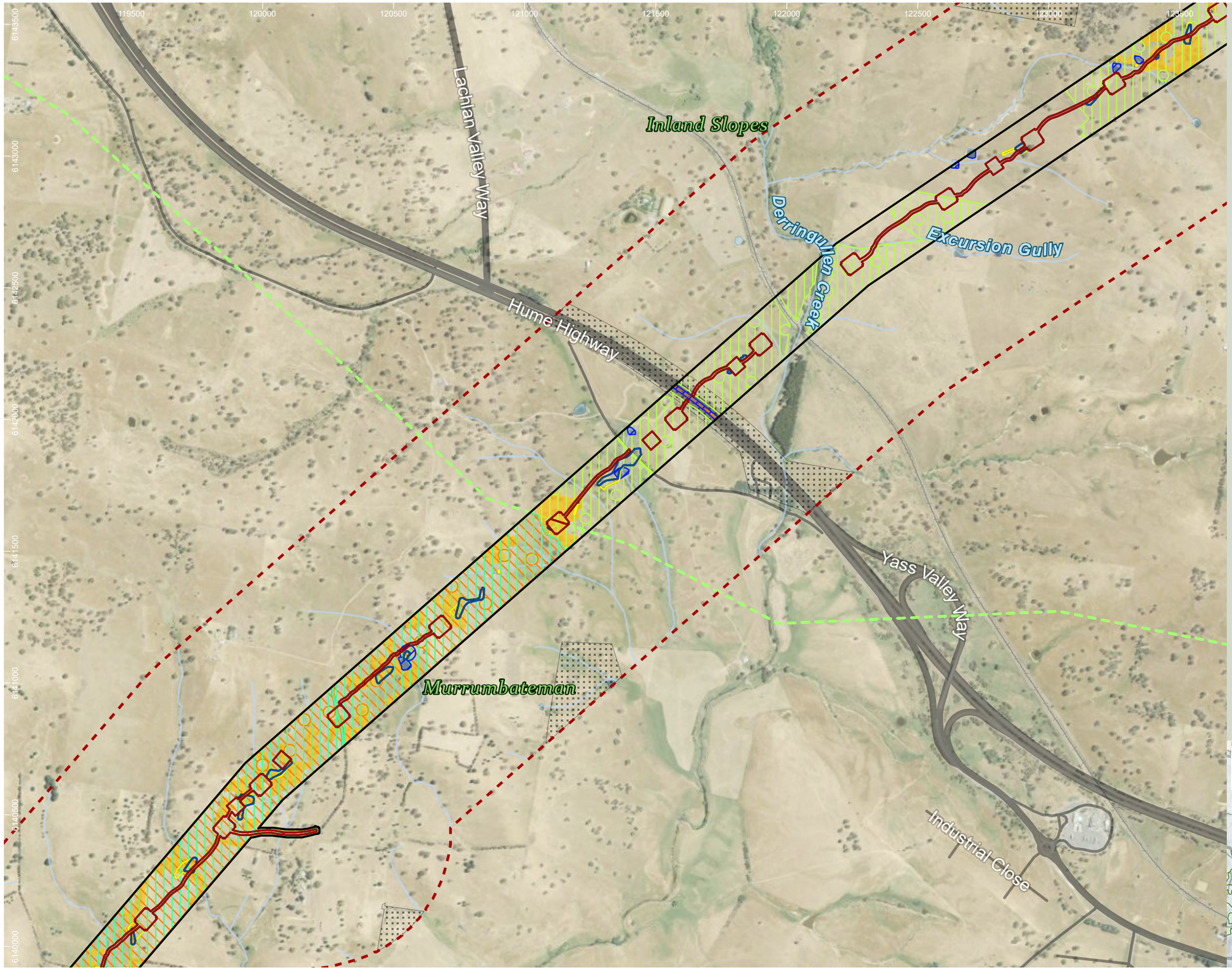
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

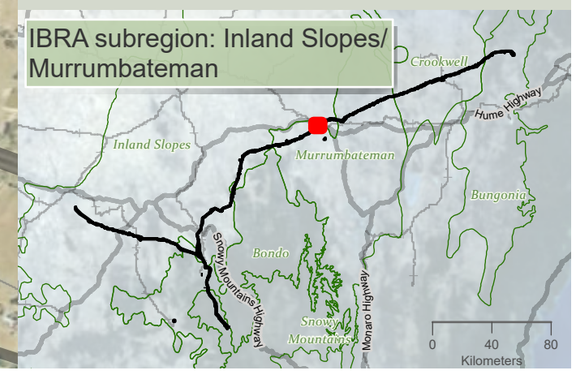
- Major road
- Minor road
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 71

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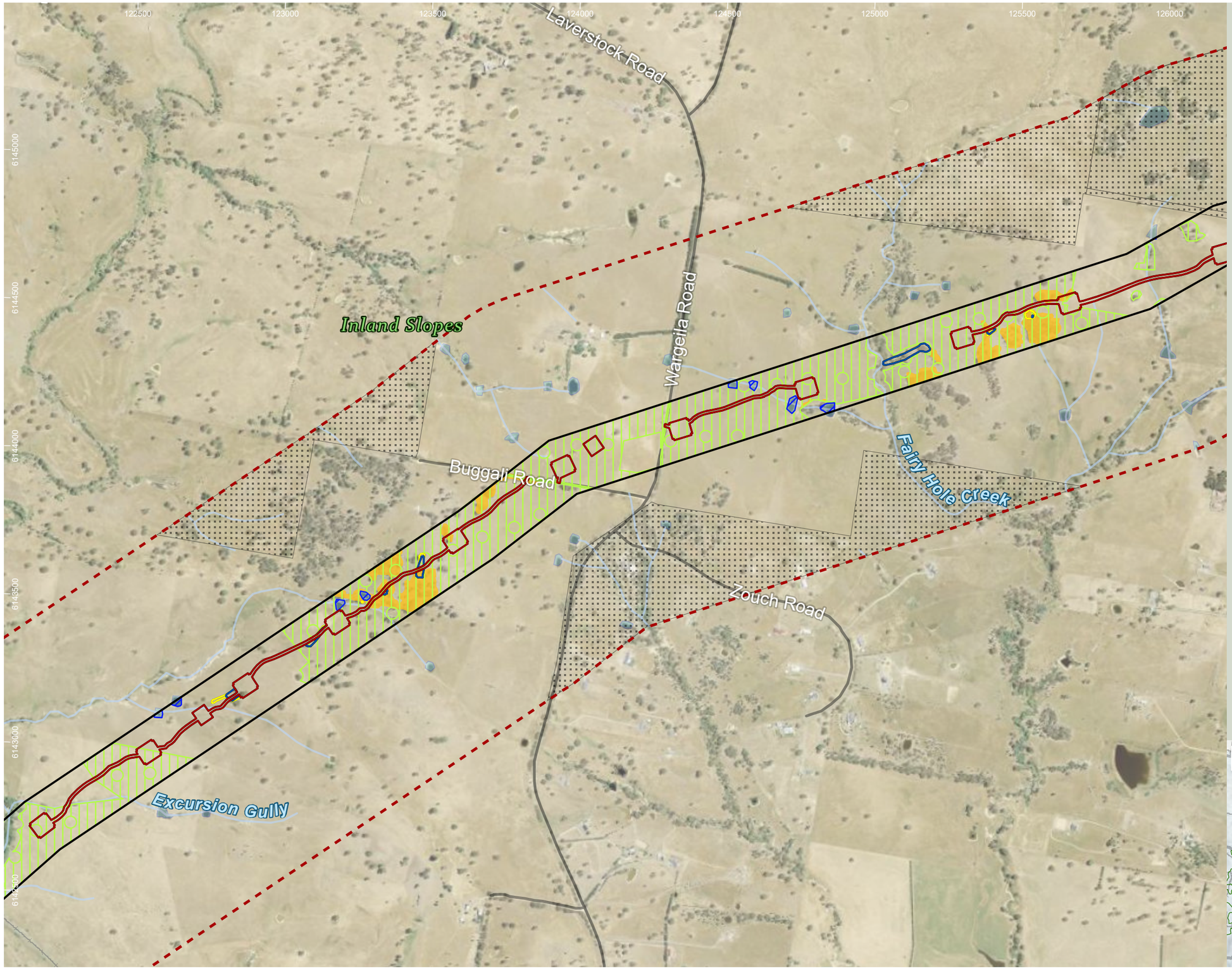


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

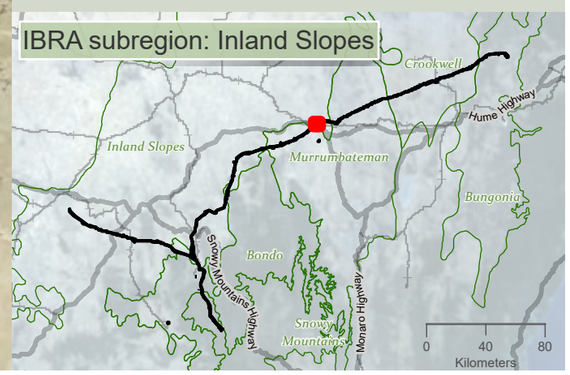
Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 73

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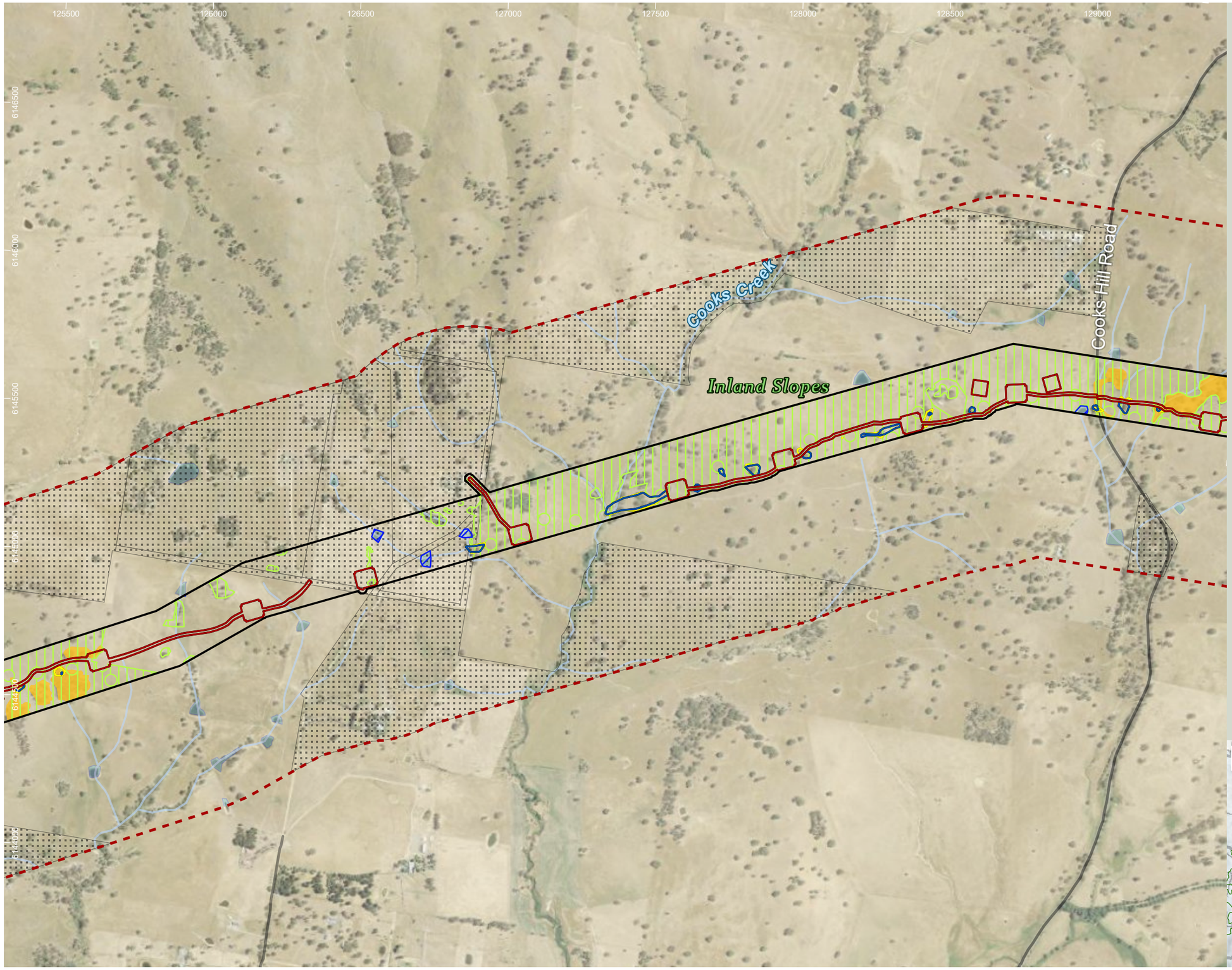


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

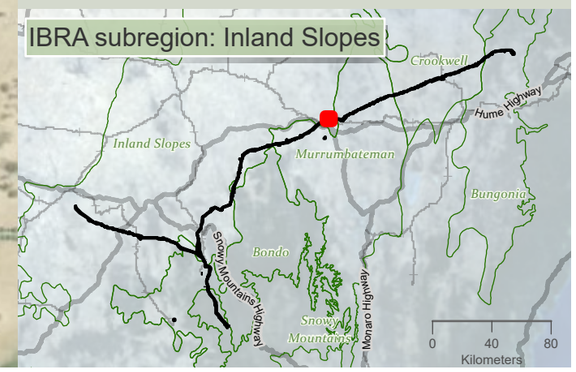
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 74

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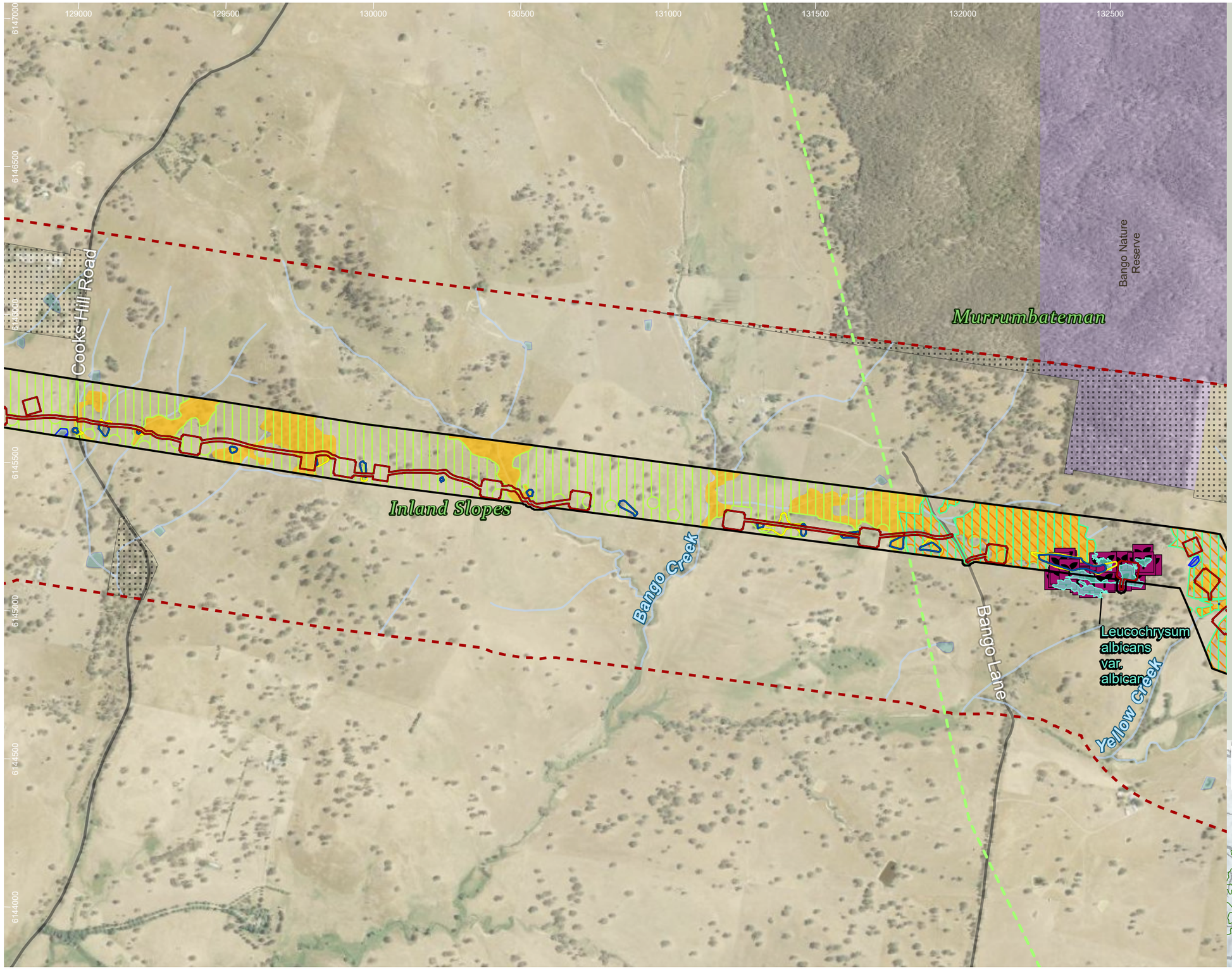


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act TECs

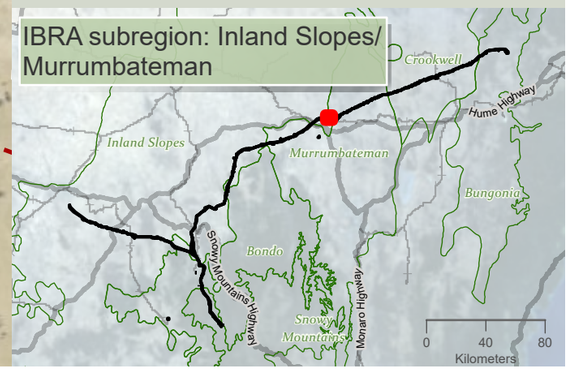
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 75

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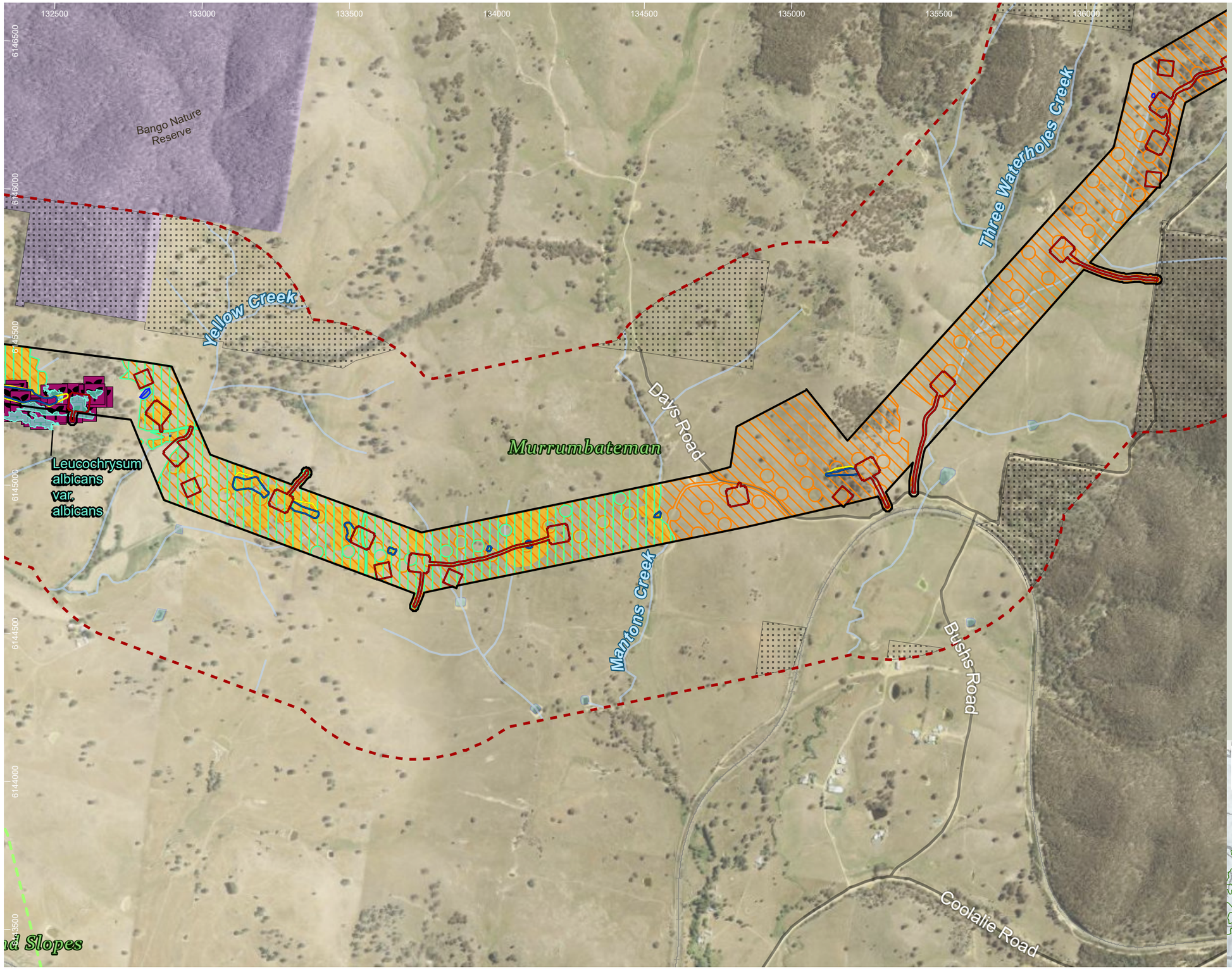


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act TECs

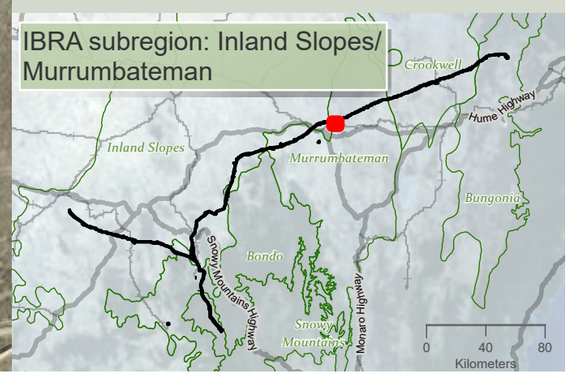
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 76

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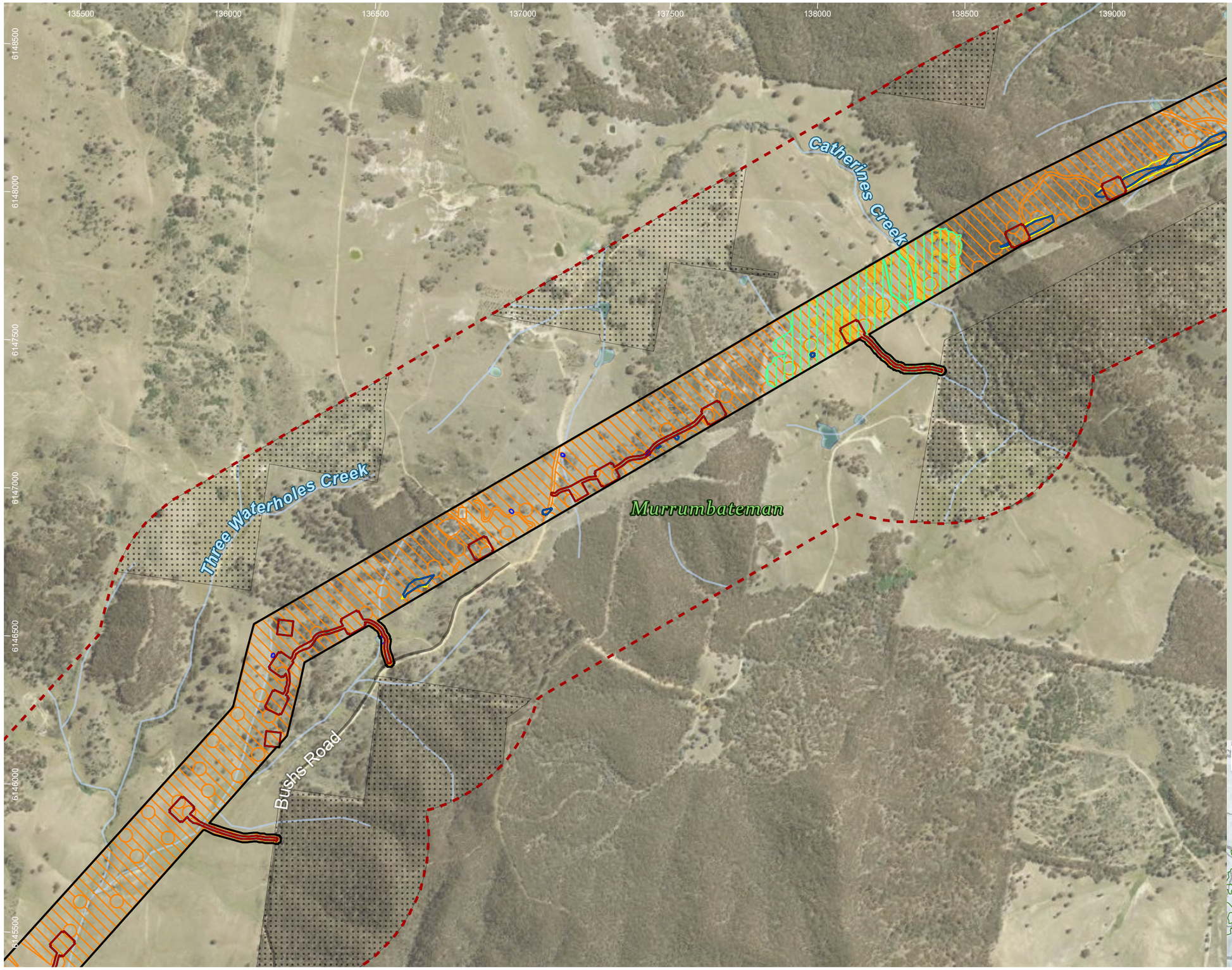


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

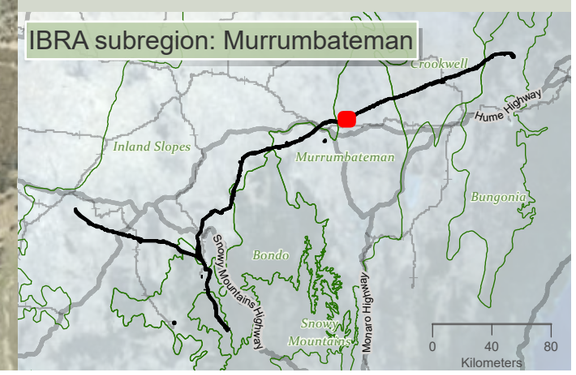
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche\6999 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 77

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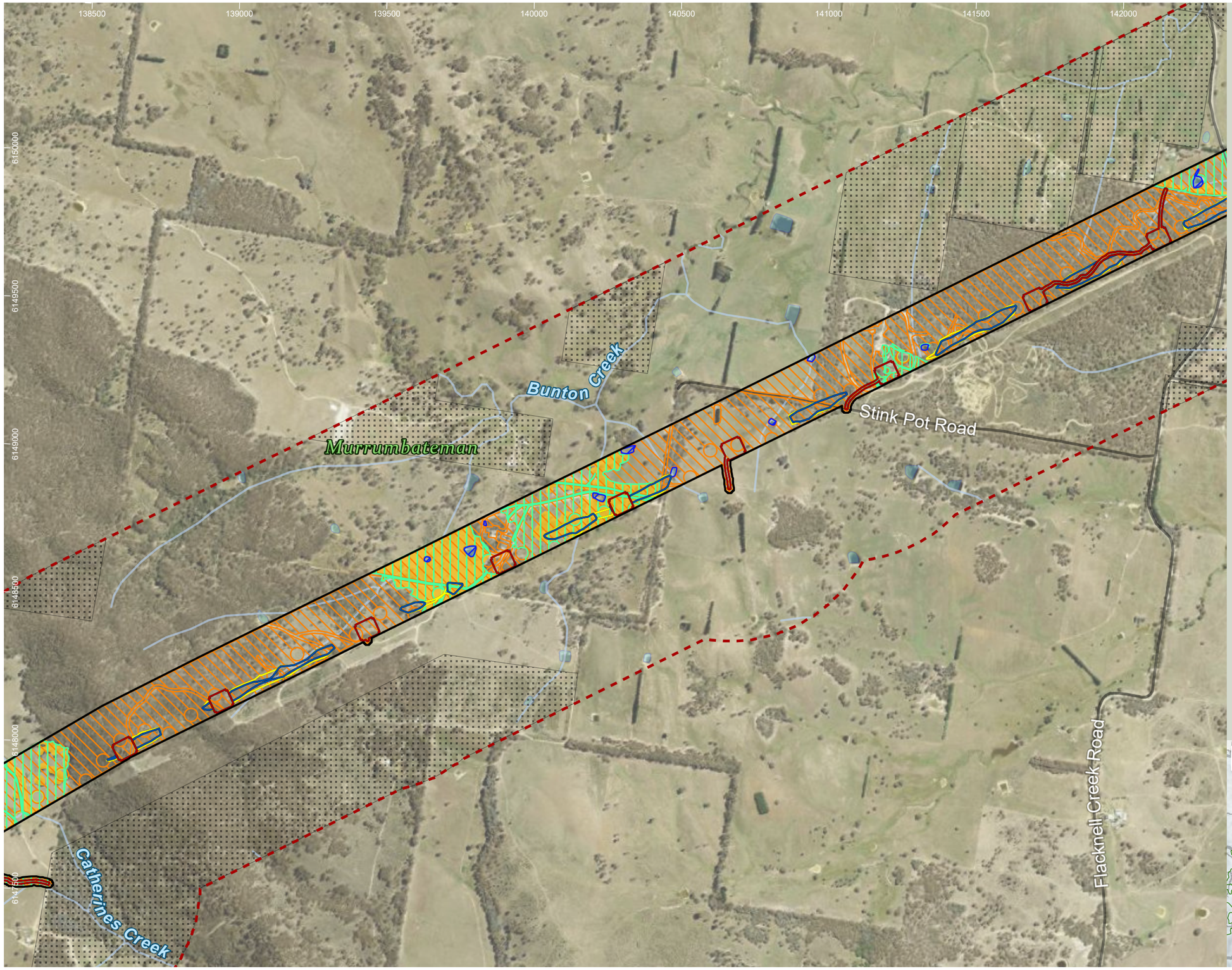


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

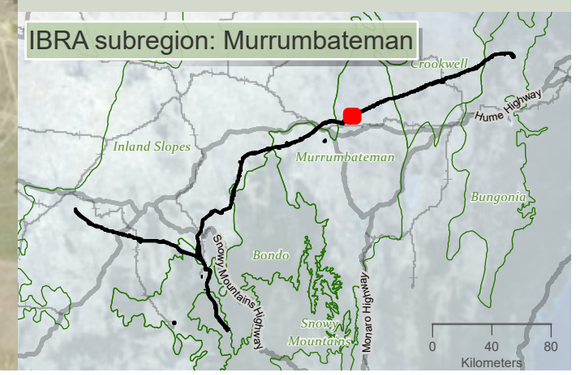
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 78

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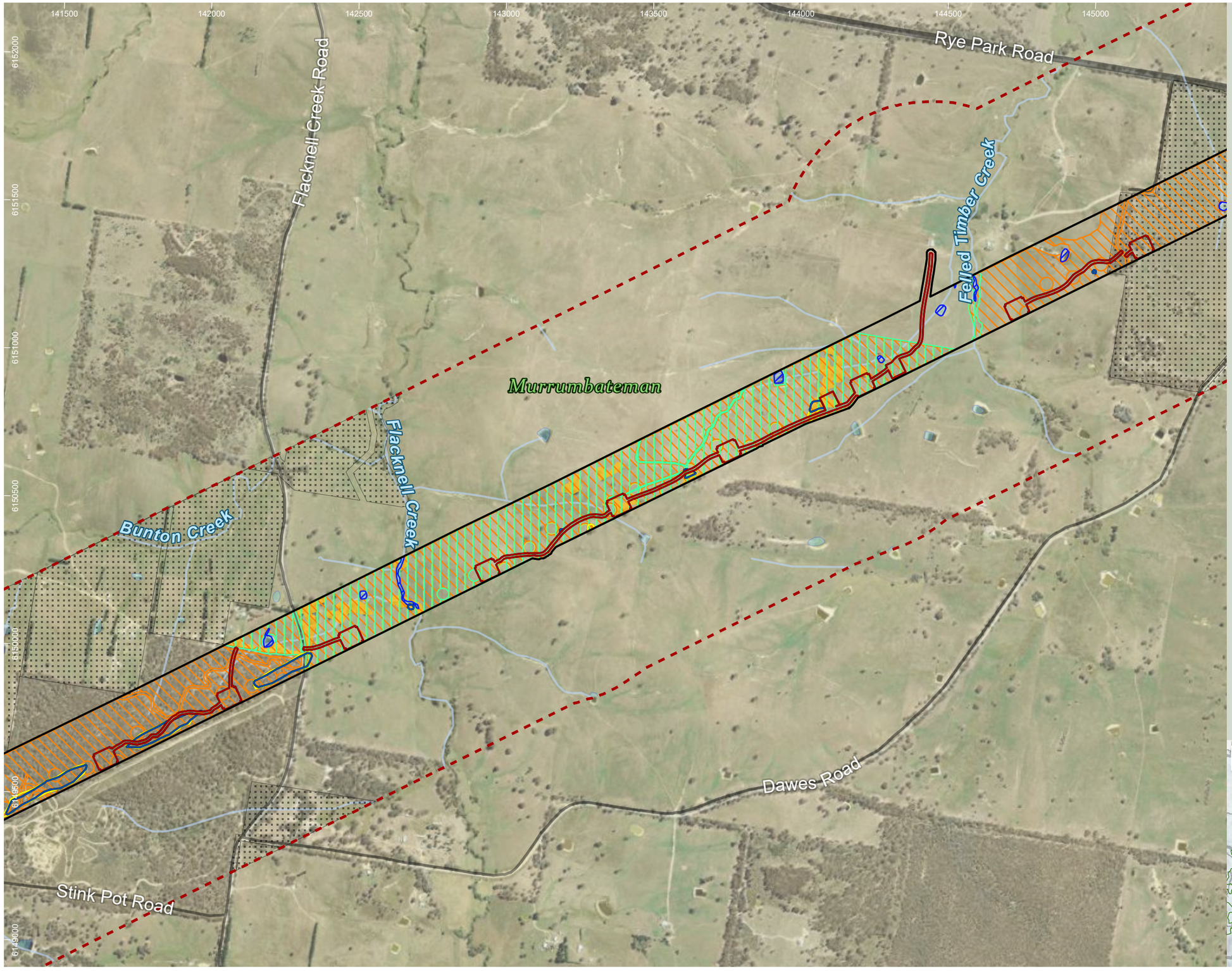


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

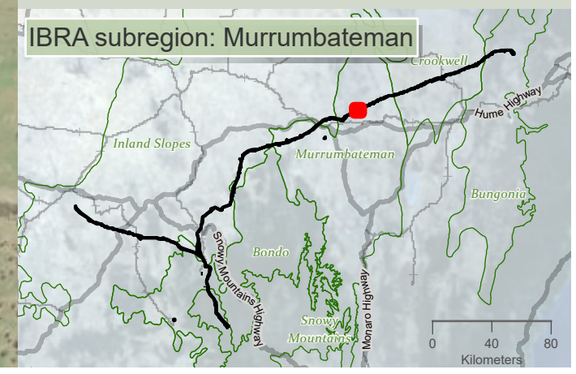
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 79

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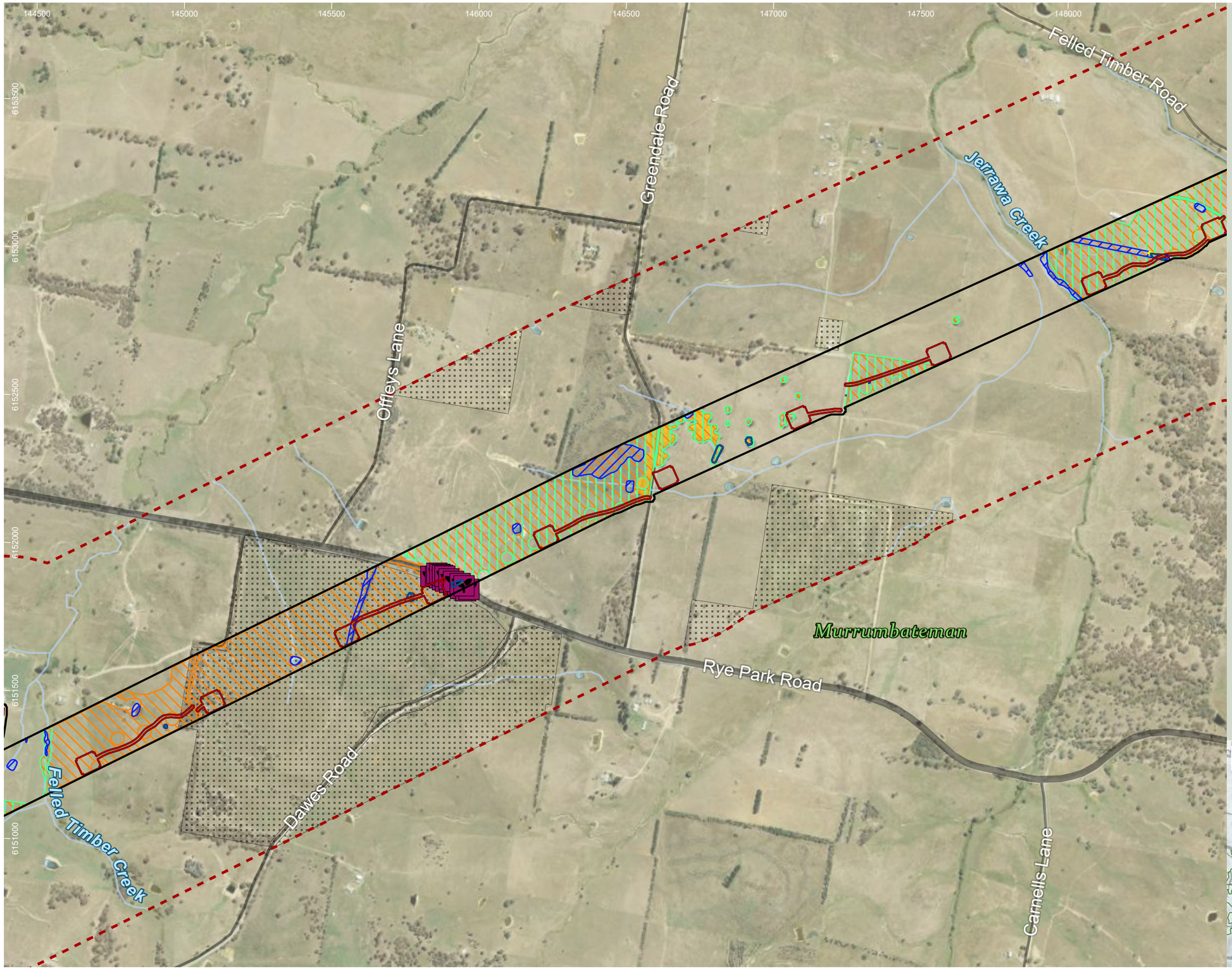


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

EPBC Act TECs

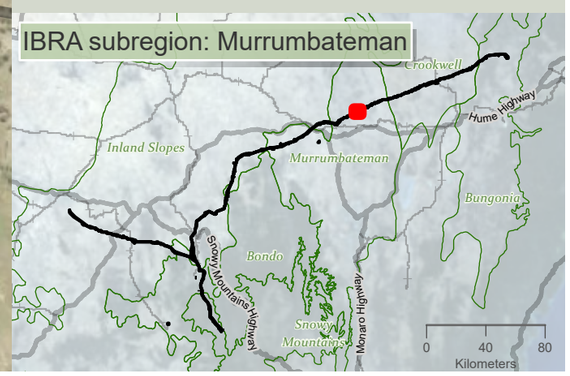
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 80

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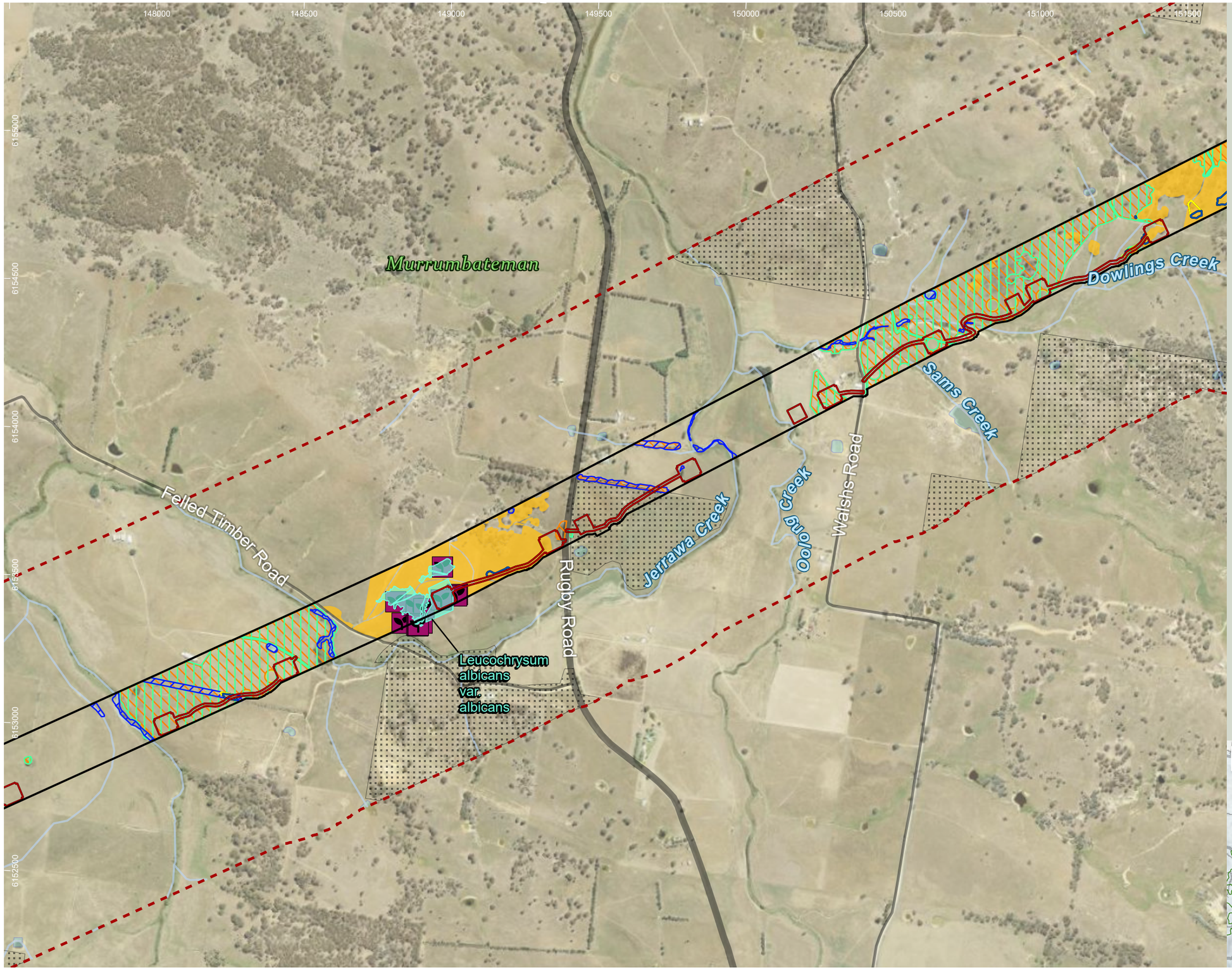


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

EPBC Act TECs

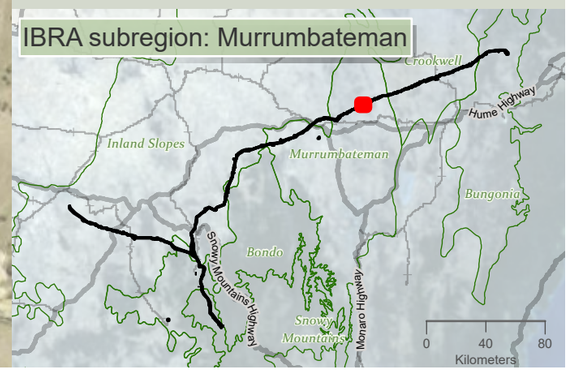
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche9699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 81

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151000
151500
152000
152500
153000
153500
154000
154500
6156500
6156000
6155500
6155000
6154500
6154000
Merrill Creek
Lachlan River
Murrumbateman
Dowlings Creek
Sams Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

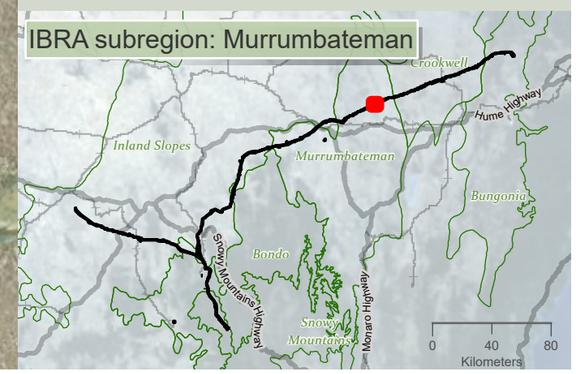
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

IBRA subregion: Murrumbateman



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai\699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 82

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154000 154500 155000 155500 156000 156500 157000 157500

6158500 6158000 6157500 6157000 6156500 6156000

Sapphire Road

Merrill Creek

Murrumbateman

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

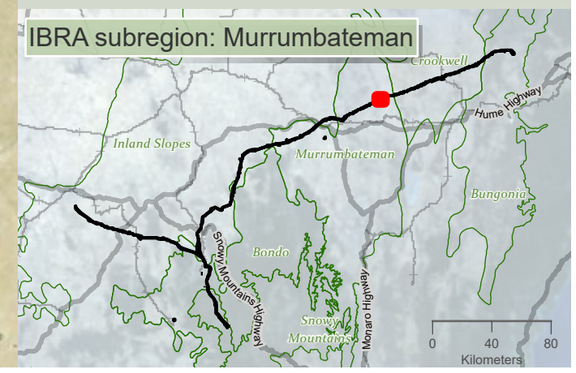
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 83

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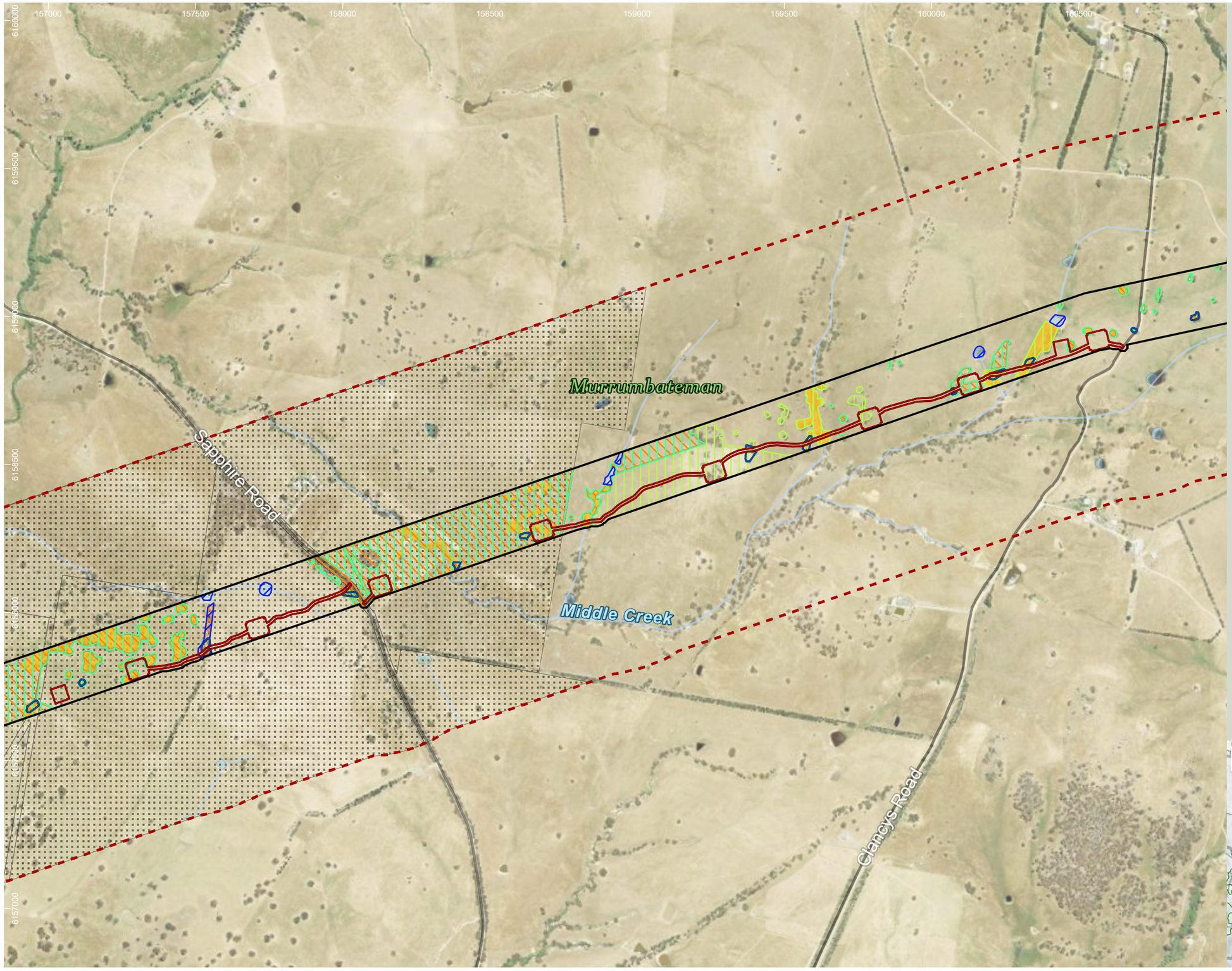


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

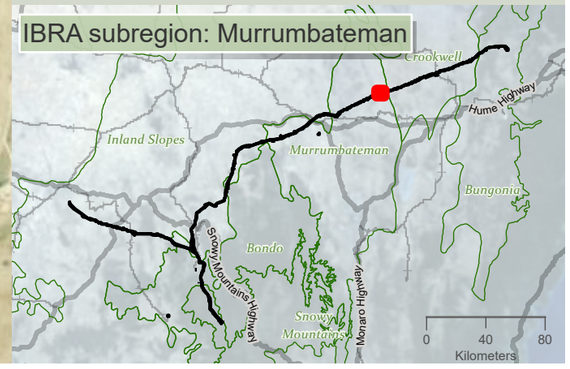
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 84

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160500 161000 161500 162000 162500 163000 163500 164000

6161000 6160500 6160000 6159500 6159000 6158500 6158000

Murrumbateman

Middle Creek

Merrill Creek

Crookwell

Grabben Gullen Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

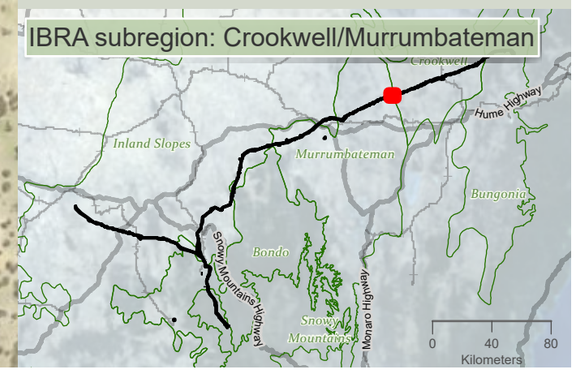
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

IBRA subregion: Crookwell/Murrumbateman



niche Environment and Heritage

0 400 m

N

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 85

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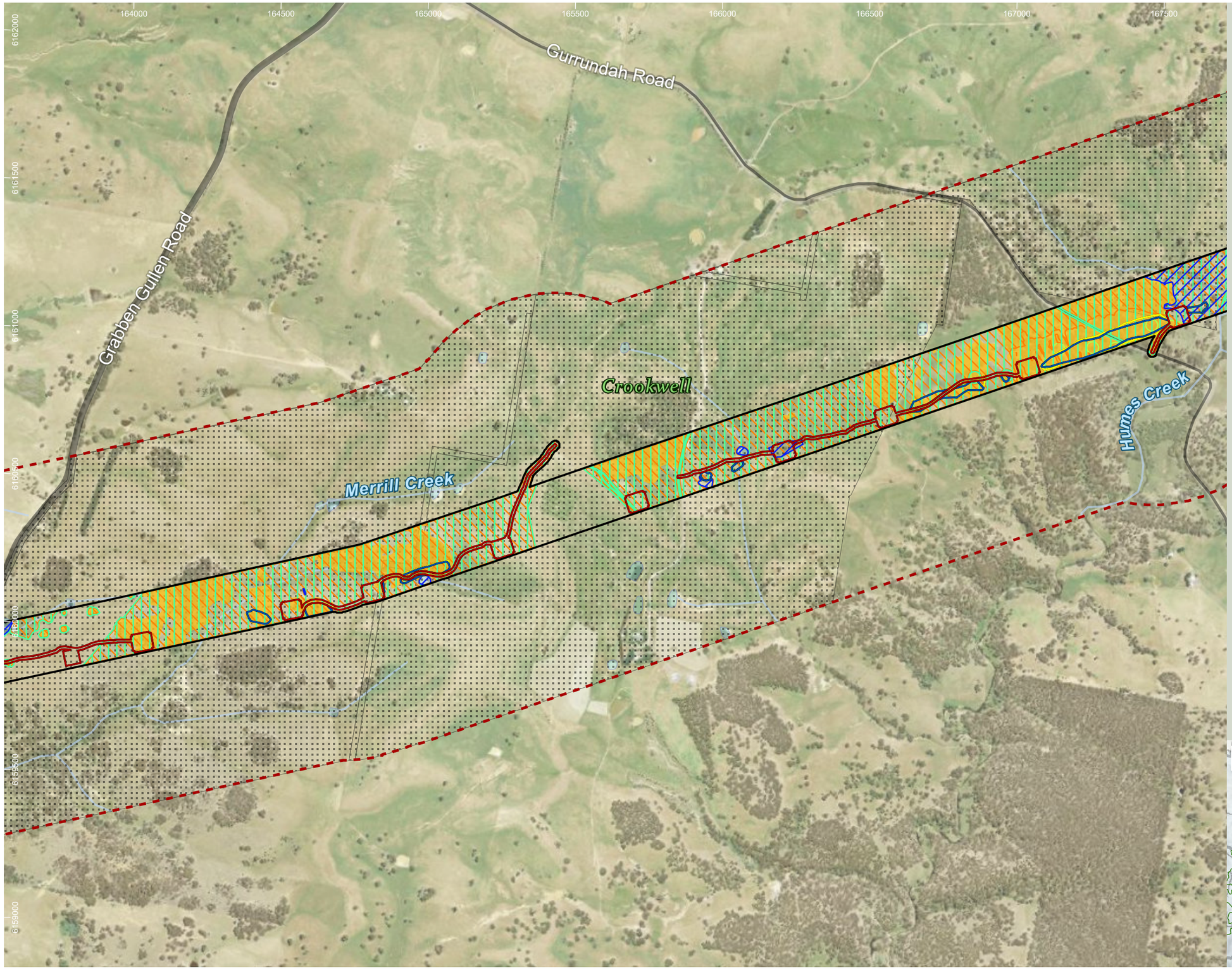


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

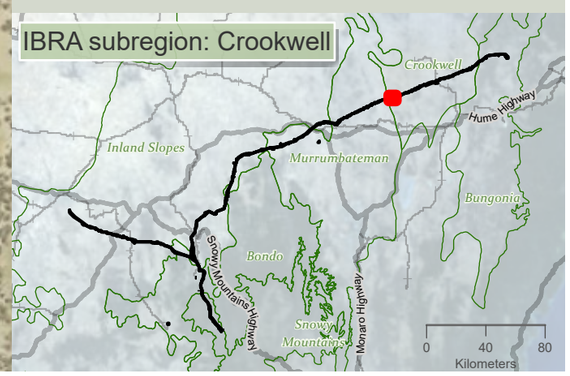
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 86

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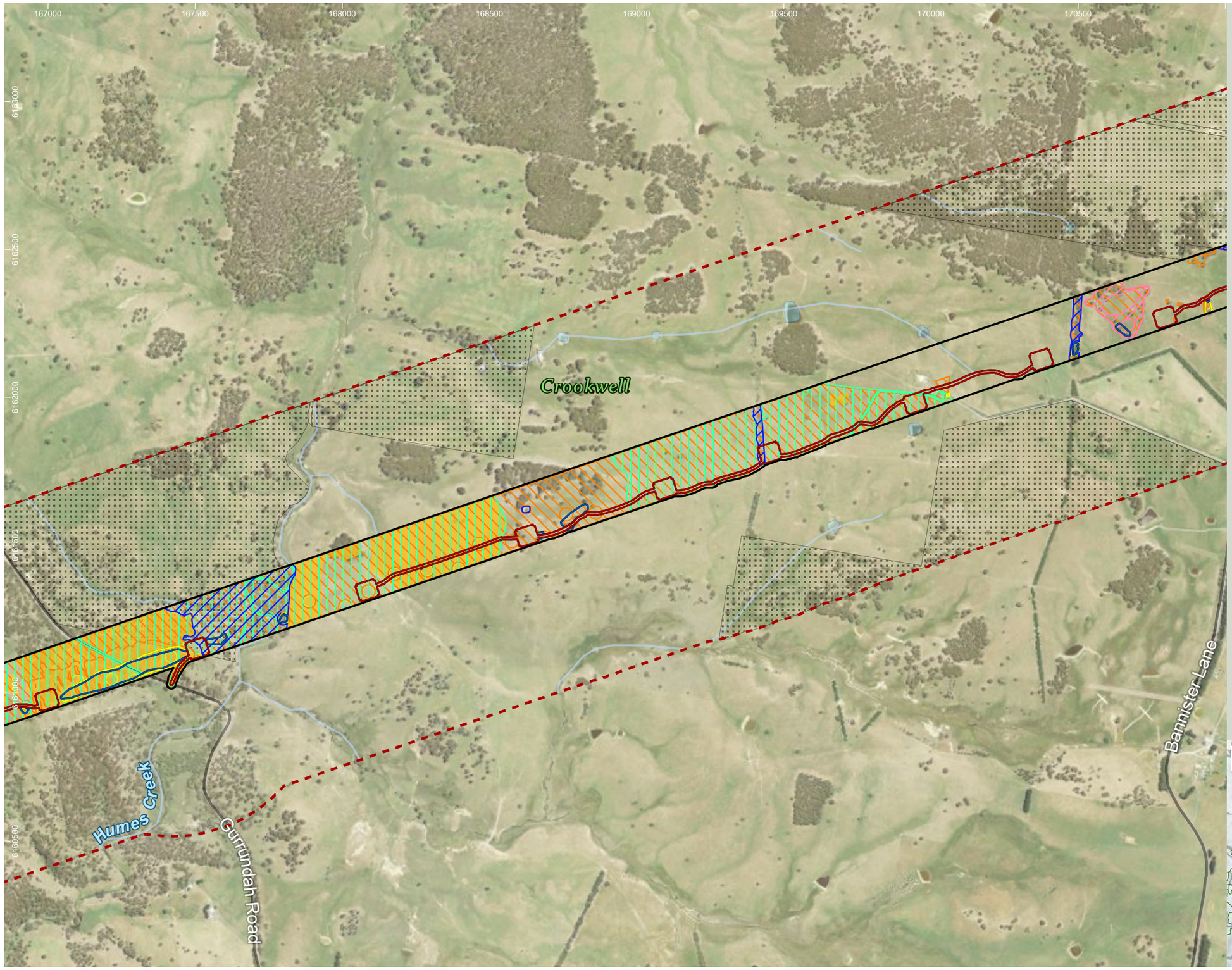


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

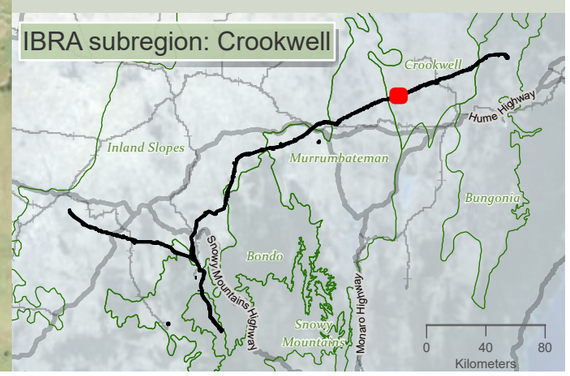
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 87

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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170500 171000 171500 172000 172500 173000 173500 174000

6164500 6164000 6163500 6163000 6162500 6162000 6161500

Bannister Lane

Crookwell

Prices Lane

Currundah Creek

Hefferman's Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

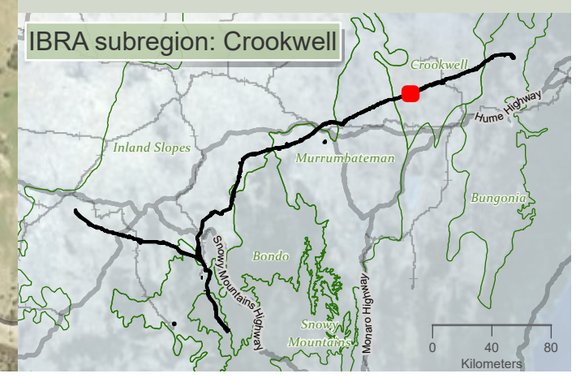
- Minor road

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 88

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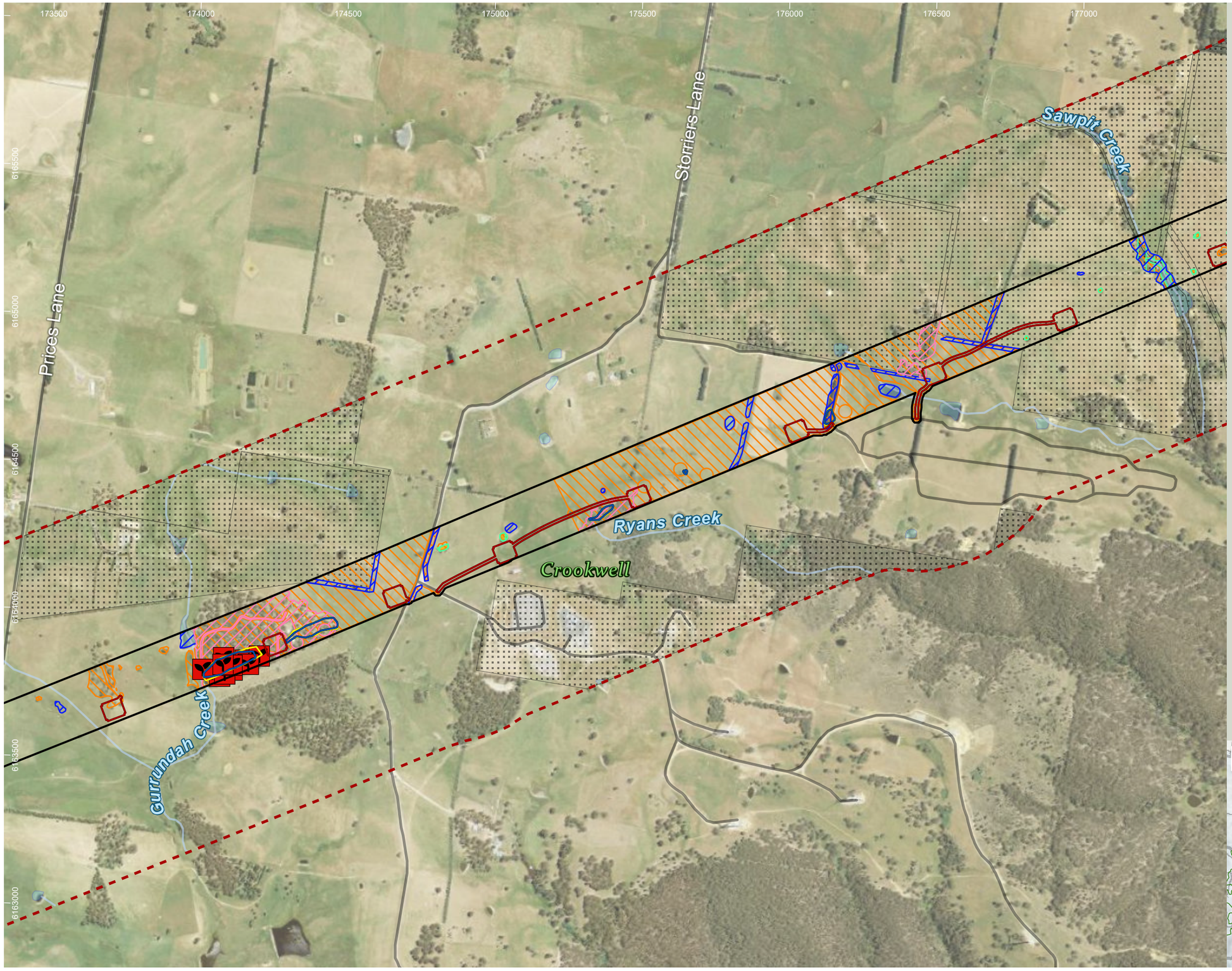


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

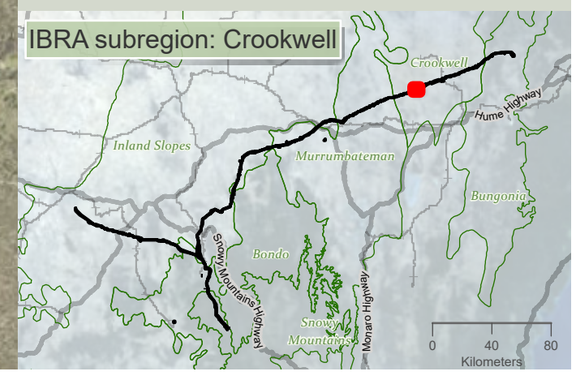
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 89

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177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

Walkoms Lane

Crookwell

Kialla Creek

Range Road

Sawpit Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

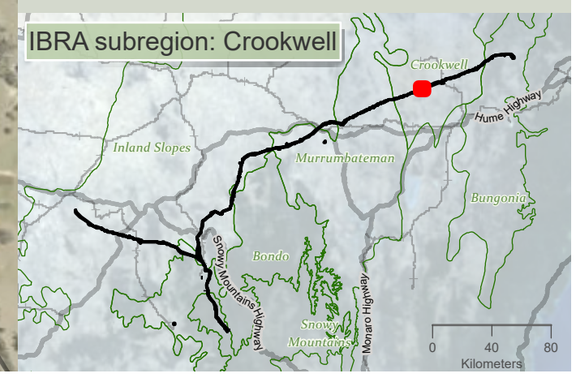
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 90

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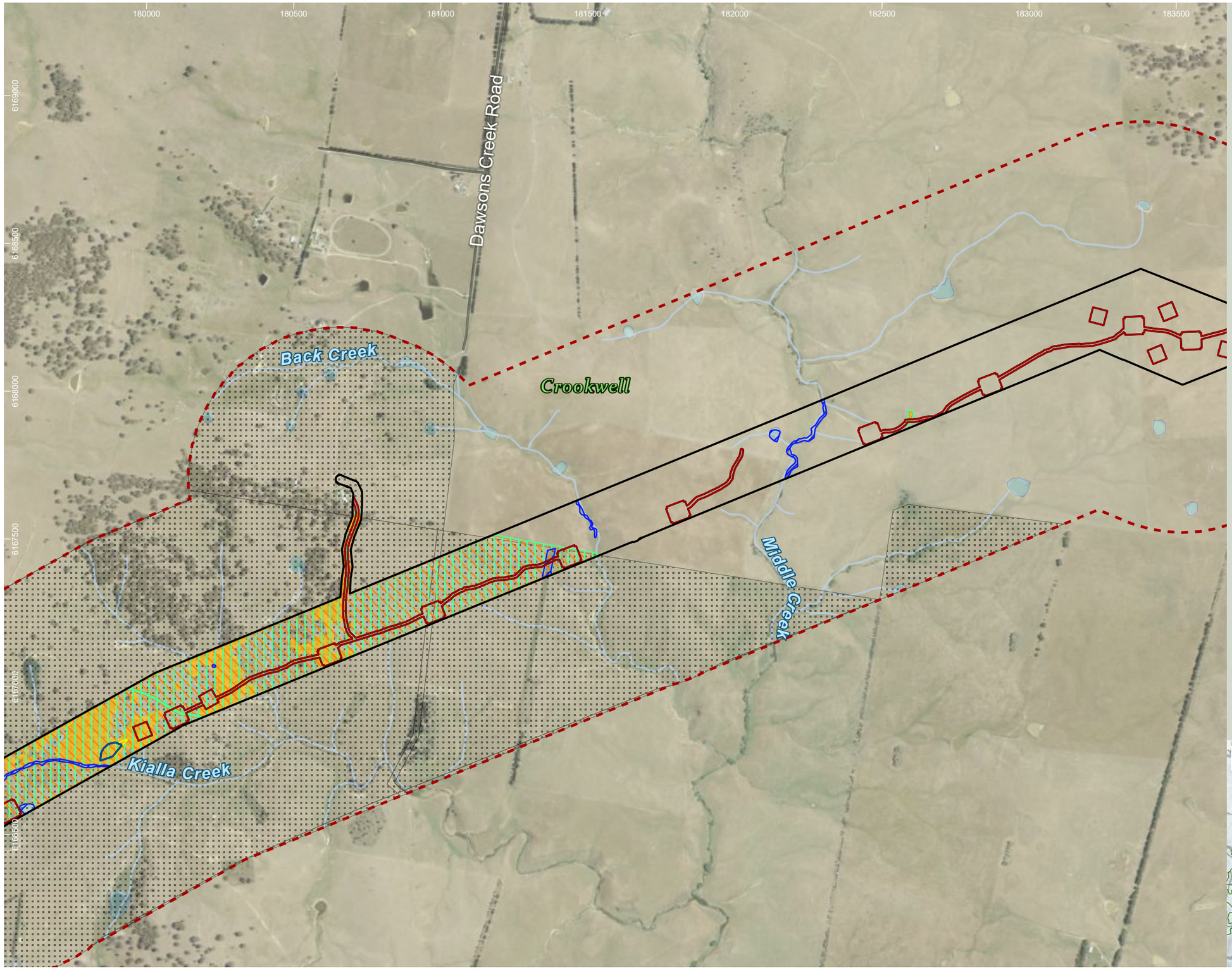


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

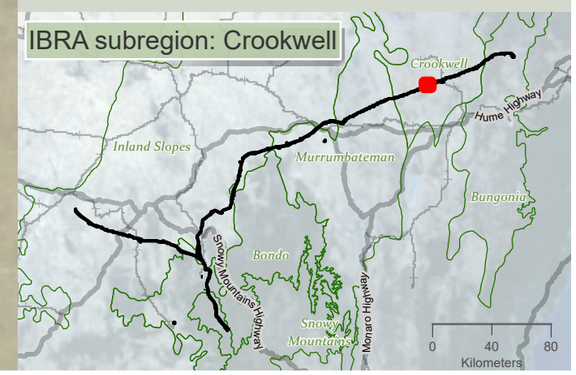
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 91

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183000 183500 184000 184500 185000 185500 186000 186500

6170000 6169500 6169000 6168500 6168000 6167500

Goulburn Road

Wollondilly River

First Creek

Crookwell

Crookwell Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

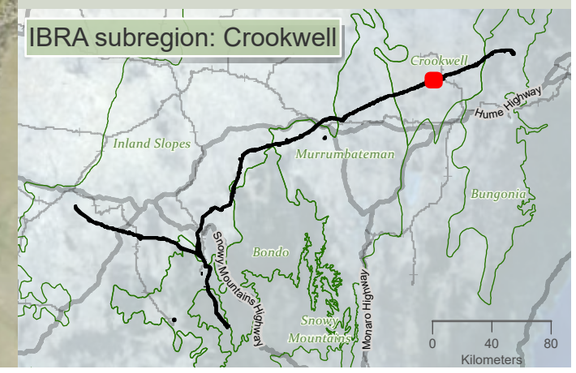
- Major road
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 92

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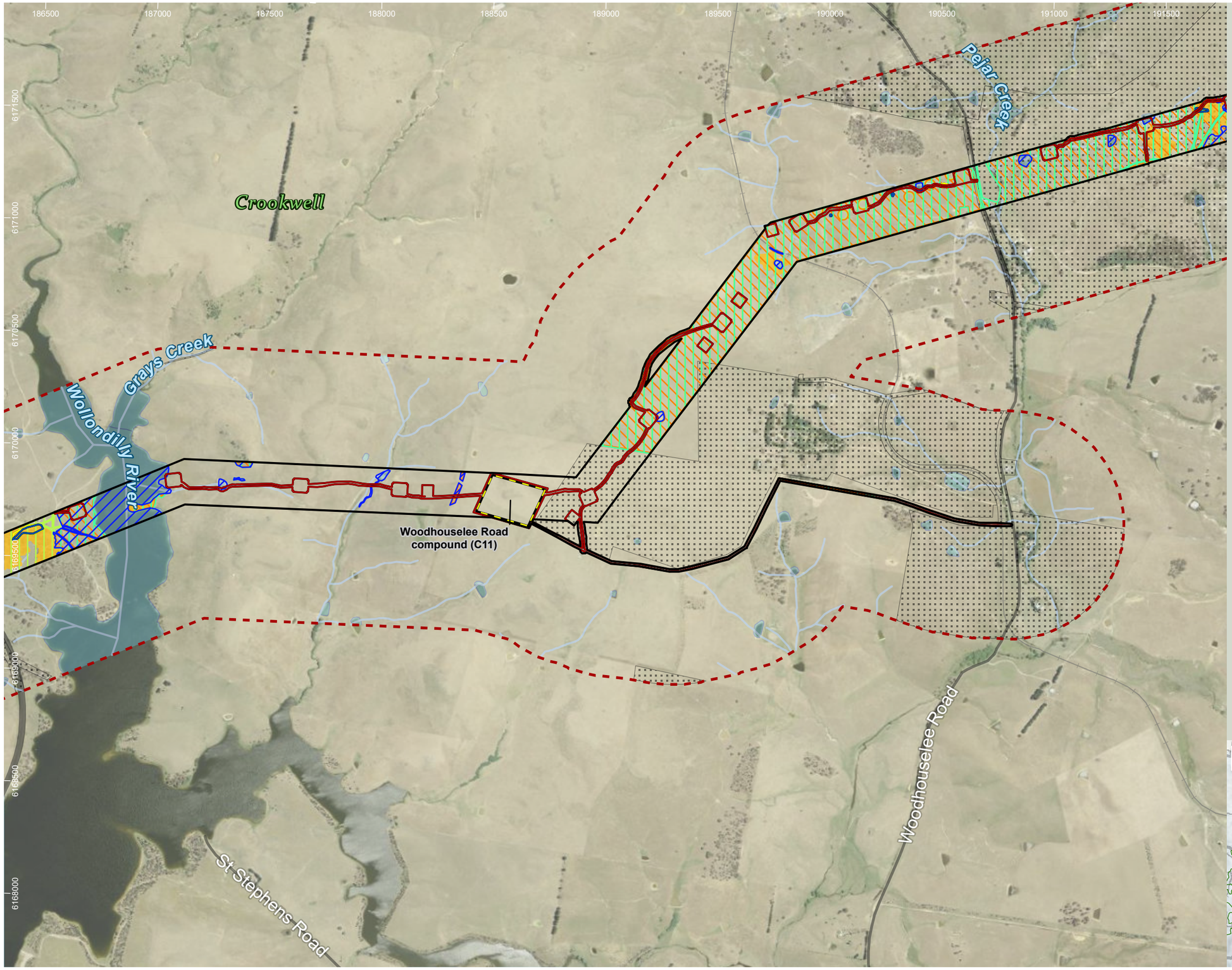


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

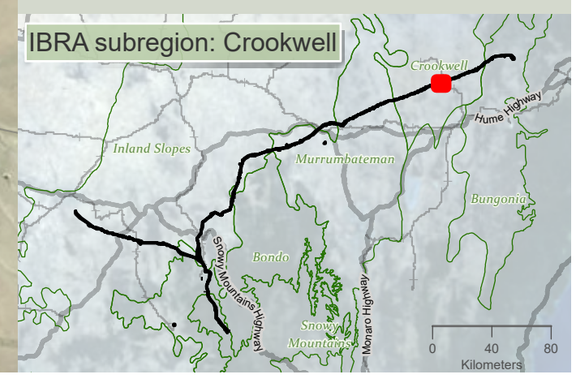
- Major road
- Minor road
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



Drawn by: MatthewZajaczkowski | Last updated: 28/07/2023 | File: C:\OneDriveSync\Folder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx
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niche Environment and Heritage

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m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 93

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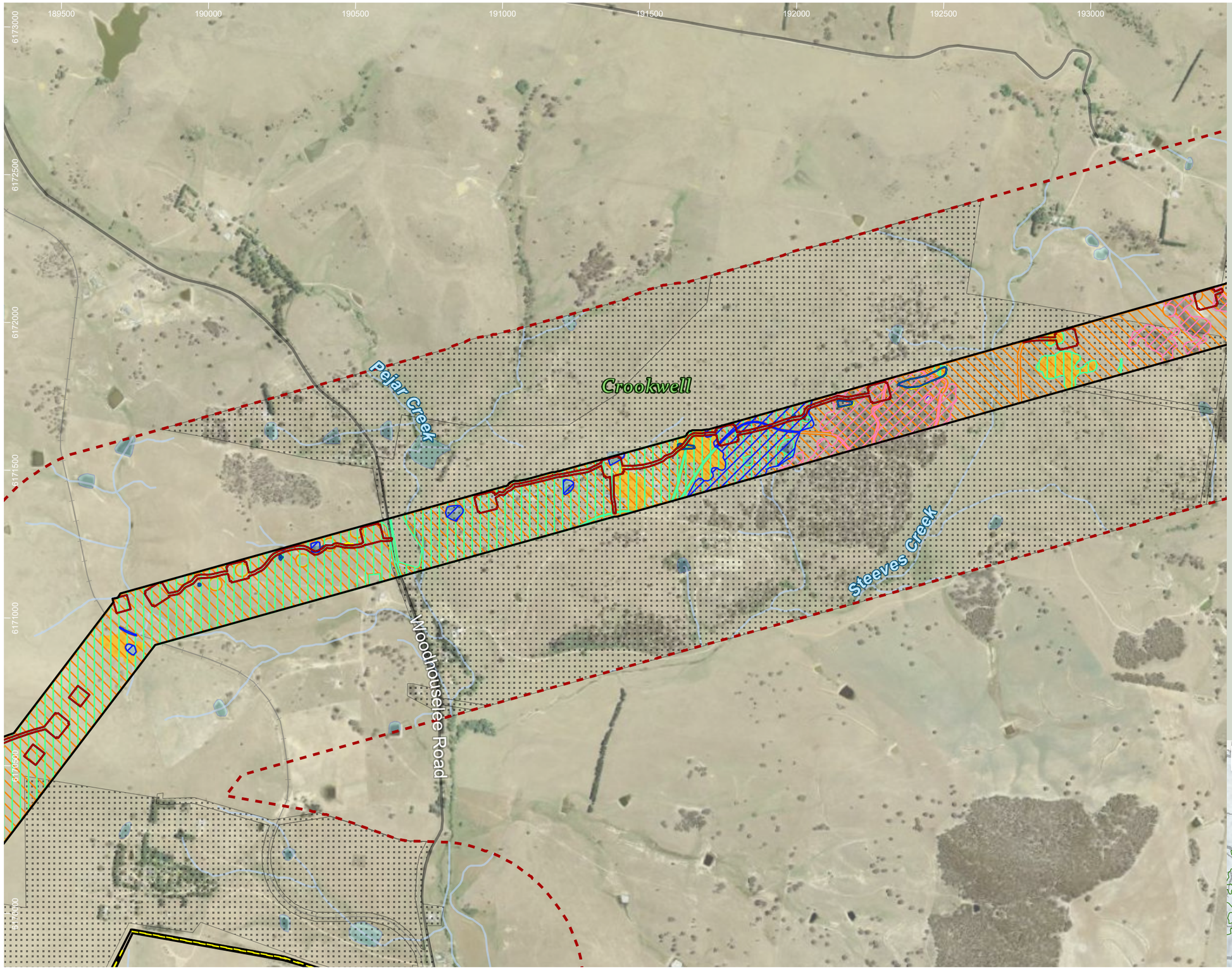


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

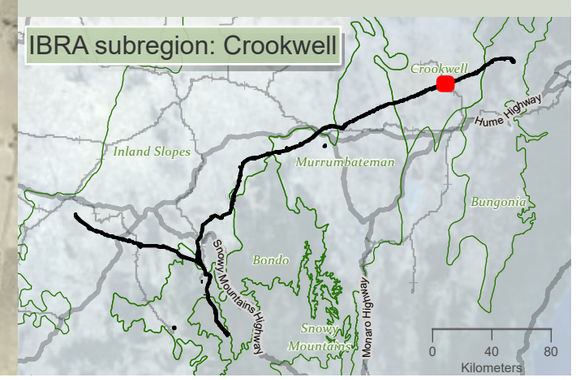
- Minor road
- Rail

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe



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niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 94

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193000 193500 194000 194500 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

Crookwell

Melamalong Creek

Steeves Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

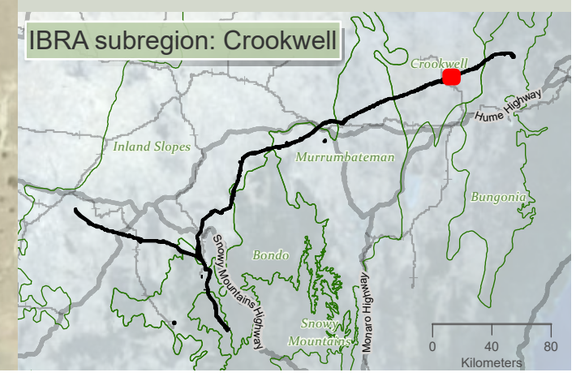
EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Acacia lanigera (Woolly Wattle)

IBRA subregion: Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 95

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196000 196500 197000 197500 198000 198500 199000 199500 200000

6175000 6174500 6174000 6173500 6173000 6172500

Middle Arm Road

Back Arm Nature Reserve

Tarlo River

Crookwell

Sawpit Gully

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

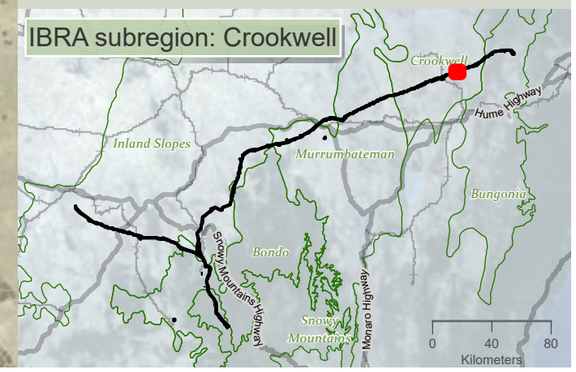
EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)
- Acacia lanigera (Woolly Wattle)

IBRA subregion: Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 96

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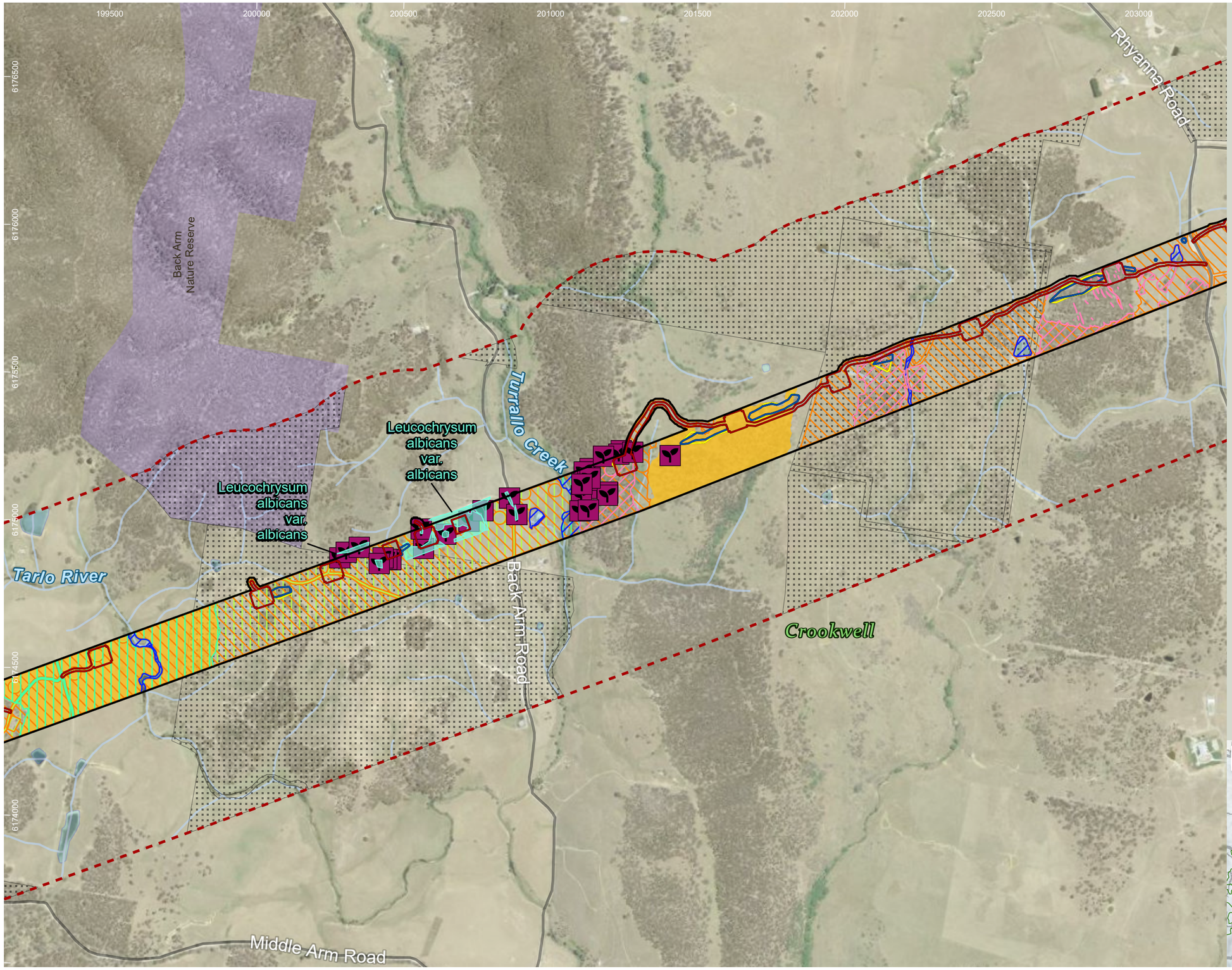


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act TECs

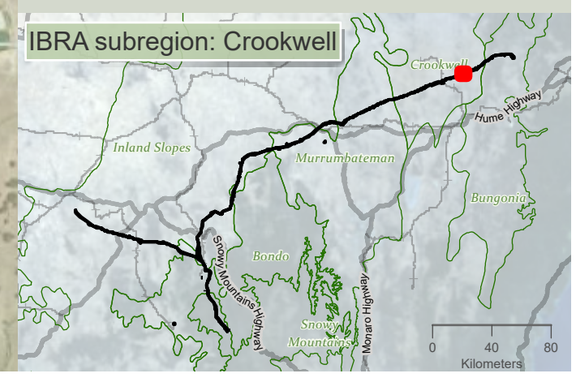
- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 97

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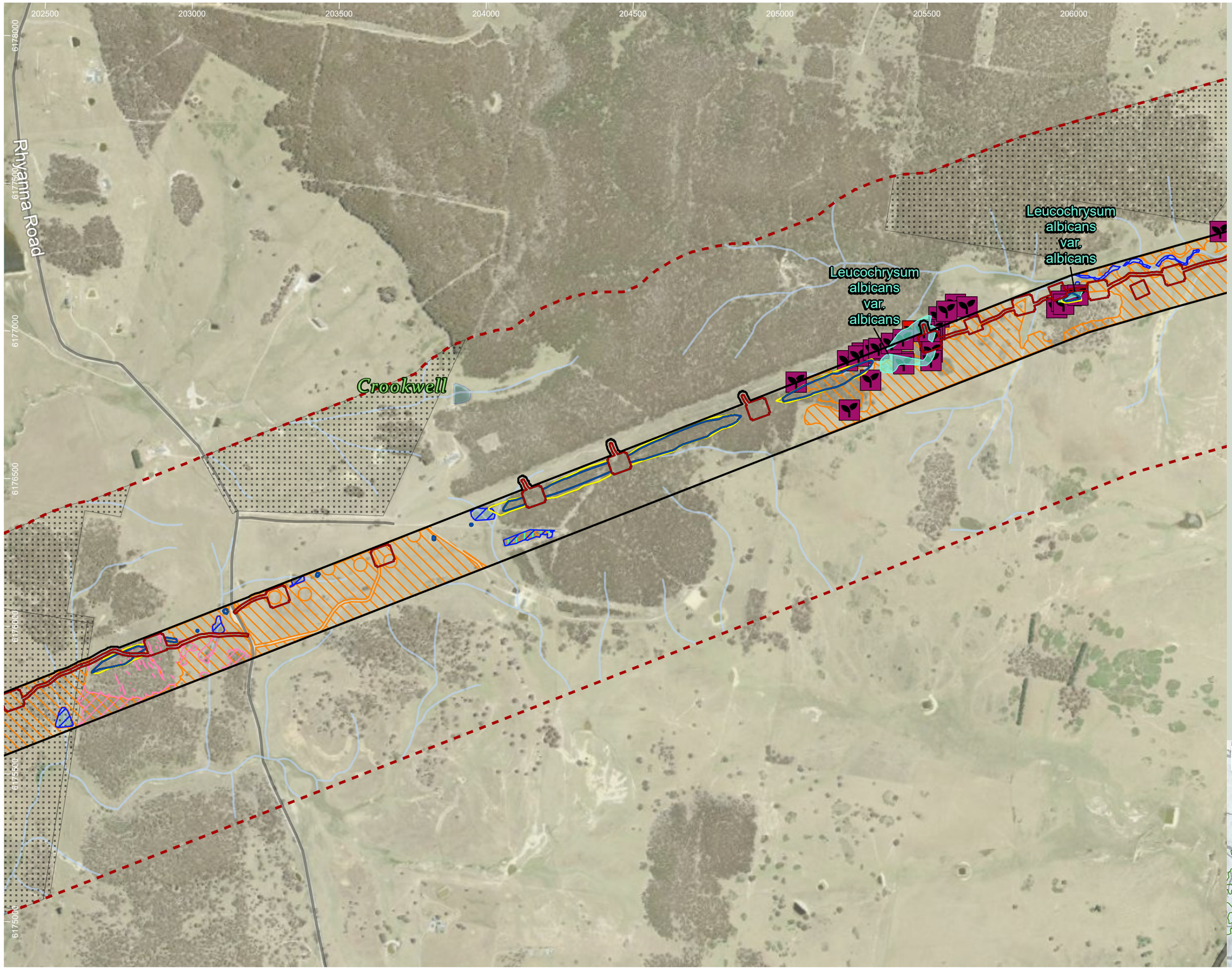


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

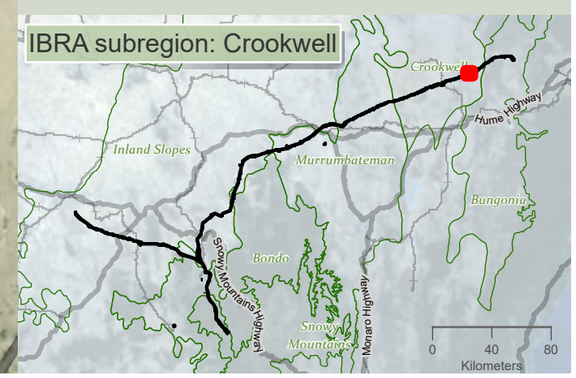
- Major road
- Minor road

EPBC Act flora species habitat

- Acacia bynoeana
- Ammobium craspedioides
- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Thesium australe
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Ammobium craspedioides (Yass Daisy)
- Leucochrysum albicans var. tricolor (Hoary Sunray)



Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Cowpers Lane

Myrtle Creek

Crookwell

Cowpers Creek

Leucochrysum albicans var. albicans

Leucochrysum albicans var. albicans

Leucochrysum albicans var. albicans

Taralga Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

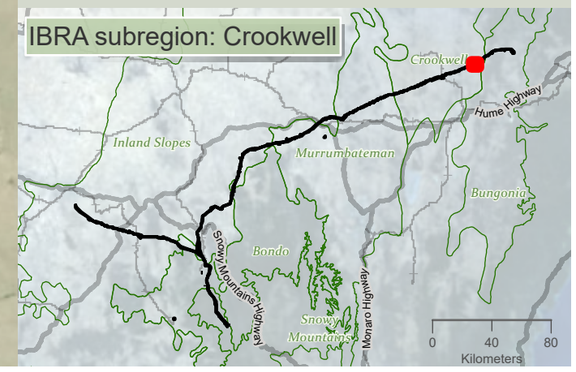
EPBC Act flora species habitat

- Eucalyptus aggregata
- Leucochrysum albicans var tricolor
- Threatened flora patch

Threatened flora species - Niche and ELA, 2022 (no. of records)

- Leucochrysum albicans var. tricolor (Hoary Sunray)

IBRA subregion: Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 99

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208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Hillcrest Road
Soldiers Settlement Road
Dawsons Flat Creek
Myrtle Creek
Crookwell
Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

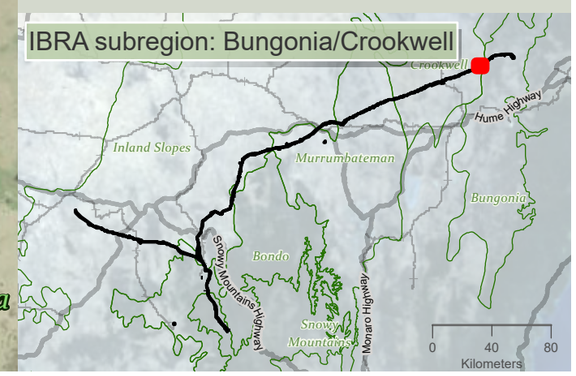
Transport

Road

- Minor road

EPBC Act flora species habitat

- Eucalyptus aggregata
- Leucochrysum albicans var tricolor



0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 100

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential\Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

211500 212000 212500 213000 213500 214000 214500 215000

6183500 6183000 6182500 6182000 6181500 6181000 6180500

Crookwell
Forest Creek
Bungonia
Hillcrest Road
Cow Horn Creek
Tarlo River National Park

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

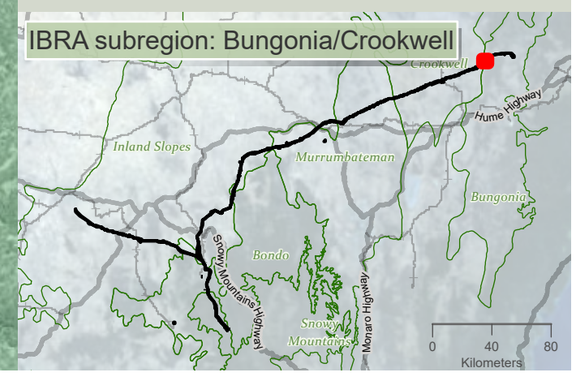
NPWS Reserve

- National Park

EPBC Act flora species habitat

- Eucalyptus aggregata
- Kunzea cambagei
- Leucochrysum albicans var tricolor
- Pomaderris cotoneaster

IBRA subregion: Bungonia/Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 101

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214500 215000 215500 216000 216500 217000 217500 218000

6185500 6185000 6184500 6184000 6183500 6183000 6182500

Kerrawary Creek

Bungonia

Tarlo River National Park

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Protected Areas of NSW

NPWS Reserve

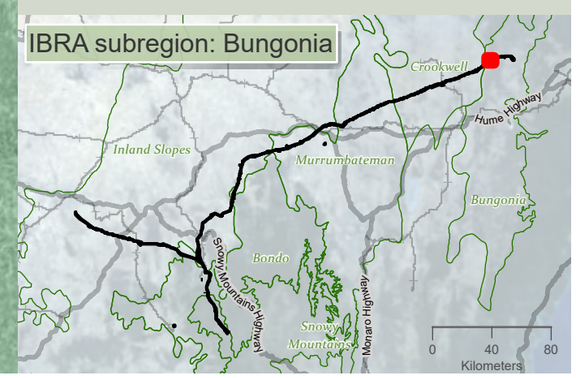
- National Park

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Kunzea cambagei
- Leucochrysum albicans var tricolor
- Pomaderris cotoneaster
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 102

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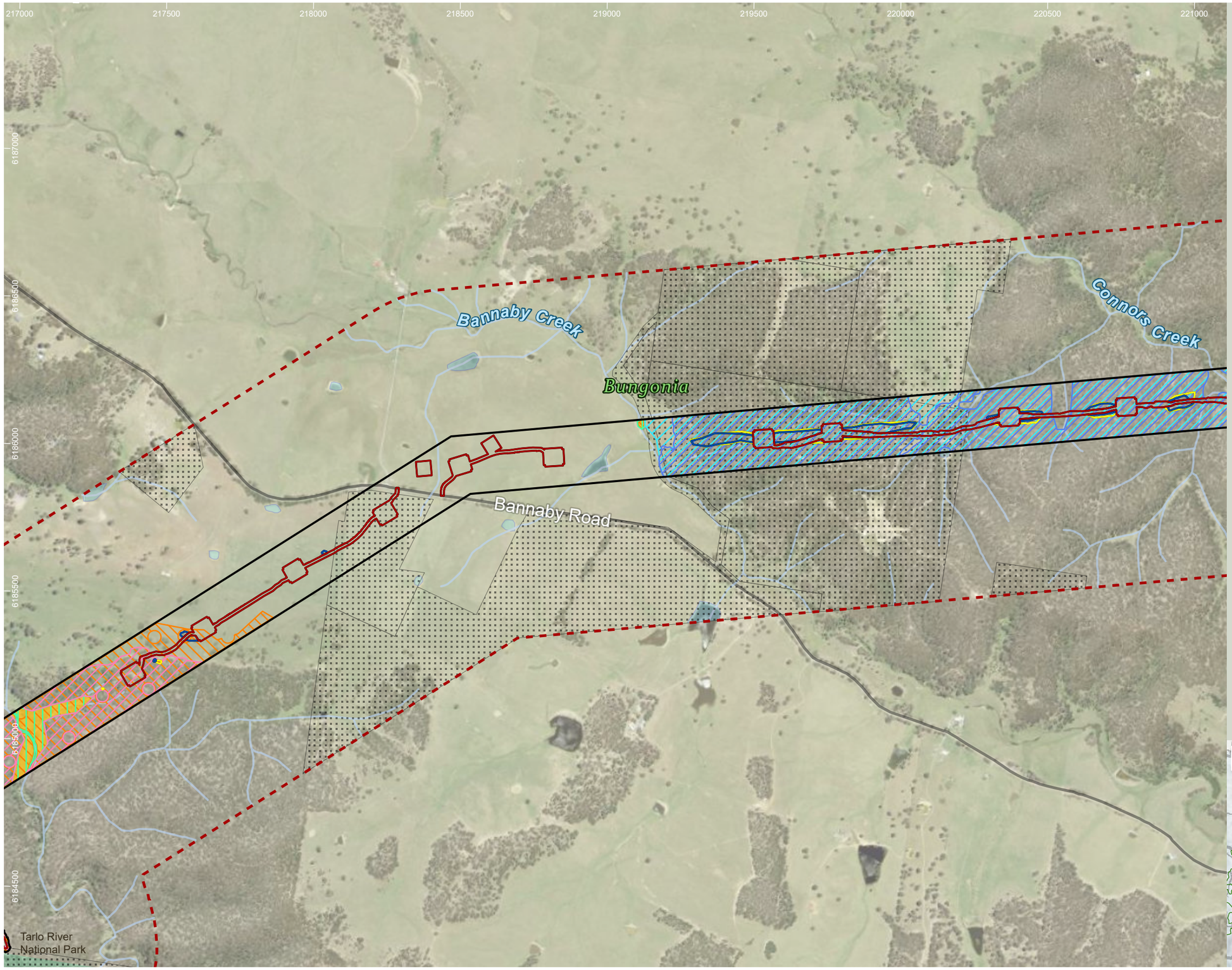


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

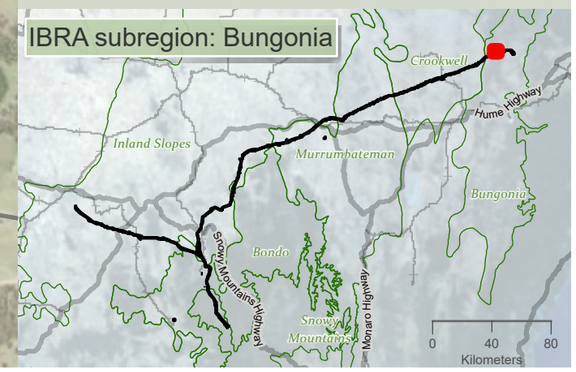
- National Park

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Acacia bynoeana
- Kunzea cambagei
- Leucochrysum albicans var tricolor
- Pomaderris cotoneaster
- Thesium australe



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 103

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221000 221500 222000 222500 223000 223500 224000

6187500 6187000 6186500 6186000 6185500 6185000

Connors Creek

Bungonia

Wills Gully

Adavale Road

Bannaby Creek

Hanworth Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

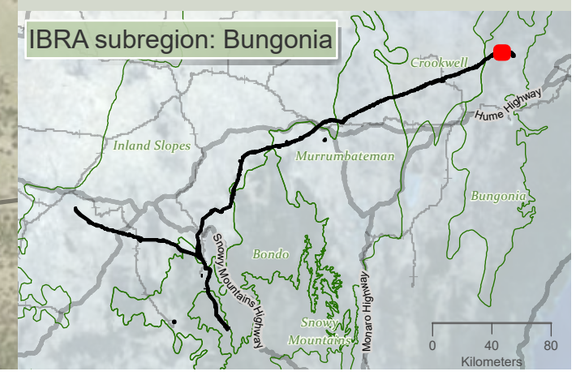
EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Kunzea cambagei
- Leucochrysum albicans var tricolor
- Pomaderris cotoneaster
- Thesium australe

IBRA subregion: Bungonia



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 104

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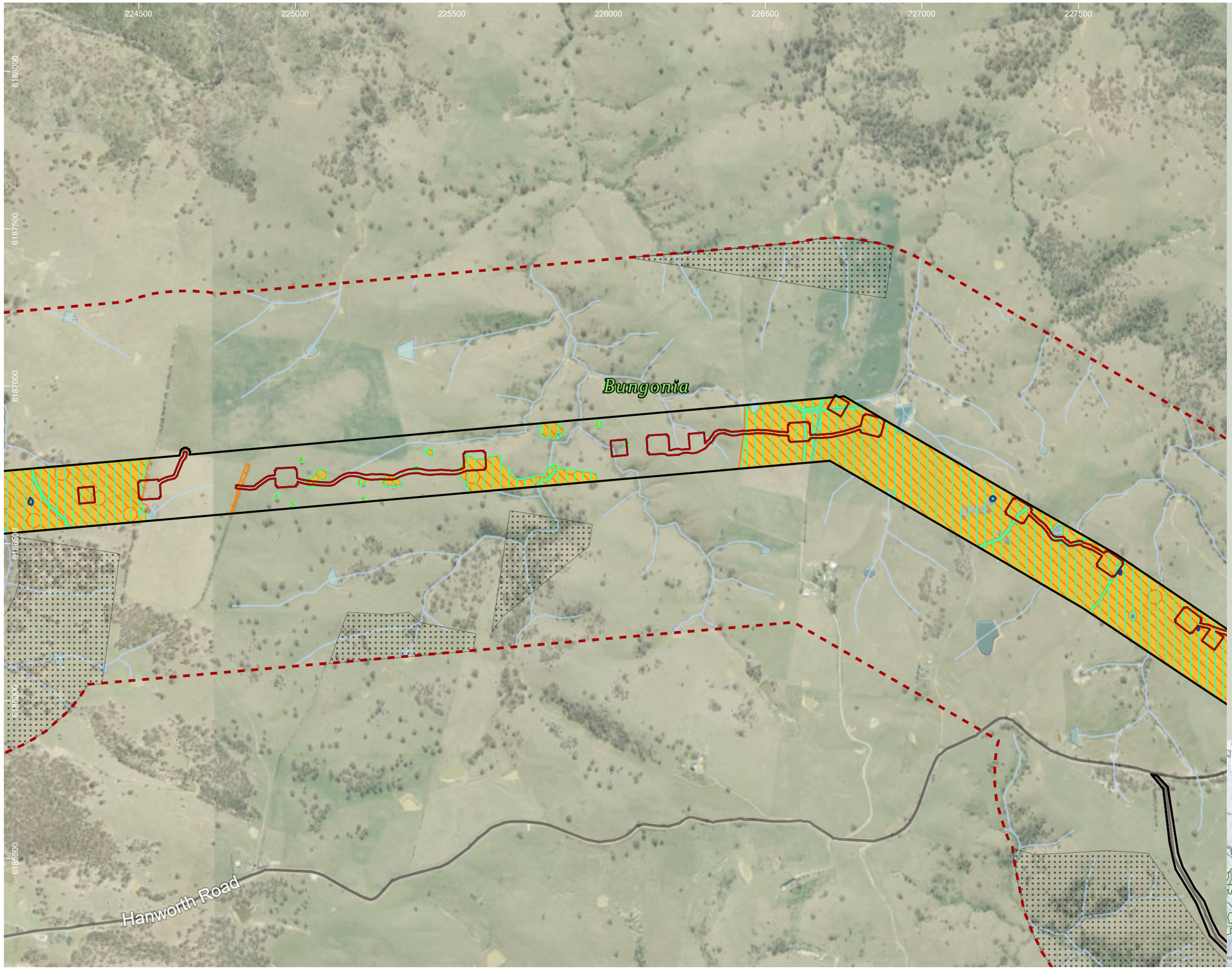


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

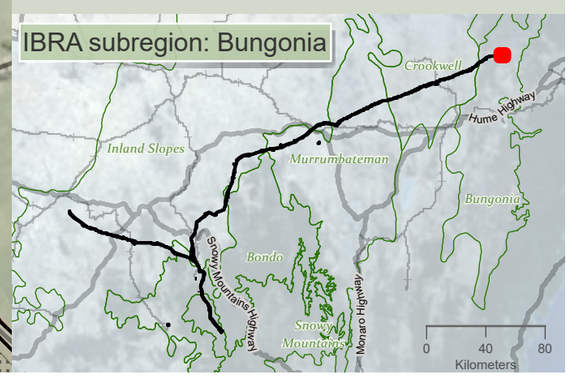
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance flora species habitat

HumeLink BDAR

Figure 13-18 map reference 105

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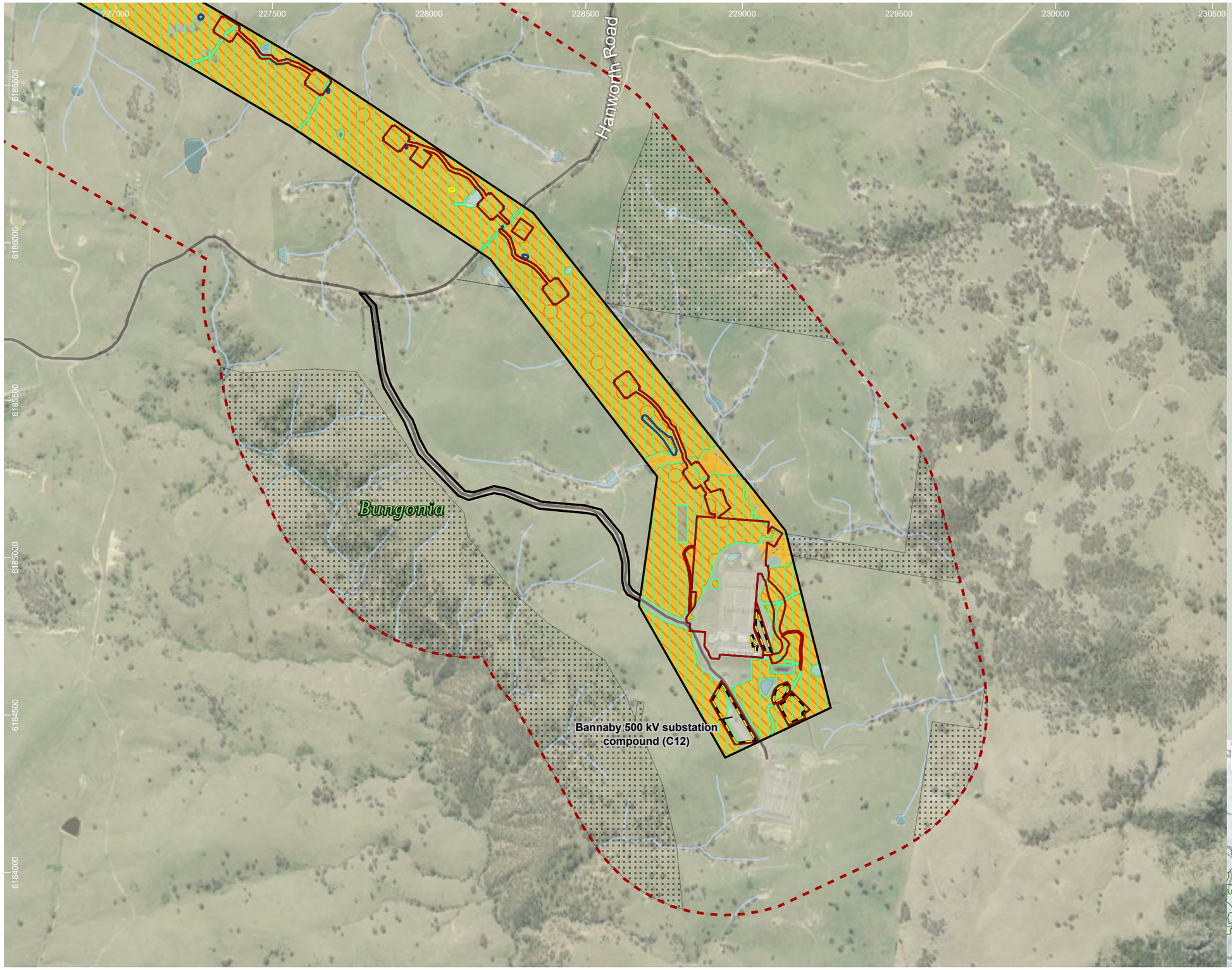


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

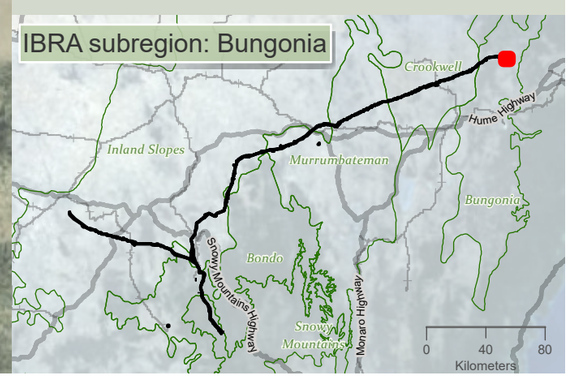
- Minor road

EPBC Act TECs

- White Box-Yellow Box-Blakely's Red Gum Grassy Woodland and Derived Native Grassland

EPBC Act flora species habitat

- Leucochrysum albicans var tricolor
- Thesium australe



niche Environment and Heritage

0 N 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

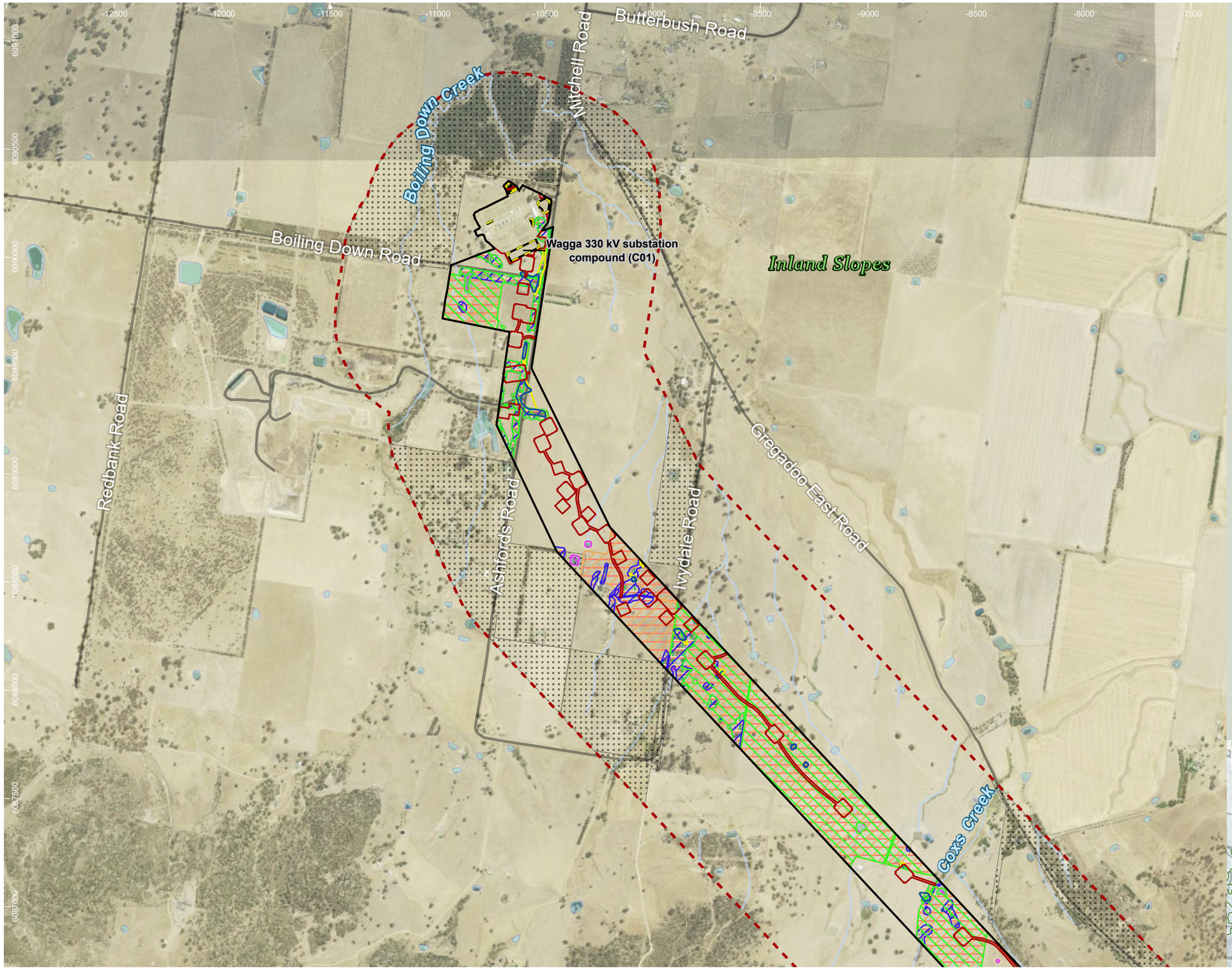
Matters of National Environmental Significance flora species habitat

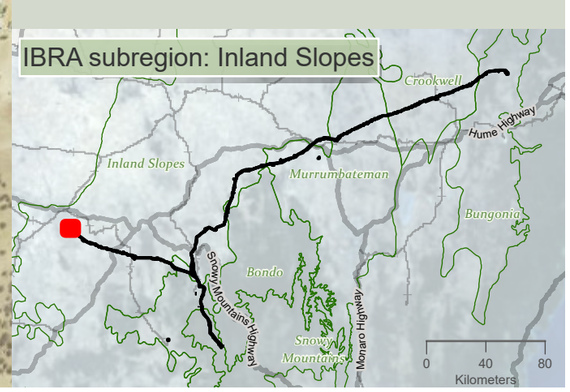
HumeLink BDAR

Figure 13-18 map reference 106

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx





HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

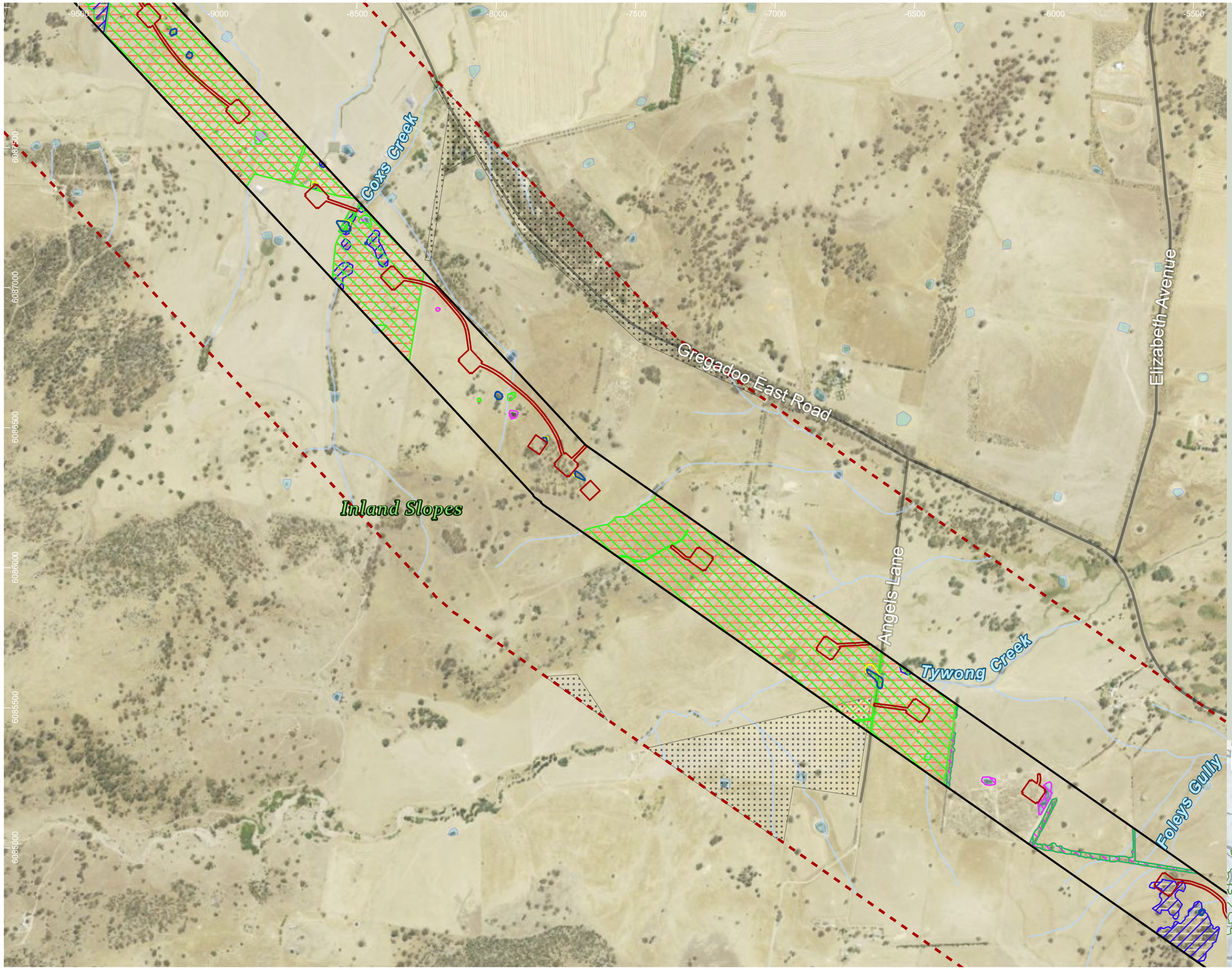
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 1

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

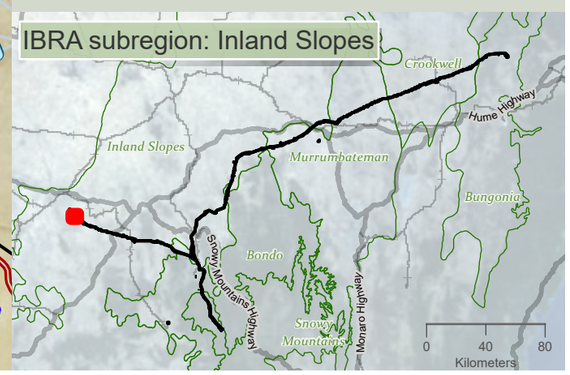
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

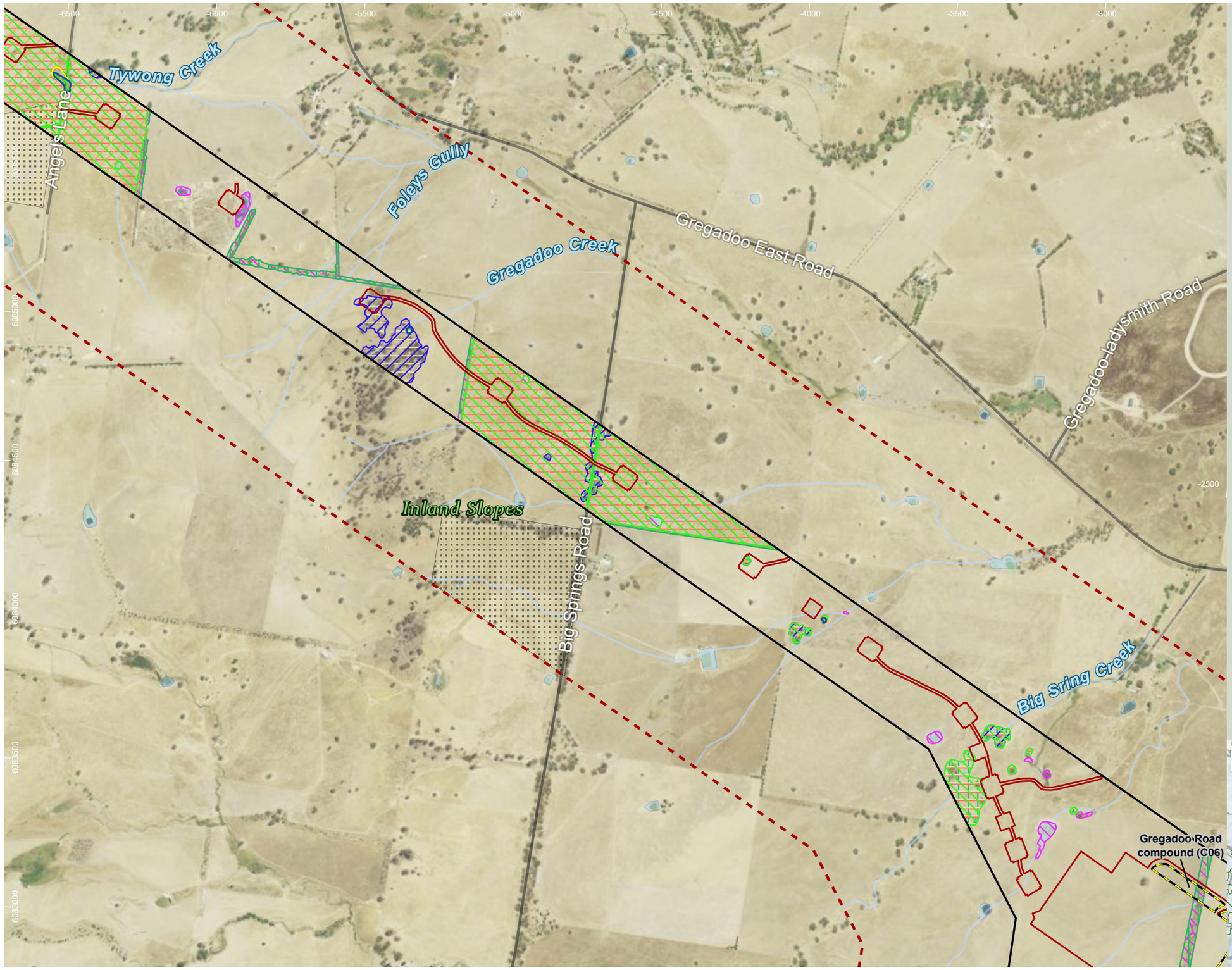
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 2

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

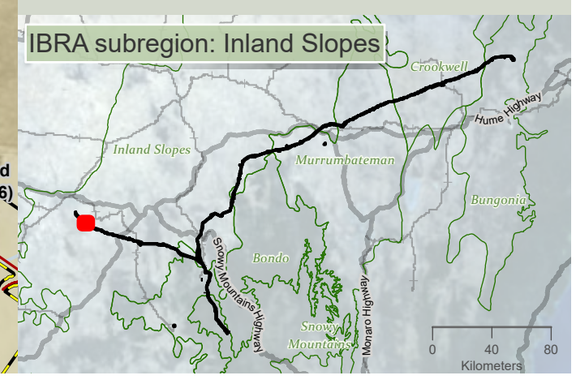
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 3

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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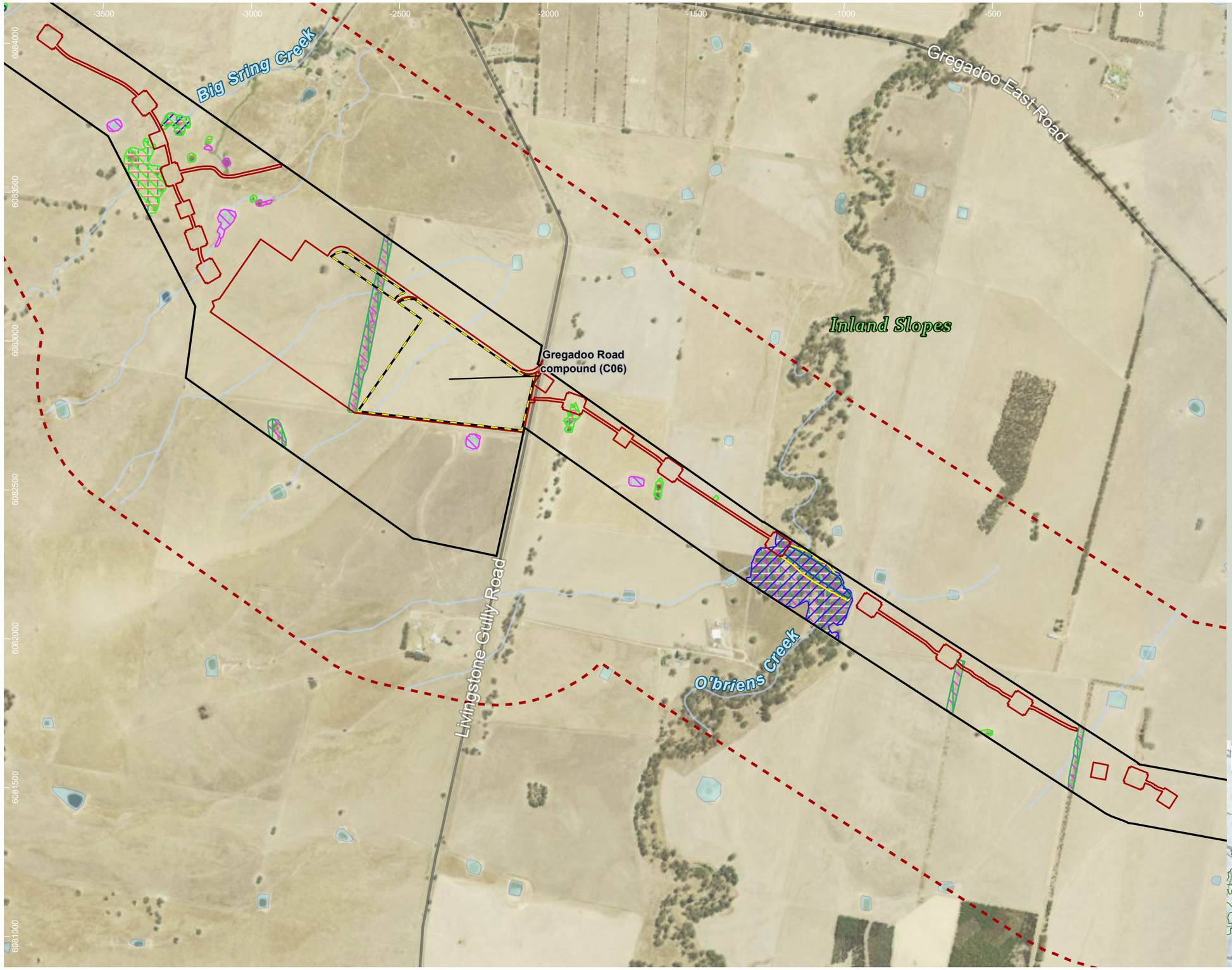


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

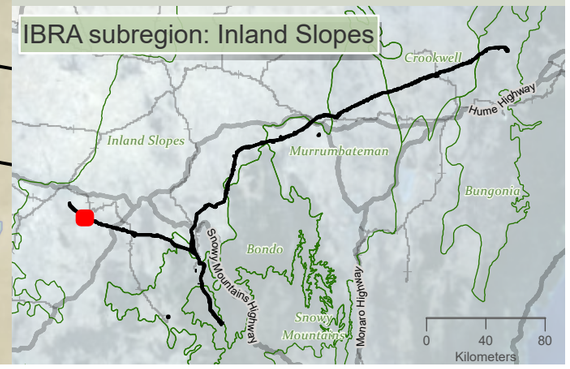
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

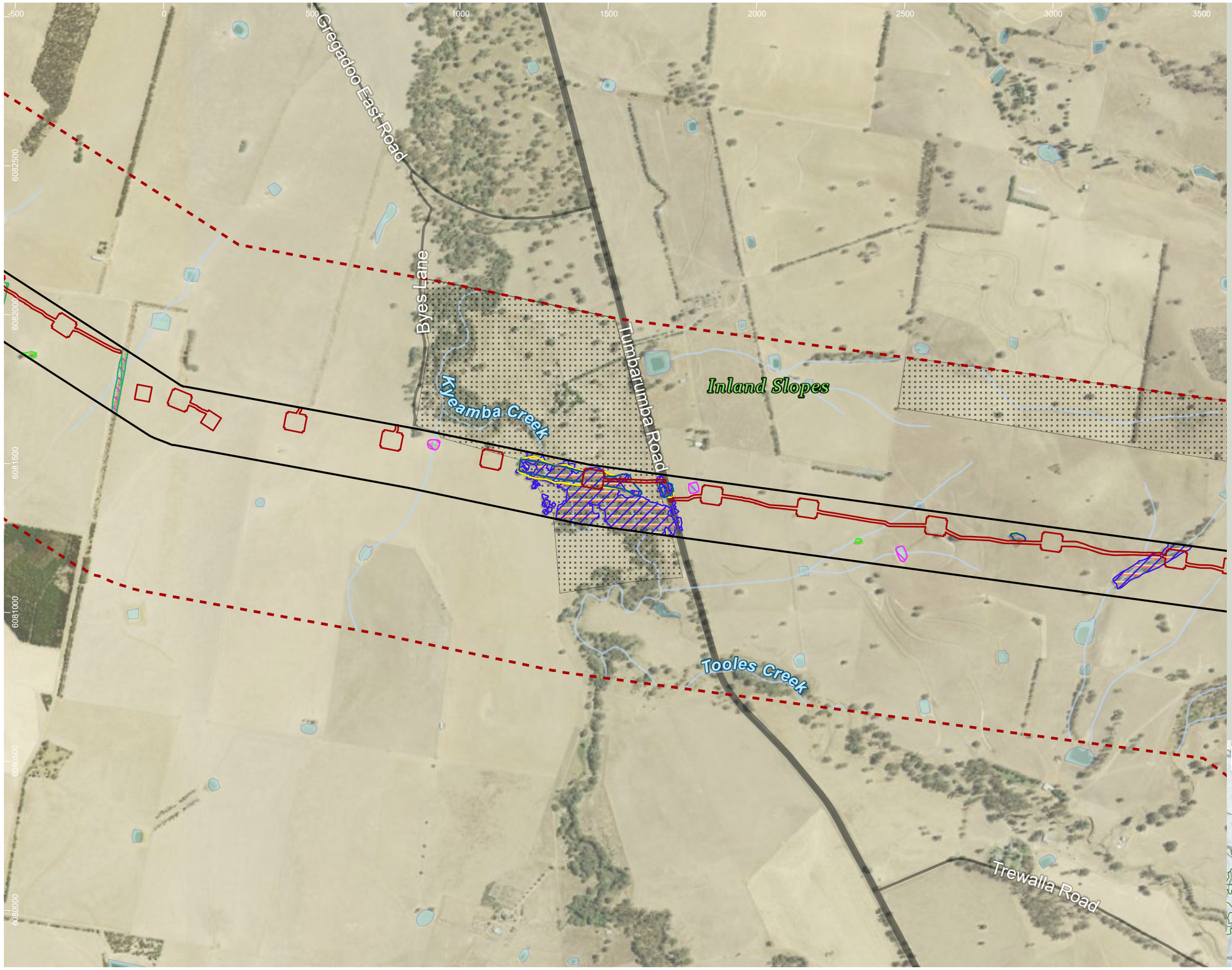
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 4

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

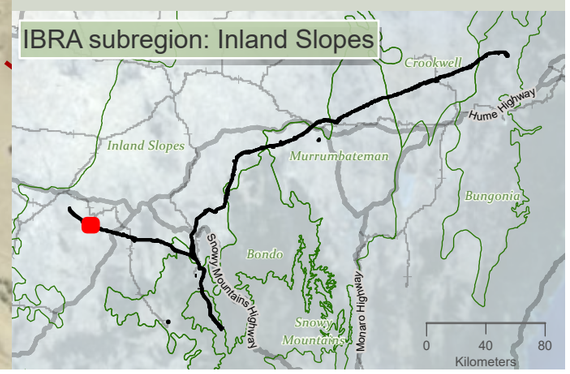
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 5

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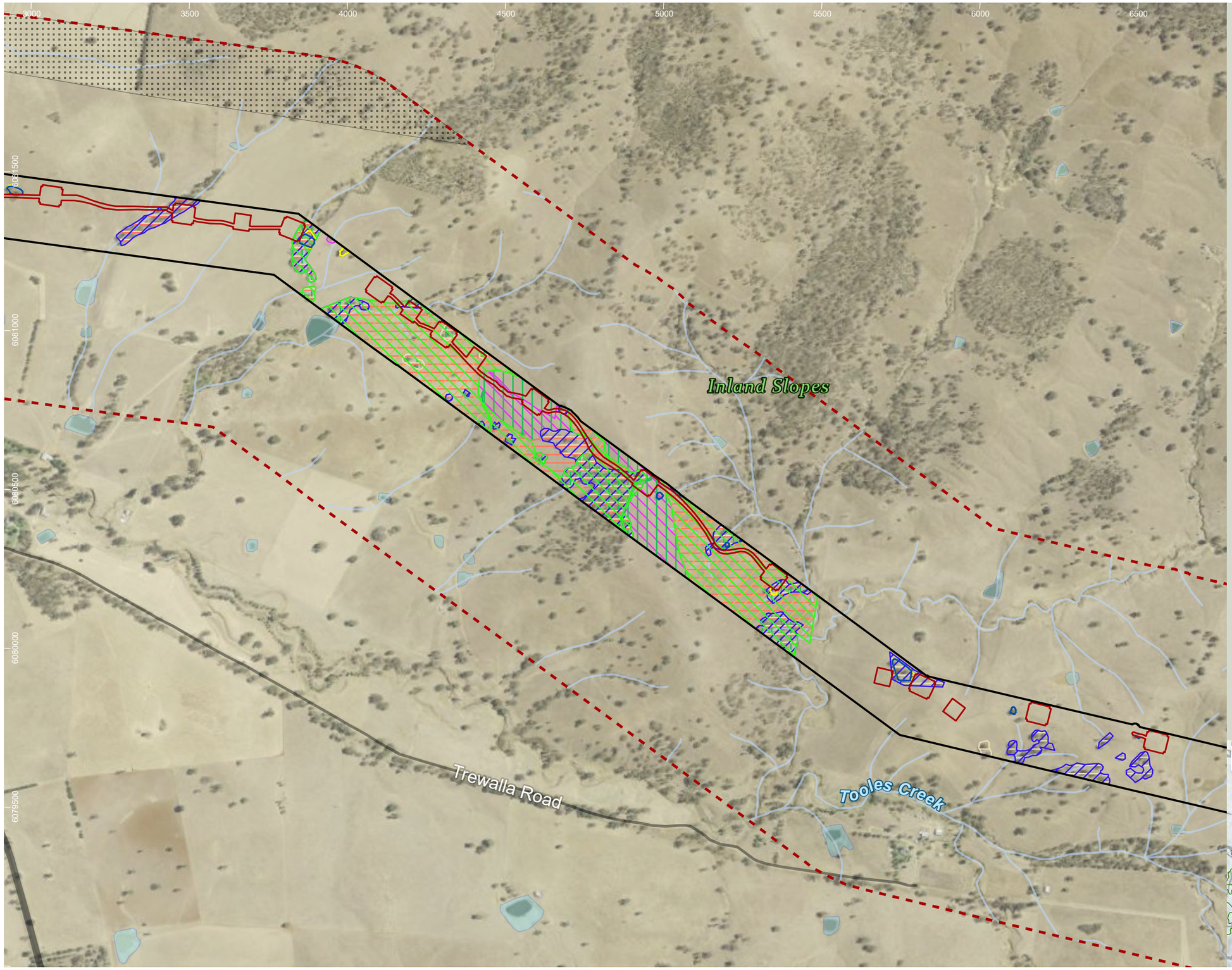
Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

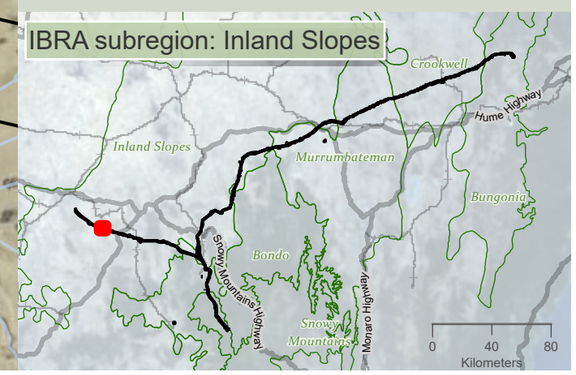
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



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niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 6

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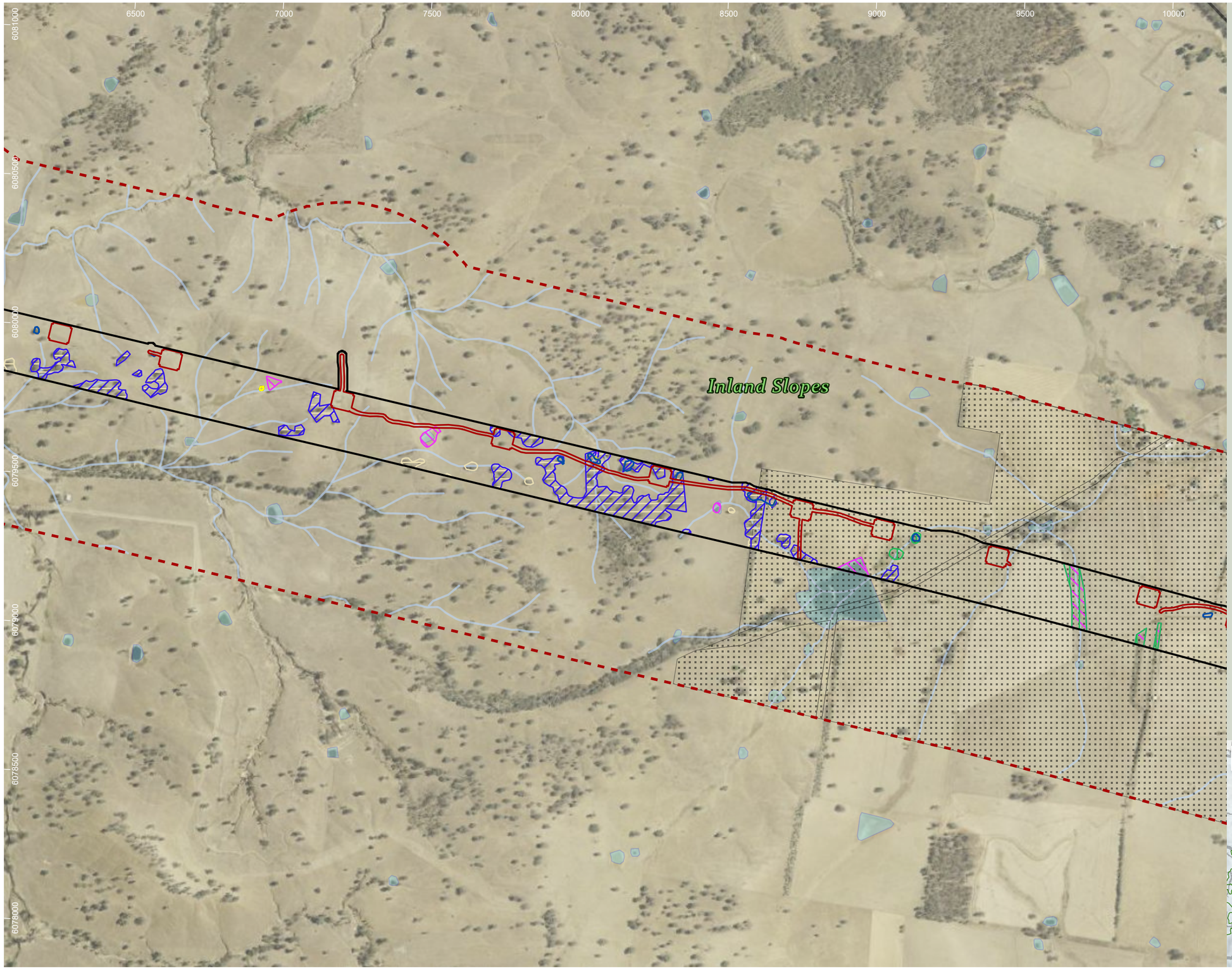


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

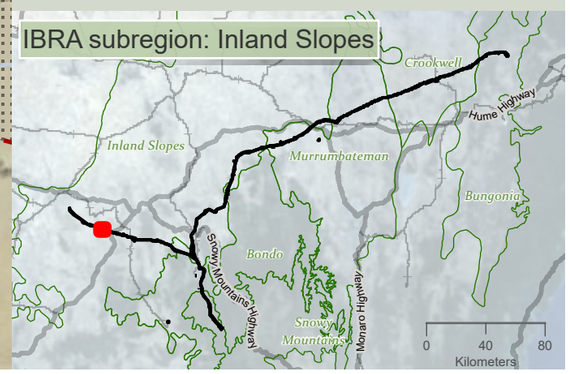
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 7

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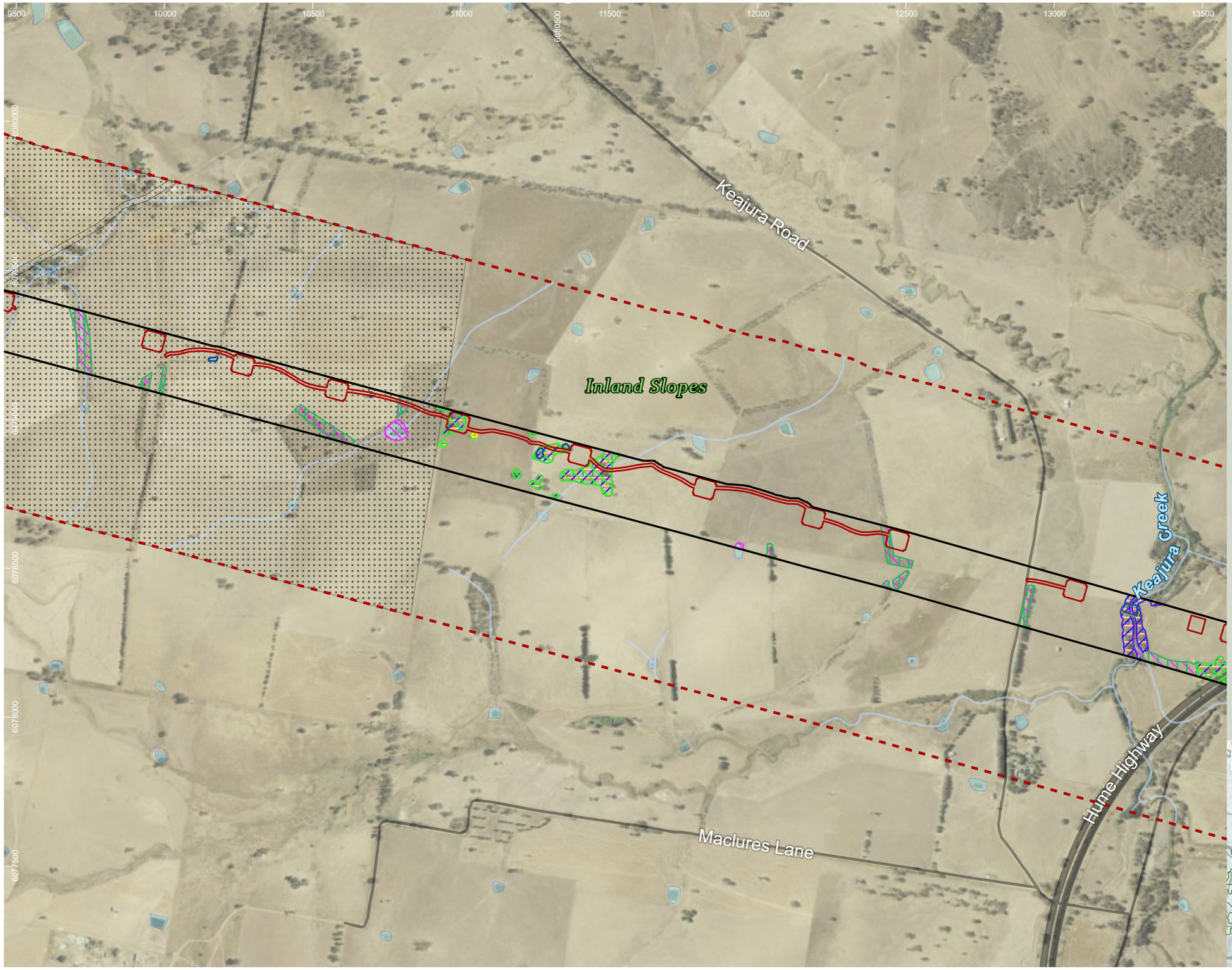
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

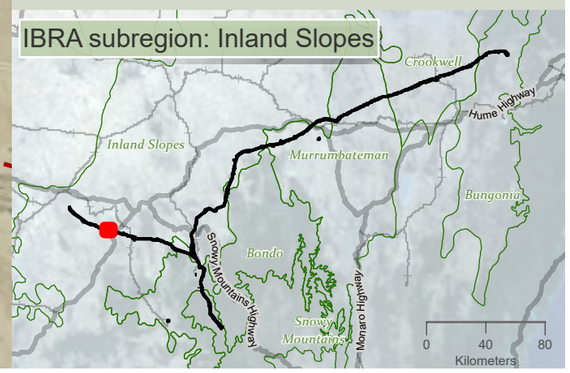
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 8

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13000 13500 14000 14500 15000 15500 16000 16500 17000

6079500 6079000 6078500 6078000 6077500 6077000 6076500

Keajura Road

Keajura Creek

Hume Highway

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

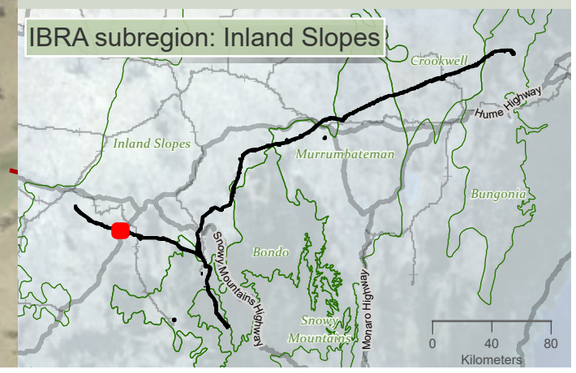
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 9

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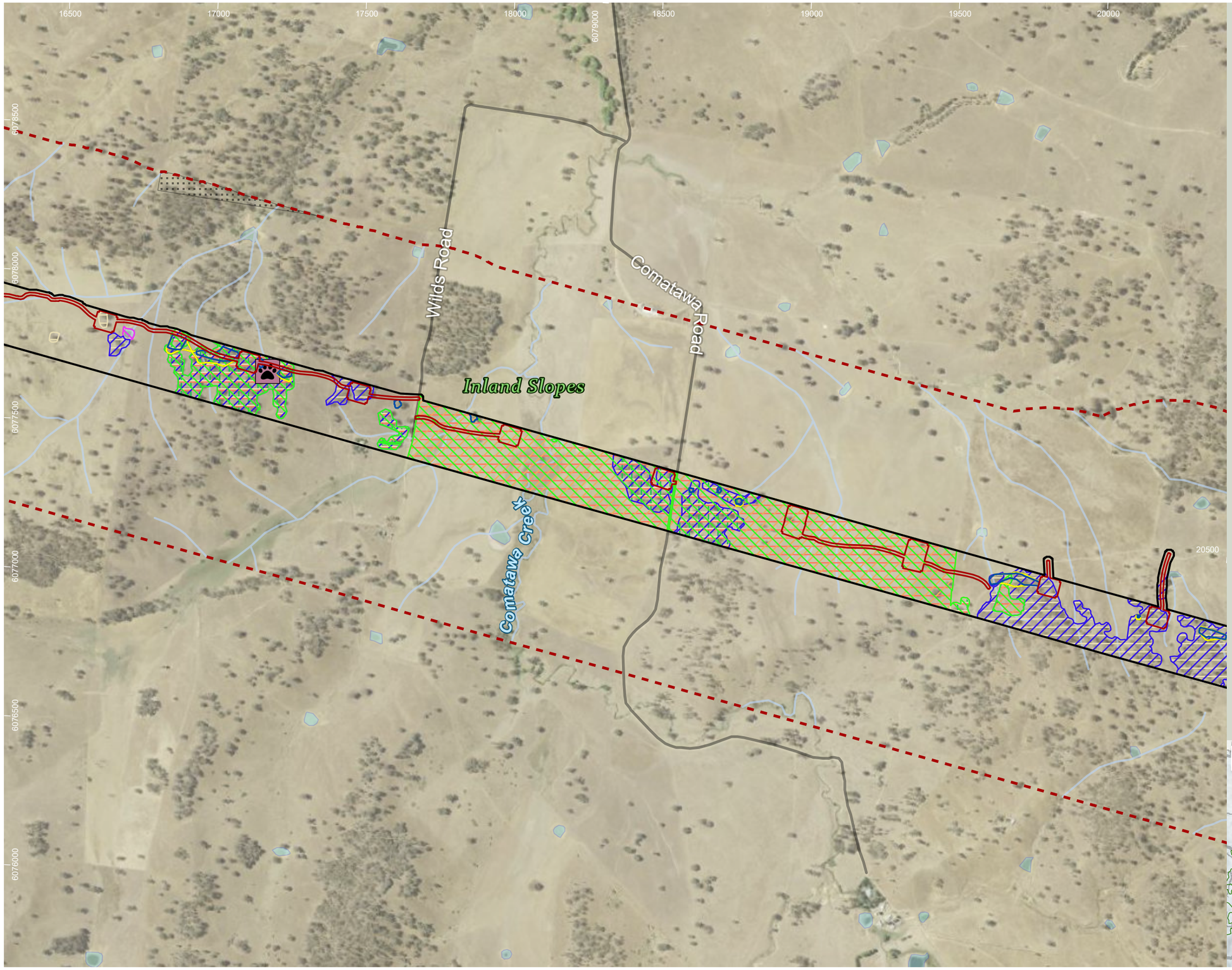
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

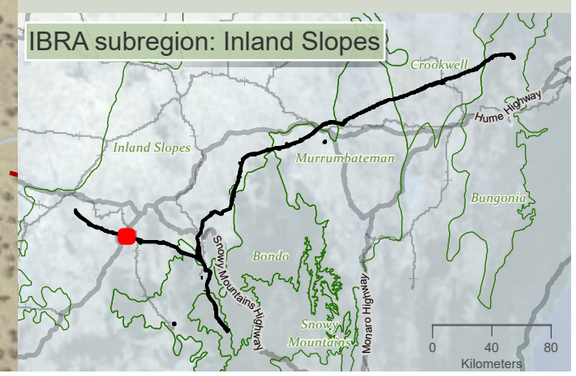
EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 10

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File C:\OneDriveSync\Folder\Niche\6699 - Confidential Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

20000 20500 21000 21500 22000 22500 23000 23500

6078000 6077500 6077000 6076500 6076000 6075500 6075000

[27] [27] [6] [6]

Inland Slopes

Humula Road

College Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

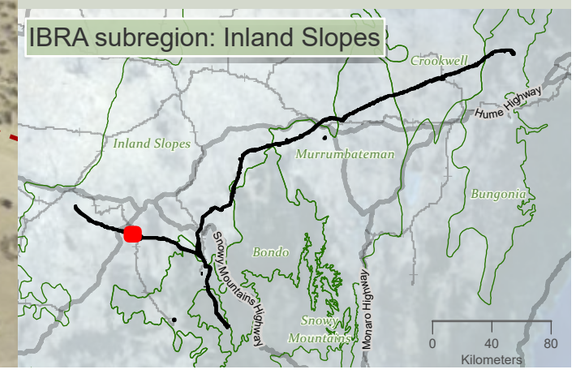
EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)
- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

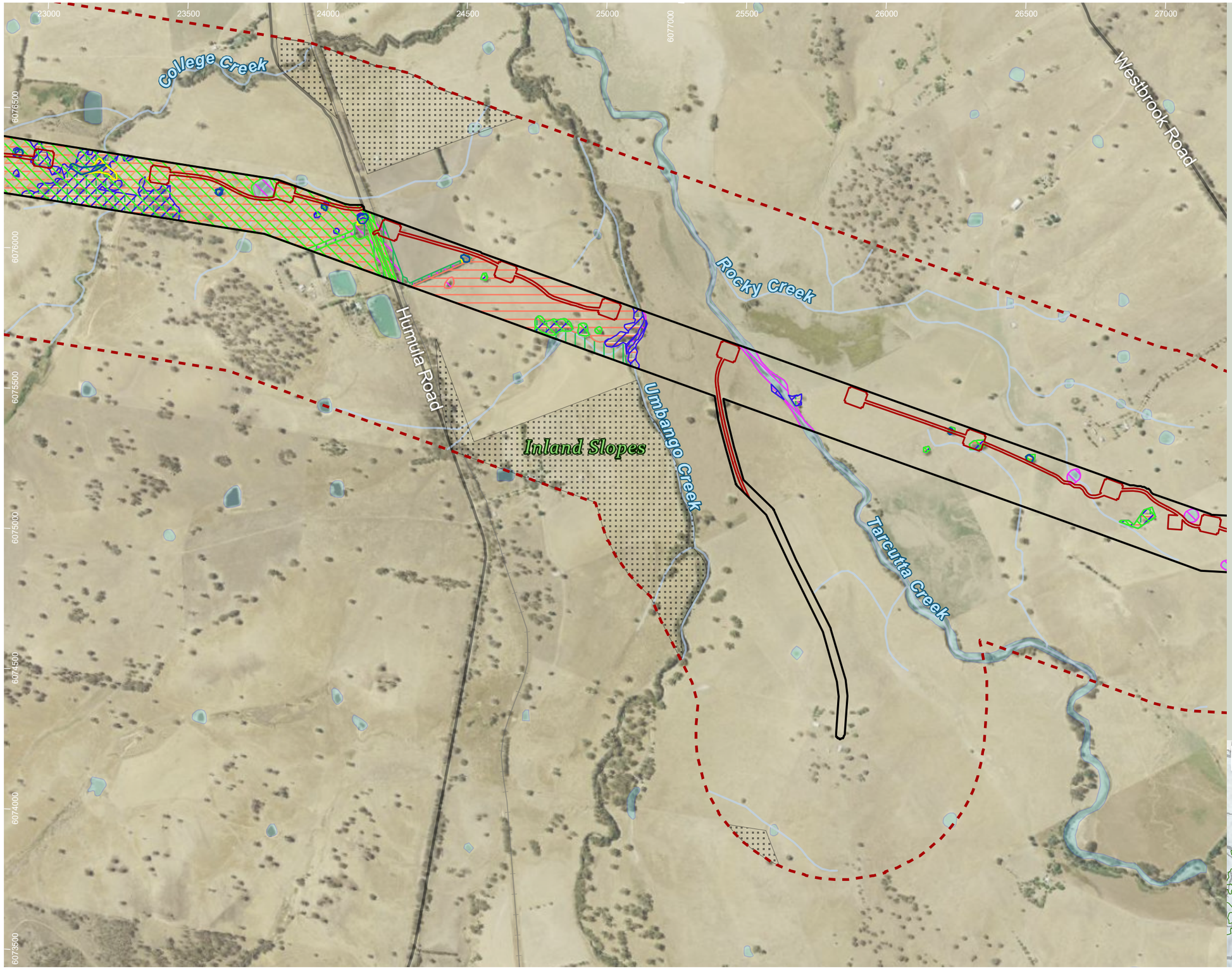
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 11

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

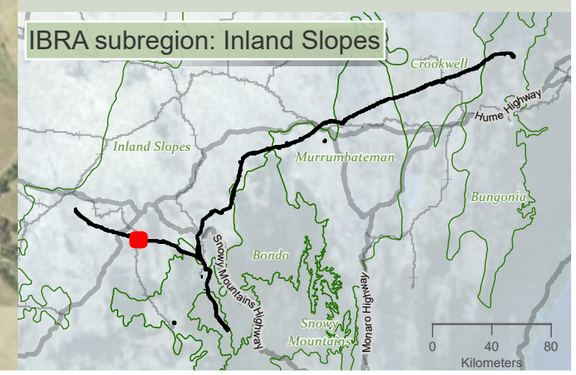
Transport

Road

- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

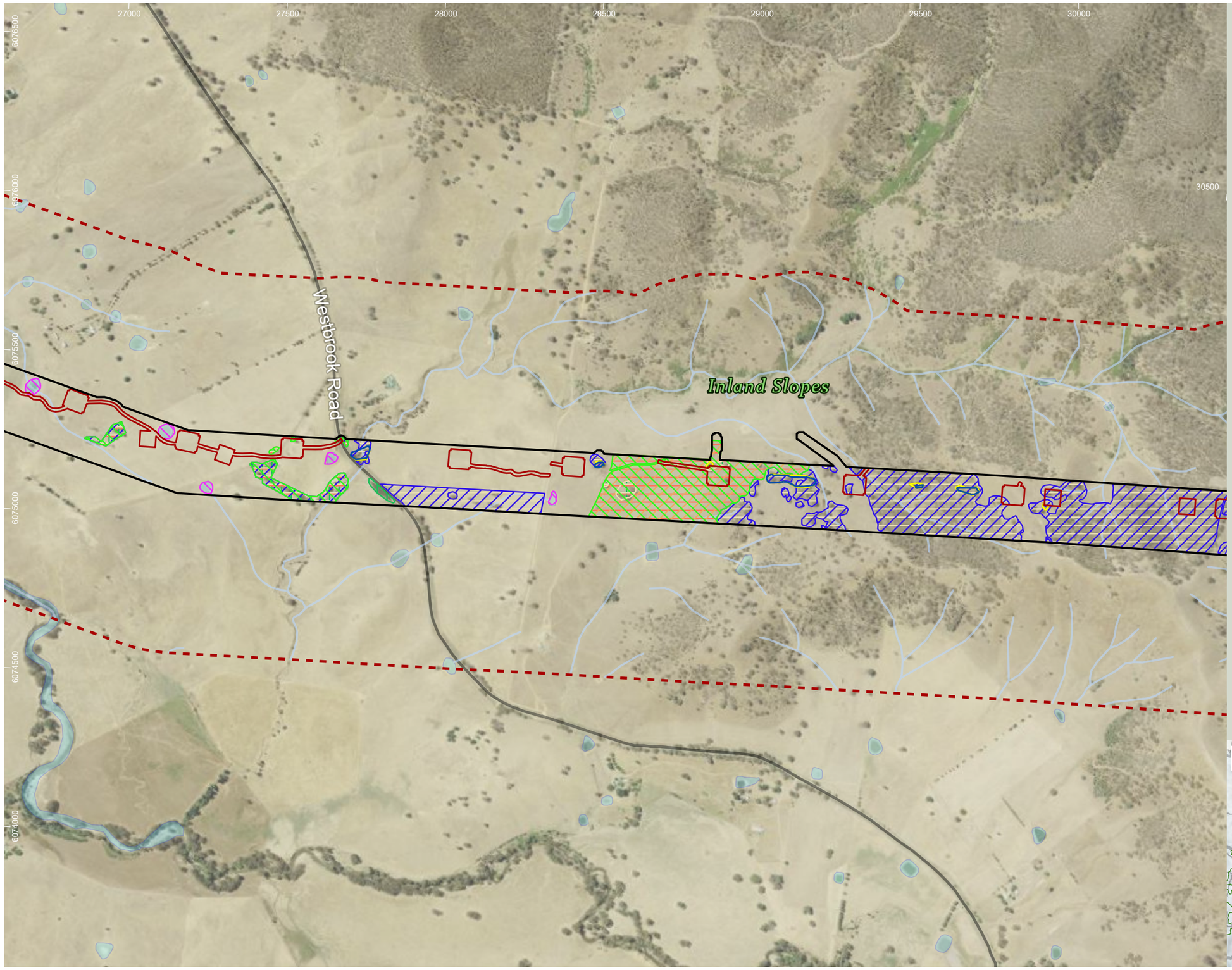
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 12

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

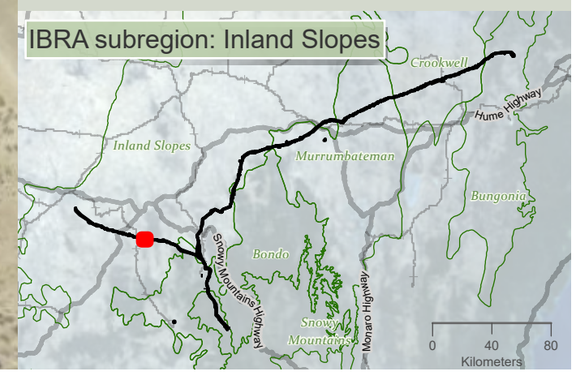
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

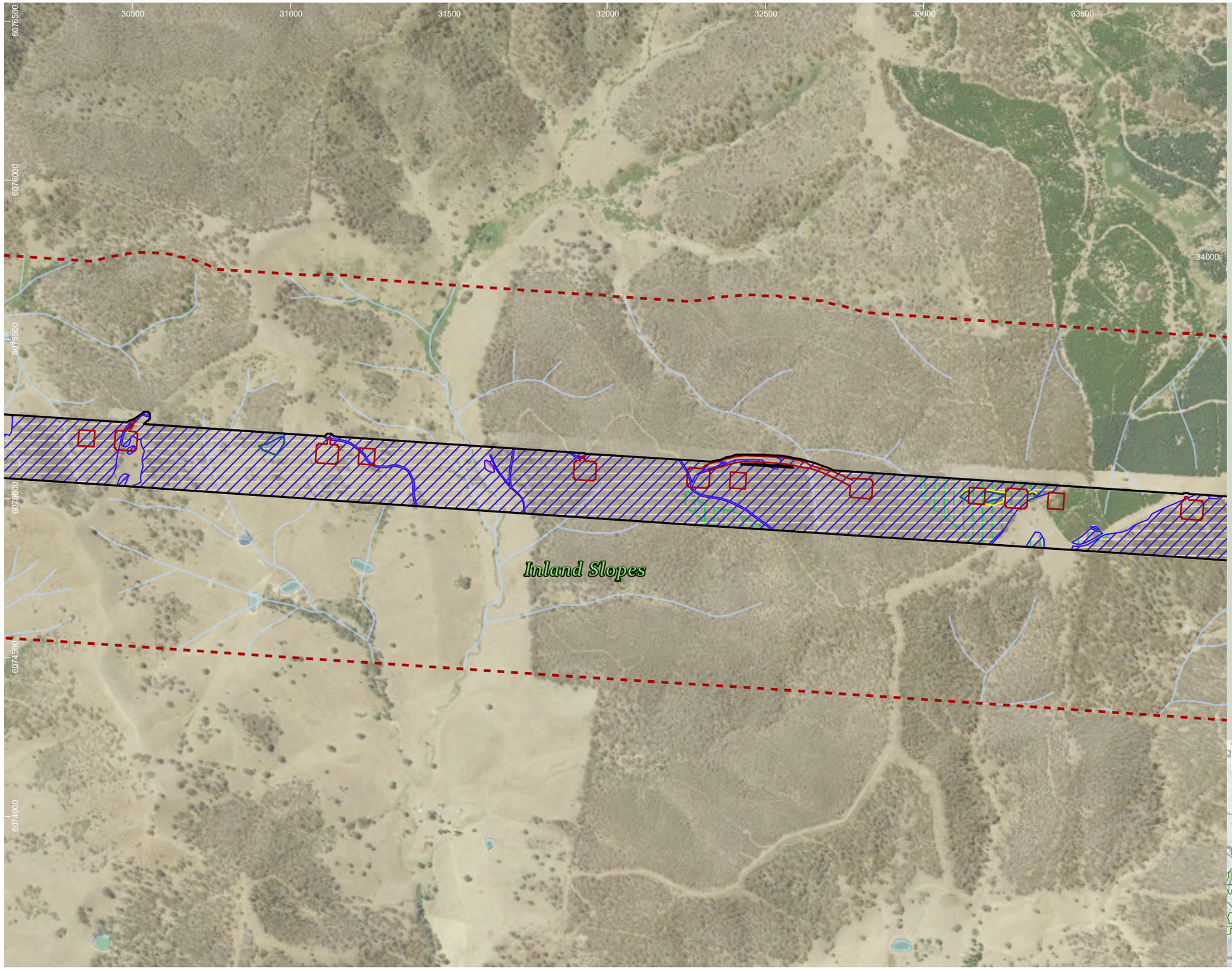
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 13

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

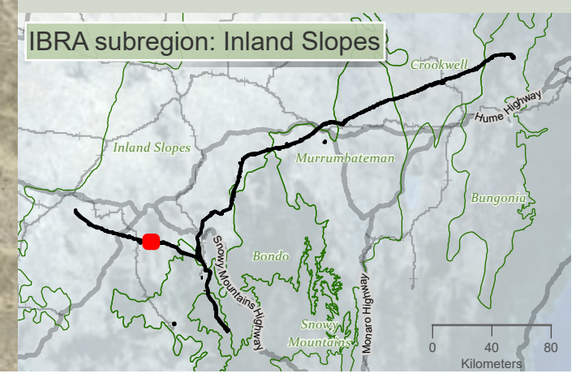
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 14

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

34000 34500 35000 35500 36000 36500 37000

6075000 6075500 6074500 6074000

37500

Inland Slopes

Turners Creek

Galvins Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

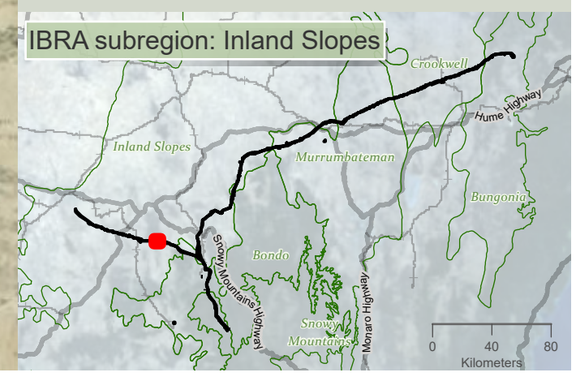
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

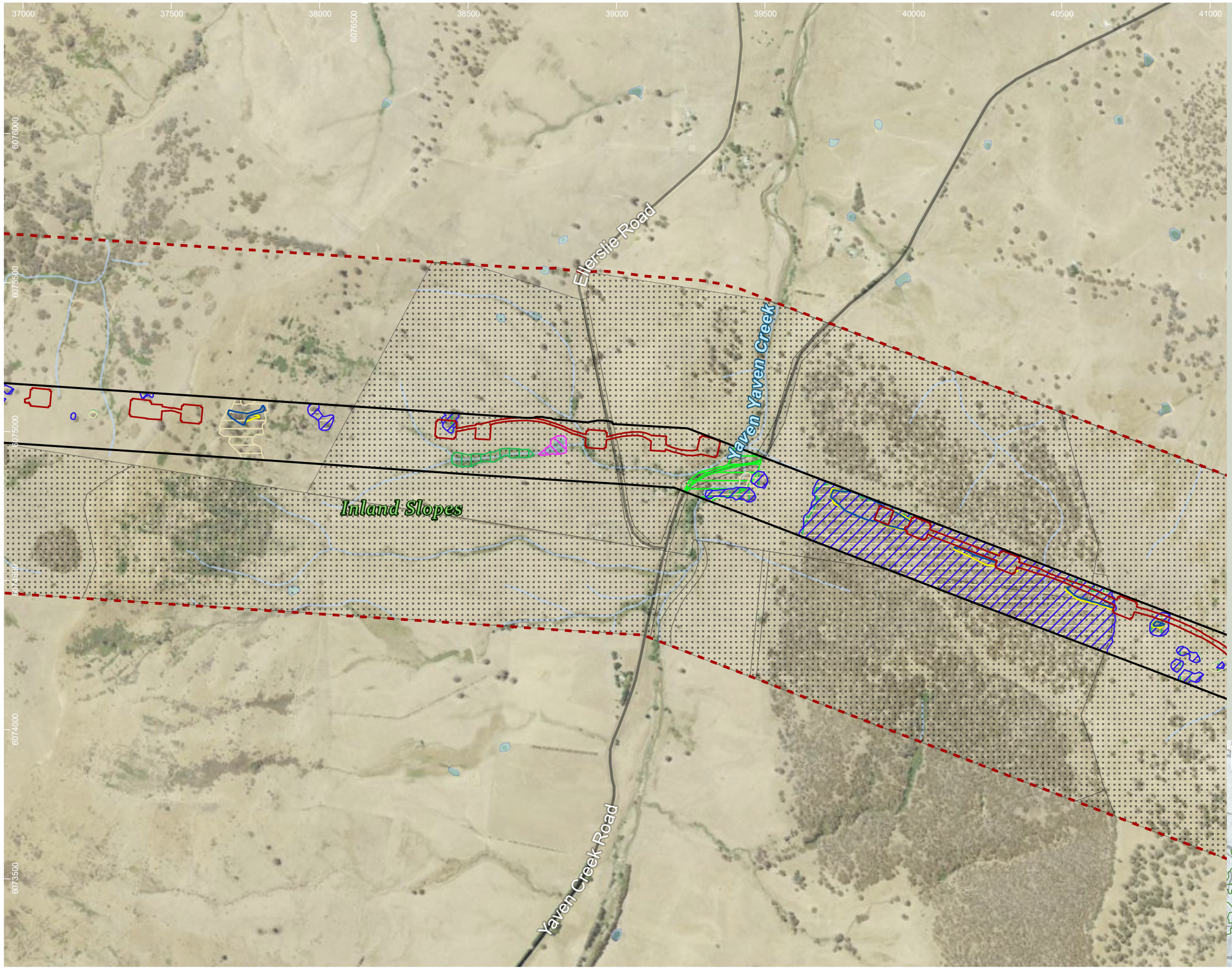
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 15

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

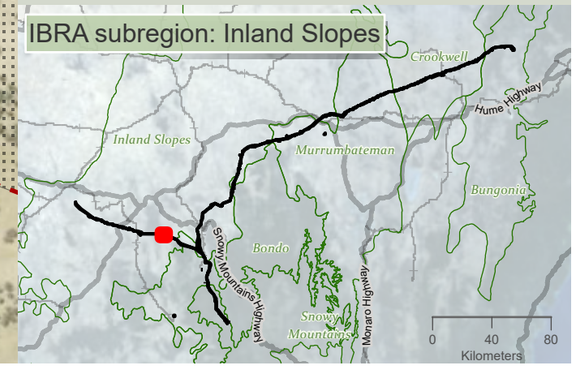
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

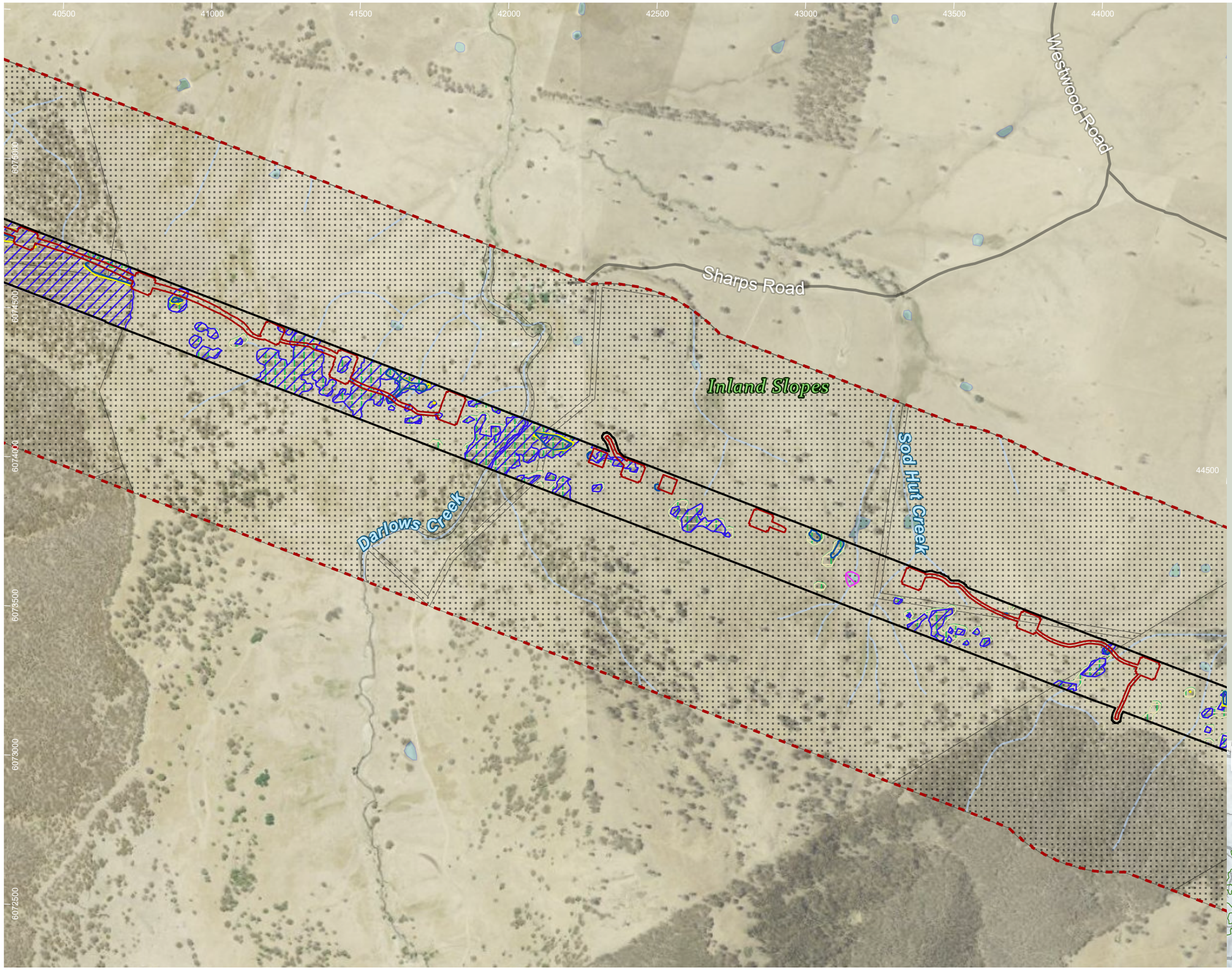
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 16

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

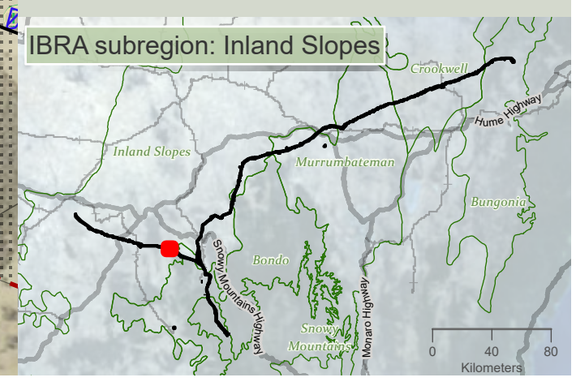
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 17

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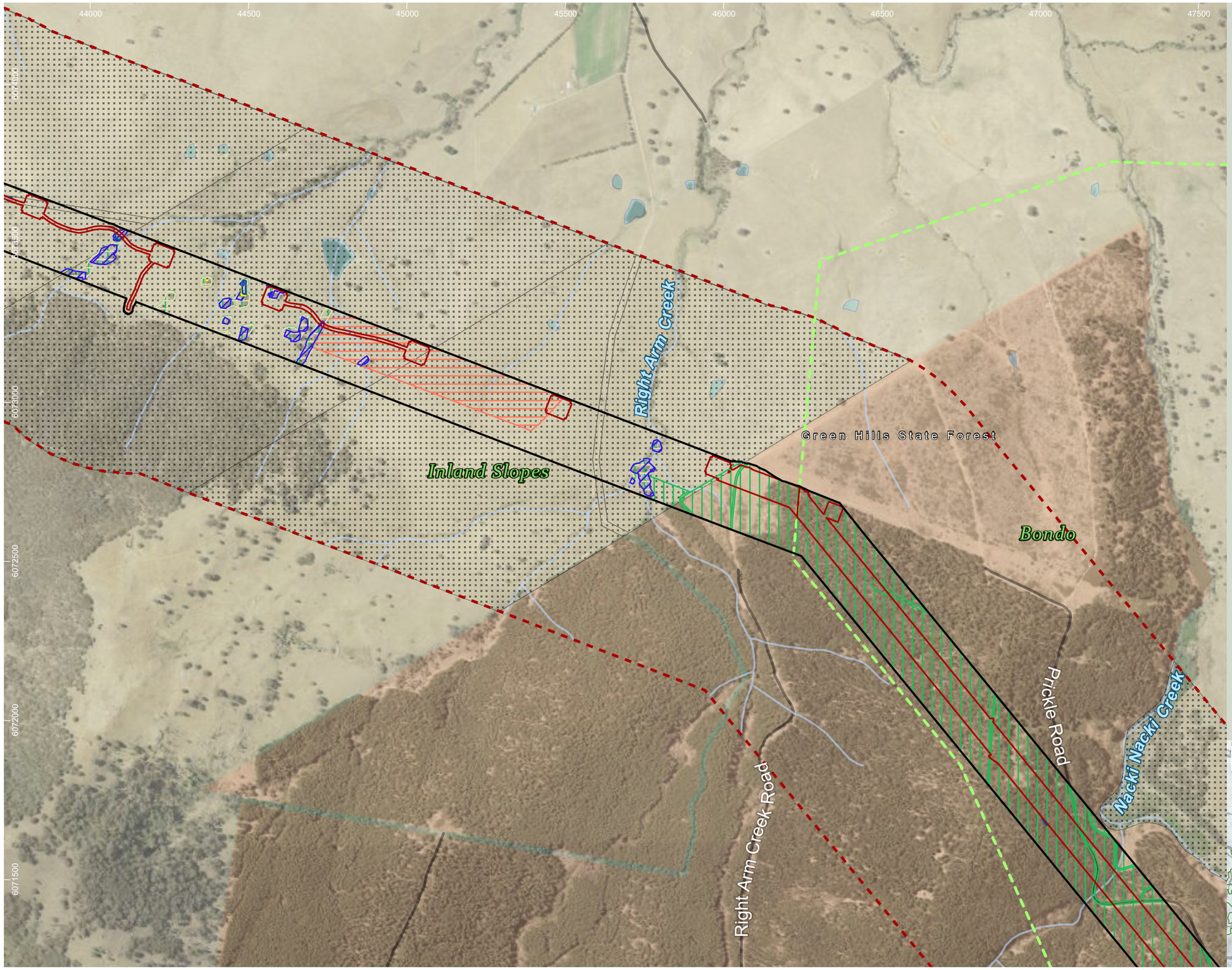


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

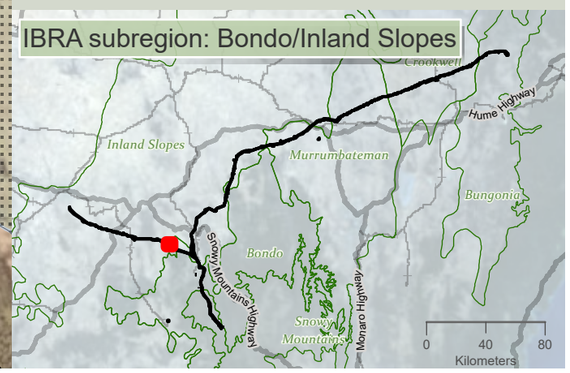
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajackowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 18

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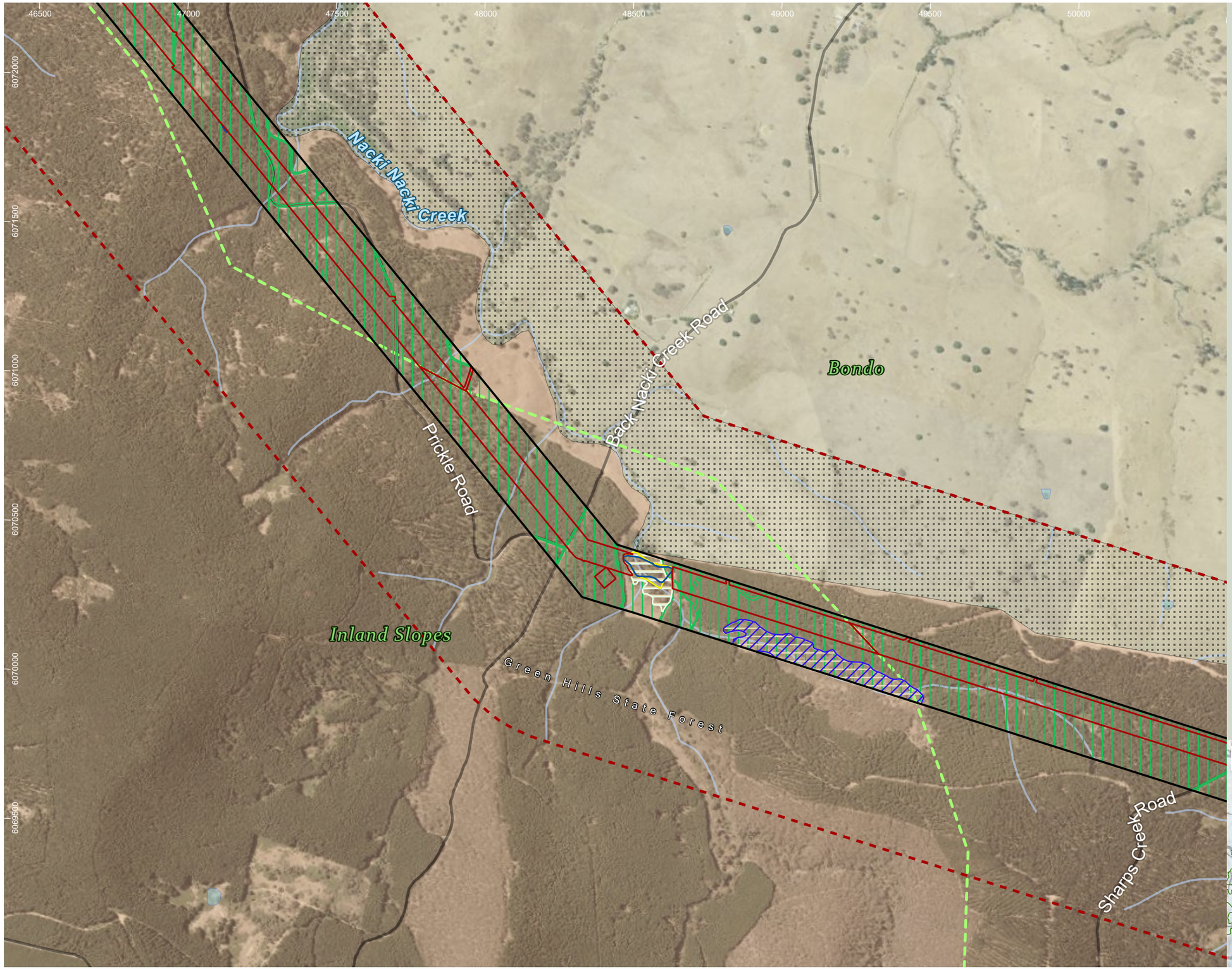


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

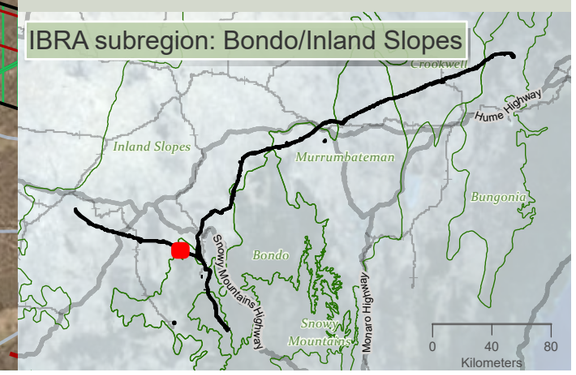
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 19

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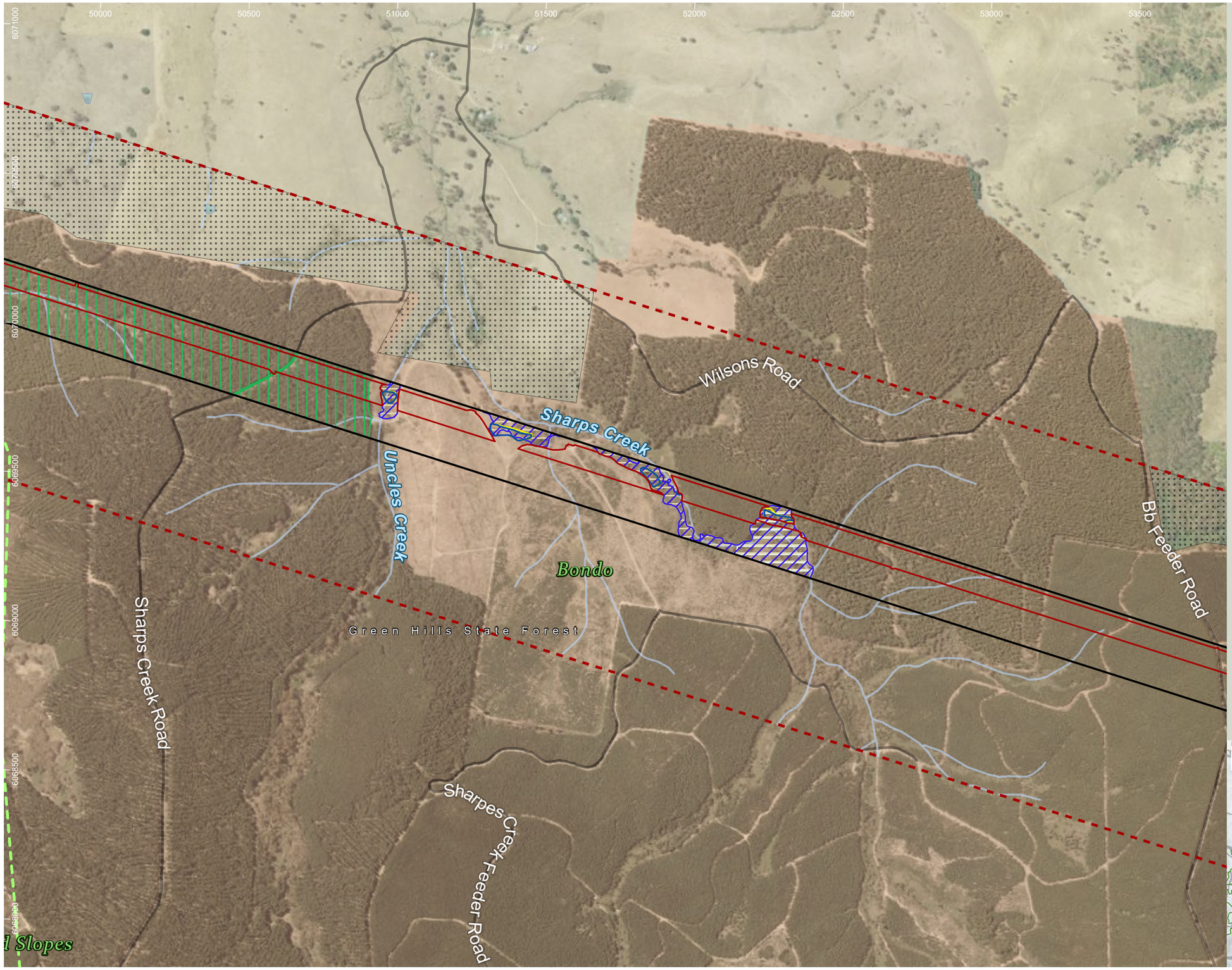


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

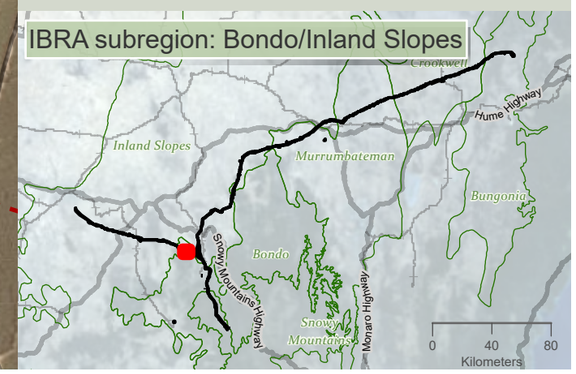
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 20

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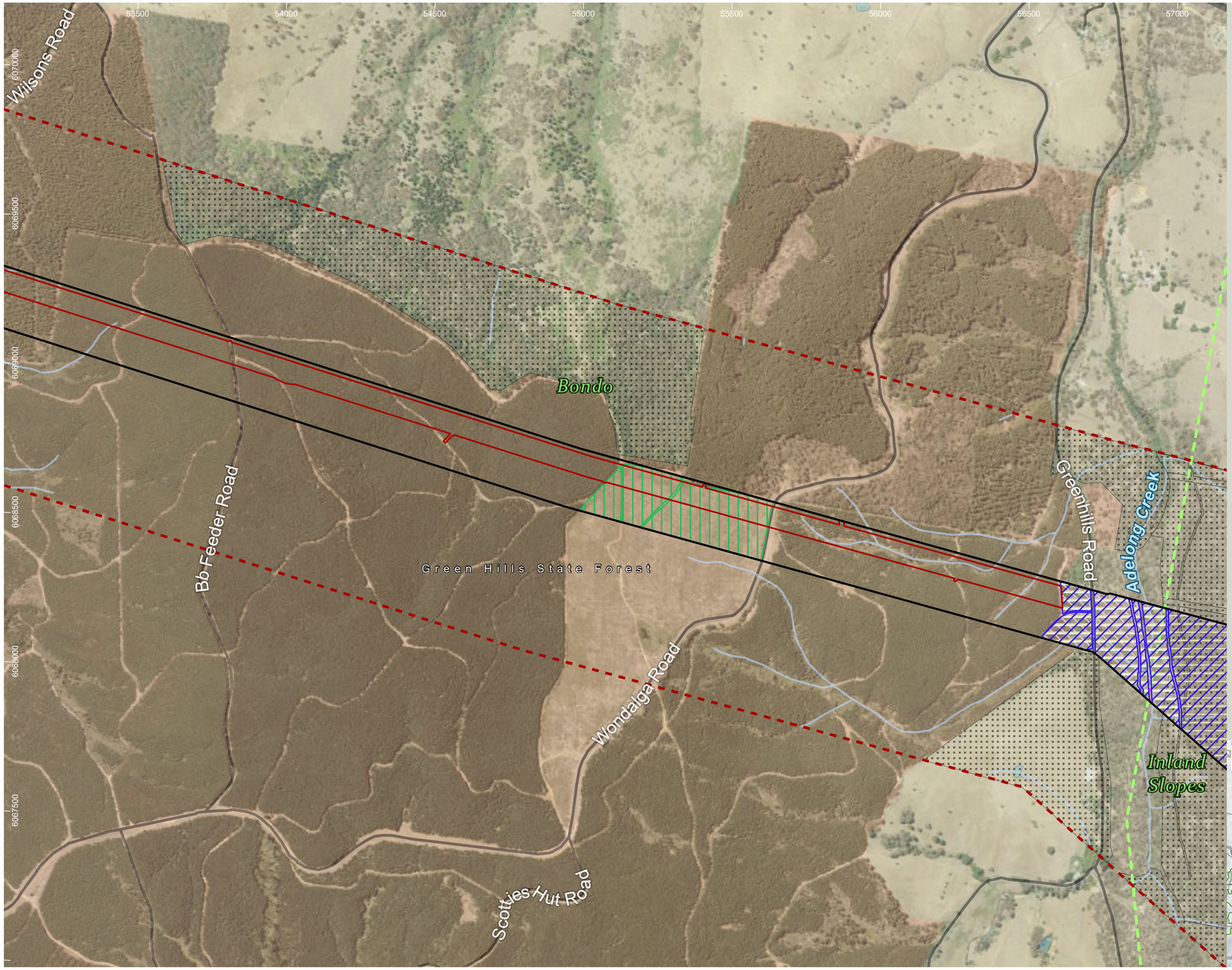


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

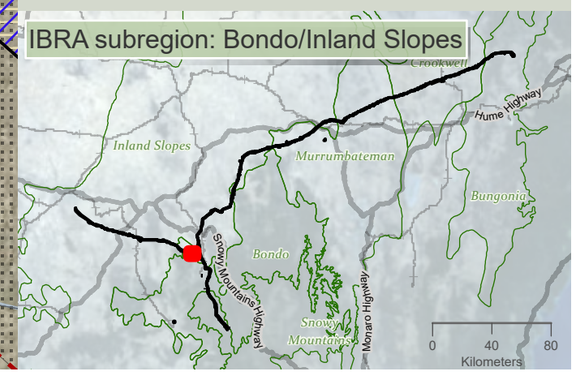
- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 21

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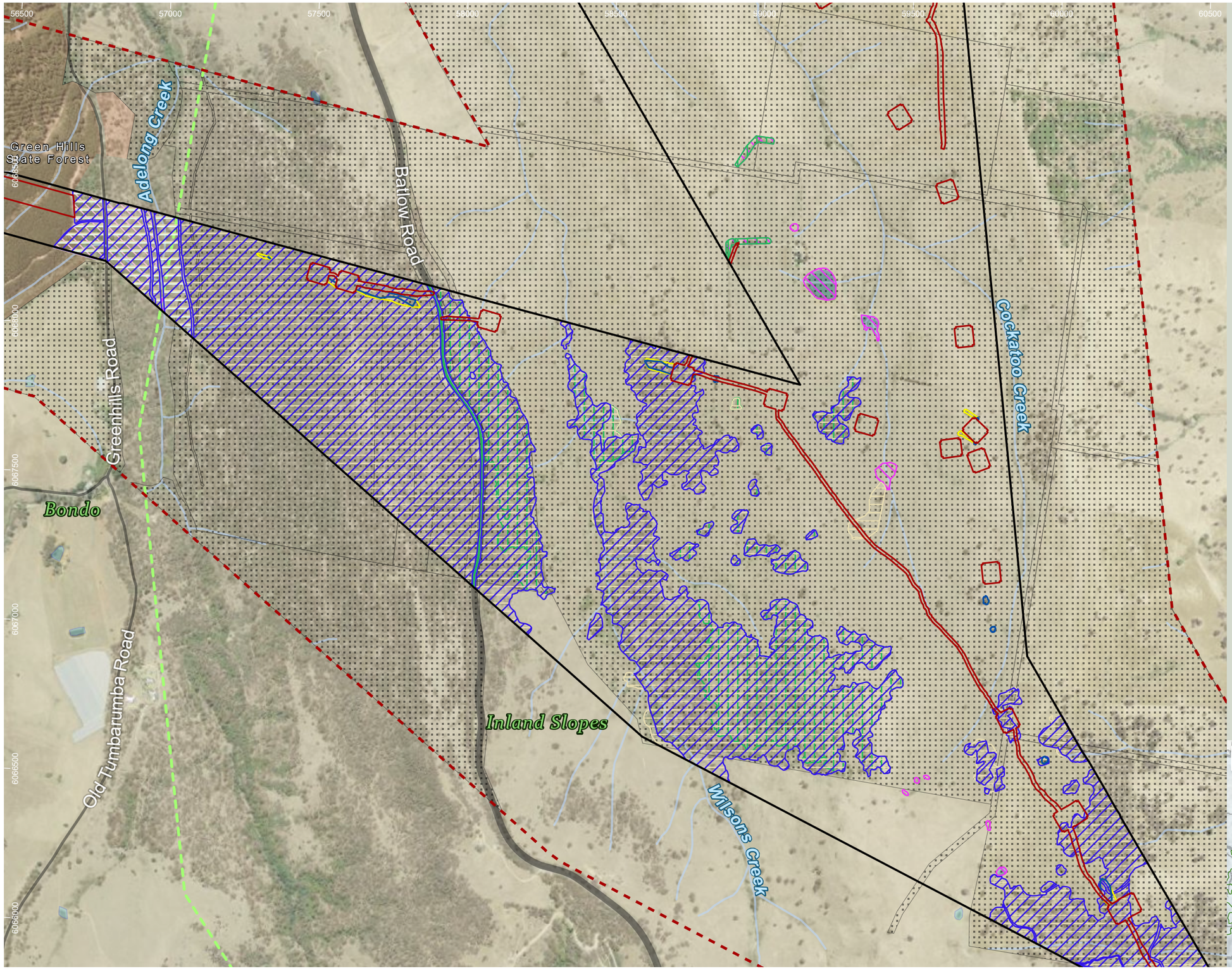


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

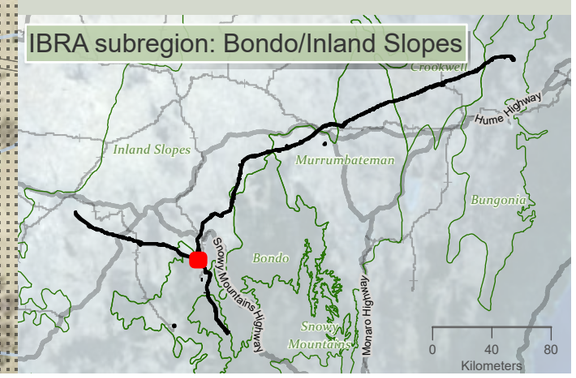
- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MathewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

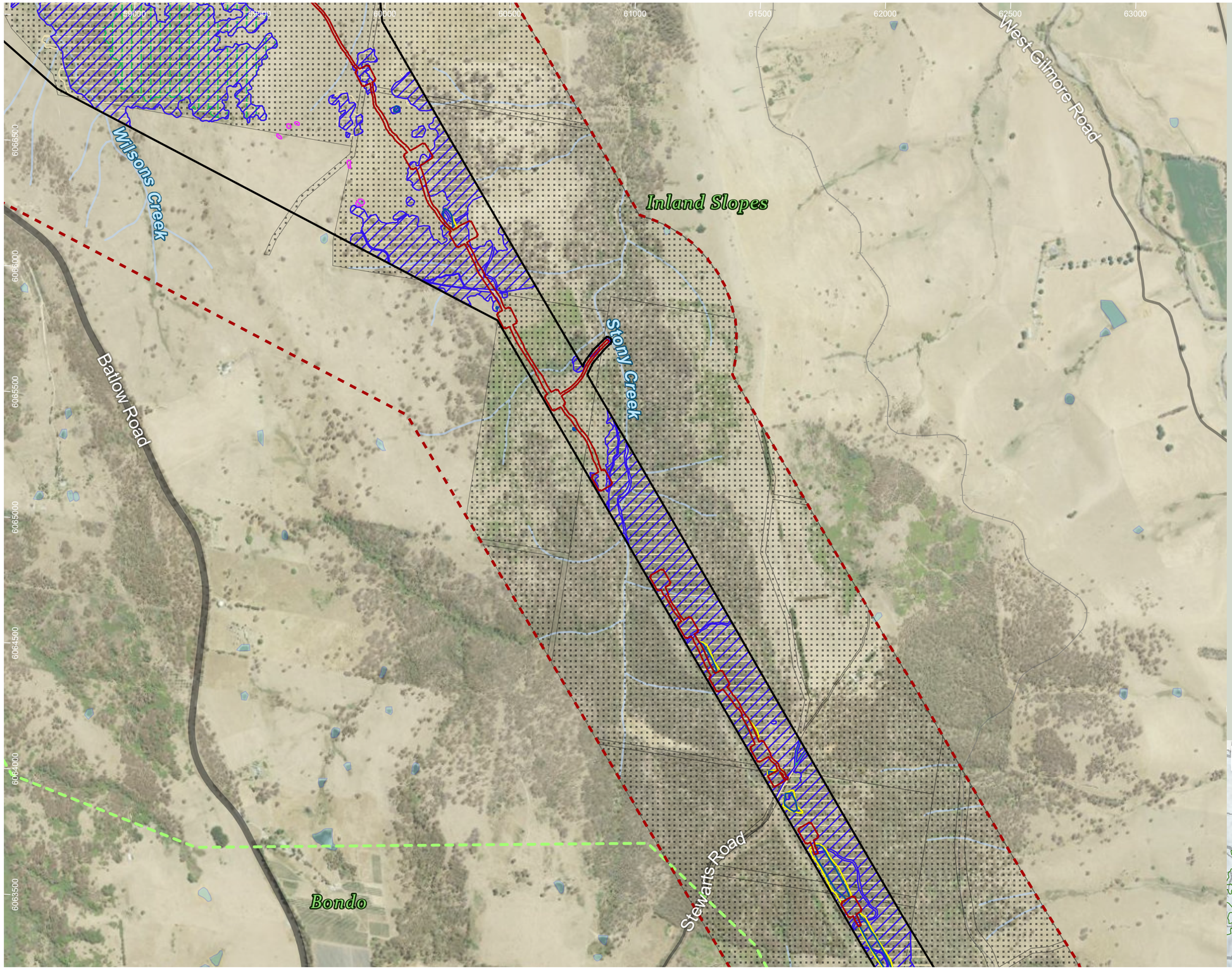
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 22

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

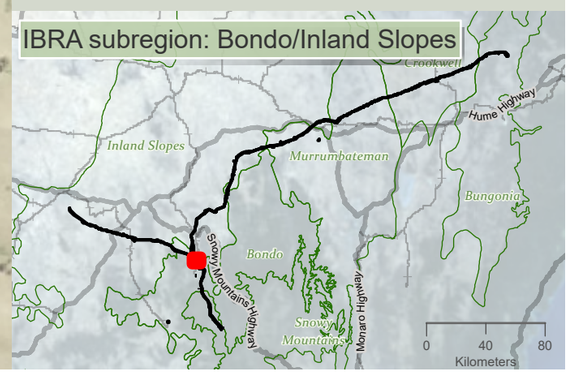
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

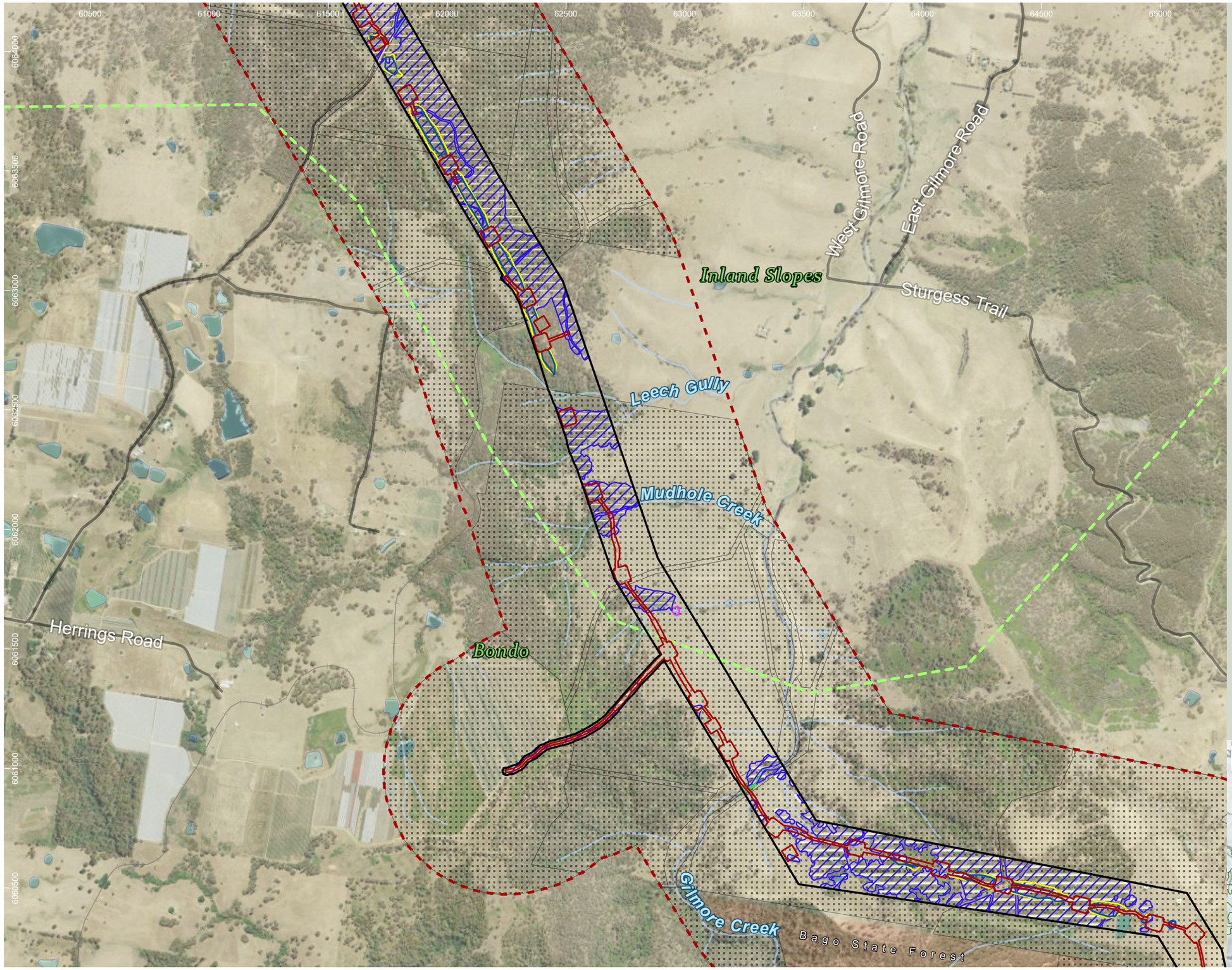
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 23

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

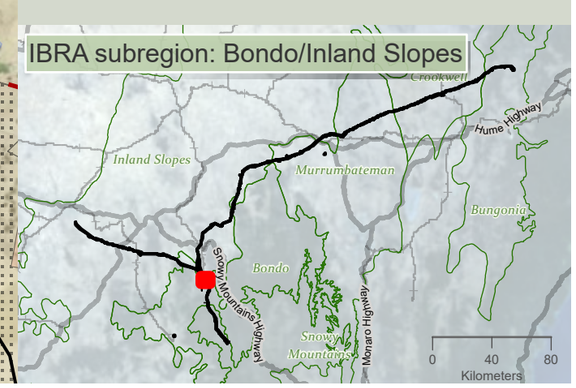
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Litoria booroolongensis
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

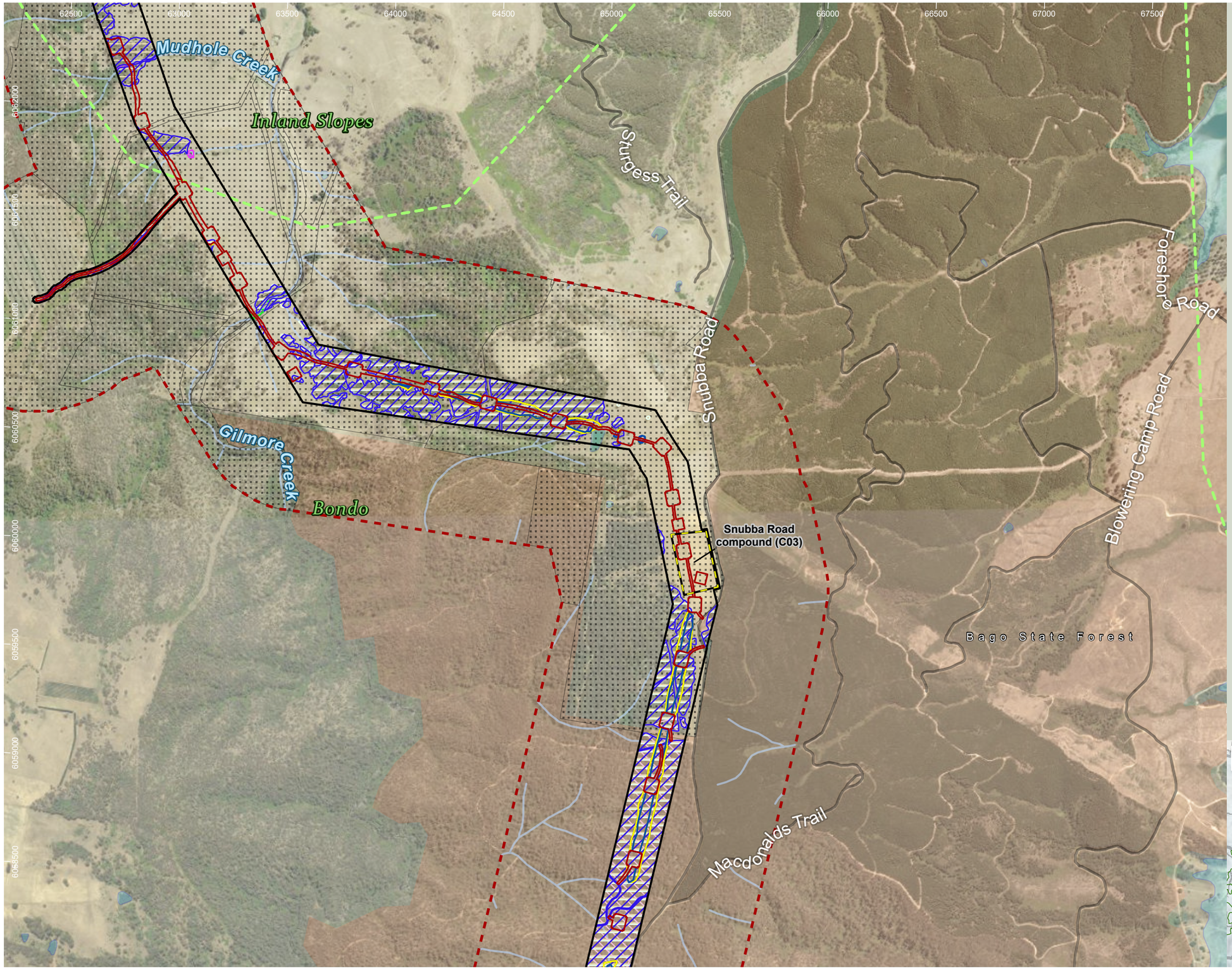
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 24

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

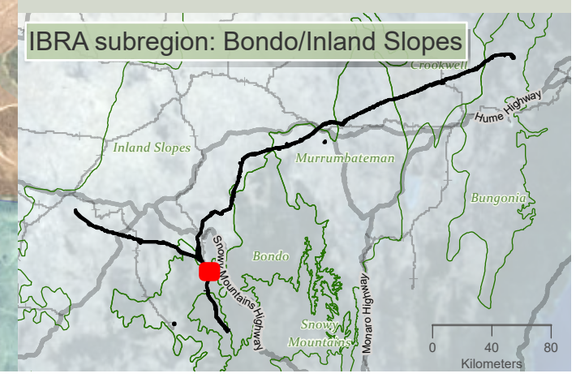
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Litoria booroolongensis
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 25

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HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Hydrography

- Waterway
- Waterbody

Transport

Road

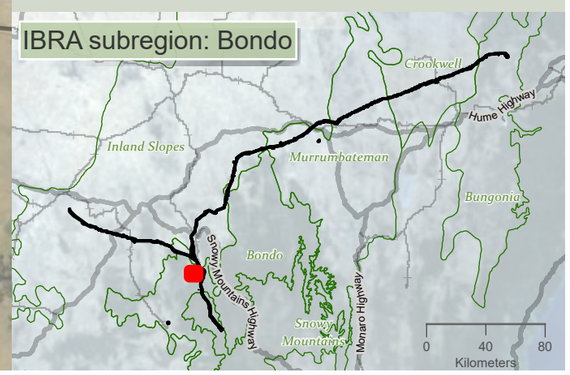
- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 26

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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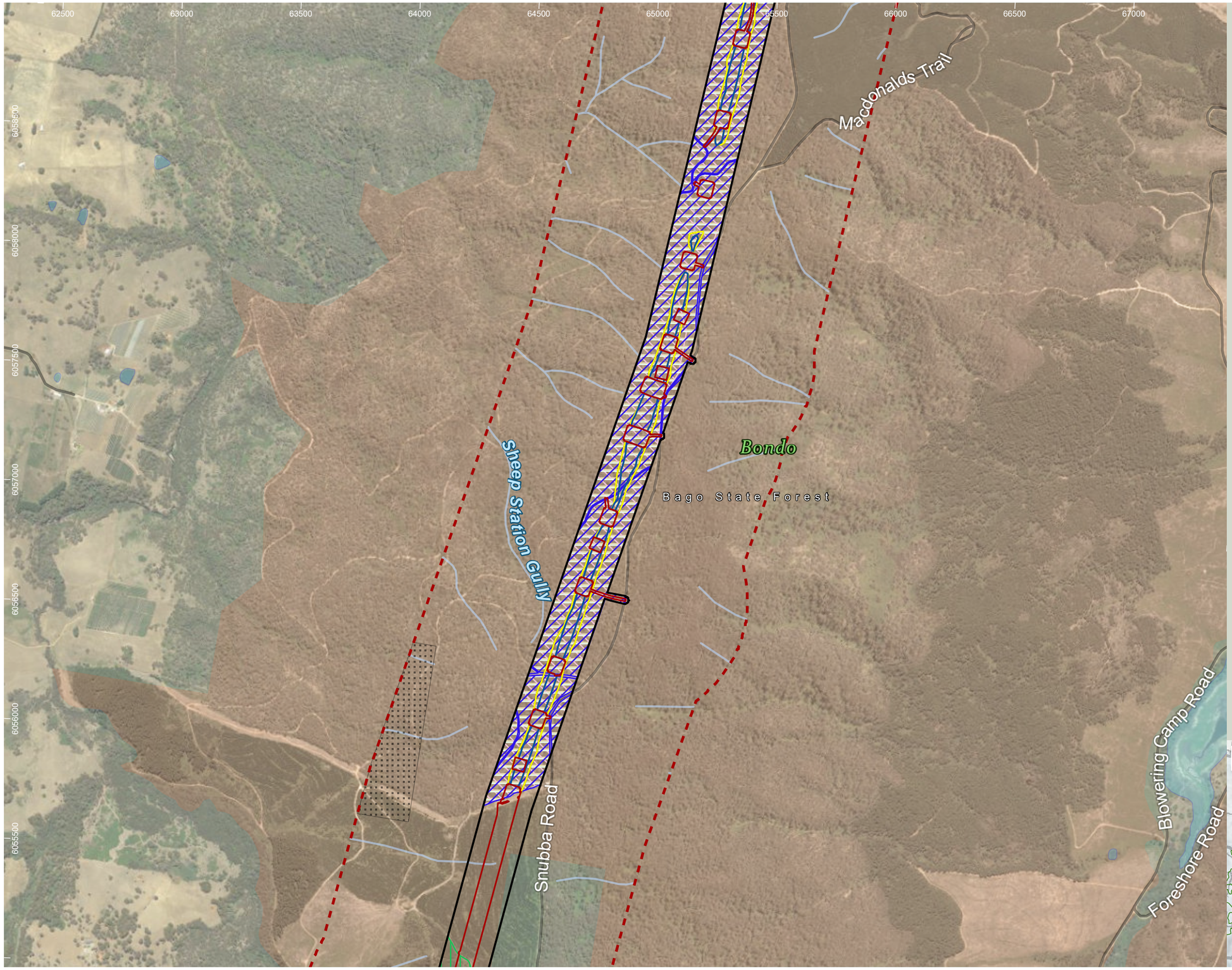


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

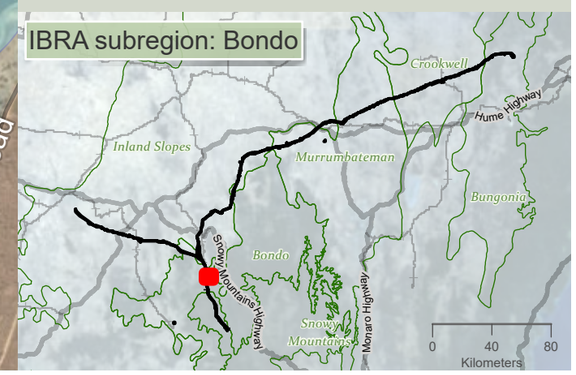
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

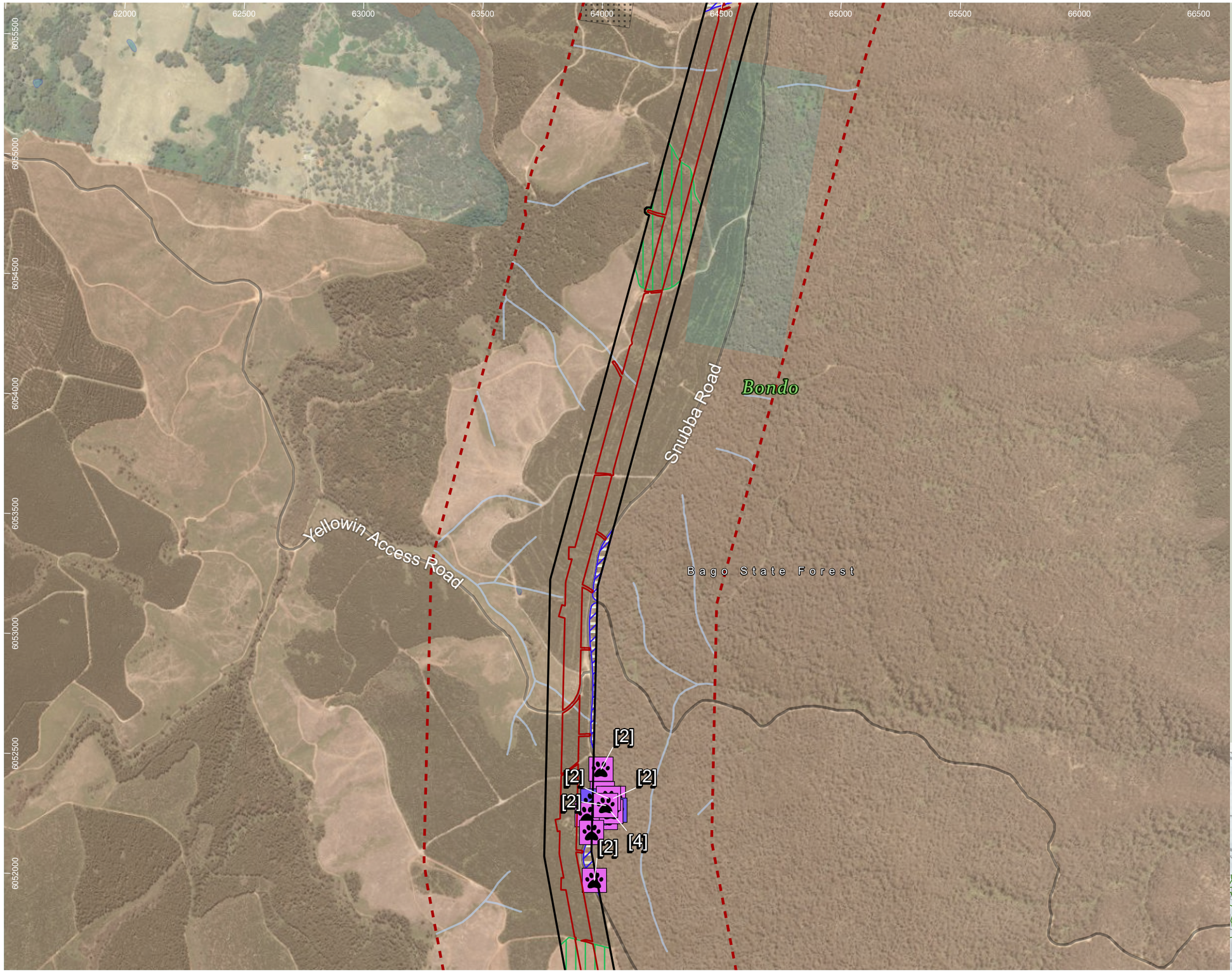
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 28

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

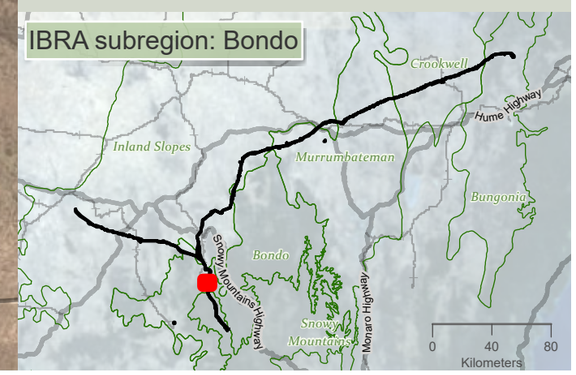
EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

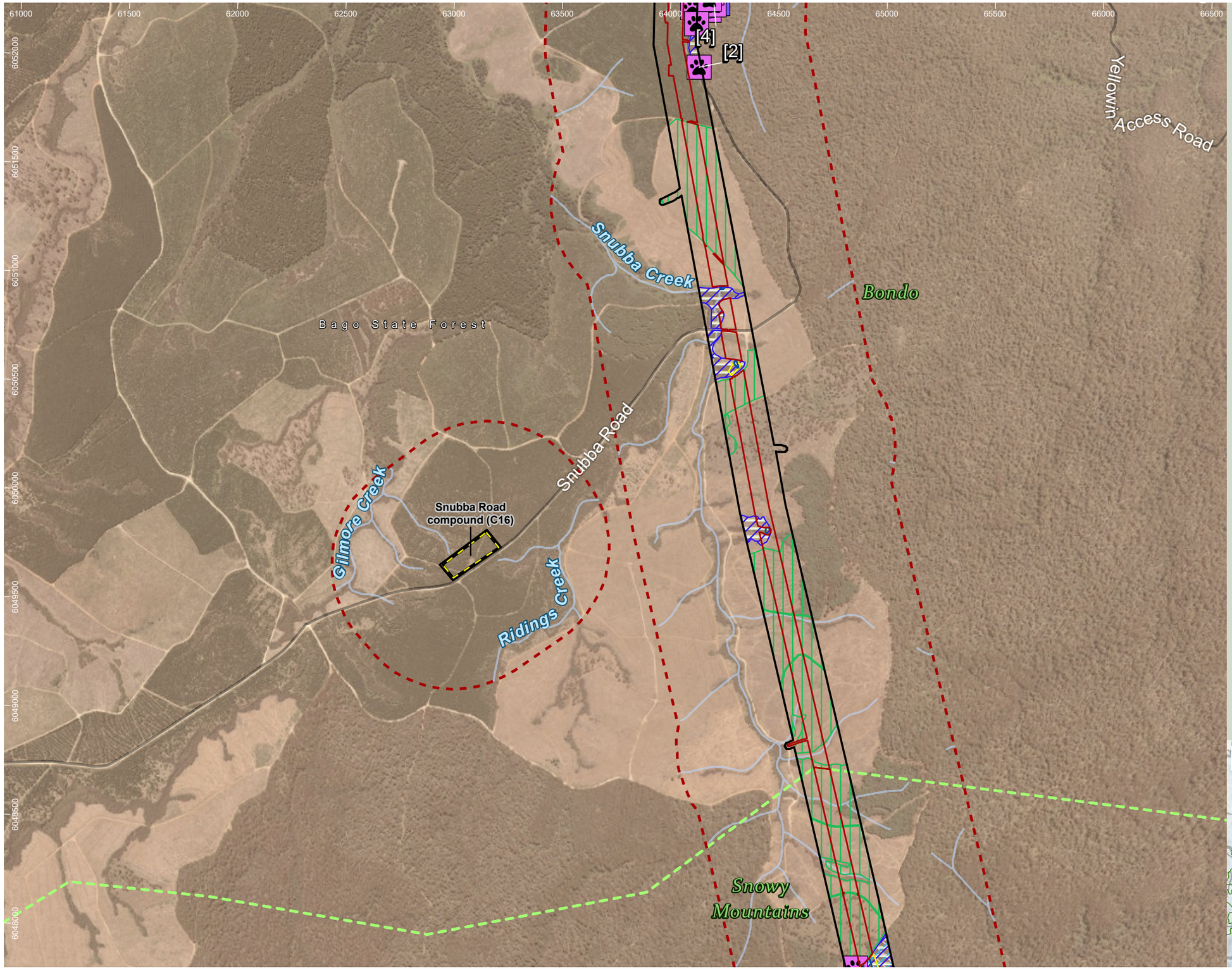
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 29

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023; File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

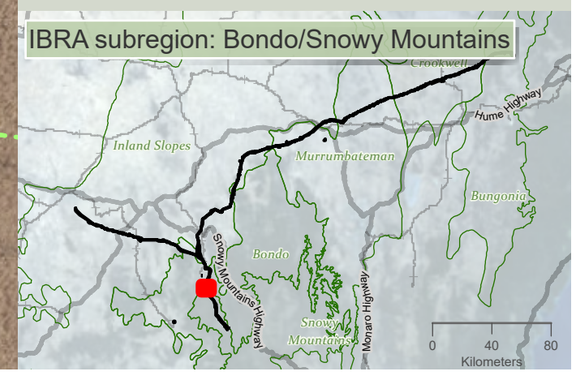
EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 N 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

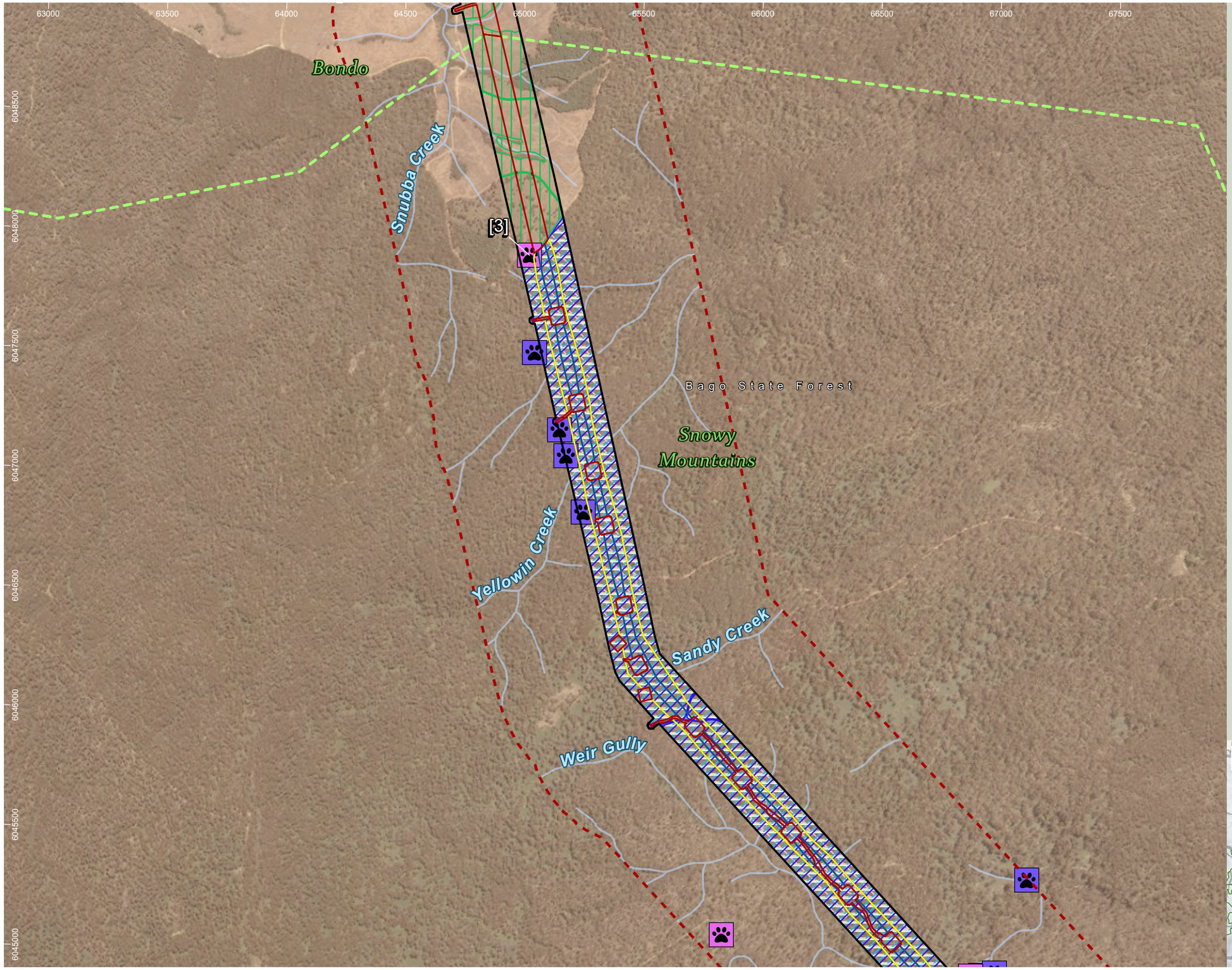
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 30

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Administrative and Property Boundaries

- State Forest

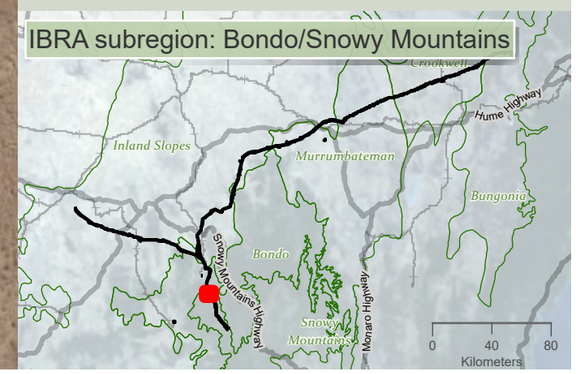
EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

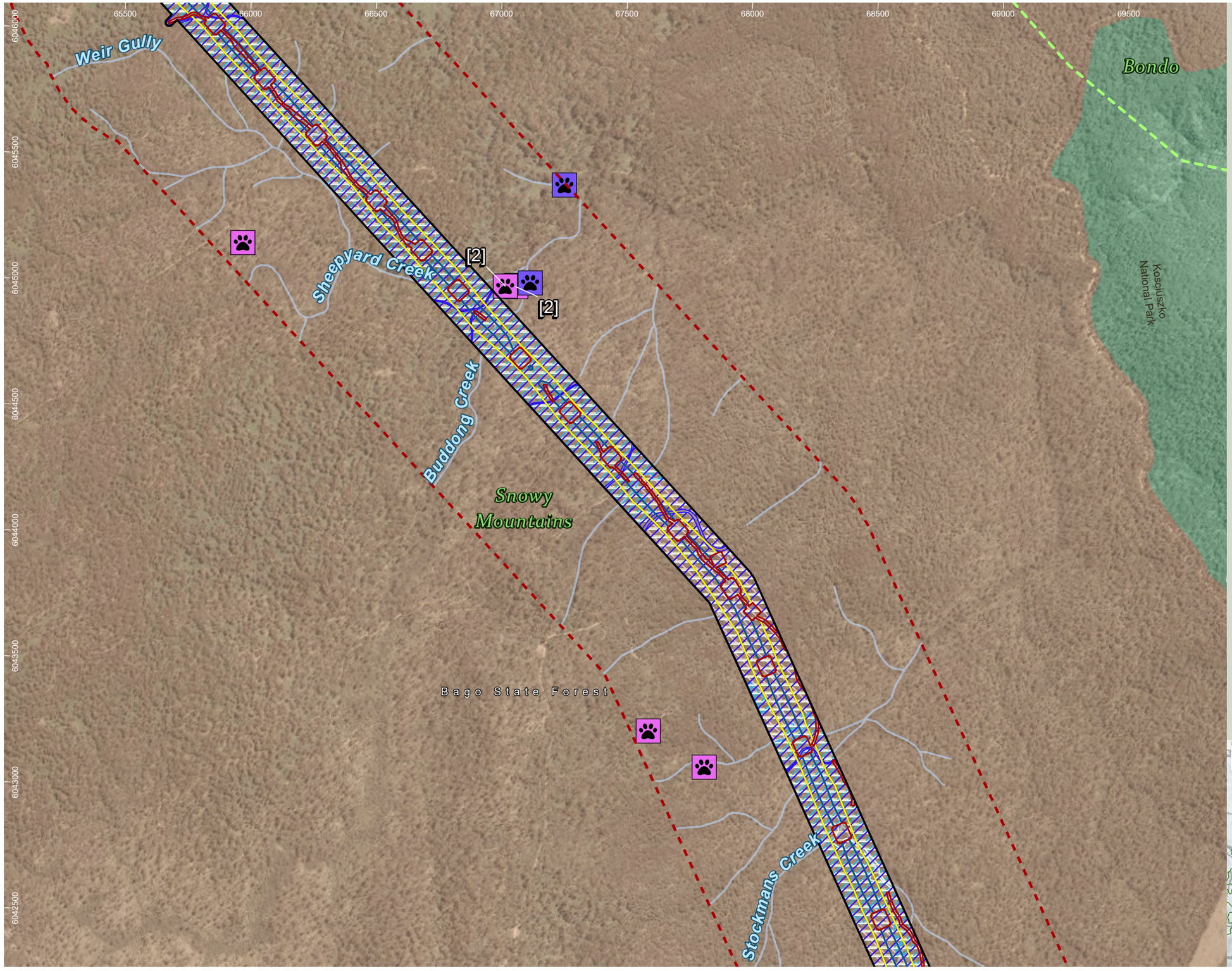
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 31

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

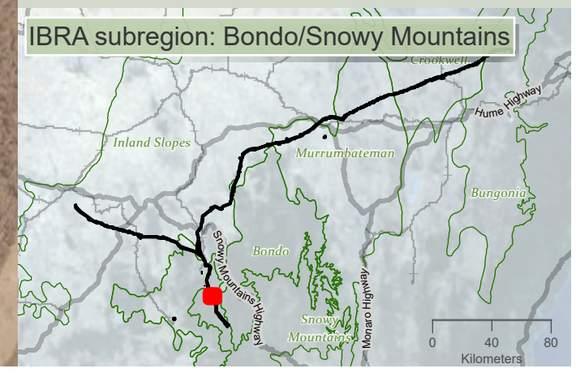
EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

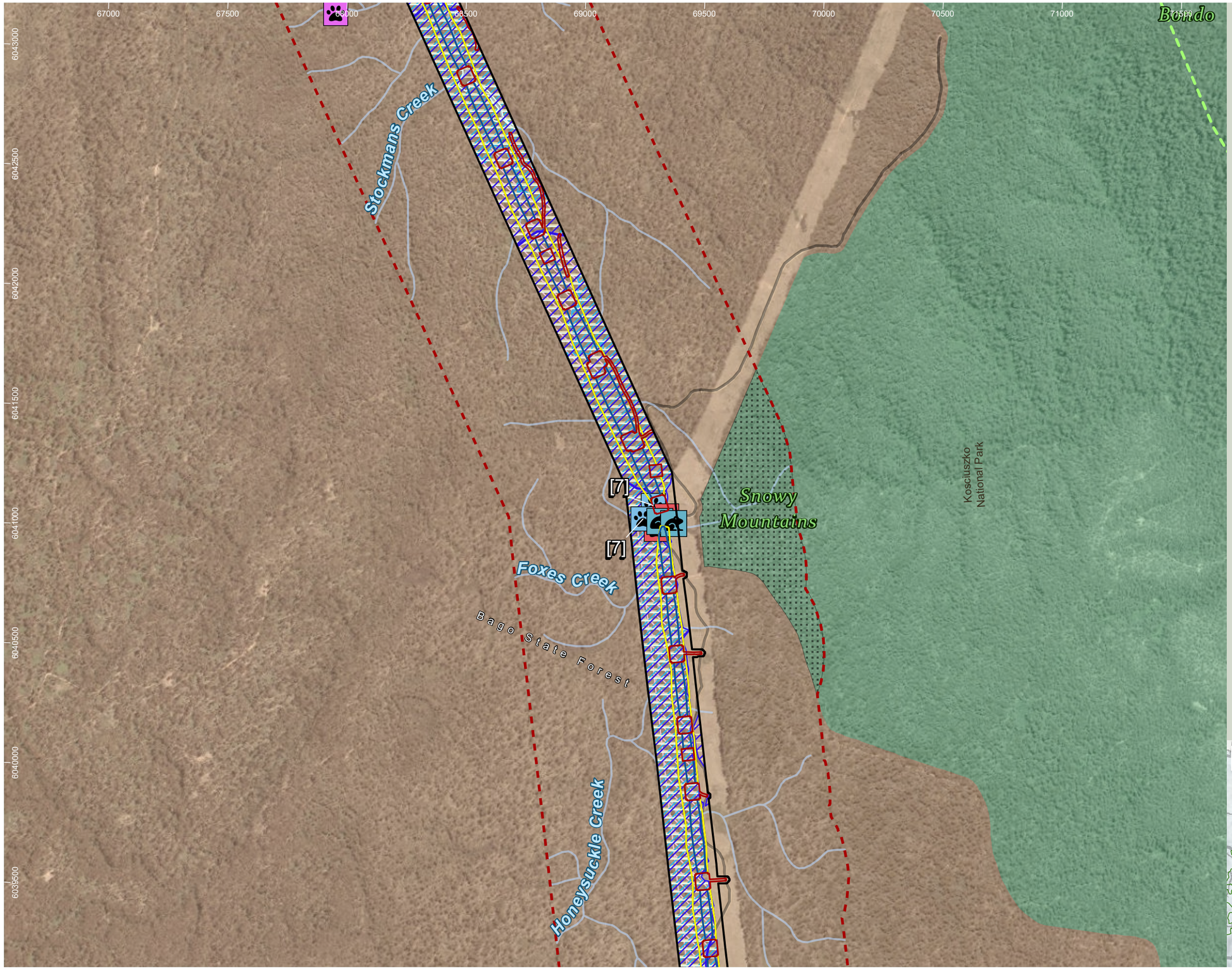
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 32

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus

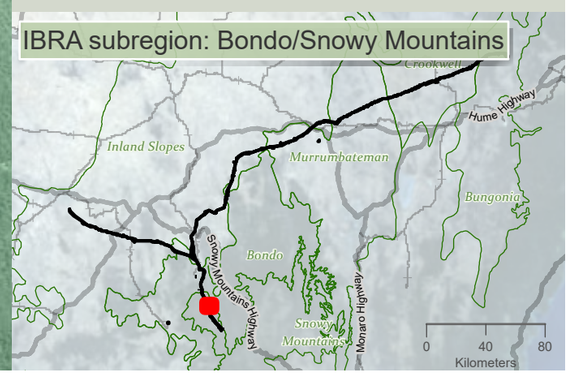
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Greater Glider (Petauroides volans)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 33

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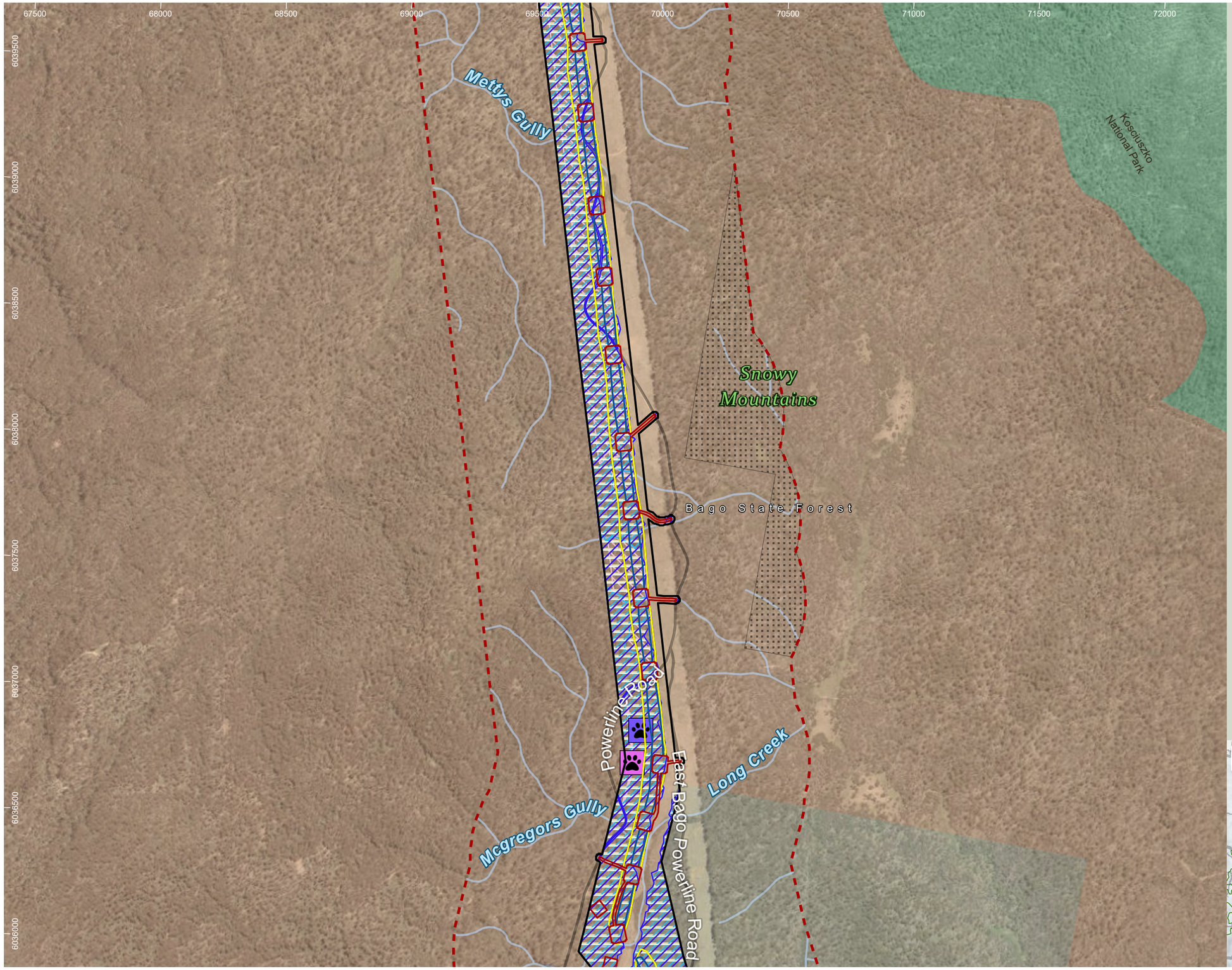
Drawn by: MathewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

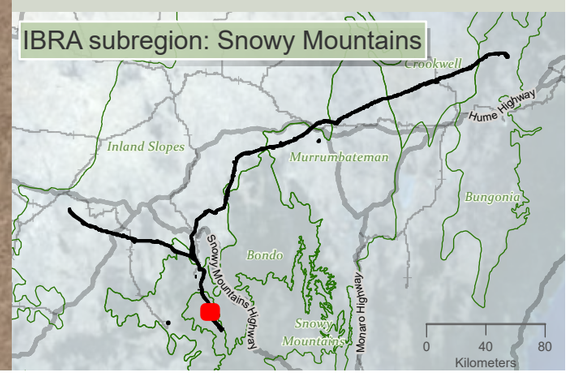
EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 34

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

45000 45500 46000 46500 47000 47500 48000 48500

6032500 6032000 6031500 6031000 6030500 6030000 6029500

Courabyra Nature Reserve

Bondo

Courabyra Road

Tumbarumba Accommodation Facility (AC1)

Hilltop Road

Black Range Road

Bogong Street

Mannus State Forest

Alfred Street

Lyne Street

Boundary Street

Mate Street

The Parade

Albury Street

Masons Hill Road

Tumbarumba Road

49000

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

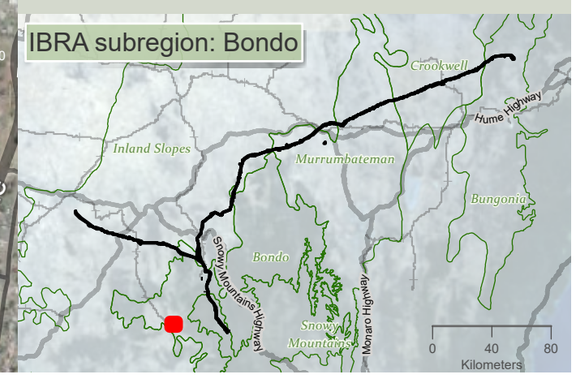
NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

- Dasyurus maculatus

IBRA subregion: Bondo



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 35

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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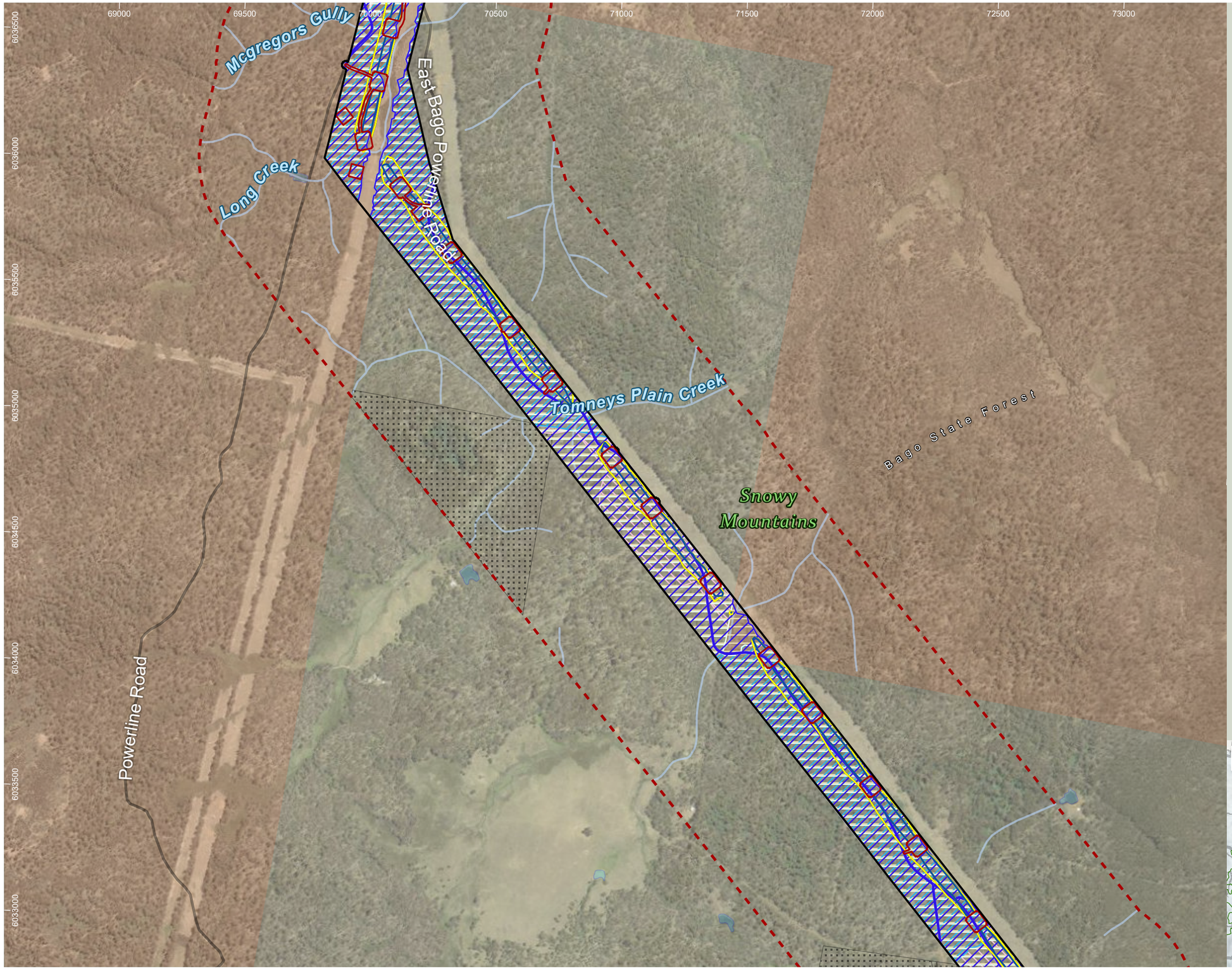


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

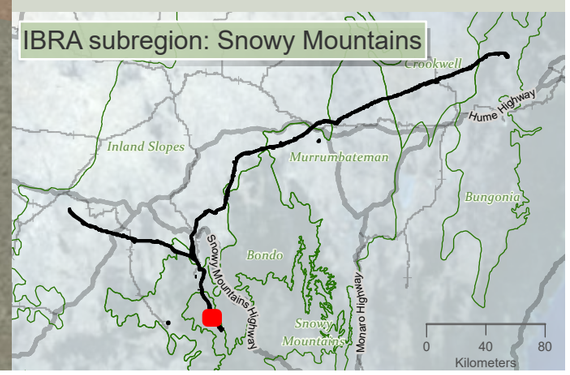
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\ai\6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

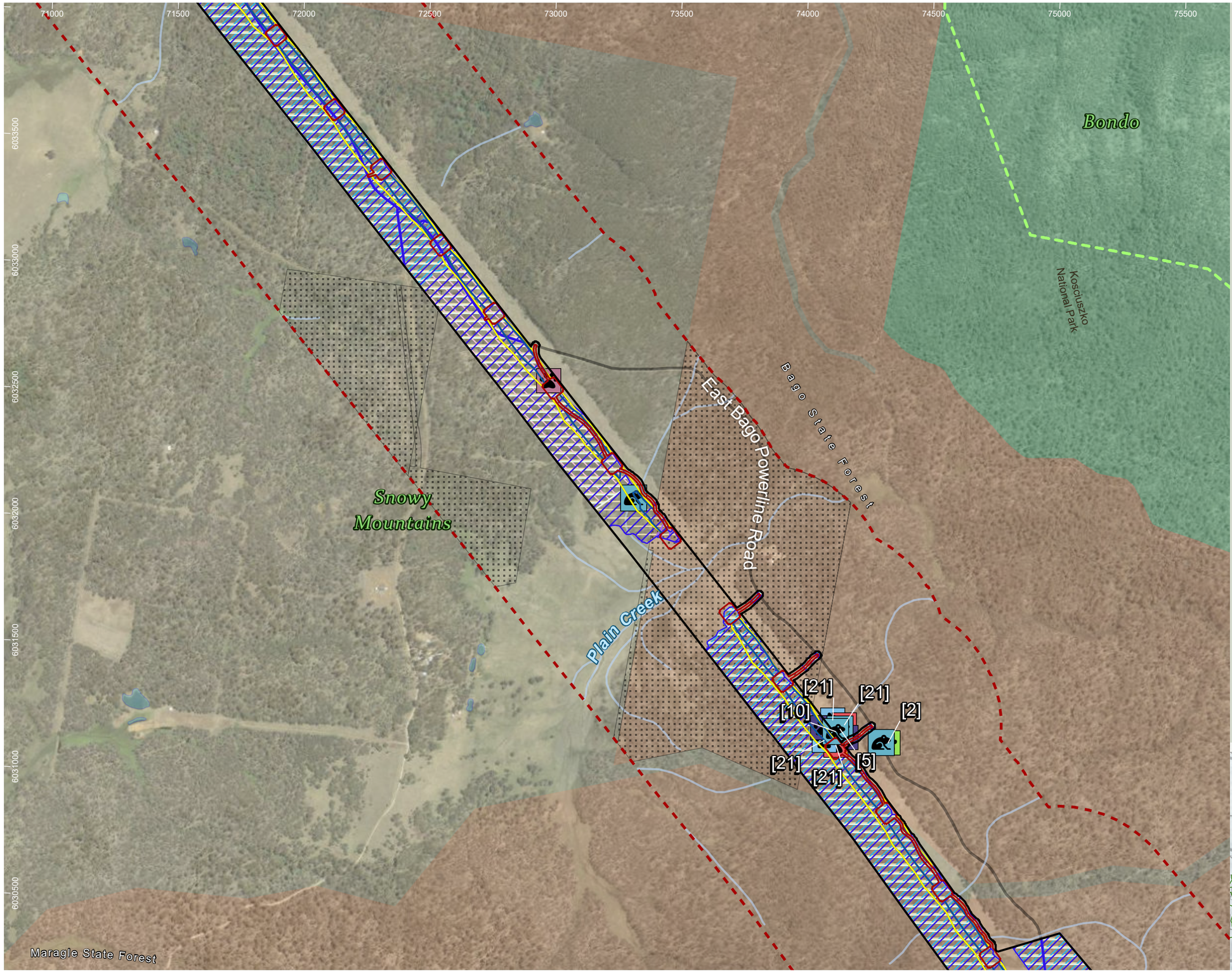
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 36

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Dasyurus maculatus
- Mastacomys fuscus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus

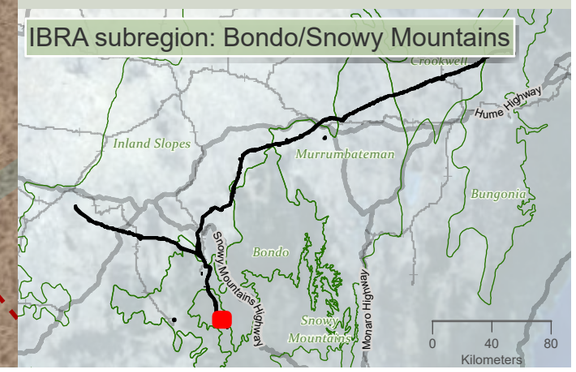
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Eastern Pygmy-possum (Cercartetus nanus)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 37

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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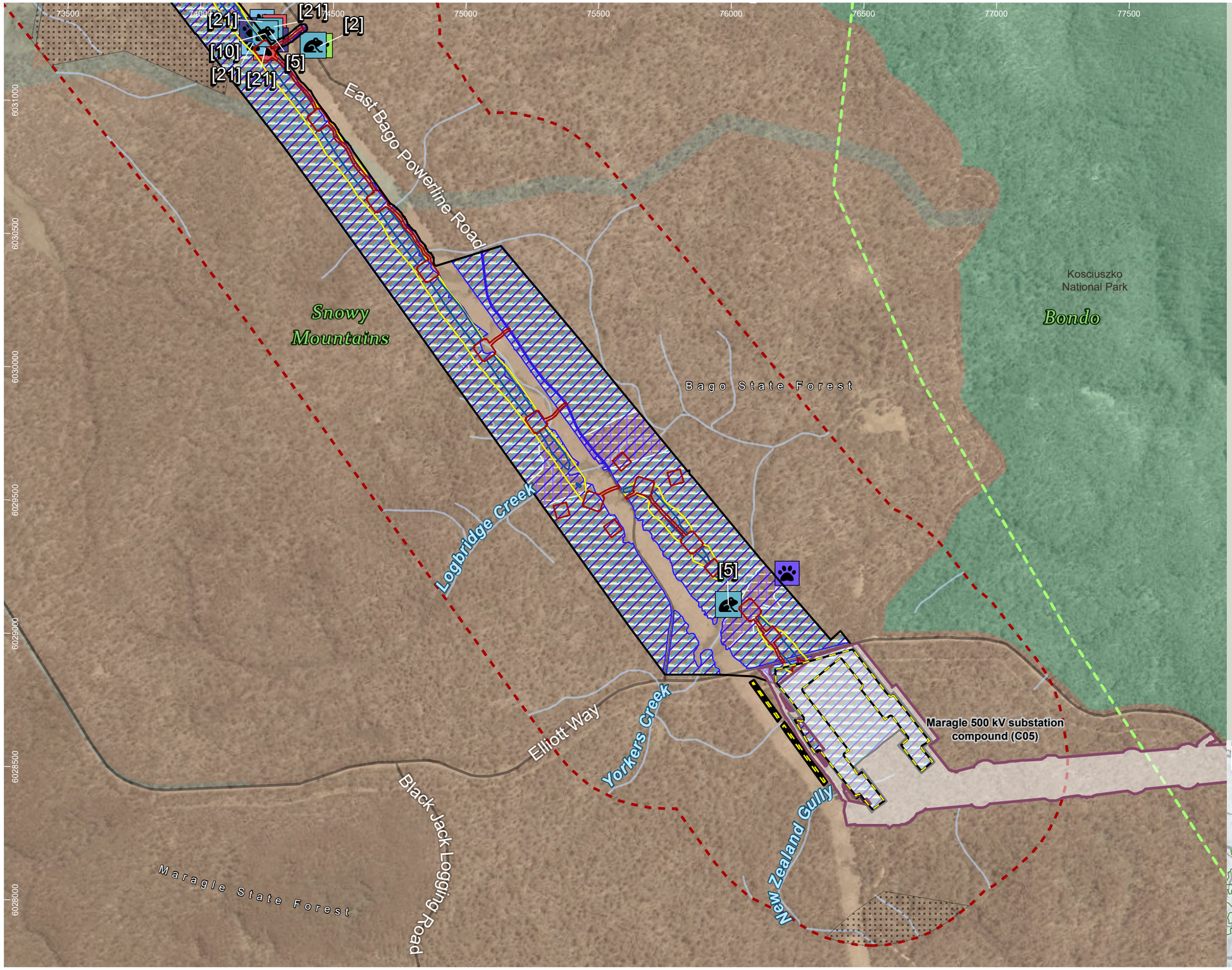


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Dasyurus maculatus
- Mastacomys fuscus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pseudomys fumeus

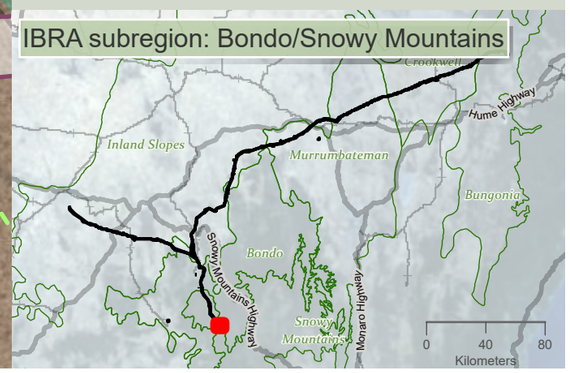
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii)

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Eastern Pygmy-possum (Cercartetus nanus)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 38

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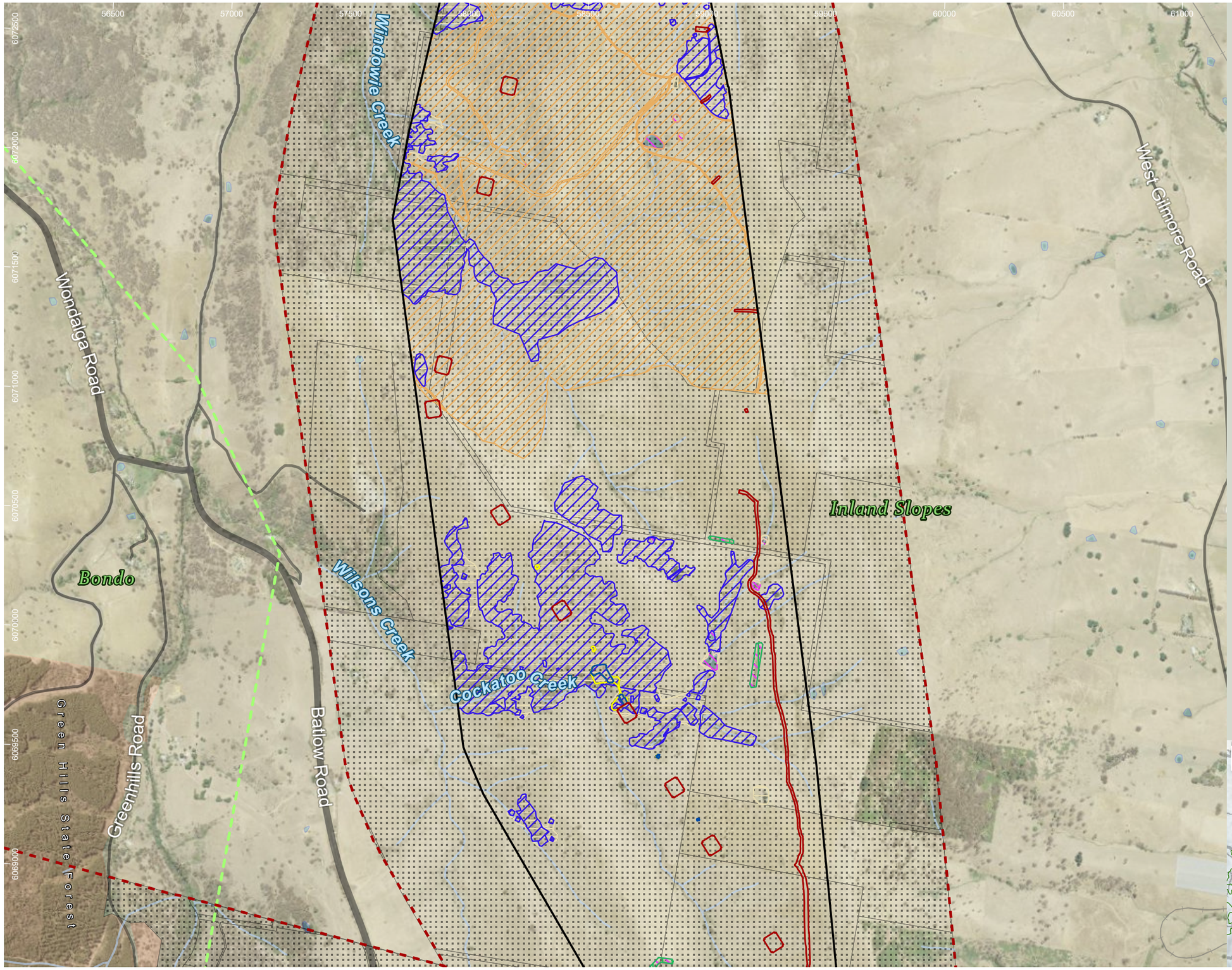


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

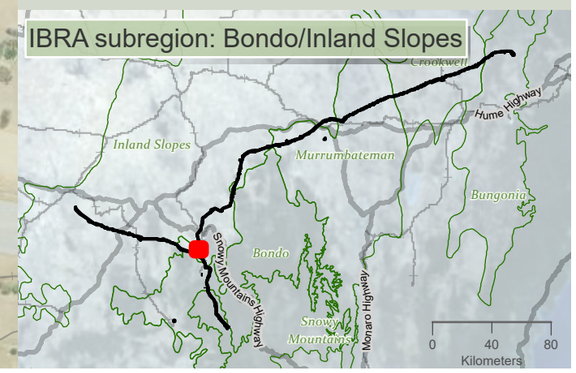
- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 39

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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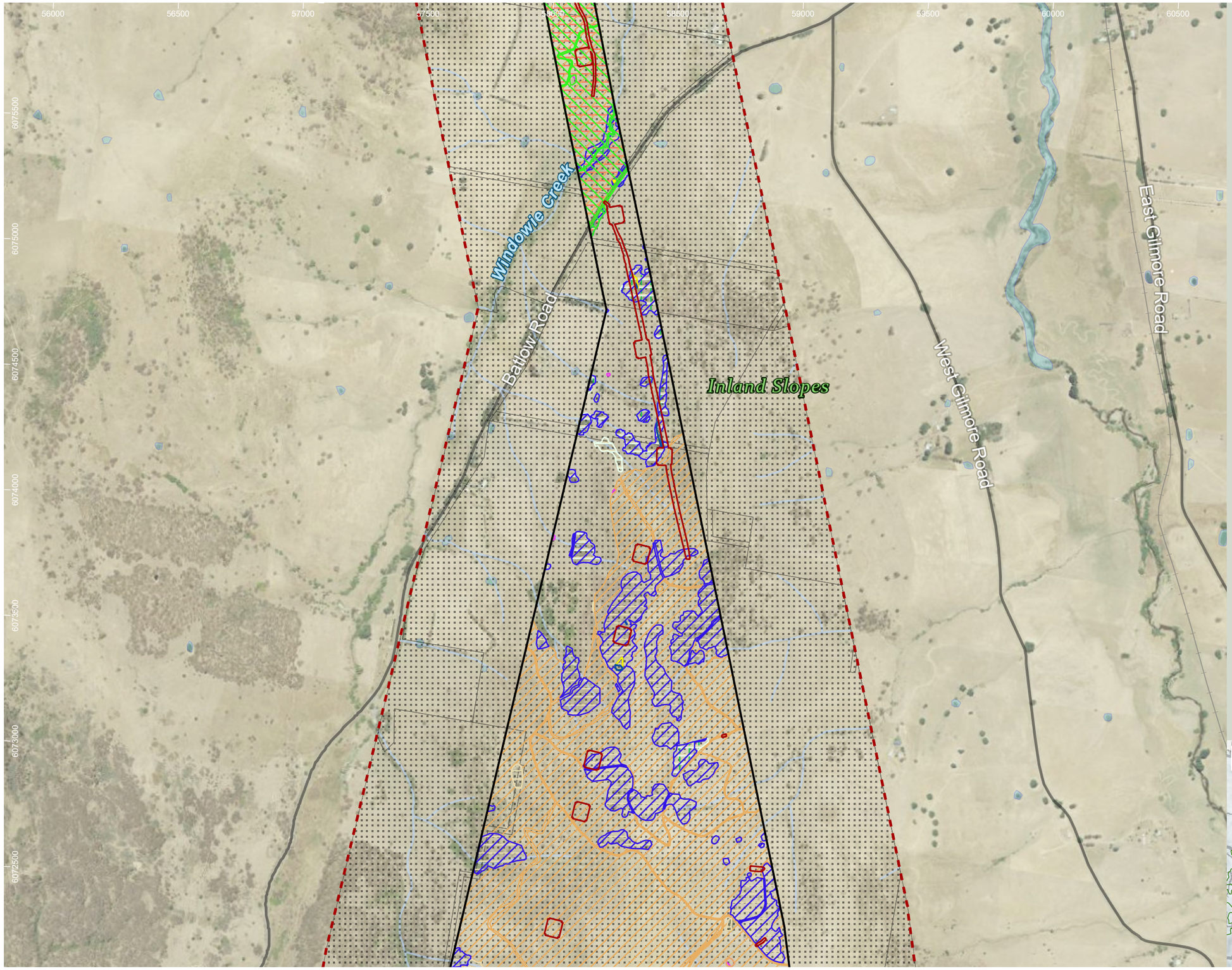


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

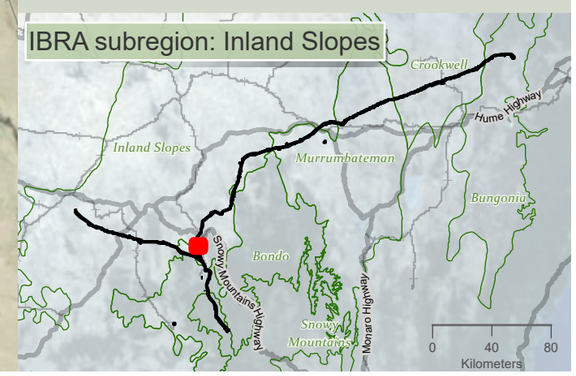
Transport

Road

- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



Drawn by: MatthewZajaczkowski: Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 40

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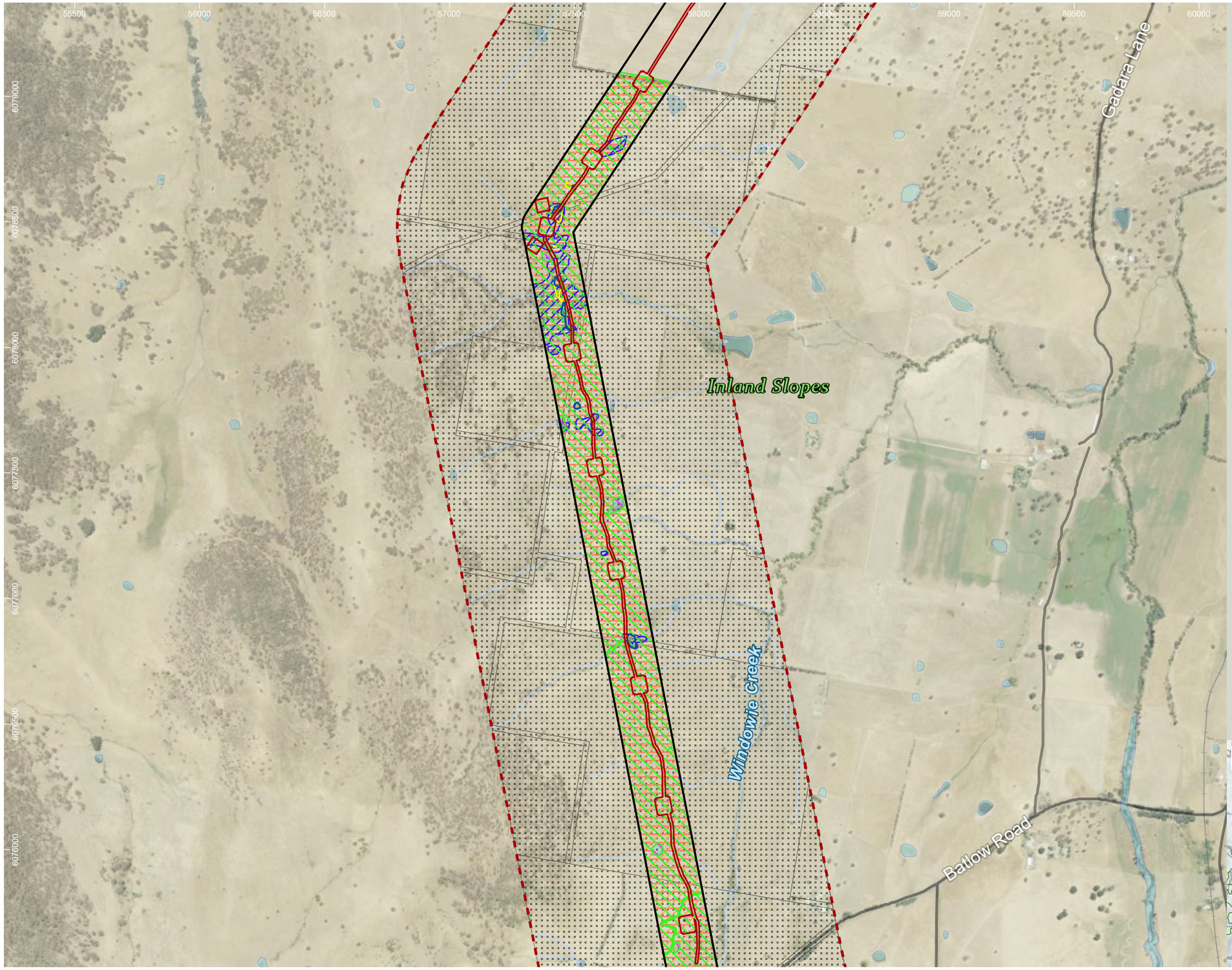


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

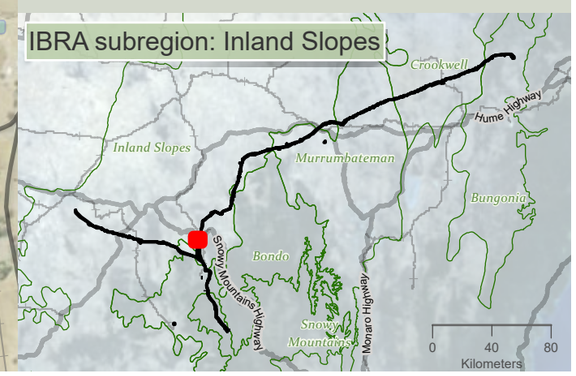
Transport

Road

- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 41

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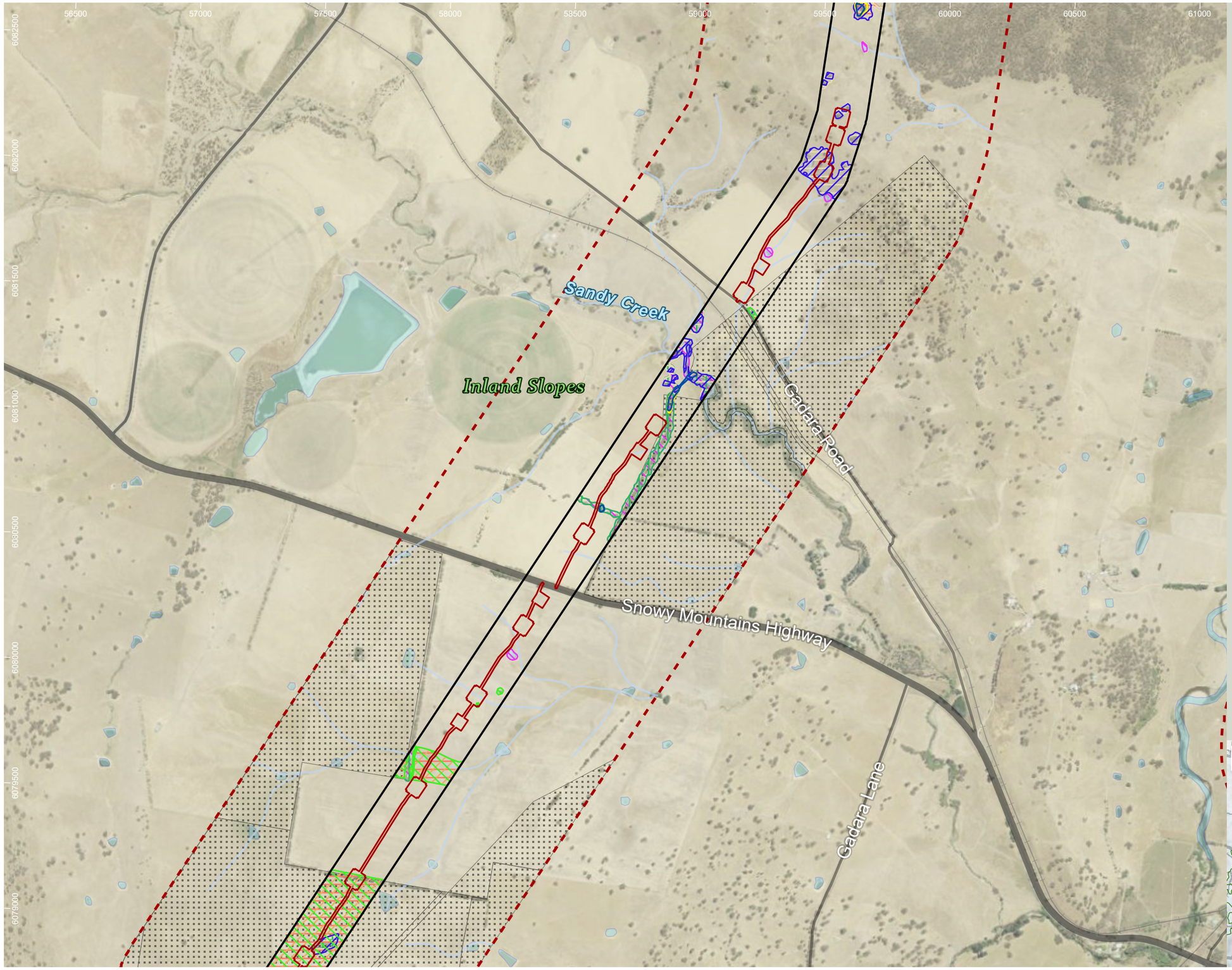


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

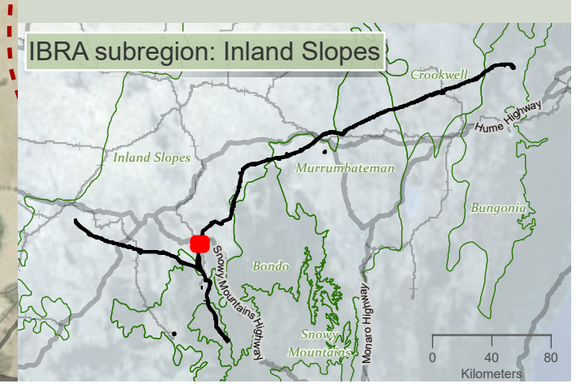
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 450
m
WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 42

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60000 60500 61000 61500 62000 62500 63000 63500

6081000 6080500 6080000 6079500 6079000 6078500

Gadara Road

Gadara Lane

Whatmans Lane

Snowy Mountains Highway

Gilmore Mill Road

Batlow Road

Inland Slopes

Snowy Mountains Highway compound (C02)

Wereboldera State Conservation Area

Tumut State Forest

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

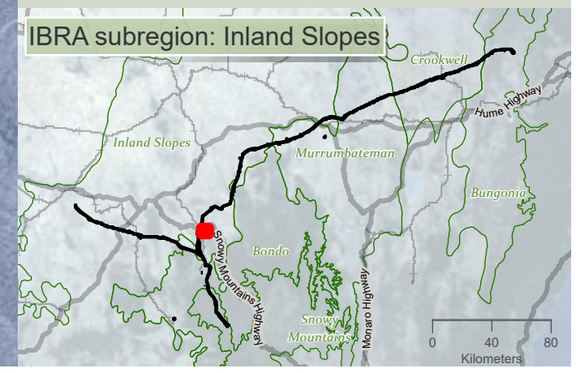
NPWS Reserve

- State Conservation Area

EPBC Act fauna species habitat

- Keyacris scurra

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

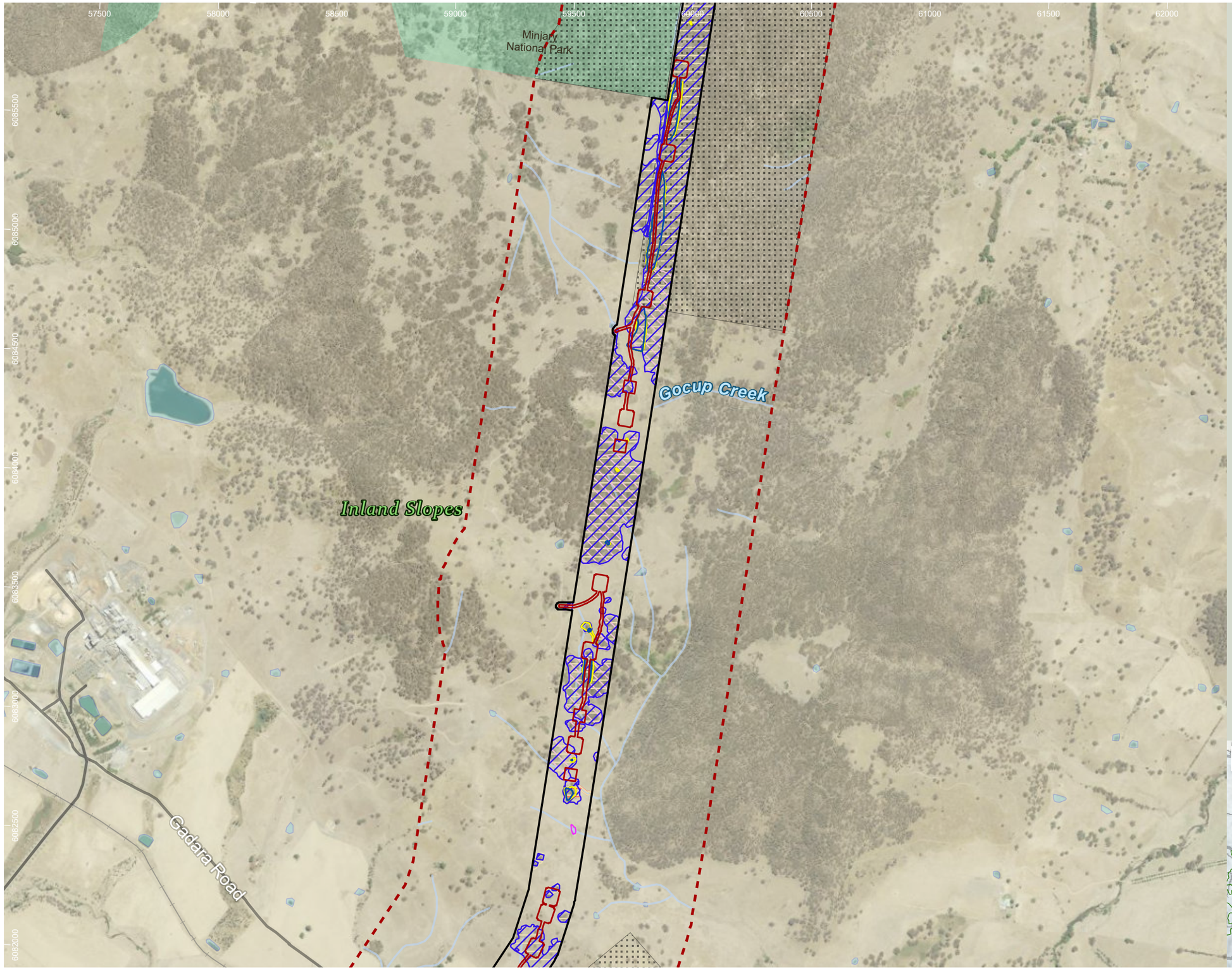
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 43

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

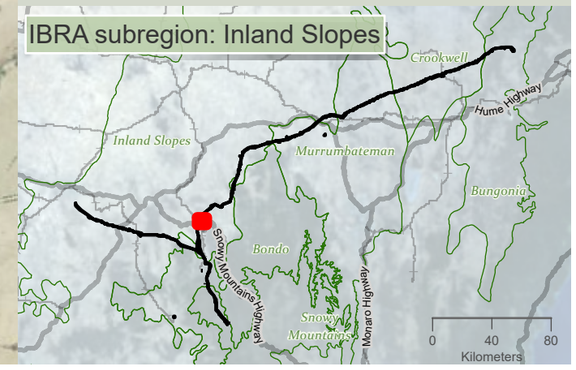
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Petauroides volans
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

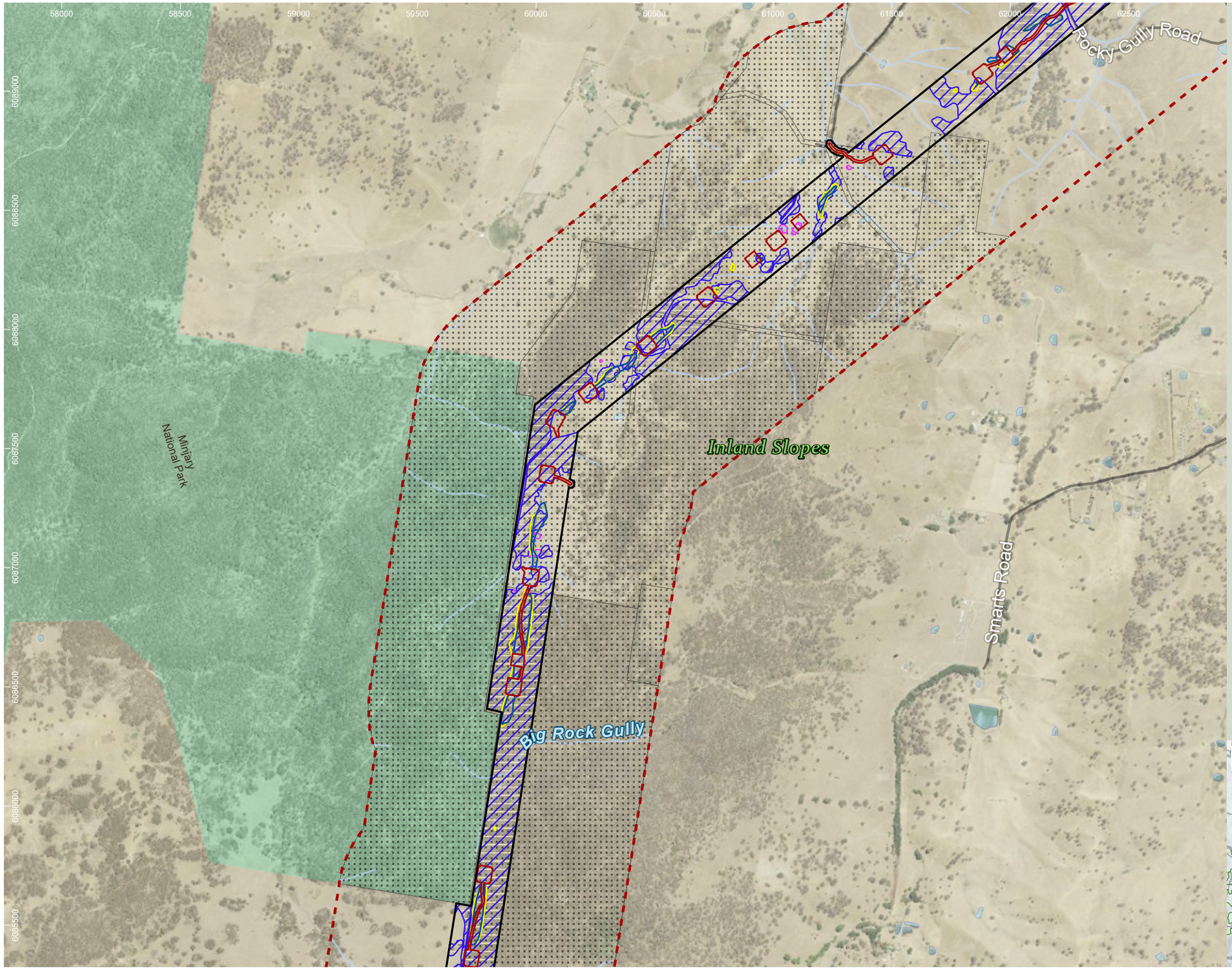
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 44

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FolderNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

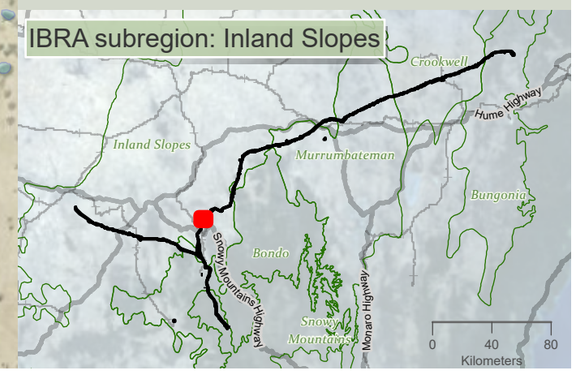
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 45

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

61000 61500 62000 62500 63000 63500 64000 64500

6091500 6091000 6090500 6090000 6089500 6089000 6088500

Inland Slopes

Meadow Creek Road

Gocup Road

Gocup Creek

Tumut River

Rocky Gully Road

Gocup Farms Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

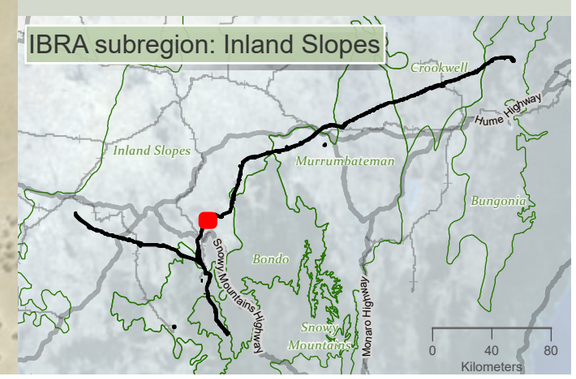
Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

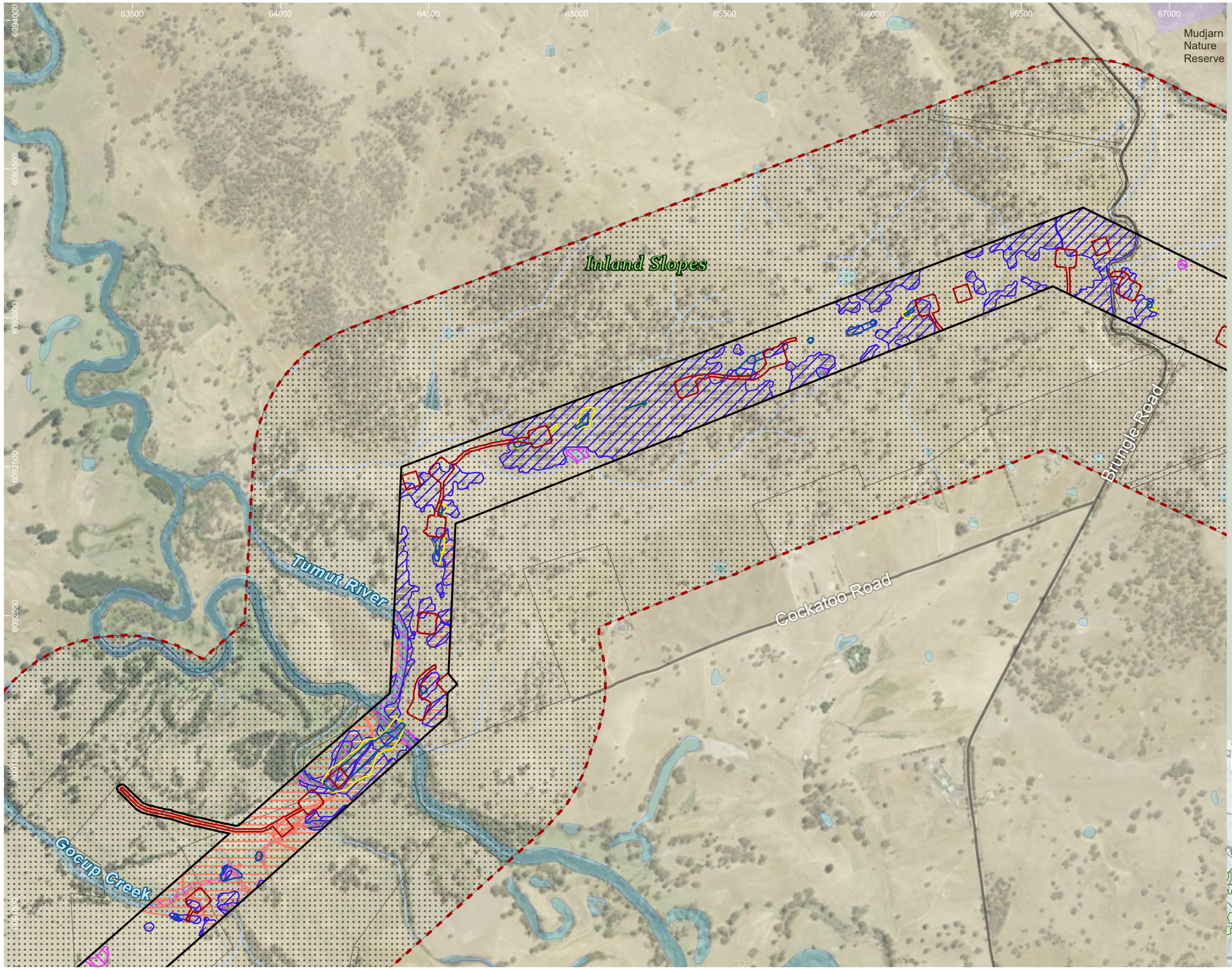
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 46

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

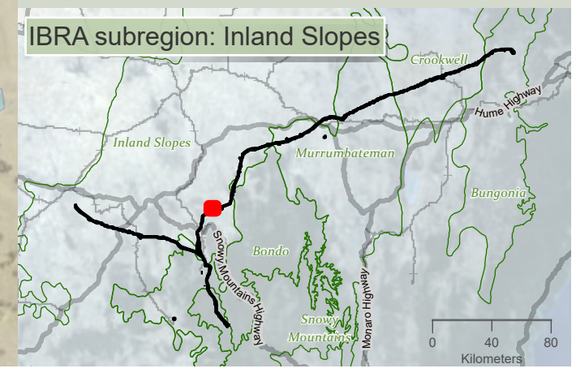
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

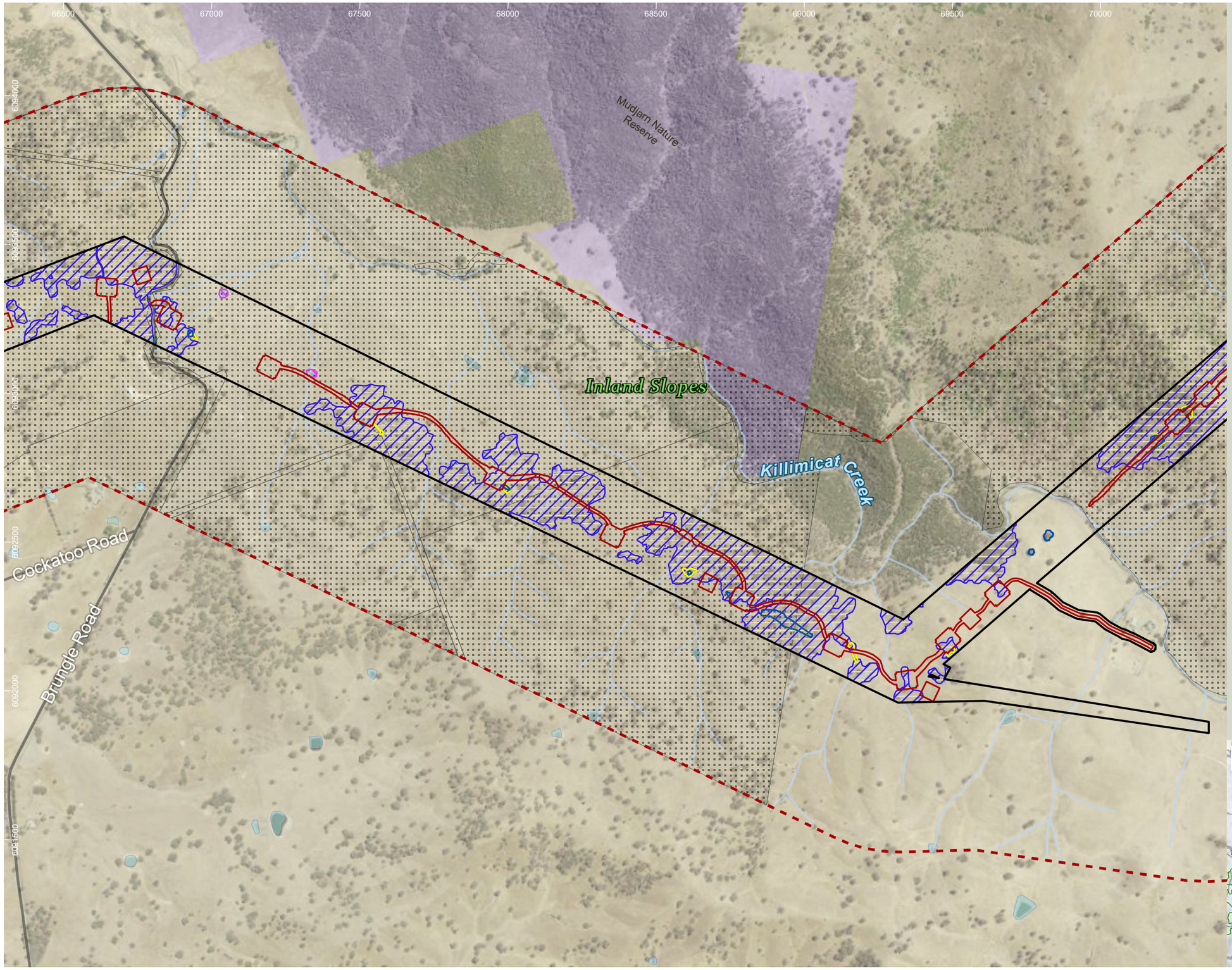
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 47

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

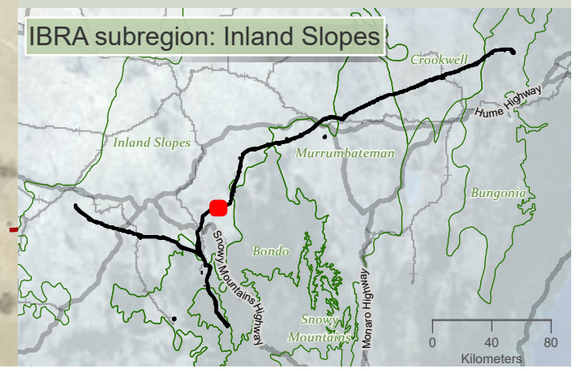
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

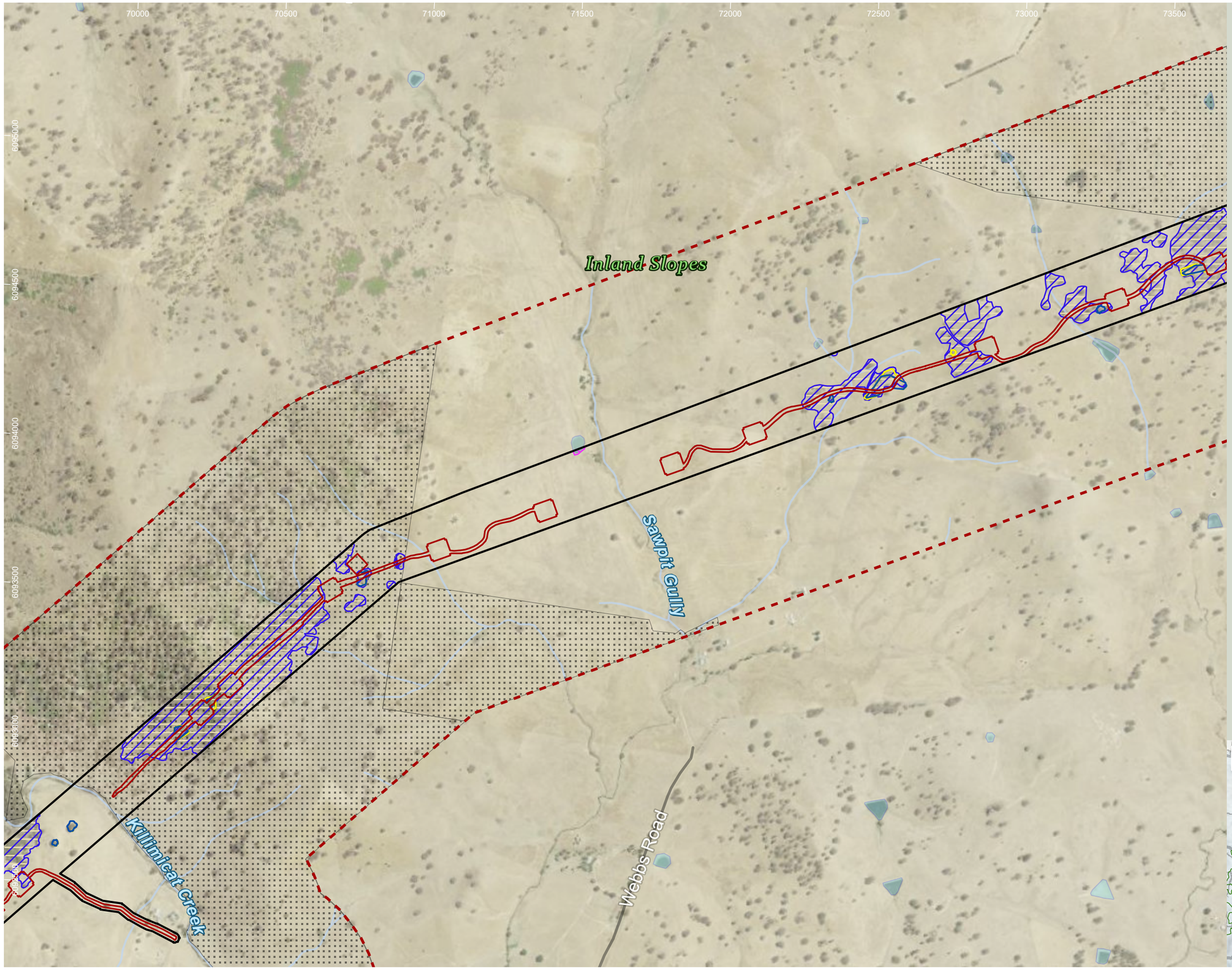
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 48

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

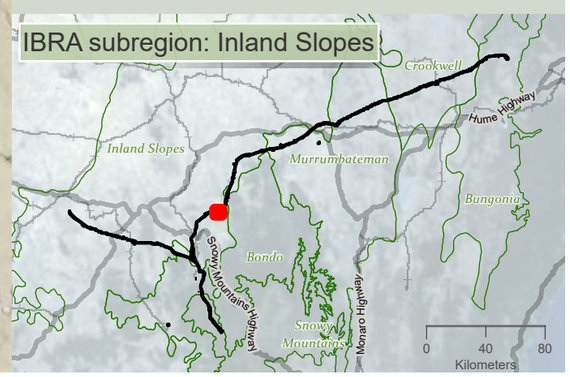
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Phascolarctos cinereus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 49

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

72500 73000 73500 74000 74500 75000 75500 76000 76500

6097500 6097000 6096500 6096000 6095500 6095000 6094500 6094000

Brungle Creek Road

Brungle Creek

Inland Slopes

Wee Jasper Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

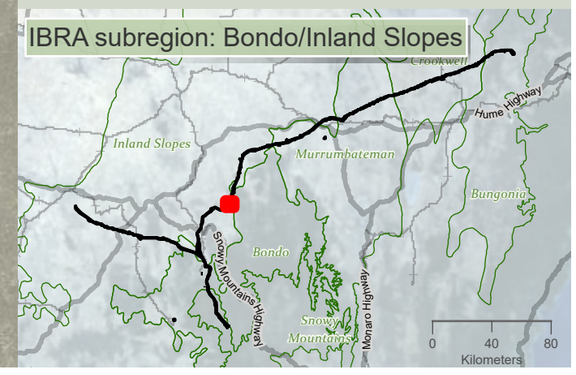
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

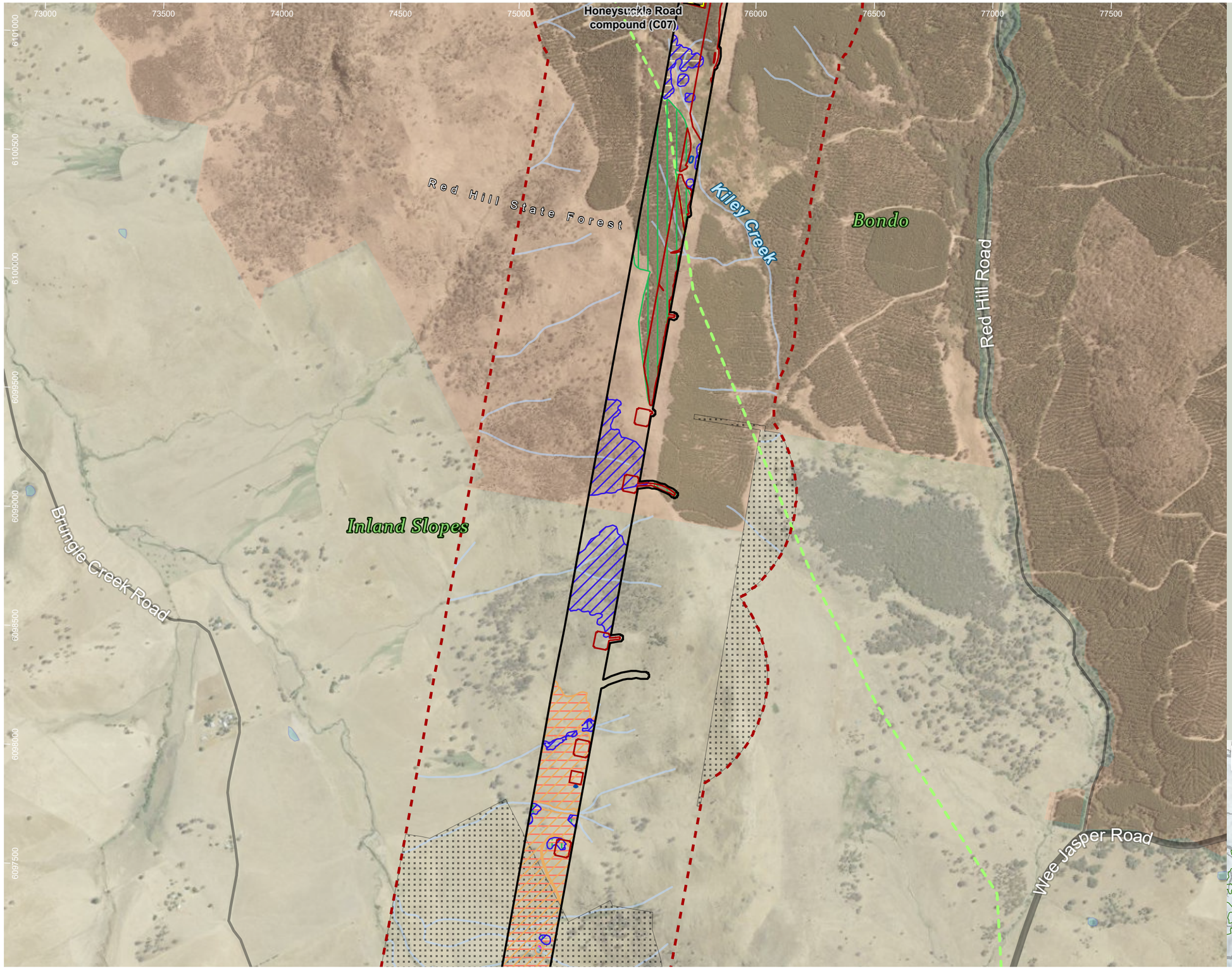
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 50

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

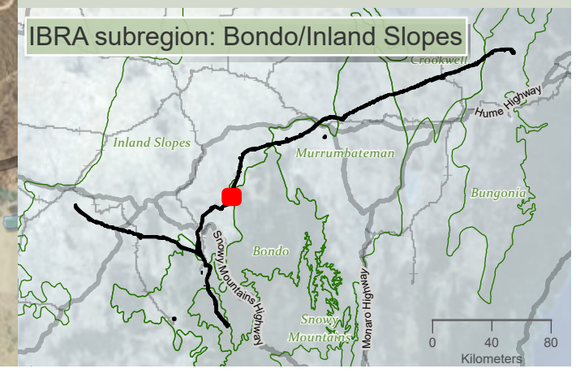
- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

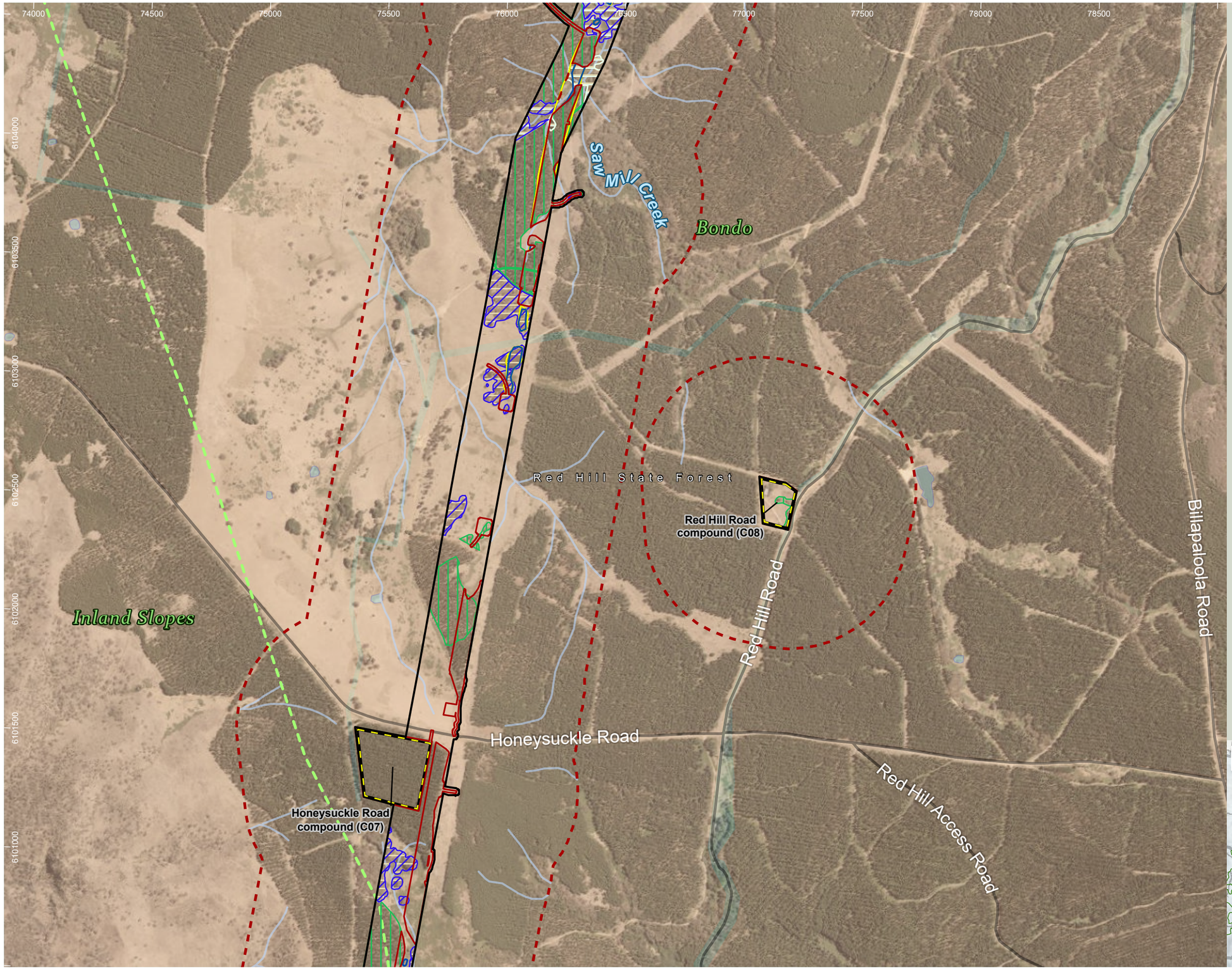
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 51

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6999 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

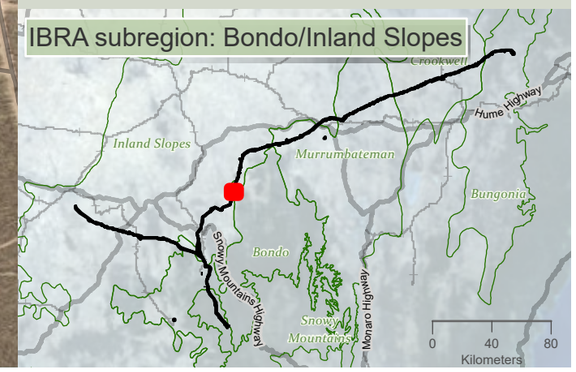
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Dasyurus maculatus
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

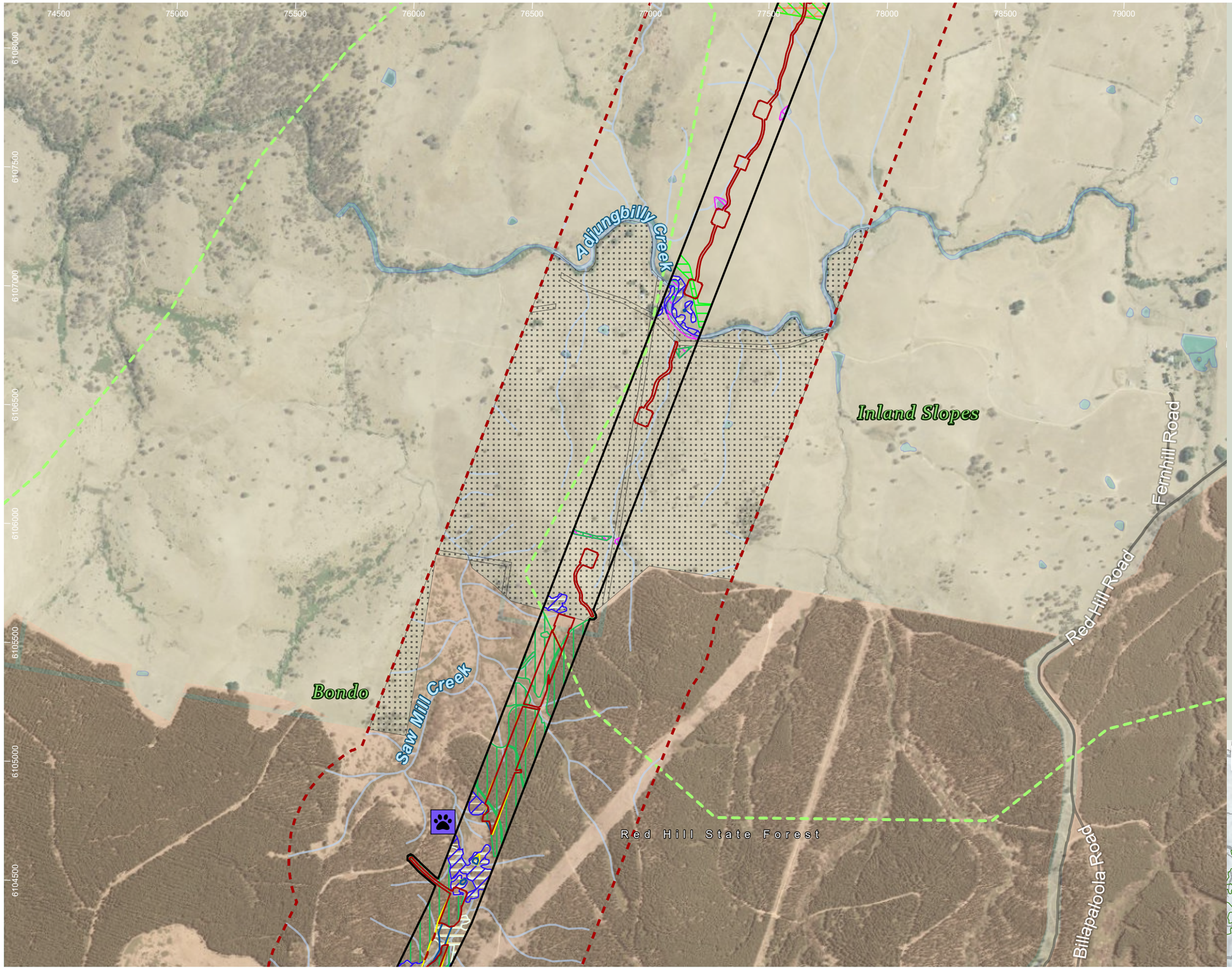
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 52

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

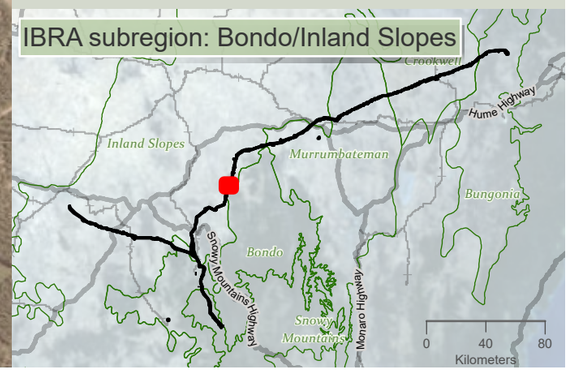
EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria booroolongensis
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Yellow-bellied Glider (Petaurus australis)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

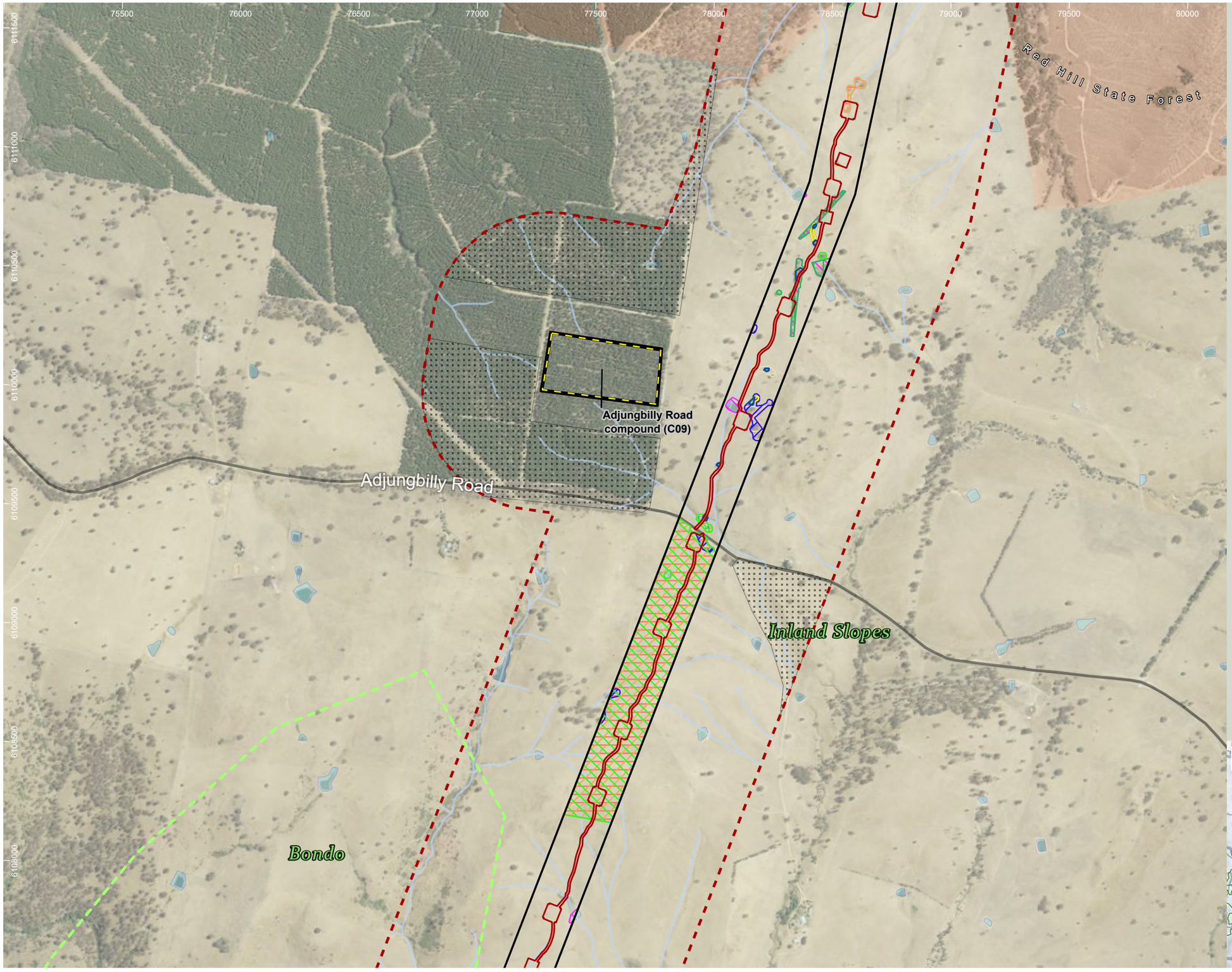
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 53

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

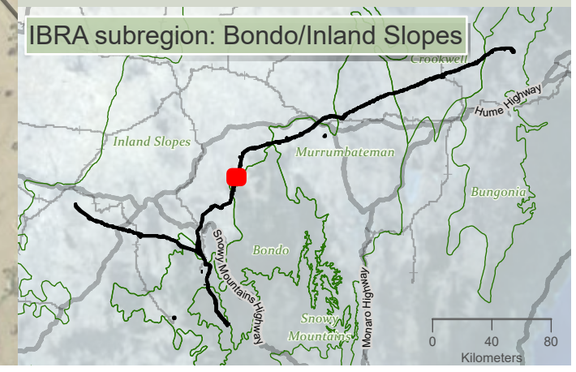
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 54

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

76500 77000 77500 78000 78500 79000 79500 80000 80500 81000

6114500 6114000 6113500 6113000 6112500 6112000 6111500 6111000

Parsons Creek Road

Inland Slopes

O'briens Creek

Red Hill State Forest

Nanangroe Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

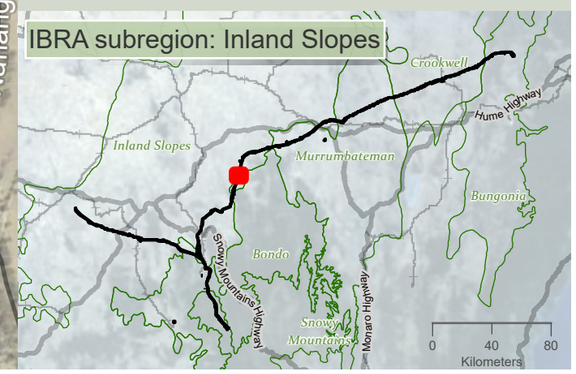
Administrative and Property Boundaries

- State Forest

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 55

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

77000 77500 78000 78500 79000 79500 80000 80500 81000 81500

6118000 6117500 6117000 6116500 6116000 6115500 6115000 6114500

O'briens Gully

Cart Road Creek

Inland Slopes

Parsons Creek Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

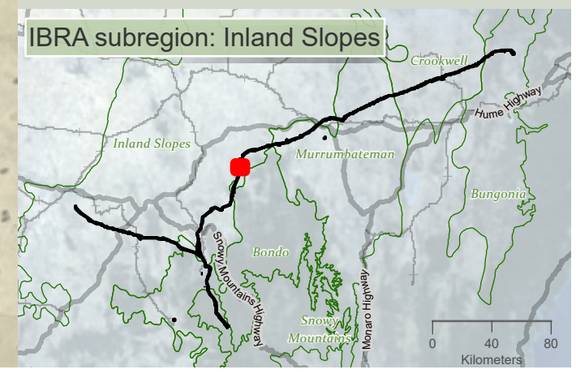
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



Drawn by: MathewZajaczkowski; Last updated: 28/07/2023; File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

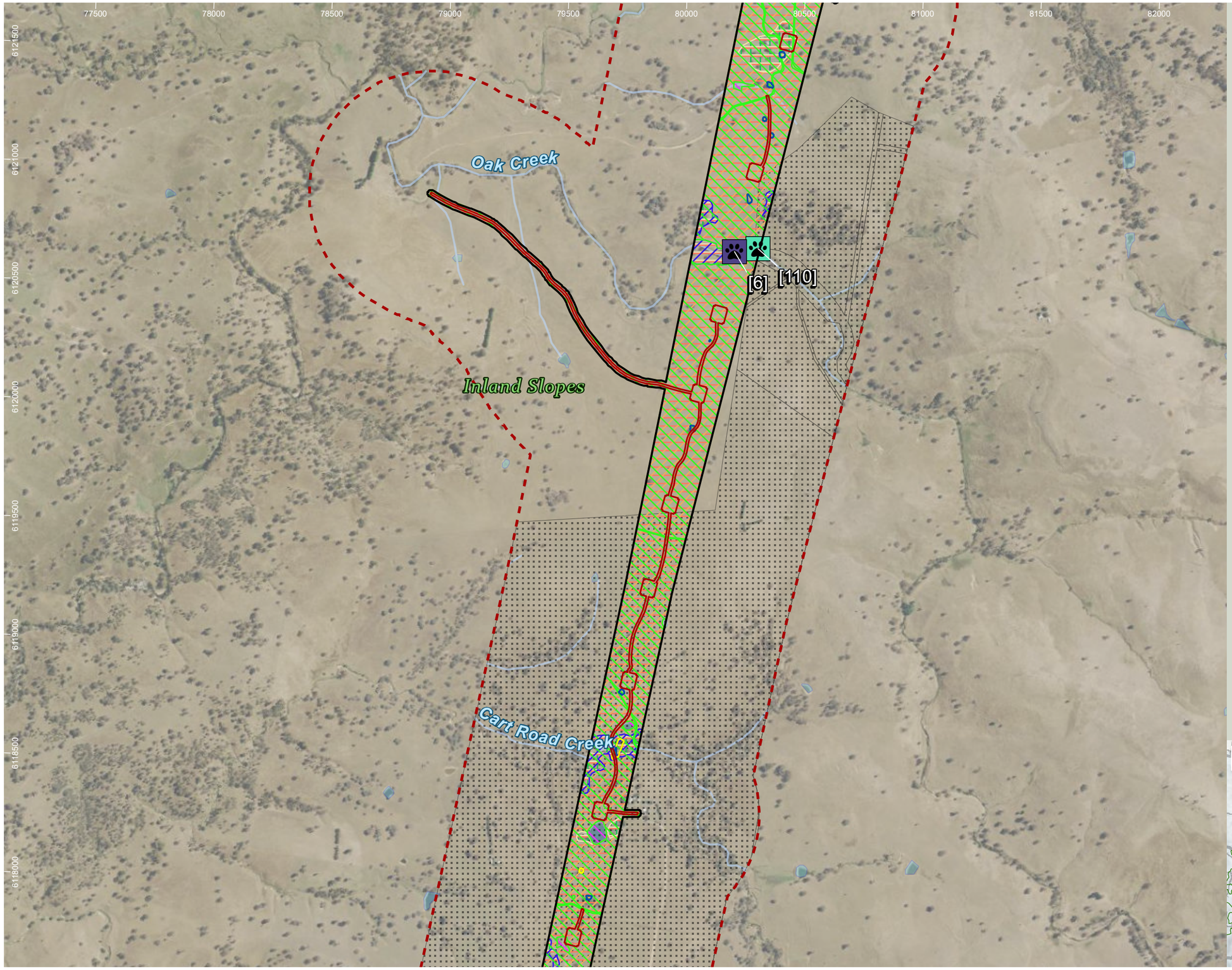
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 56

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

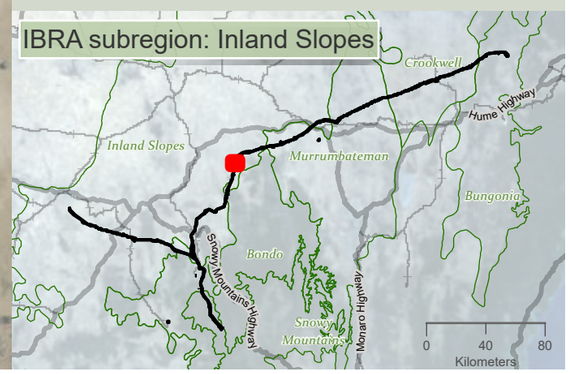
EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

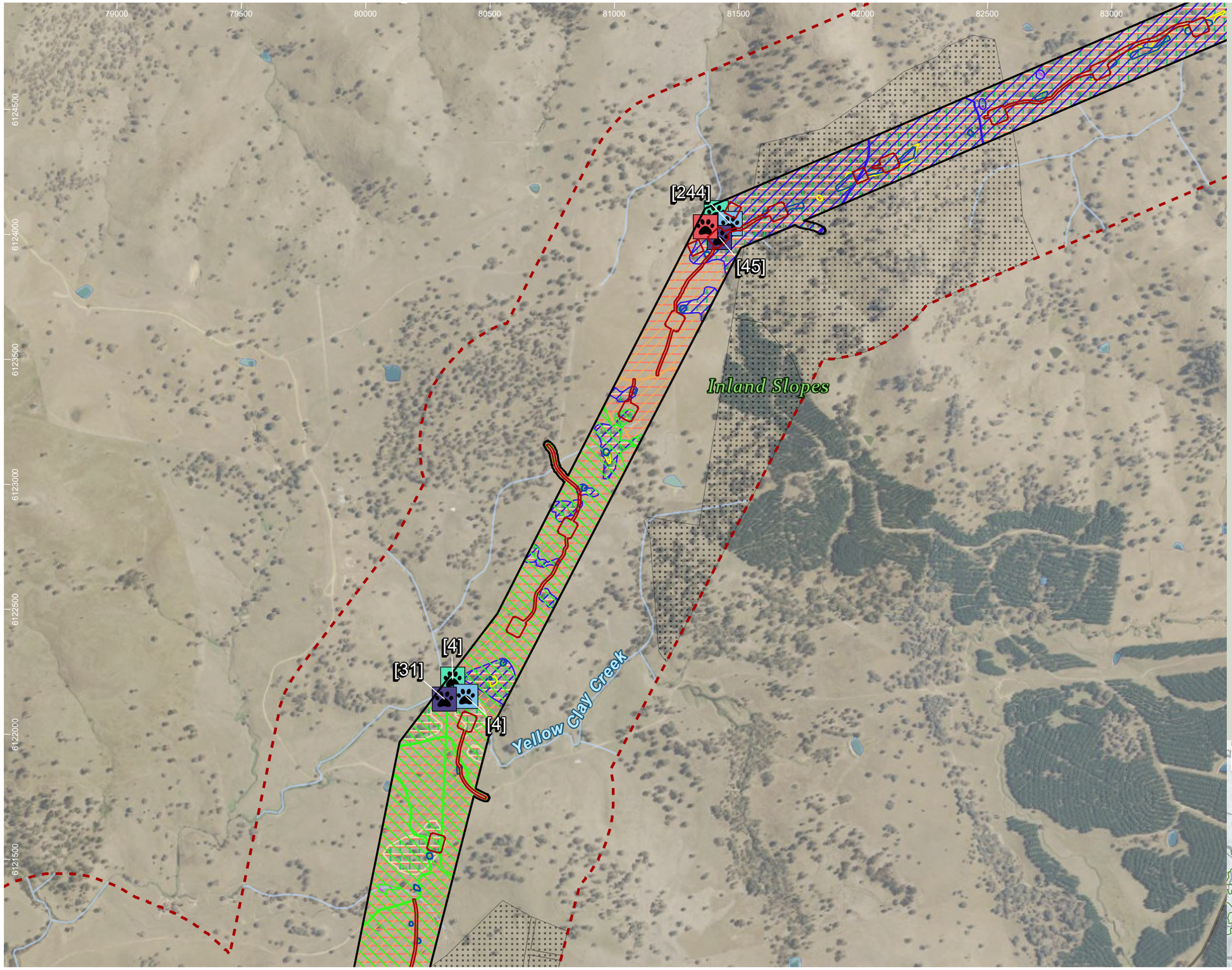
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

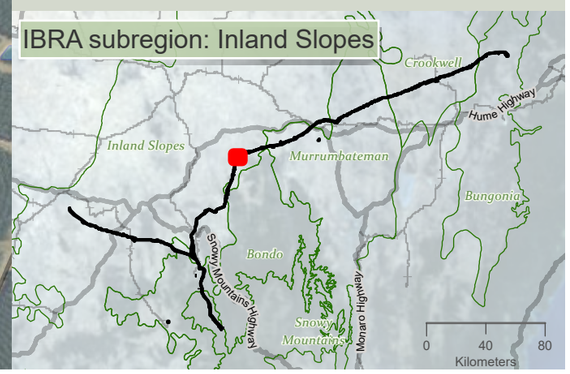
EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

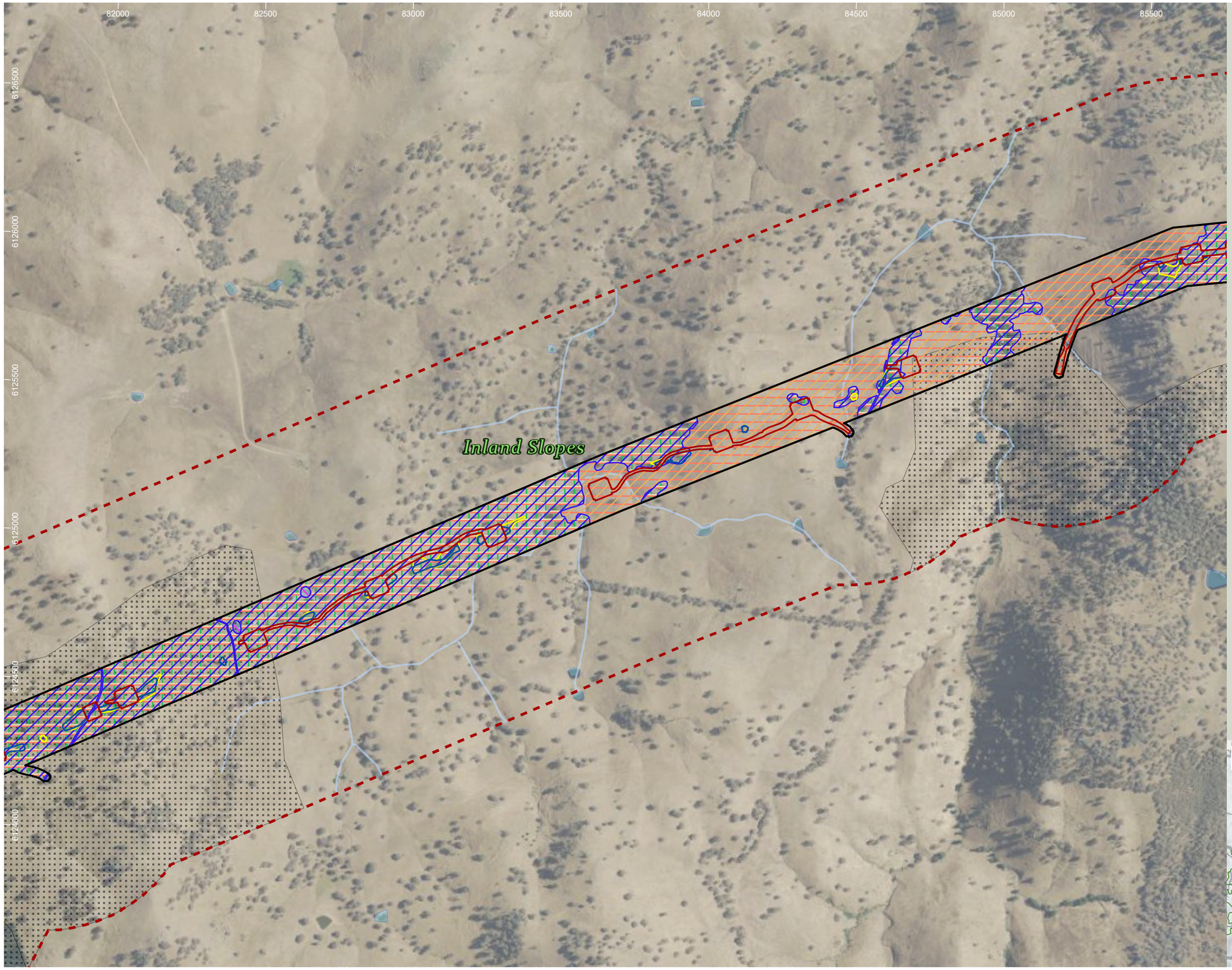
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 58

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

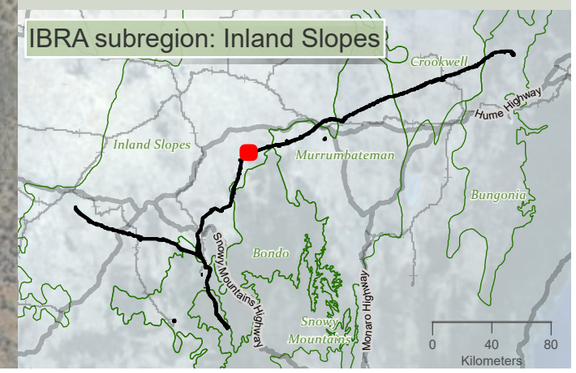
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 59

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

85000 85500 86000 86500 87000 87500 88000 88500 89000

6127500 6127000 6126500 6126000 6125500 6125000

Rocky Creek

Inland Slopes

Dicks Gully

Nanangroe Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

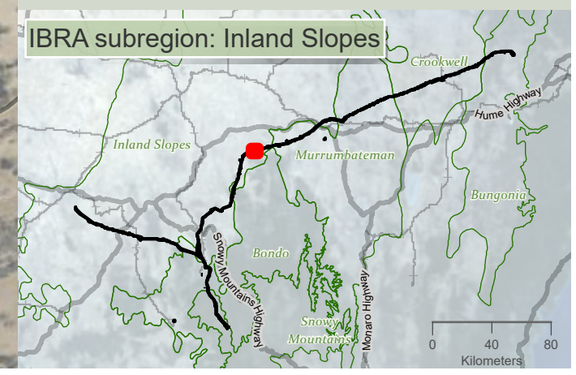
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

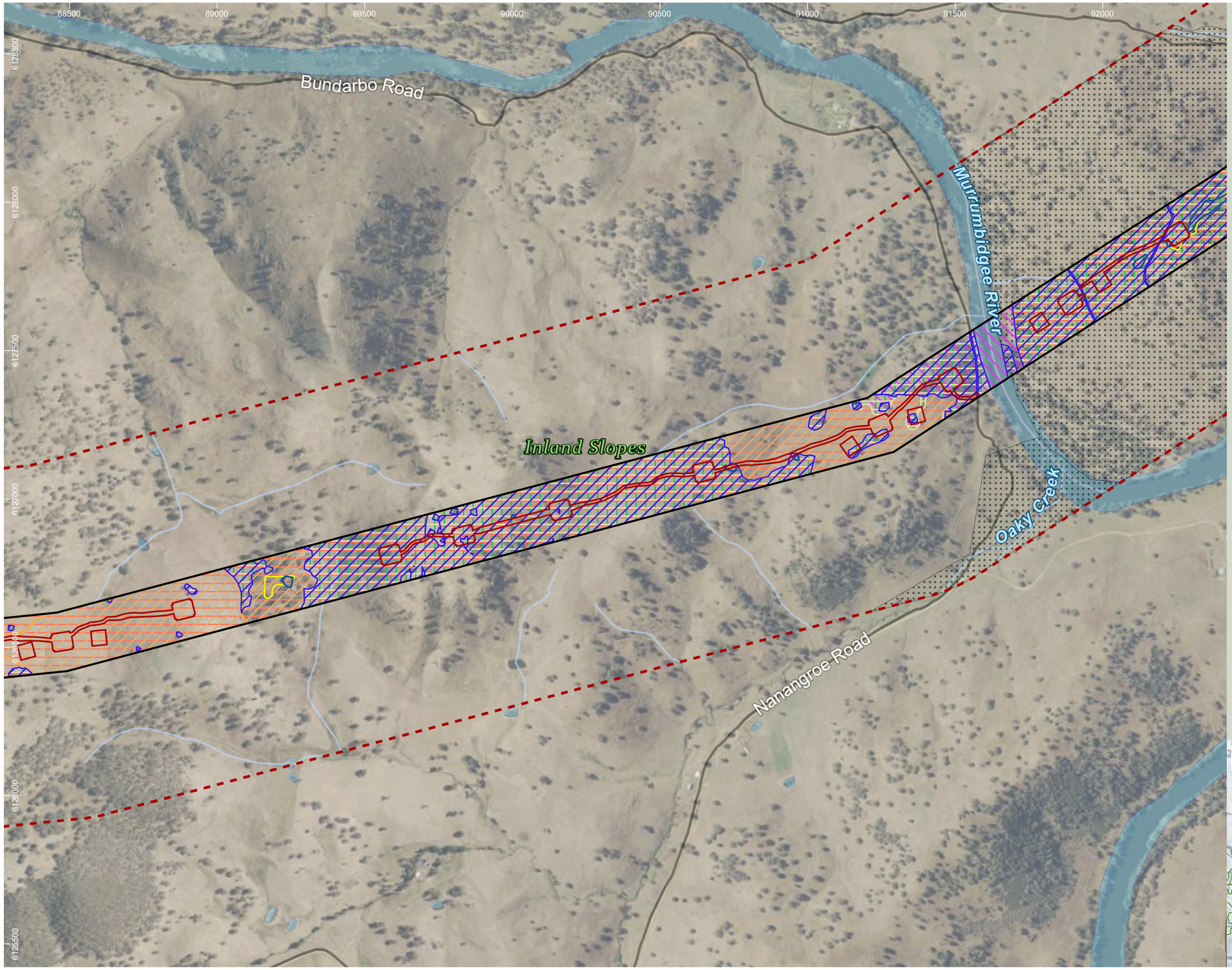
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 60

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

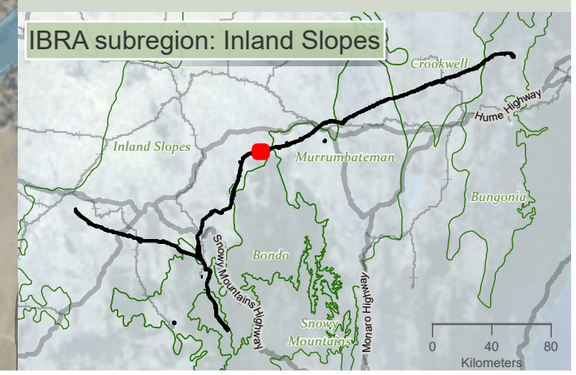
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500

Nanangroe Road

Childowla Road

Oak Creek

Inland Slopes

Bondo

Burcarbo Road

Murrumbidgee River

Oaky Creek

[18] [18]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

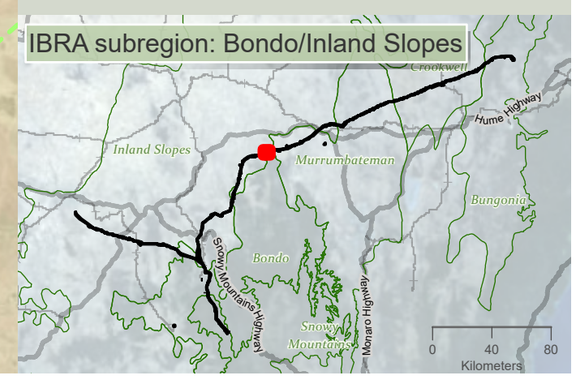
- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

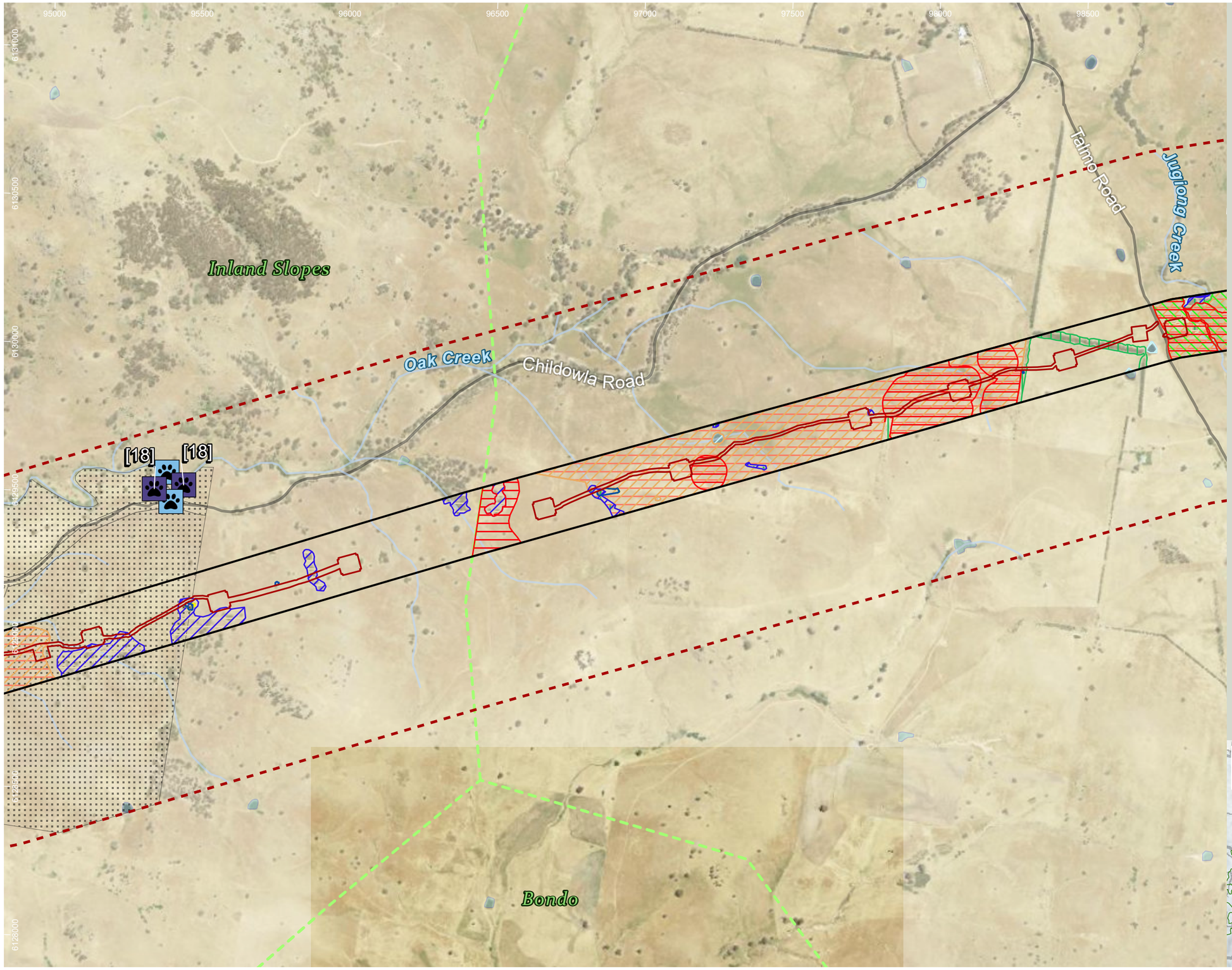
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential impact assessment



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

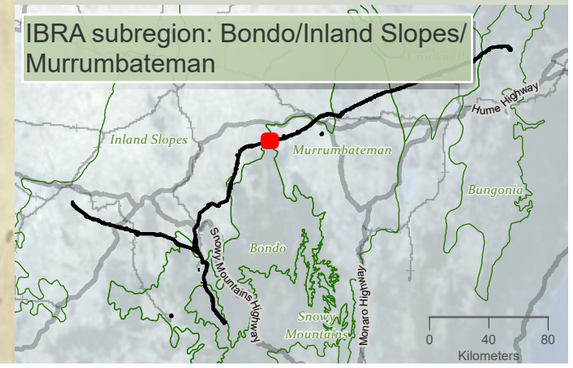
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

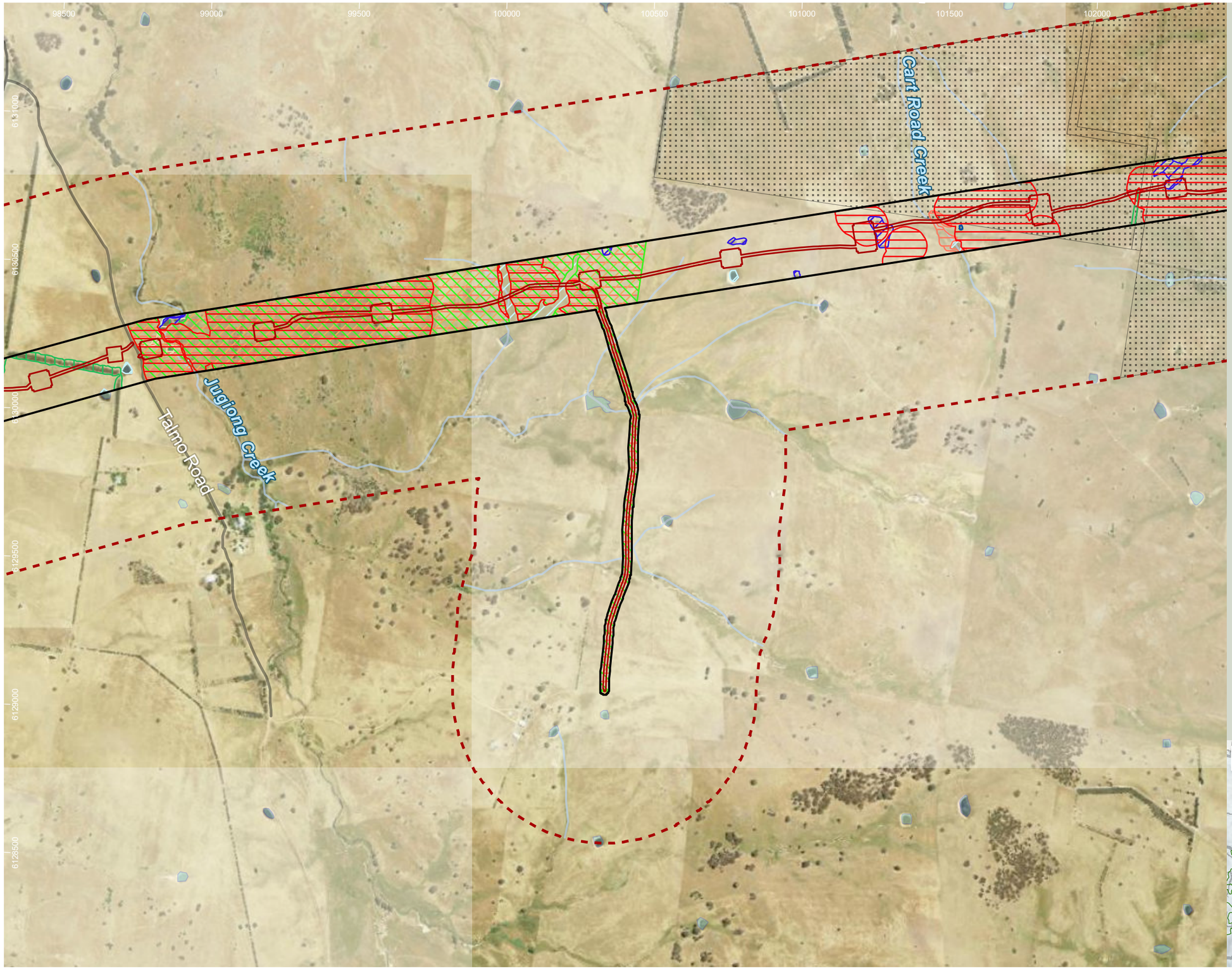
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

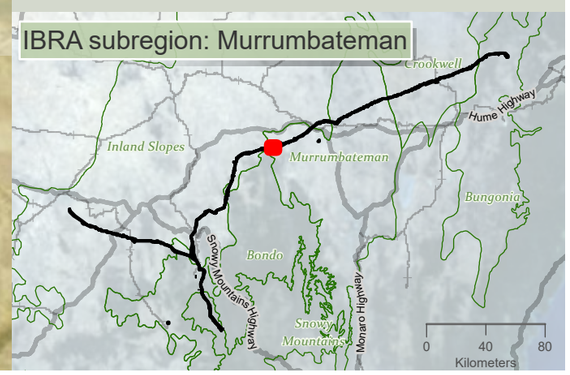
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

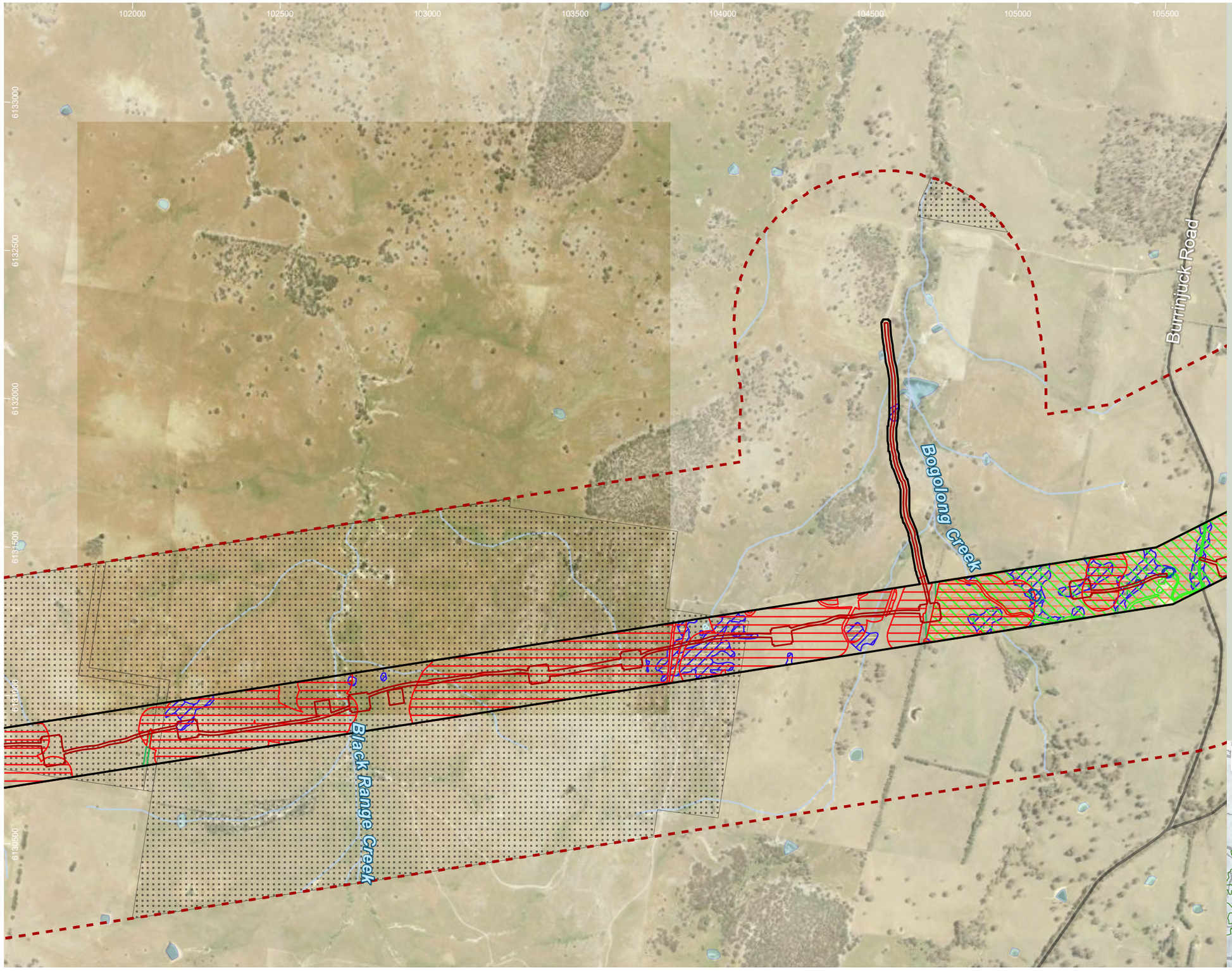
Matters of National Environmental Significance fauna species habitat- excluding aves

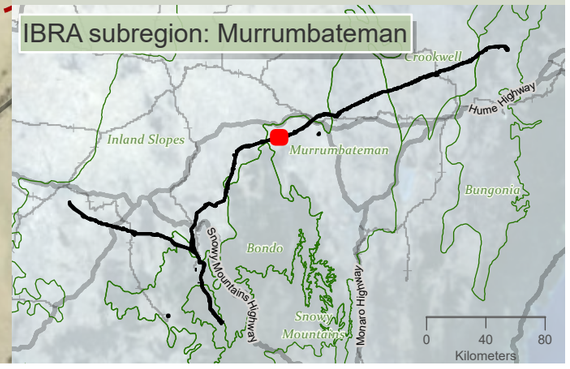
HumeLink BDAR

Figure 13-19 map reference 64

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx





HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 65

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

105000 105500 106000 106500 107000 107500 108000 108500

6133500 6133000 6132500 6132000 6131500 6131000

Sutton Grange Road

Woolgarlo Creek

Burrinjuck Road

Boggolong Creek

Black Range Road

Woolgarlo Road

[4] [4] [4] [4]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

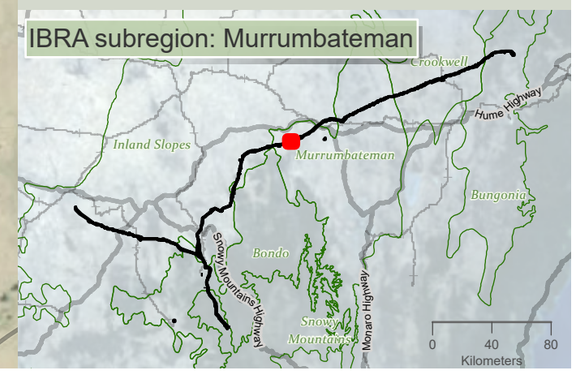
- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Southern Myotis (Myotis macropus)

IBRA subregion: Murrumbateman



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 66

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108500
109000
109500
110000
110500
111000
111500
112000
6135000
6134500
6134000
6133500
6133000
6132500
Black Range Road
Sutton Grange Road
Woolgarlo Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

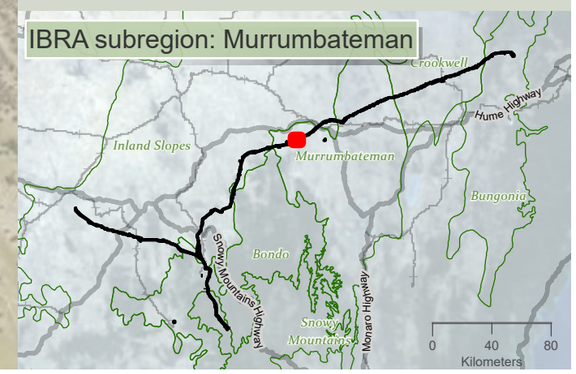
Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

IBRA subregion: Murrumbateman



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

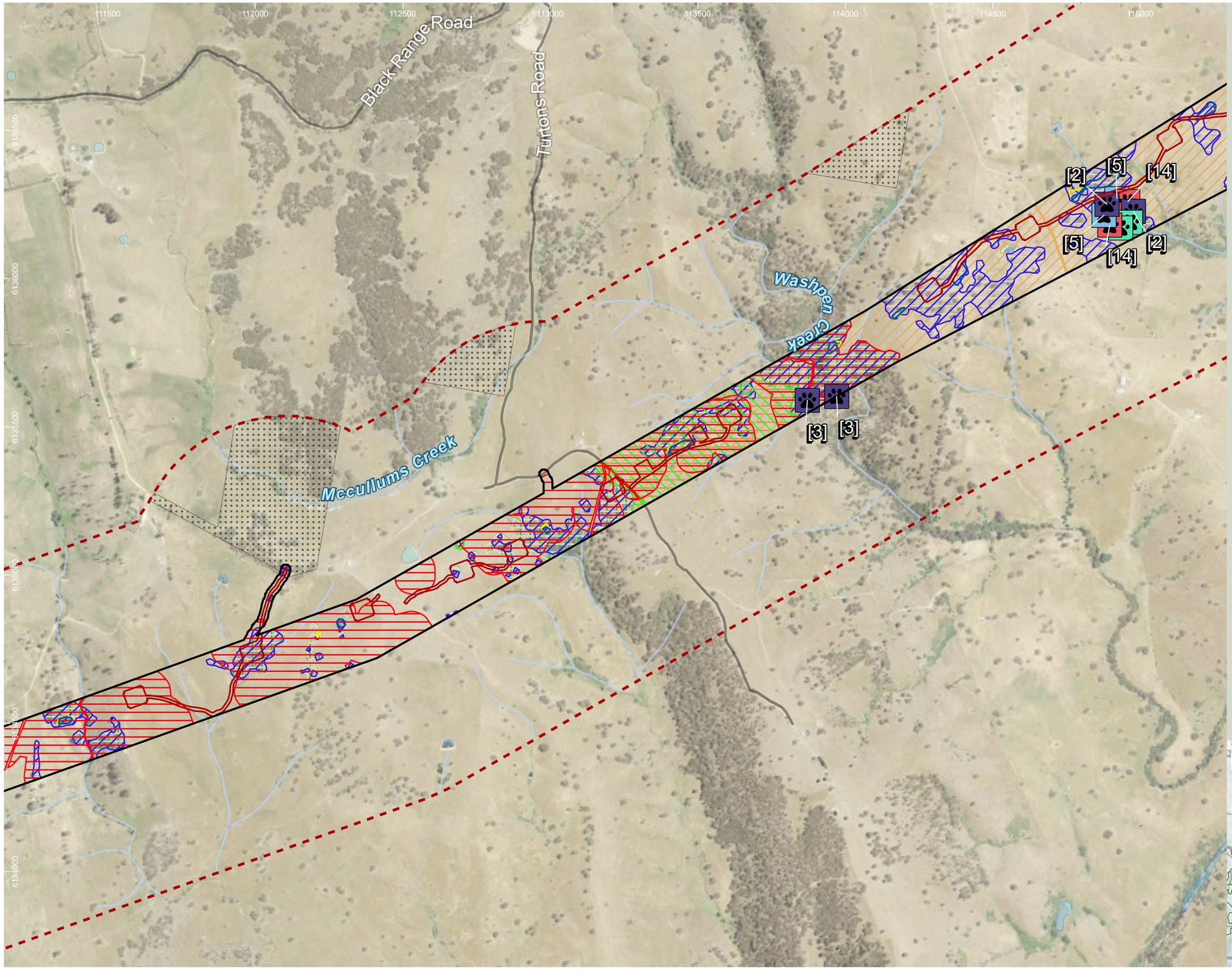
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 67

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

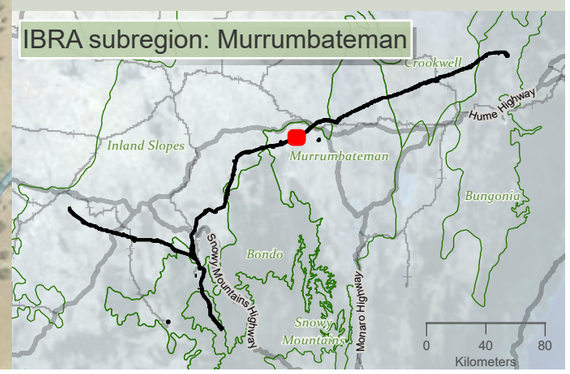
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

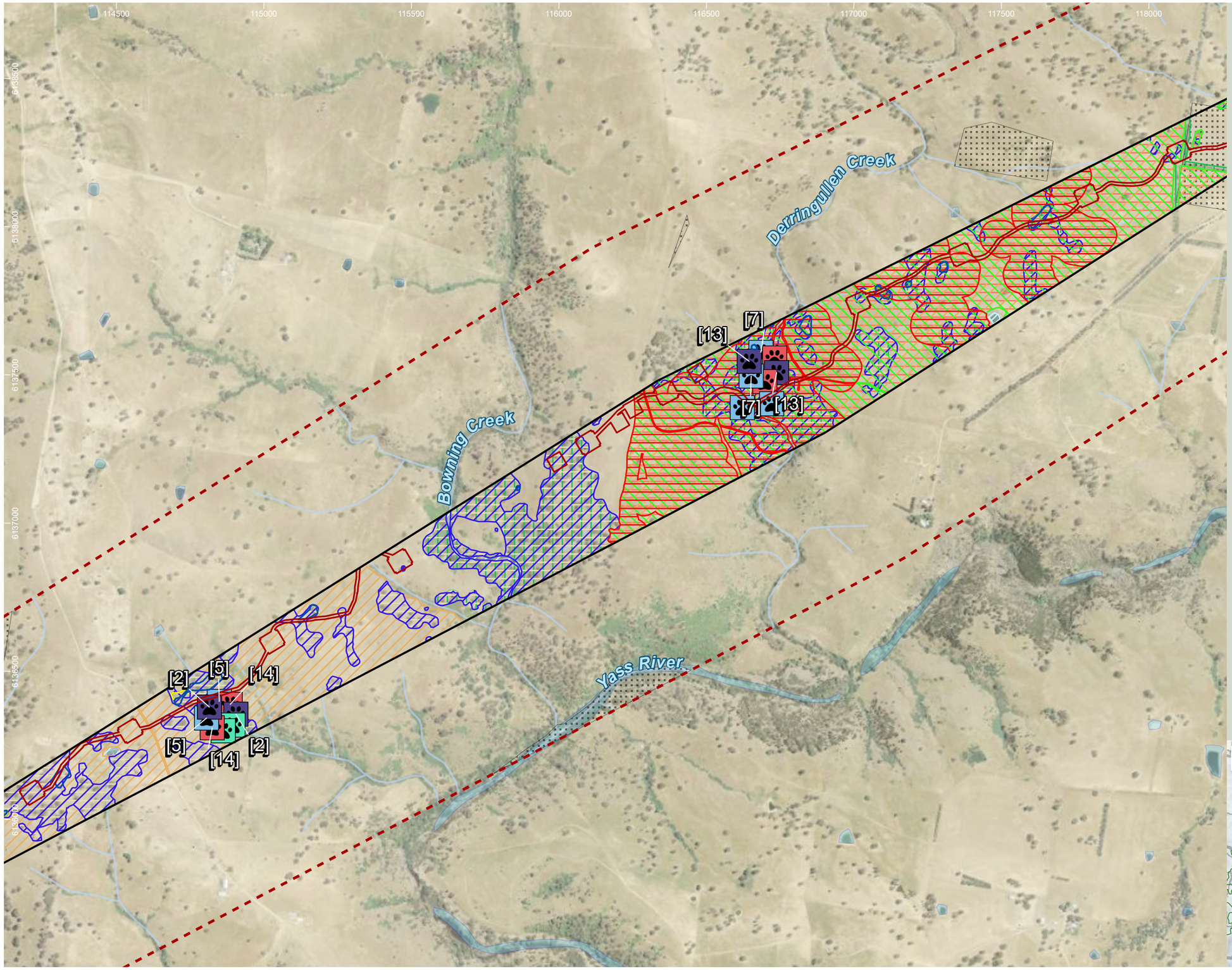
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 68

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

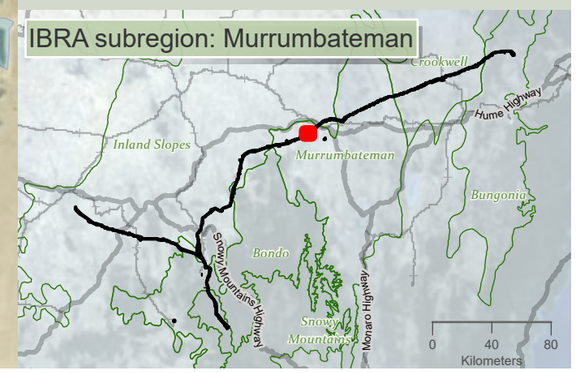
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



Drawn by: MatthewZajackowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 69

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

117000 117500 118000 118500 119000 119500 120000 120500 121000

6140500 6140000 6139500 6139000 6138500 6138000

Derringullen Creek

Black Range Road

[13]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

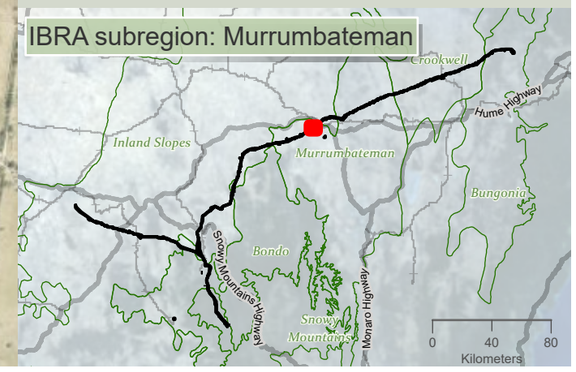
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 70

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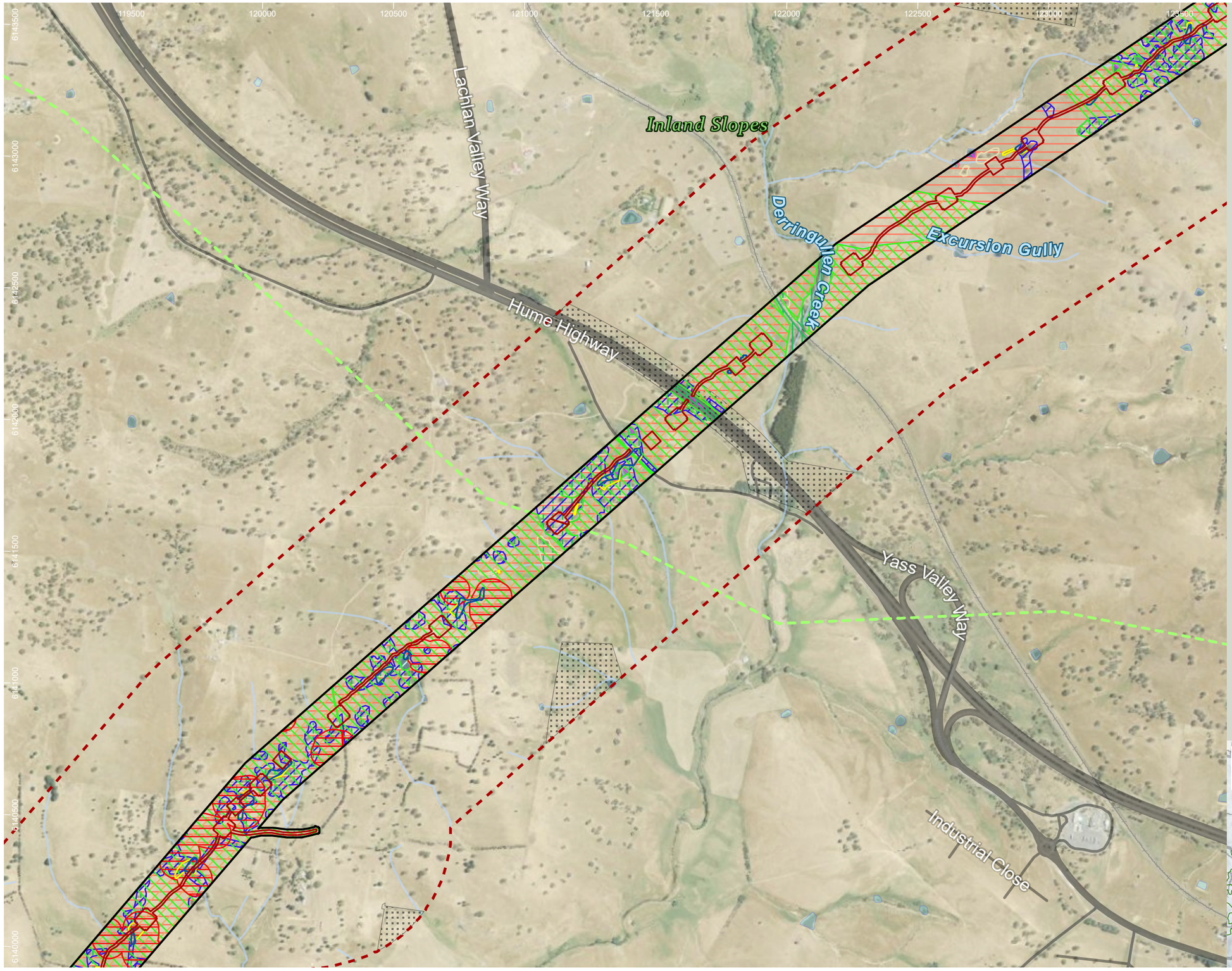


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

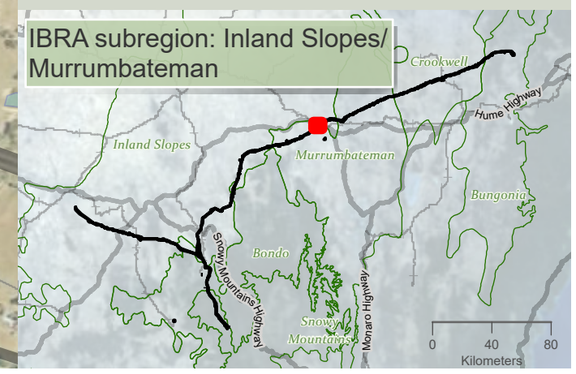
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act fauna species habitat

- Aprasia parapulchella
- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 71

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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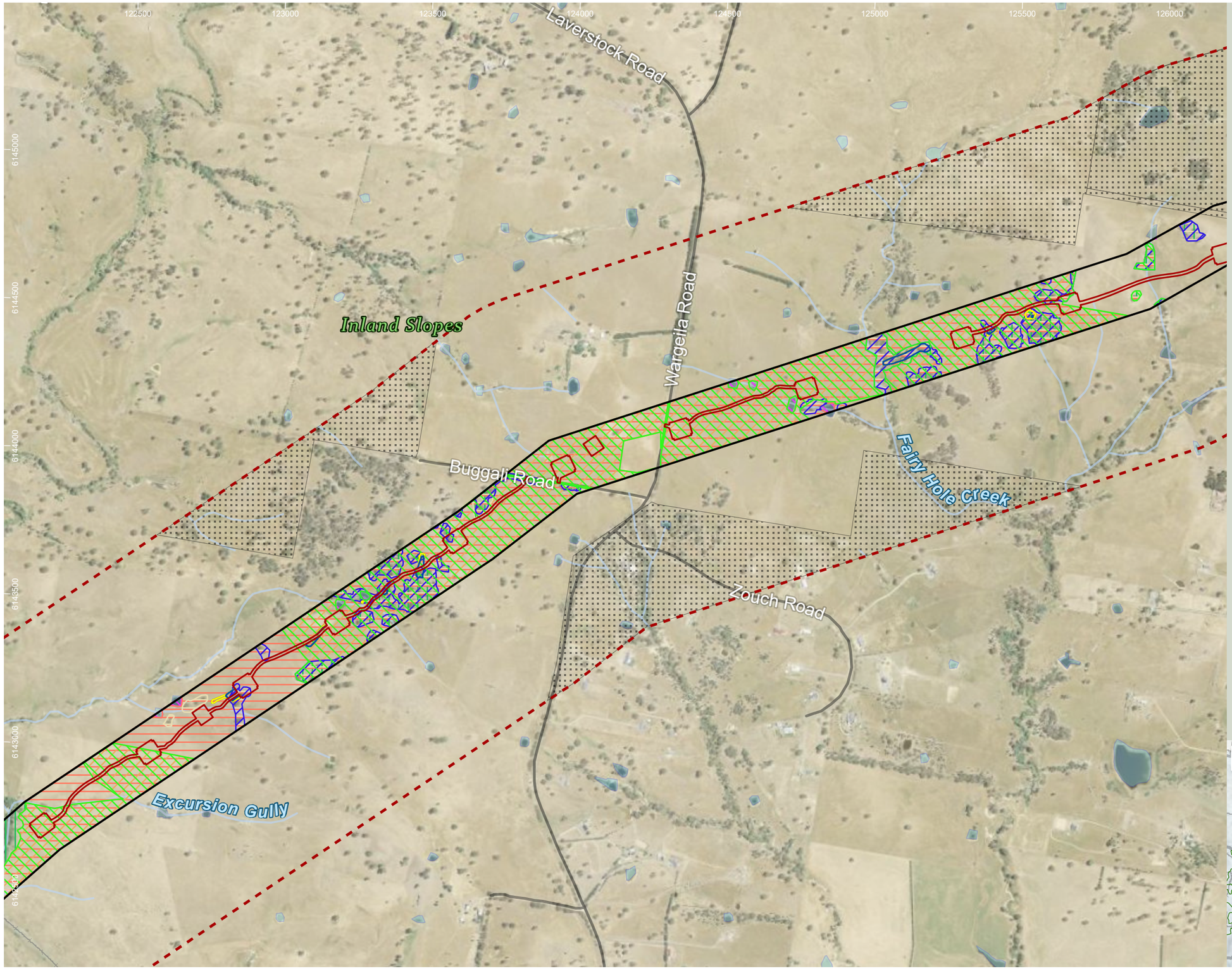


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

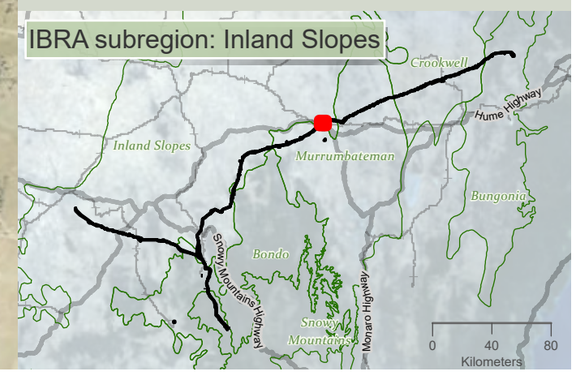
Transport

Road

- Minor road
- Rail

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 73

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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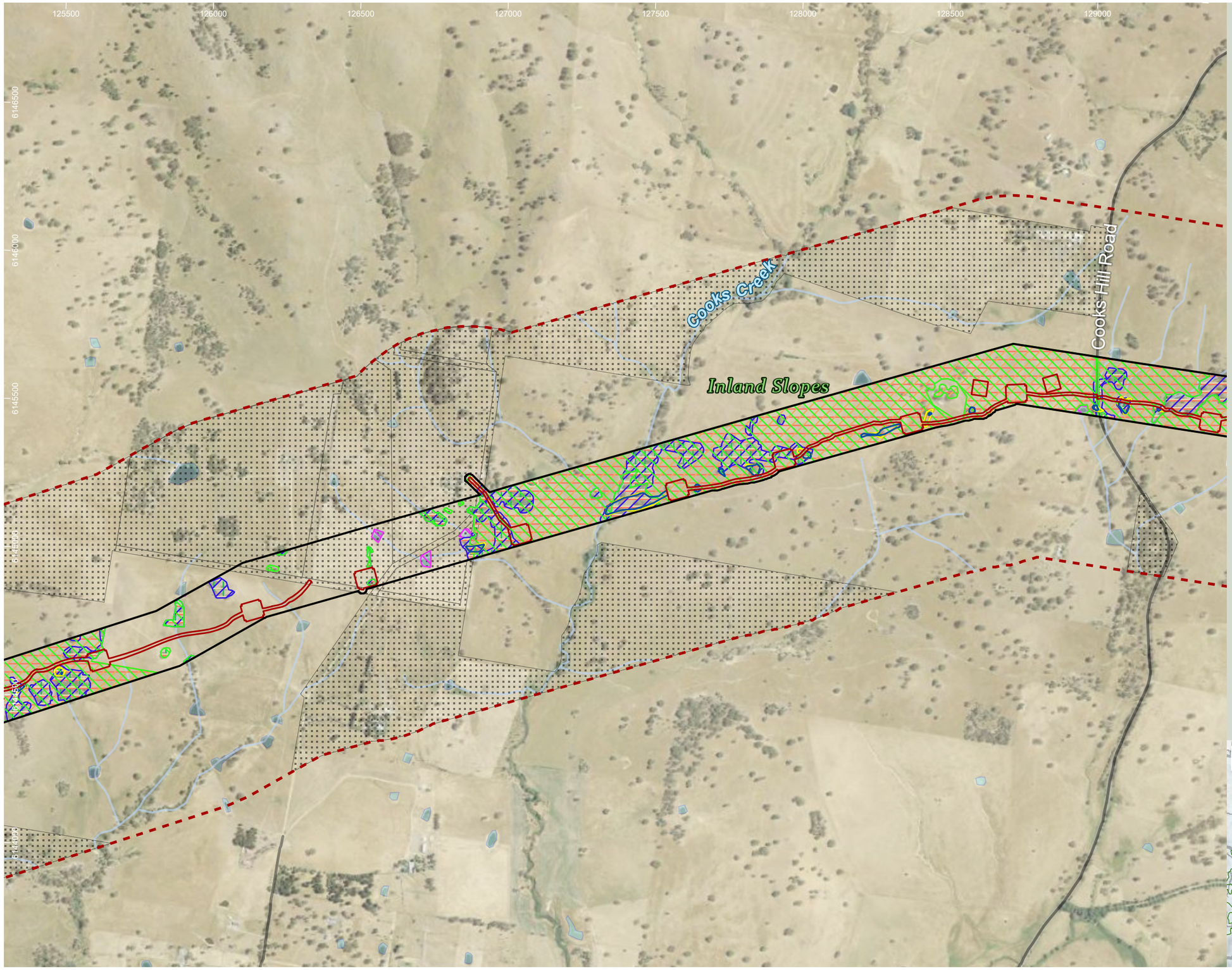


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

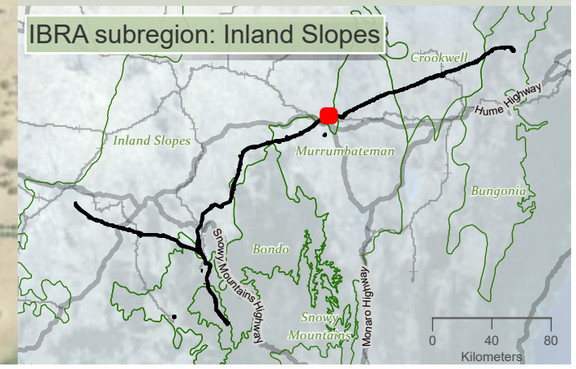
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 74

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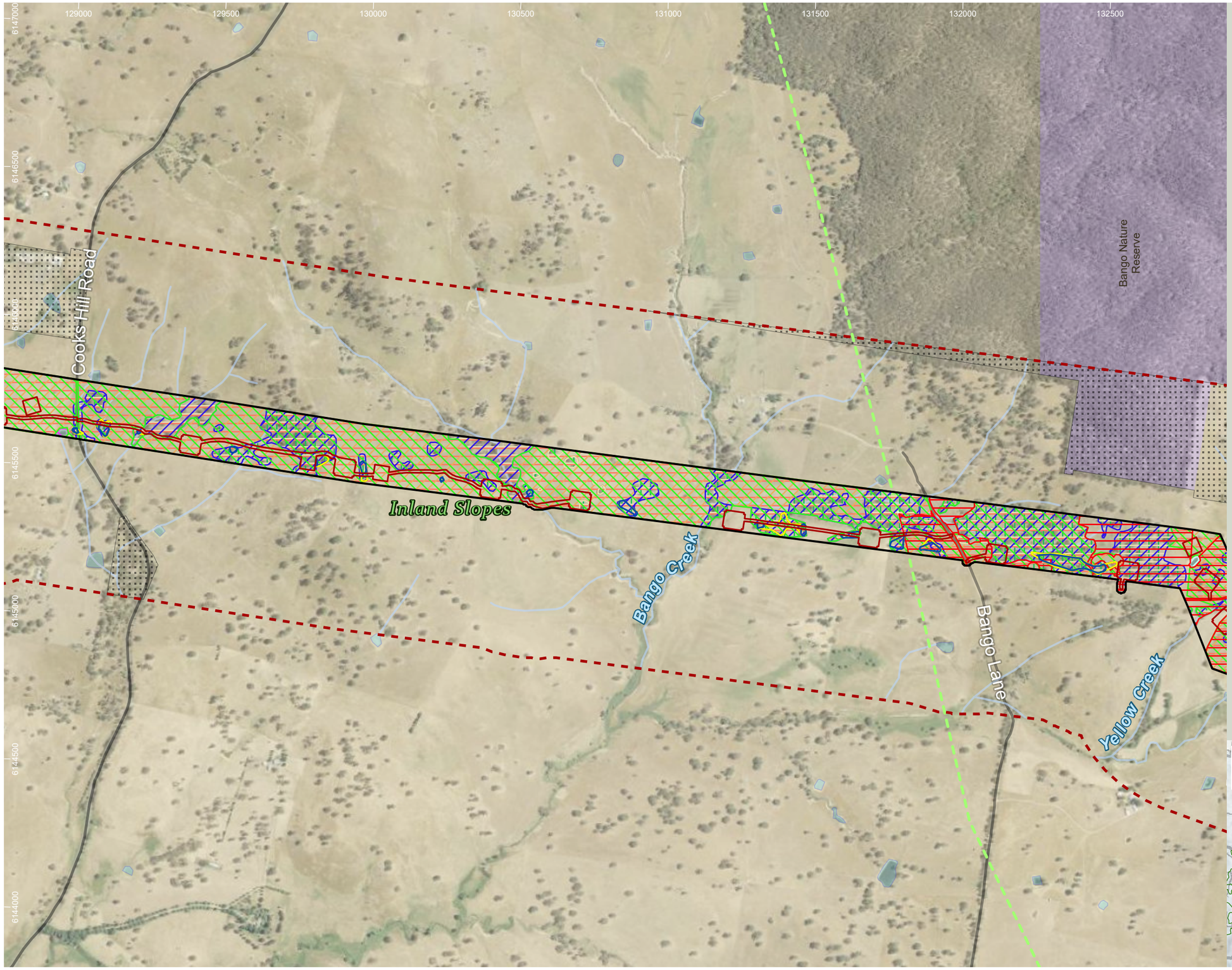


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

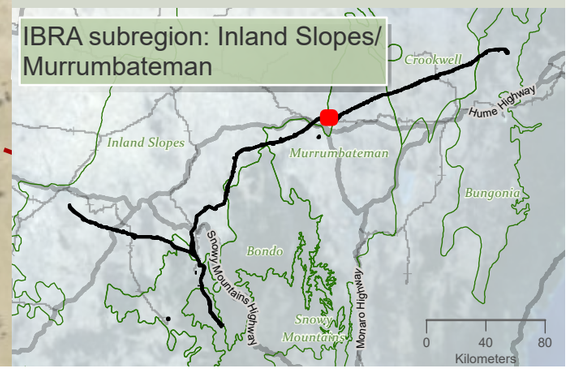
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

- Aprasia parapulchella
- Crinia sloanei
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 75

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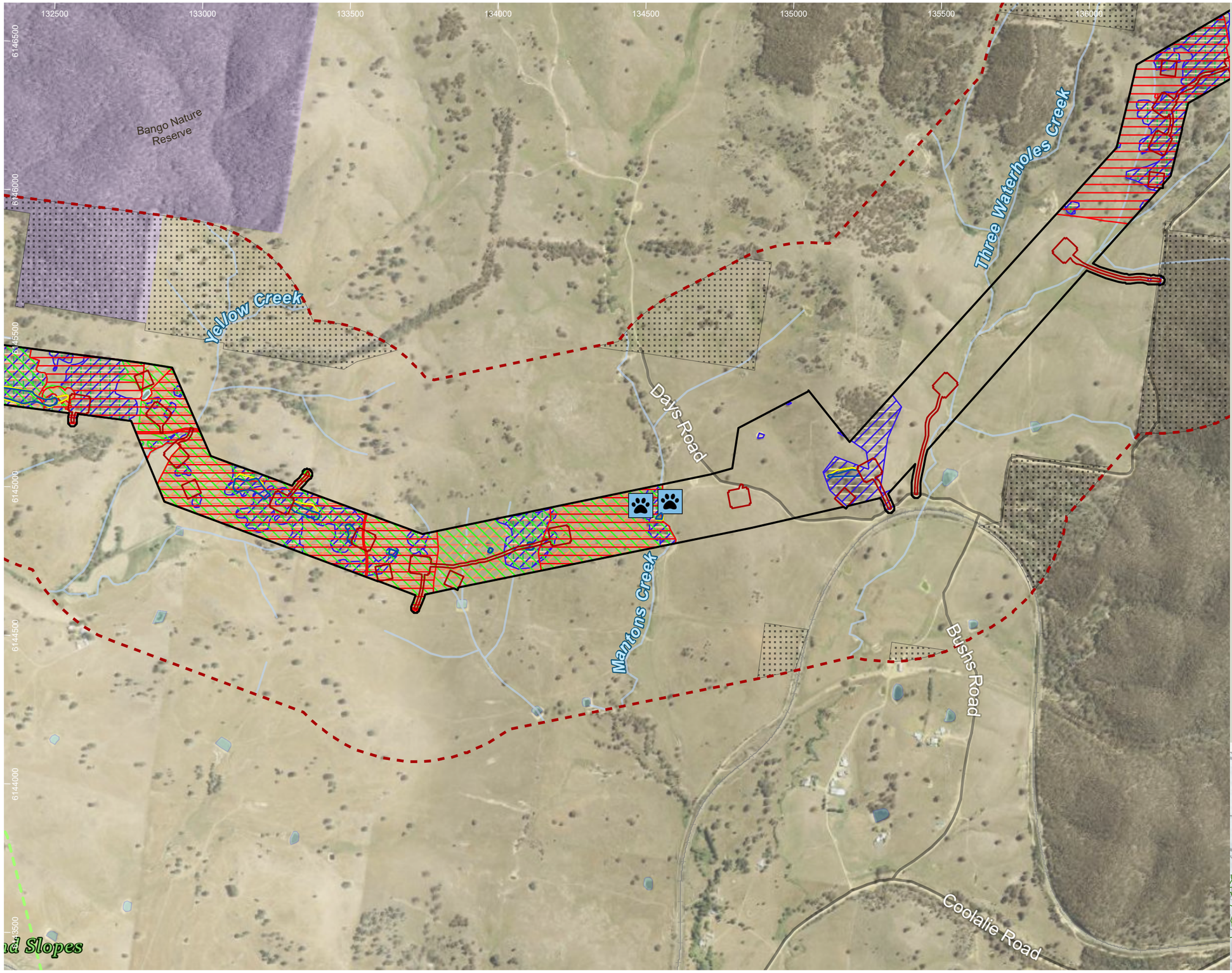


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

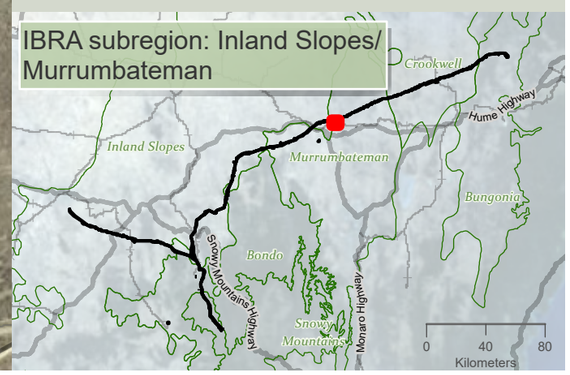
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrelle tasmaniensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

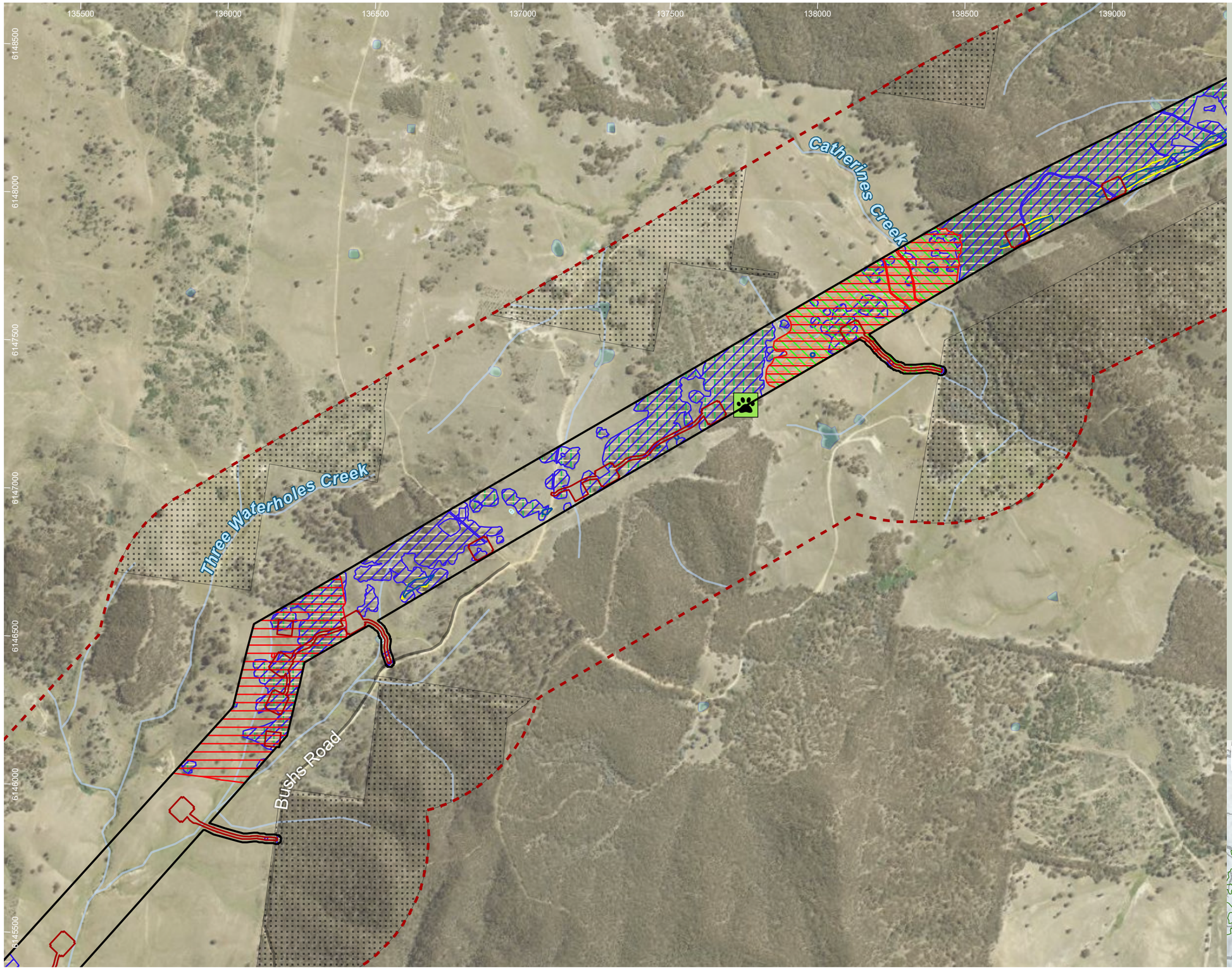
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 76

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

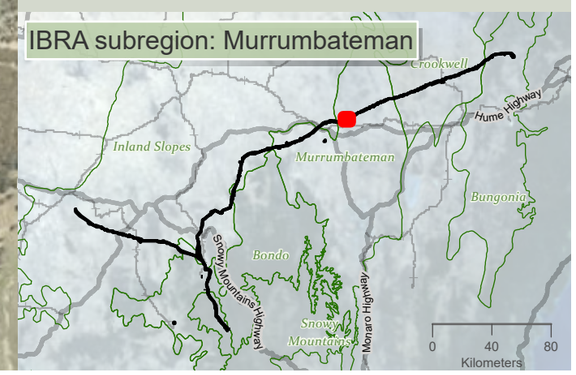
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern Pygmy-possum (Cercartetus nanus)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 77

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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138500 139000 139500 140000 140500 141000 141500 142000

6150000 6149500 6149000 6148500 6148000 6147500

Bunton Creek

Stink Pot Road

[2] [2]

Flacknell Creek Road

Catherines Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

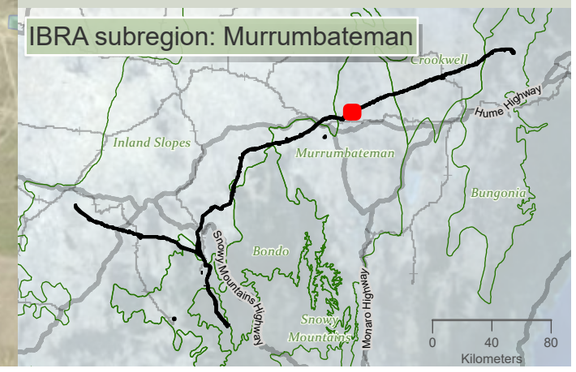
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Southern Myotis (Myotis macropus)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

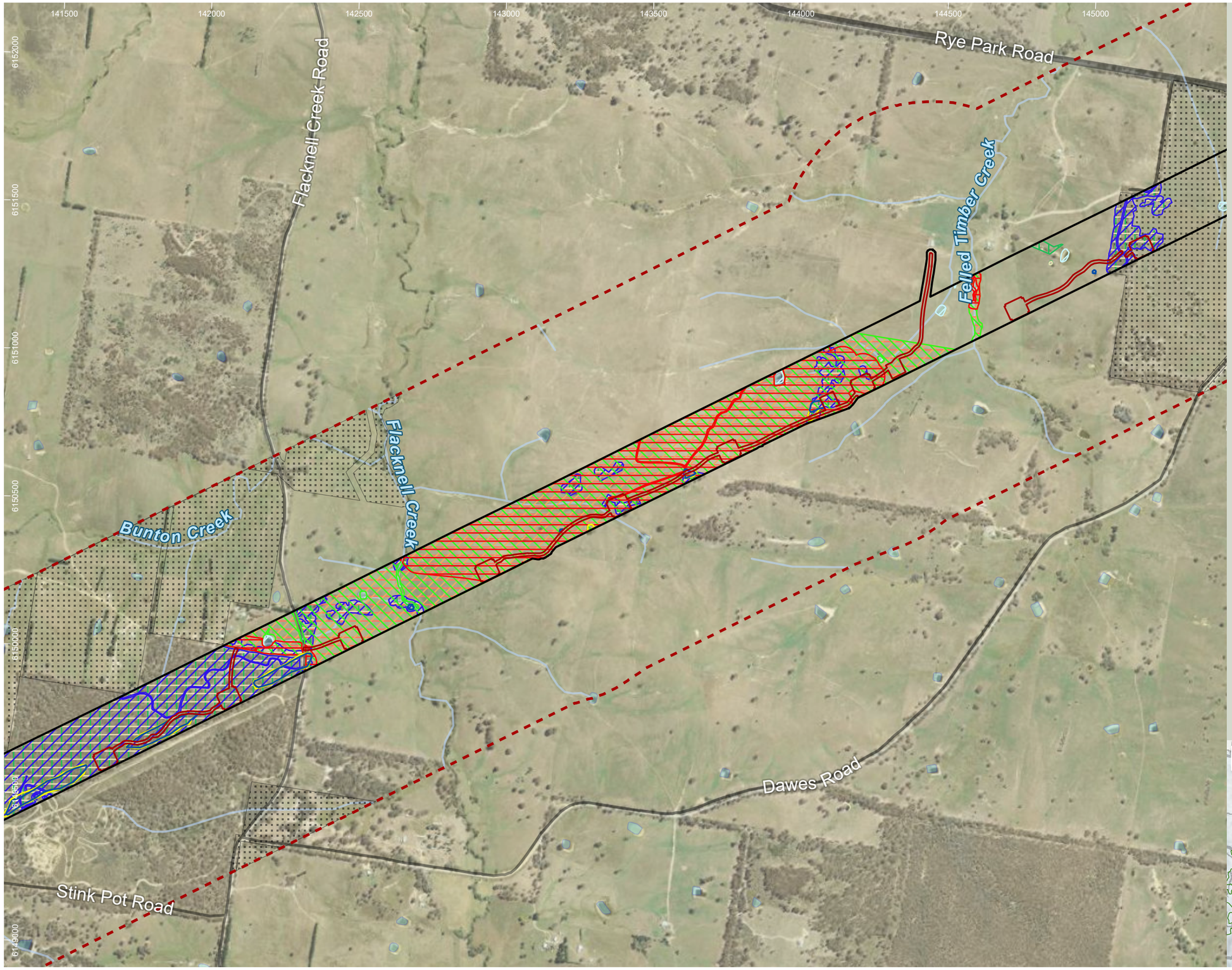
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 78

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajeczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

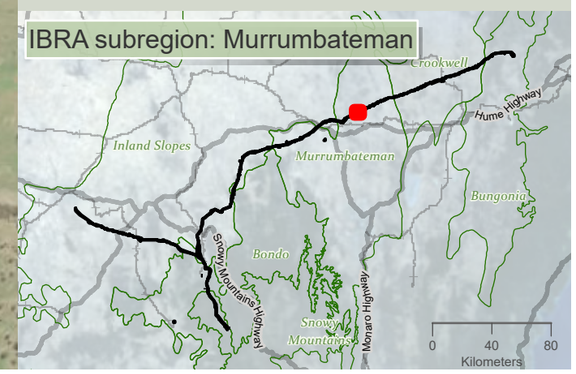
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 79

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

144500 145000 145500 146000 146500 147000 147500 148000

6153500 6153000 6152500 6152000 6151500 6151000

Greendale Road
Felled Timber Road
Jerrawa Creek
Offleys Lane
Rye Park Road
Dawes Road
Carnells Lane
Felled Timber Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

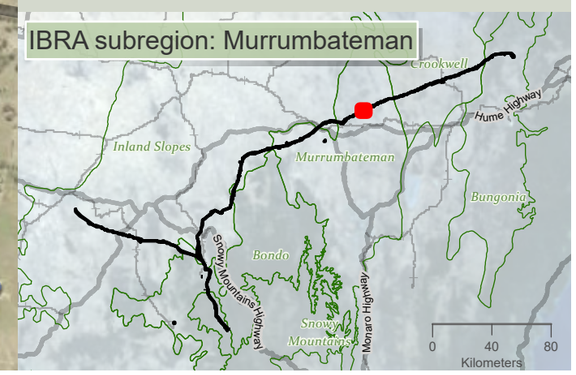
Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

IBRA subregion: Murrumbateman



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 80

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Felled Timber Road

Rugby Road

Walshs Road

Sams Creek

Dowlings Creek

Coolong Creek

Yerrawa Creek

[4]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

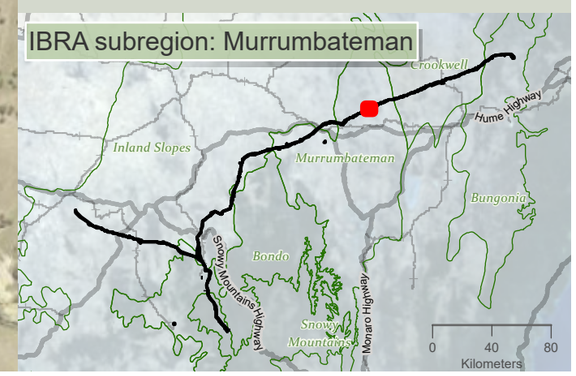
- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Key's Matchstick Grasshopper (Keyacris scurra)

Mammalia

Eastern Pygmy-possum (Cercartetus nanus)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 81

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche9699_Humelink_BDAR_Stage 2 Part A.aprx
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential

151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

Merrill Creek

Lachlan River

Dowlings Creek

Sams Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

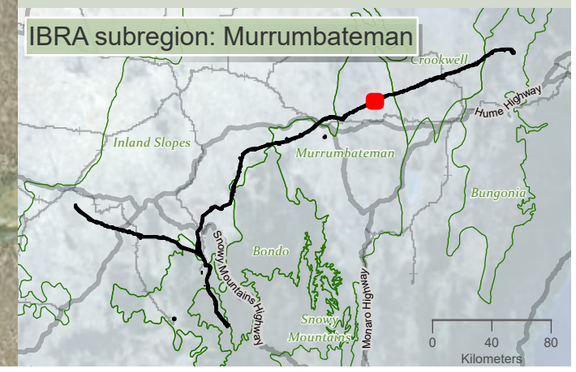
EPBC Act fauna species habitat

- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern Pygmy-possum (Cercartetus nanus)
- Squirrel Glider (Petaurus norfolcensis)



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

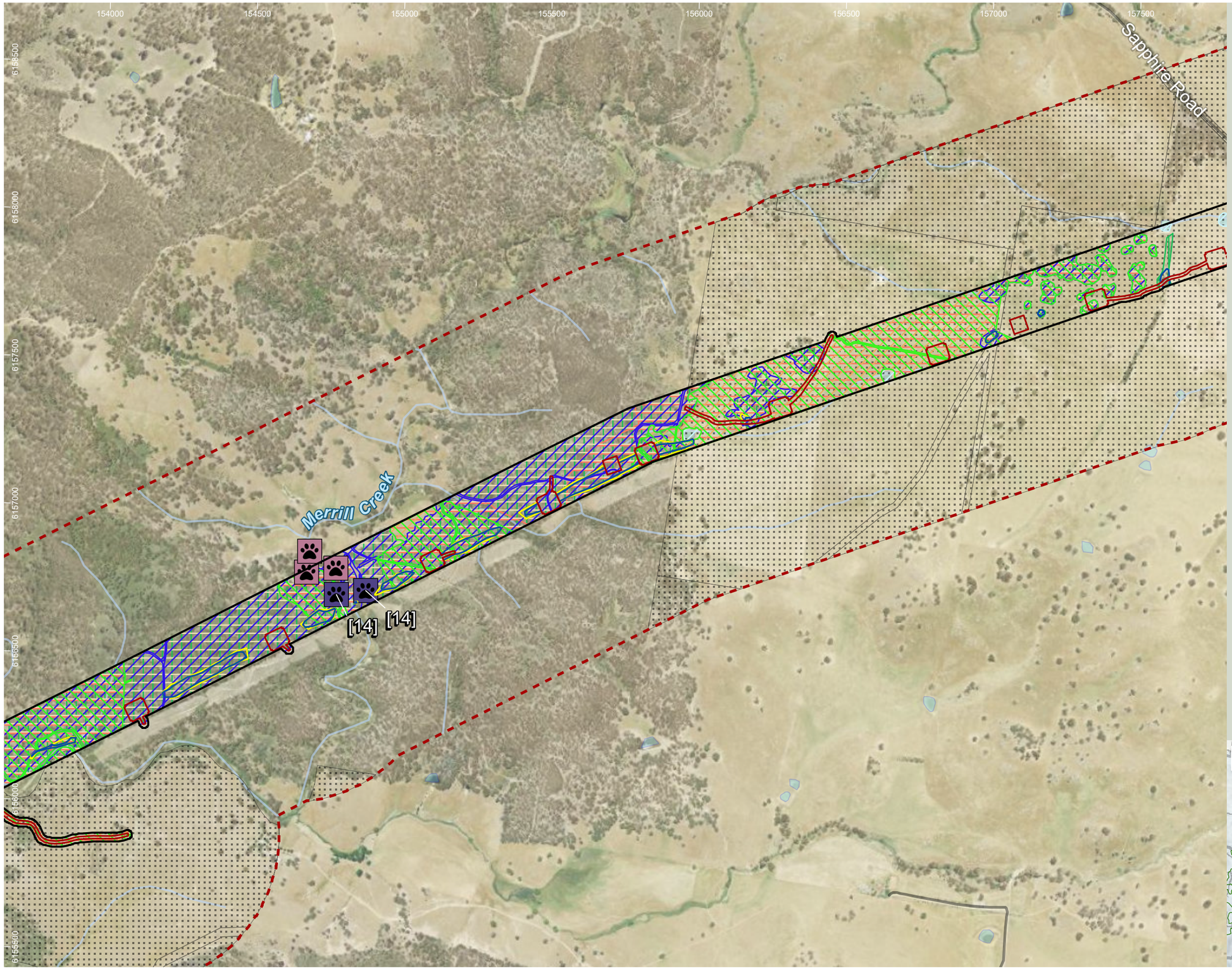
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 82

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche9699 - Confidential impact assessment SEC-EXT - BDAR_v2\ai699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

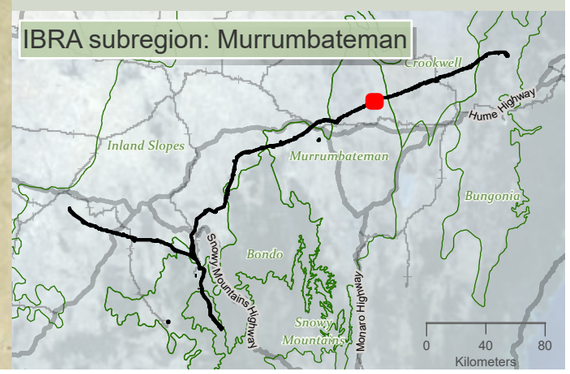
EPBC Act fauna species habitat

- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 83

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

157000 157500 158000 158500 159000 159500 160000 160500

6160000 6159500 6159000 6158500 6158000 6157500 6157000

Sapphire Road

Middle Creek

Clancys Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

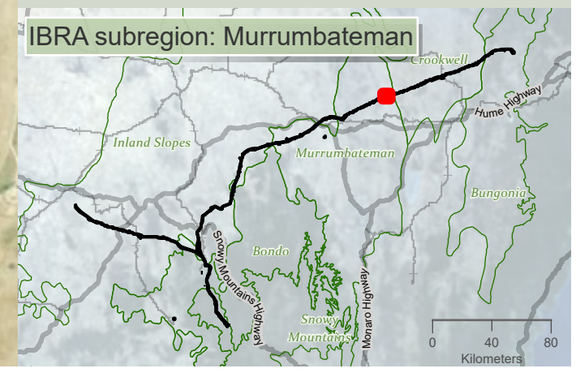
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

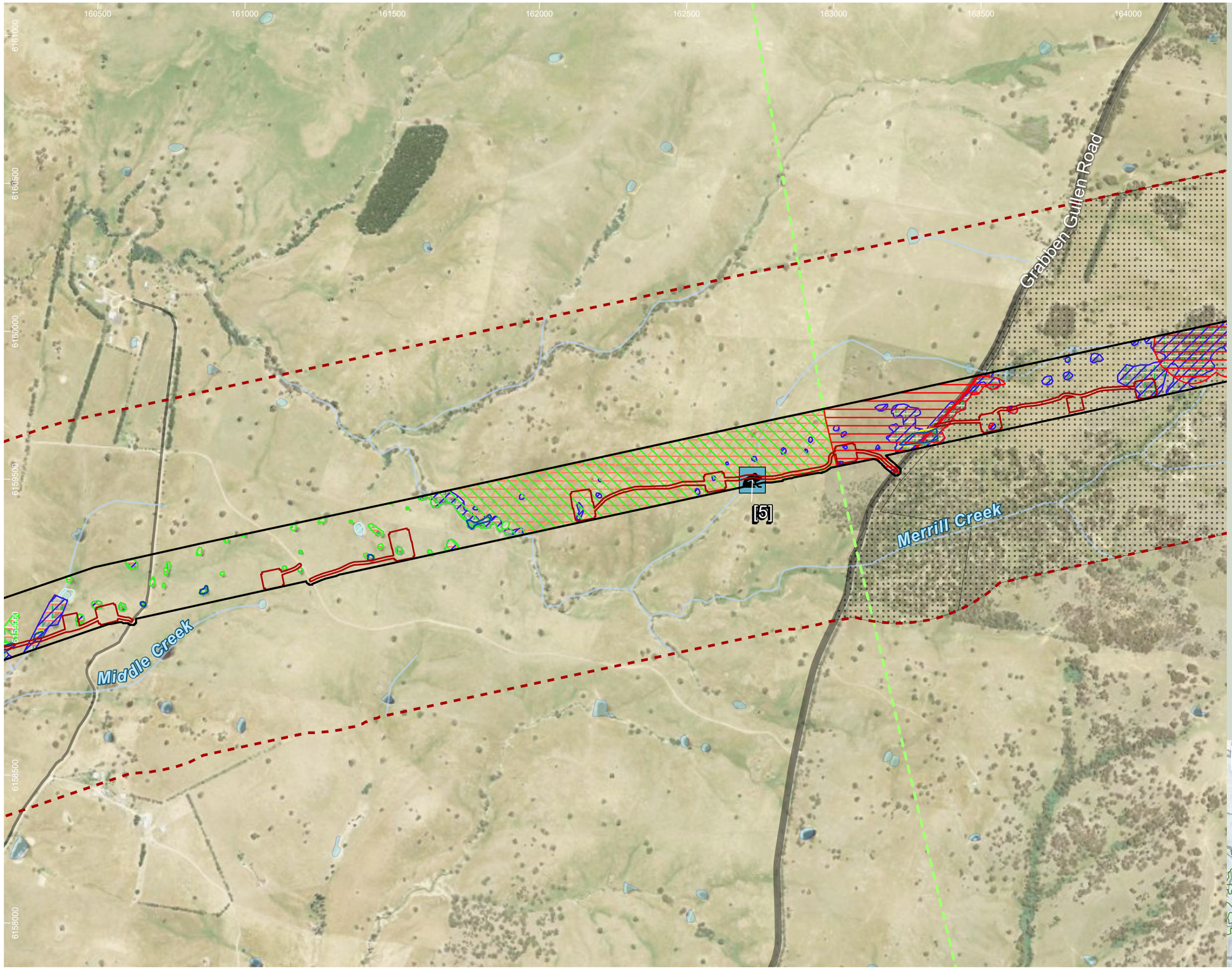
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 84

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

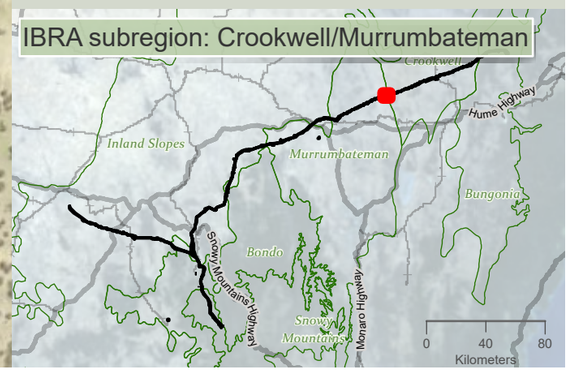
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Delma impar
- Keyacris scurra
- Litoria castanea
- Phascolarctos cinereus
- Pteropus poliocephalus
- Synemon plana

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

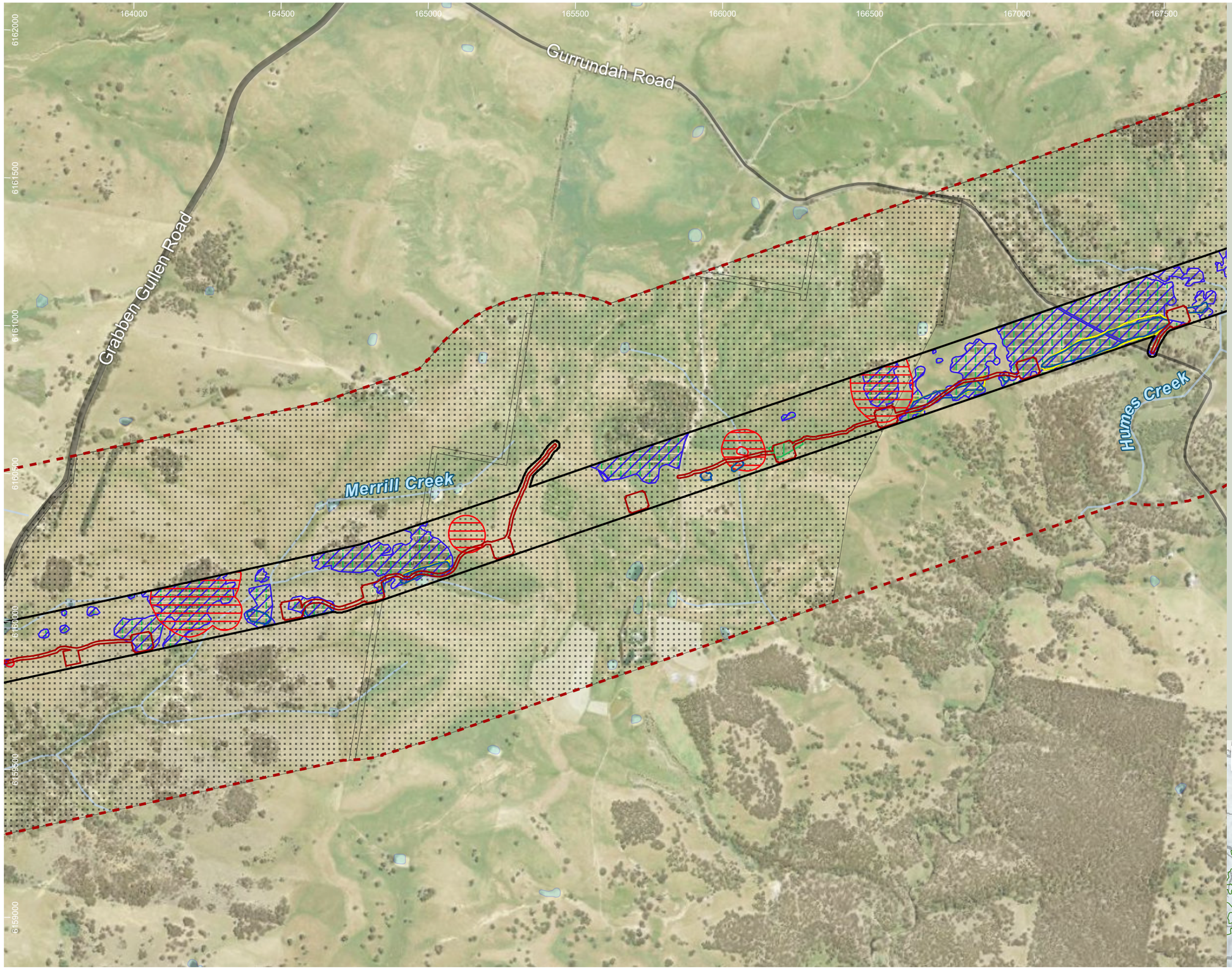
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 85

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

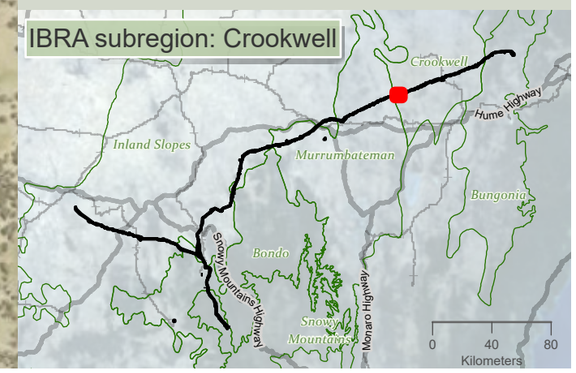
Transport

Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

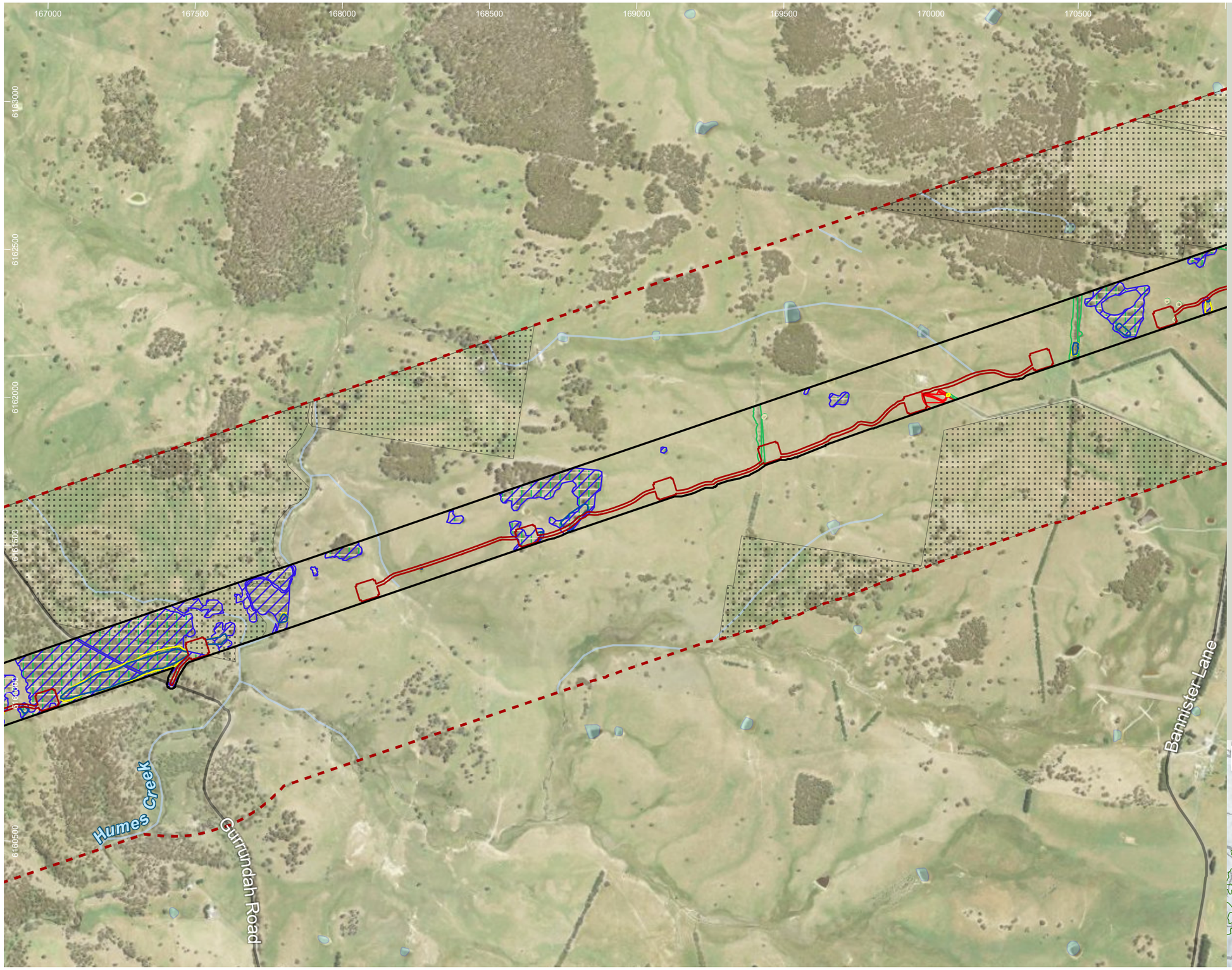
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 86

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FolderNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

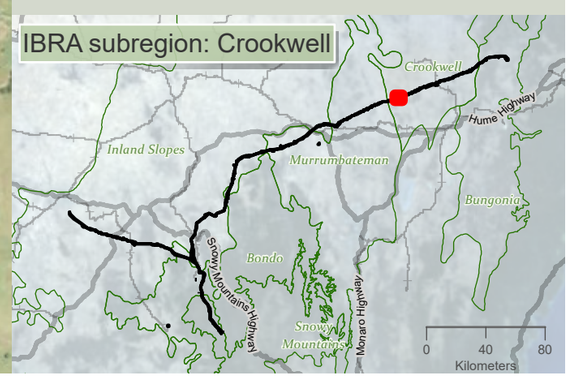
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 87

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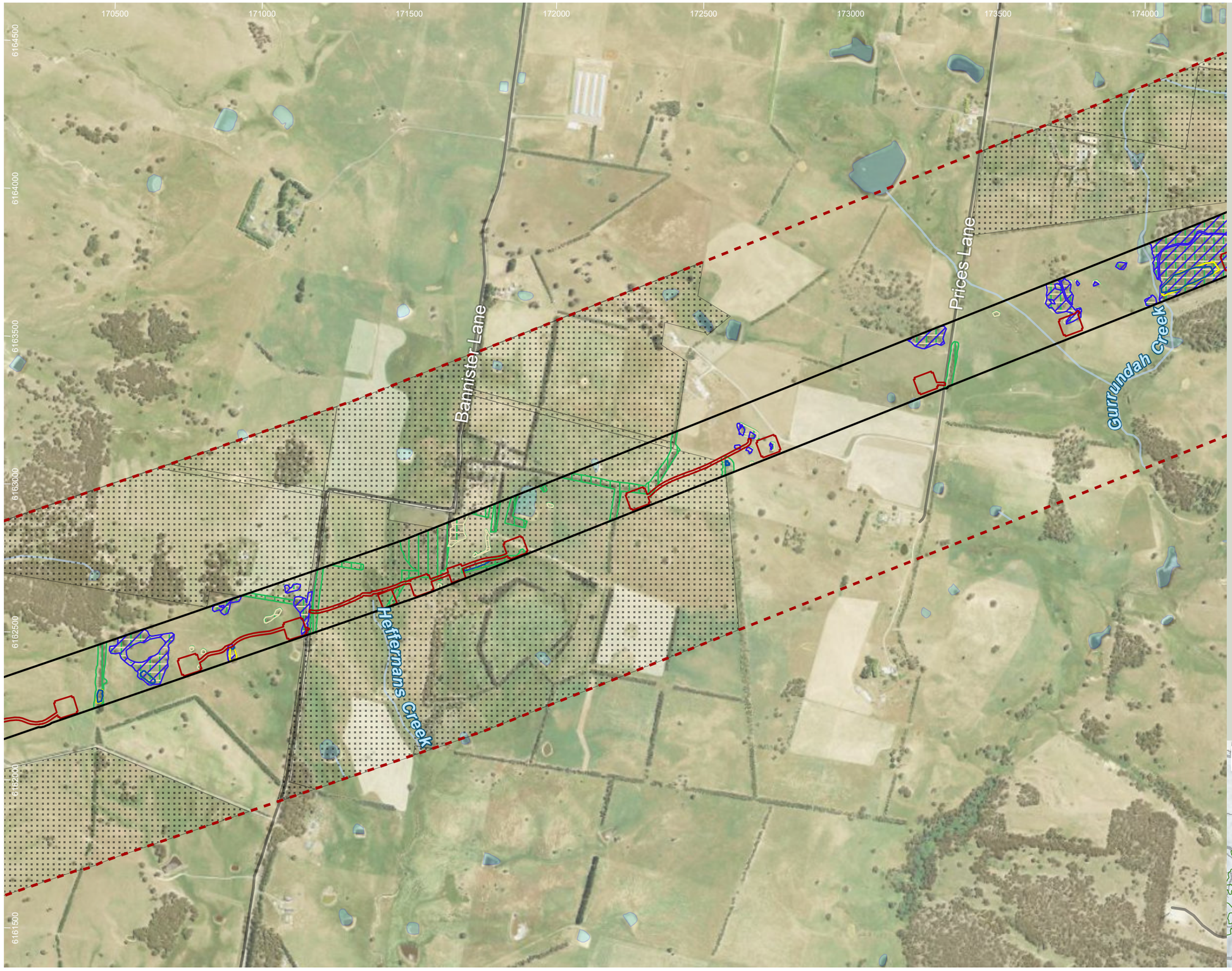
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

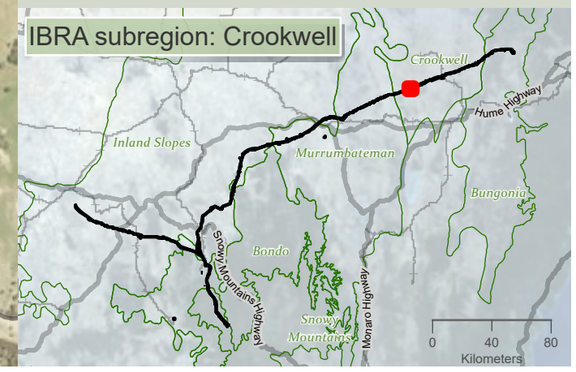
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 88

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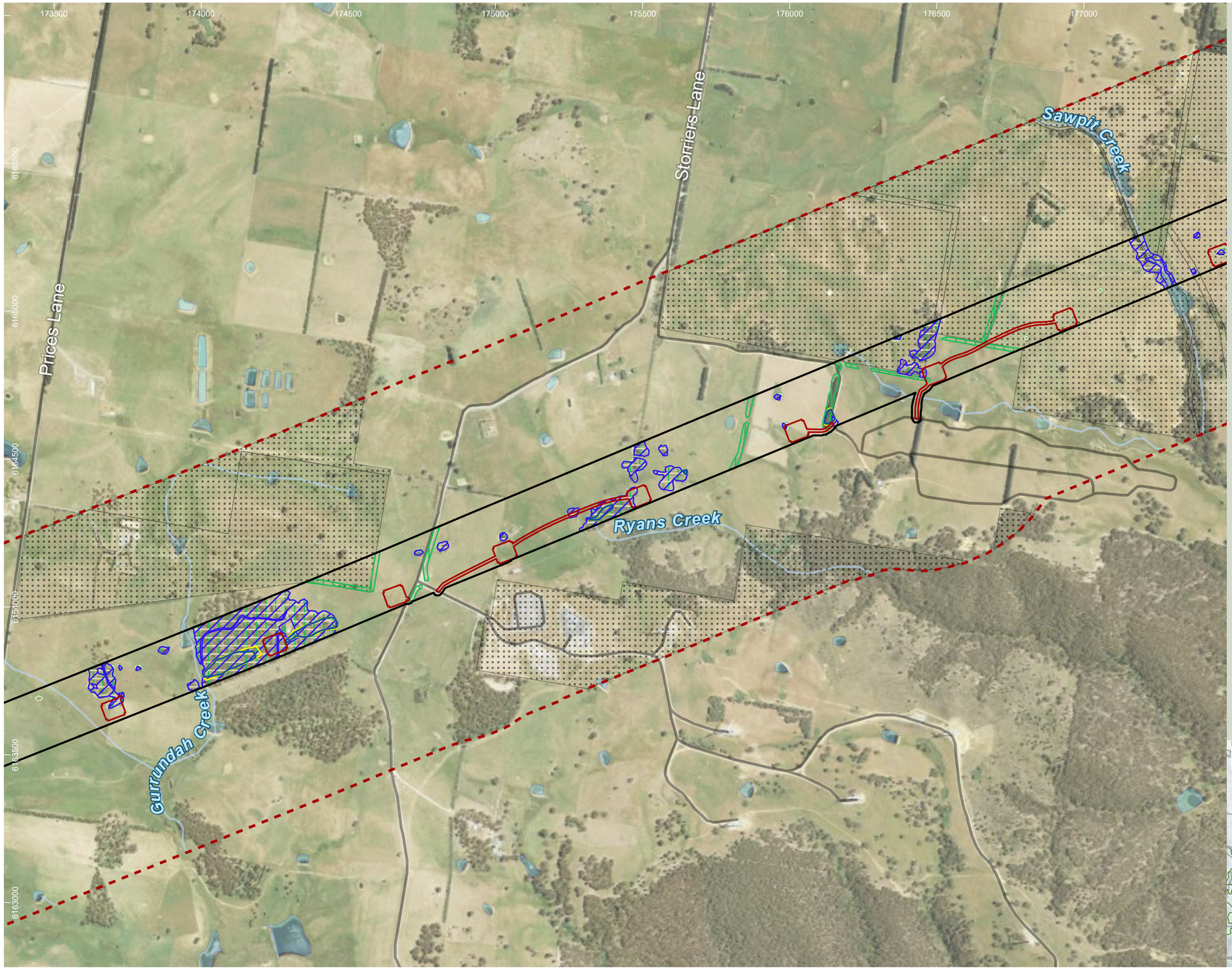
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

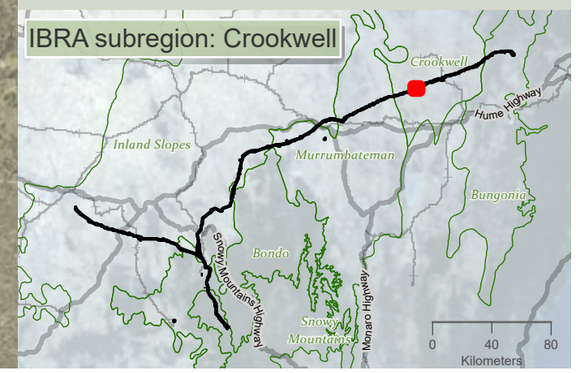
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6899 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 89

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

Walkoms Lane

Kialla Creek

Range Road

Sawpit Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

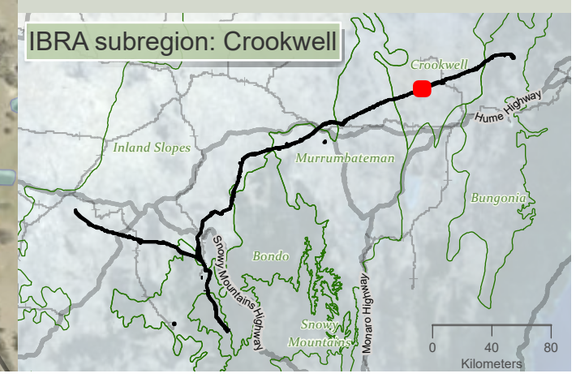
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

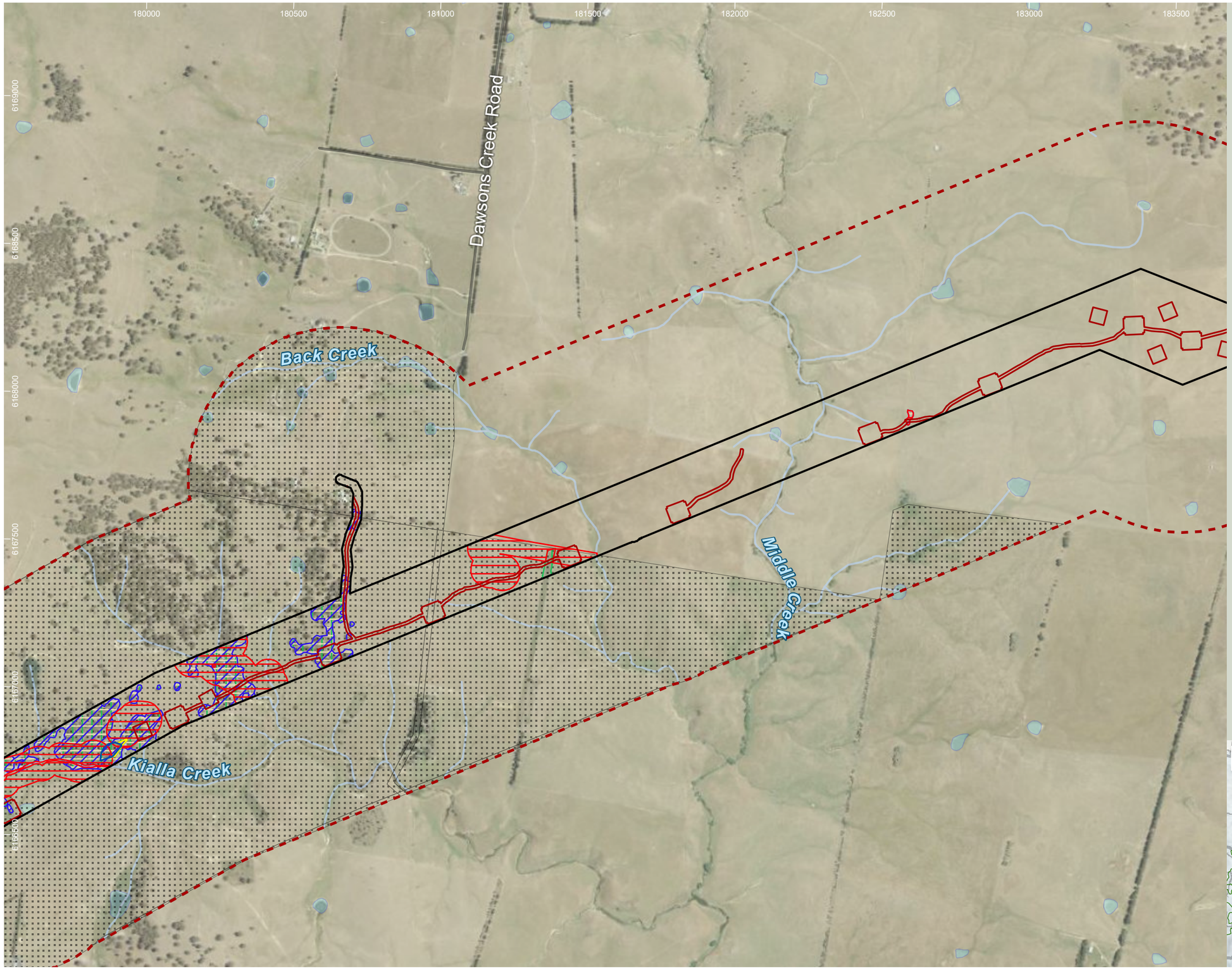
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 90

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

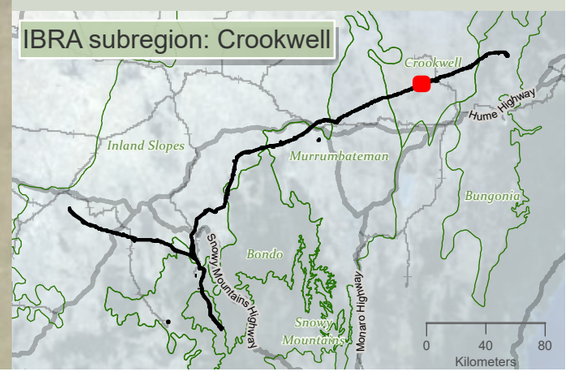
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 91

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

183000 183500 184000 184500 185000 185500 186000 186500

6170000 6169500 6169000 6168500 6168000 6167500

Goulburn Road

Wollondilly River

First Creek

Crookwell Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

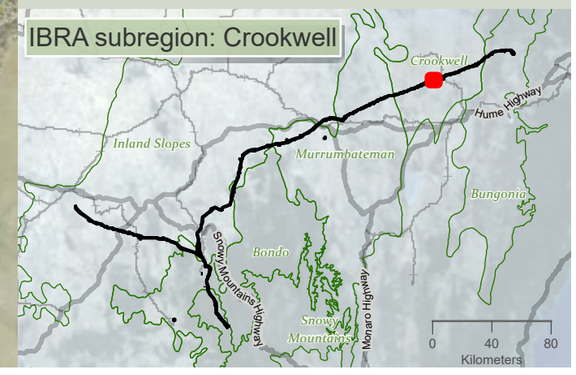
Road

- Major road
- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus

IBRA subregion: Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

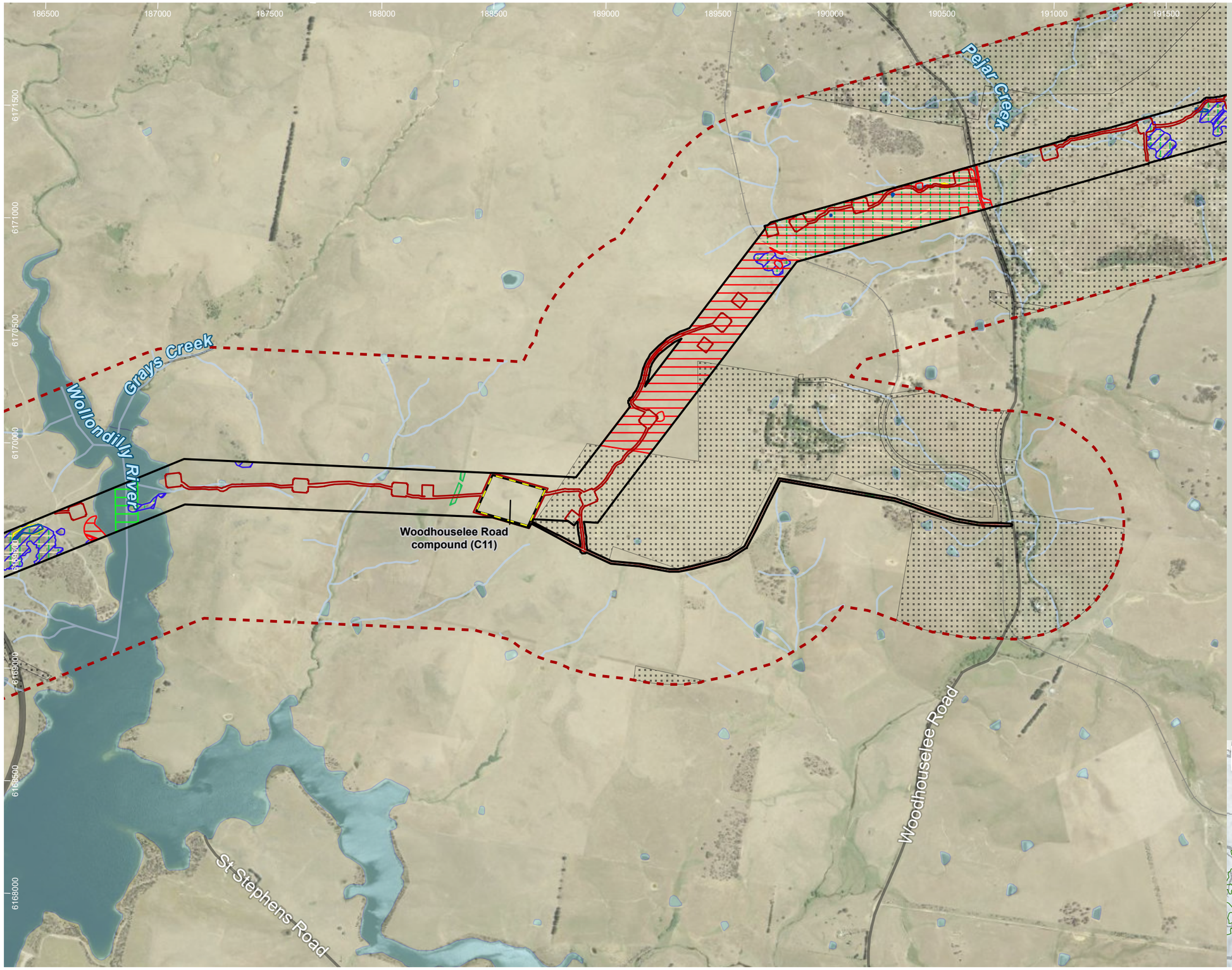
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 92

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski | Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

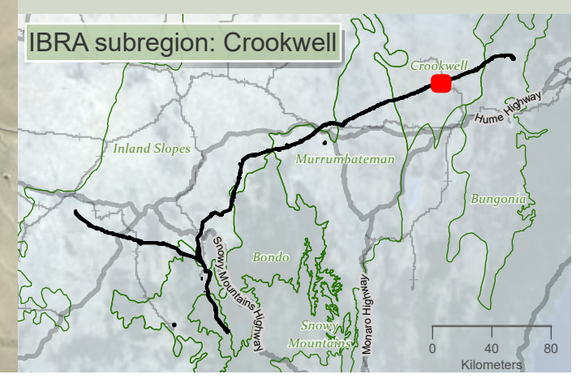
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 93

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski | Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

189500 190000 190500 191000 191500 192000 192500 193000

6173000 6172500 6172000 6171500 6171000 6170500 6170000

Polar Creek

Steeves Creek

Woodhouselee Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

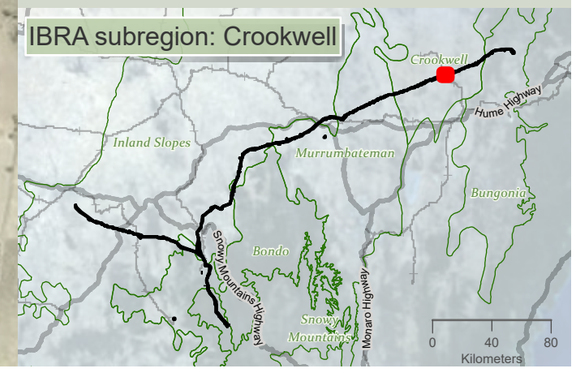
Transport

Road

- Minor road
- Rail

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 94

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

193000 193500 194000 194500 195000 195500 196000 196500

6174000 6173500 6173000 6172500 6172000 6171500 6171000

Melamalong Creek

Steeves Creek

[2]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus

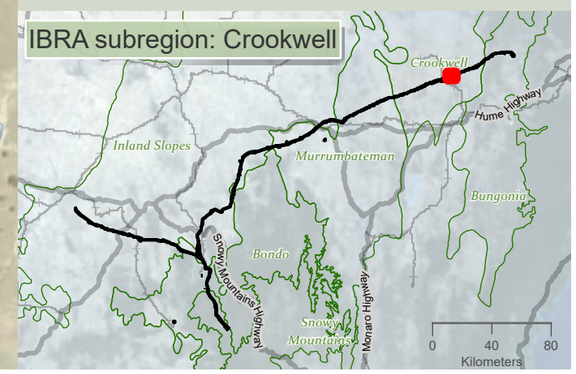
Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Amphibia

- Verreaux's Frog (Litoria verreauxii)

Mammalia

- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 95

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

196000 196500 197000 197500 198000 198500 199000 199500 200000

6175000 6174500 6174000 6173500 6173000 6172500

Middle Arm Road

Back Arm Nature Reserve

Tarlo River

Sawpit Gully

[2]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

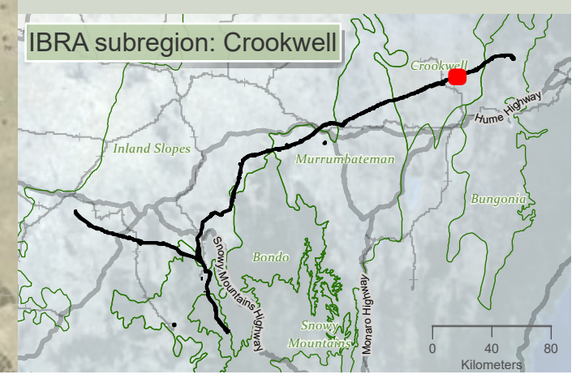
- Aprasia parapulchella
- Dasyurus maculatus
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Squirrel Glider (Petaurus norfolcensis)

IBRA subregion: Crookwell



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 96

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

199500 200000 200500 201000 201500 202000 202500 203000

6176500 6176000 6175500 6175000 6174500 6174000

Rhyanna Road

Back Arm Nature Reserve

Turrallo Creek

Tarlo River

Back Arm Road

Middle Arm Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

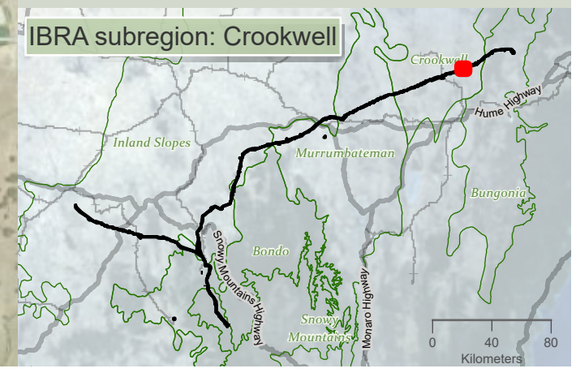
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act fauna species habitat

- Dasyurus maculatus
- Litoria booroolongensis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

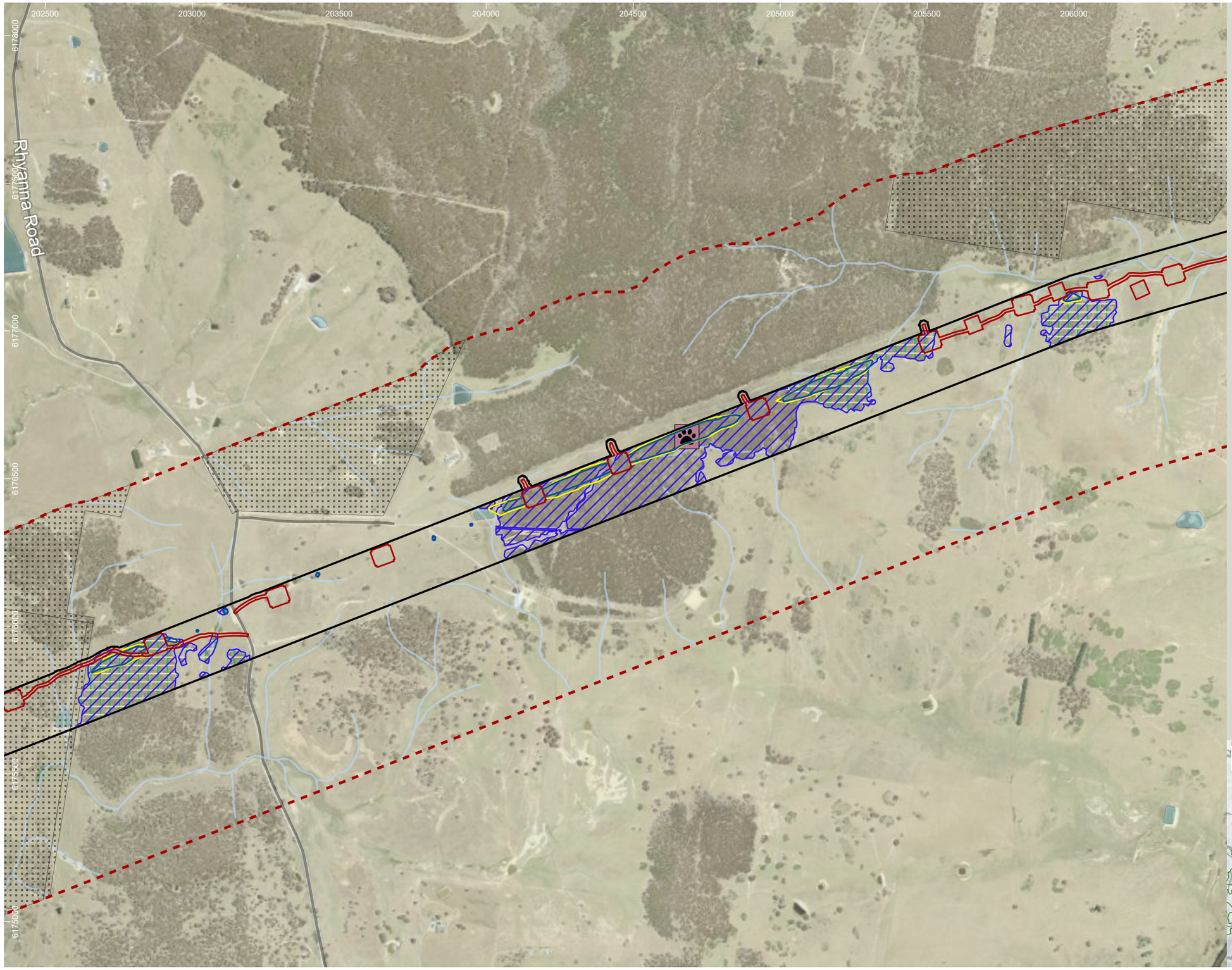
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 97

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential\Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

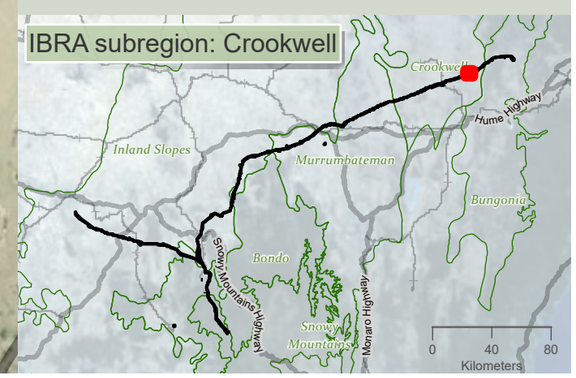
EPBC Act fauna species habitat

- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Squirrel Glider (Petaurus norfolcensis)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

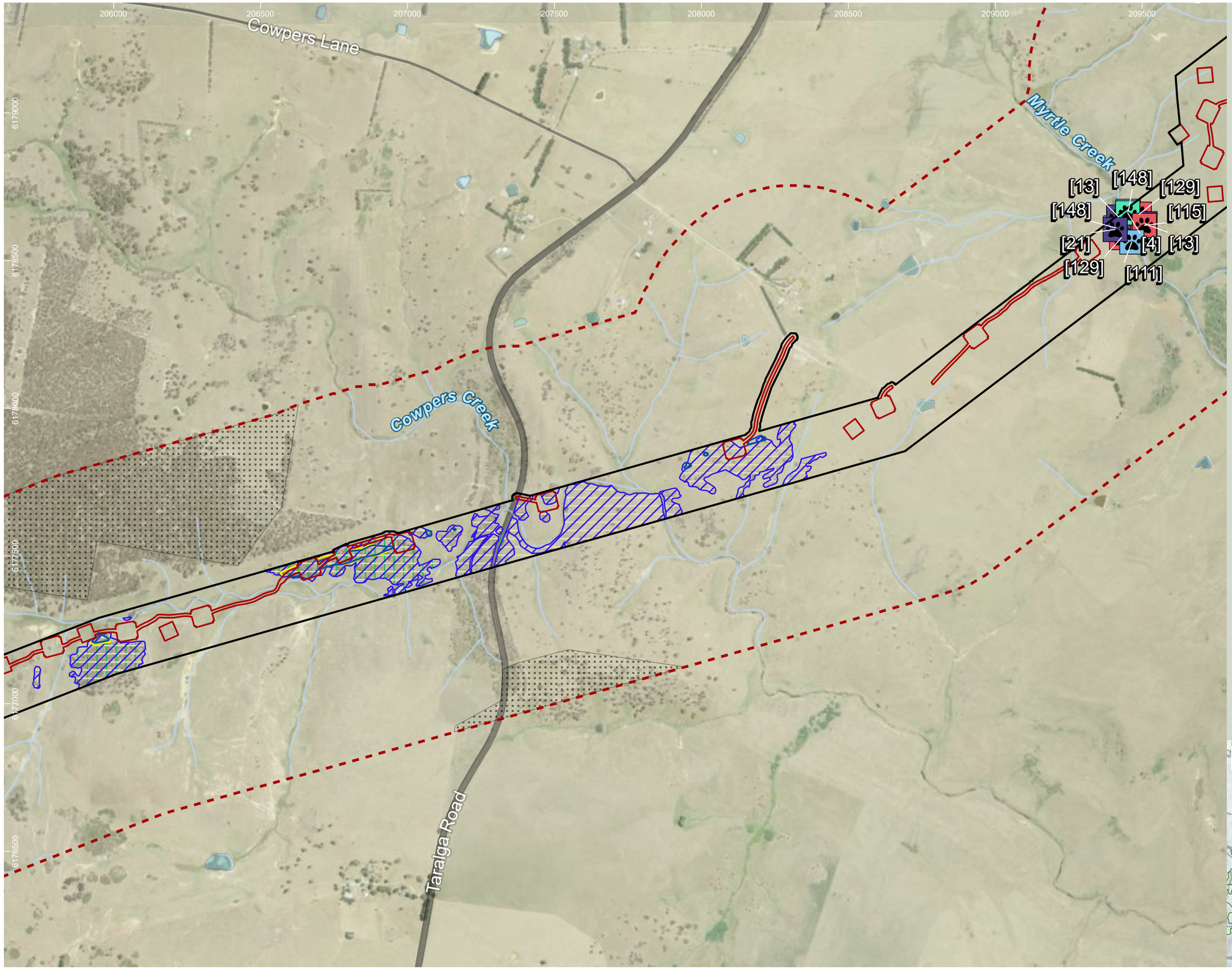
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 98

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajeczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

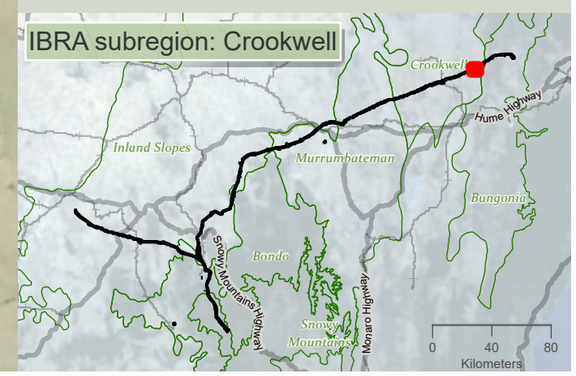
EPBC Act fauna species habitat

- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 99

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Hillcrest Road

Soldiers Settlement Road

Dawsons Flat Creek

Myrtle Creek

Bungonia

[13] [148] [129] [115] [13] [21] [4] [148] [129] [111]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act fauna species habitat

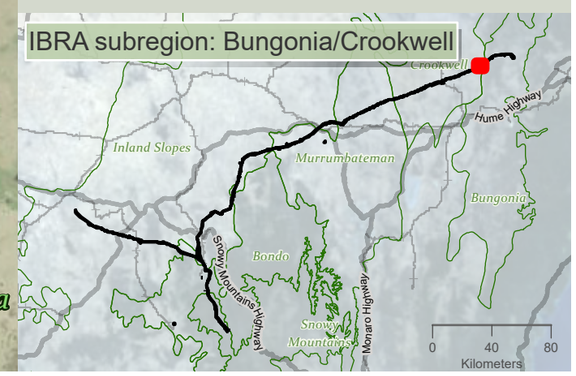
- Dasyurus maculatus
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)

IBRA subregion: Bungonia/Crookwell



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 100

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211500 212000 212500 213000 213500 214000 214500 215000

6183500 6183000 6182500 6182000 6181500 6181000 6180500

Forest Creek

Bungonia

Tarlo River National Park

Hillcrest Road

Cow Horn Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

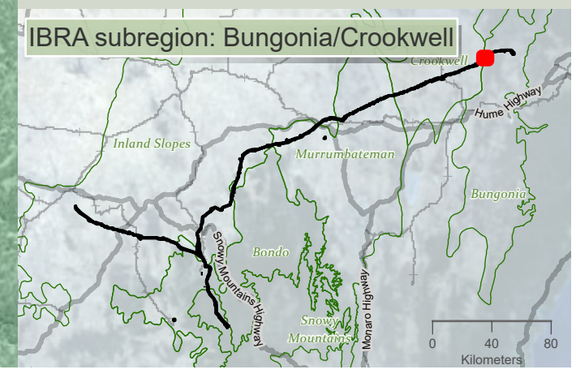
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Chalinolobus dwyeri
- Dasyurus maculatus
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 101

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential\Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

214500 215000 215500 216000 216500 217000 217500 218000

6185500 6185000 6184500 6184000 6183500 6183000 6182500

Kerrawary Creek

Bungonia

Tarlo River National Park

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

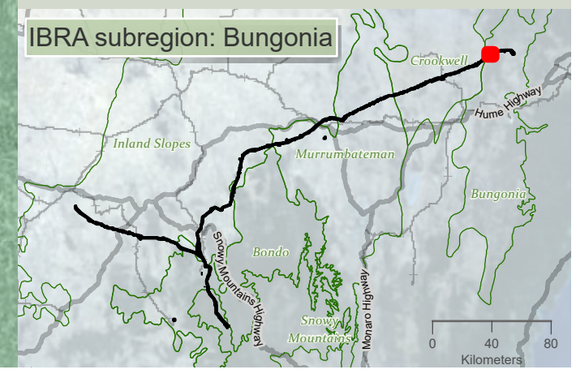
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act fauna species habitat

- Aprasia parapulchella
- Chalinolobus dwyeri
- Dasyurus maculatus
- Keyacris scurra
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

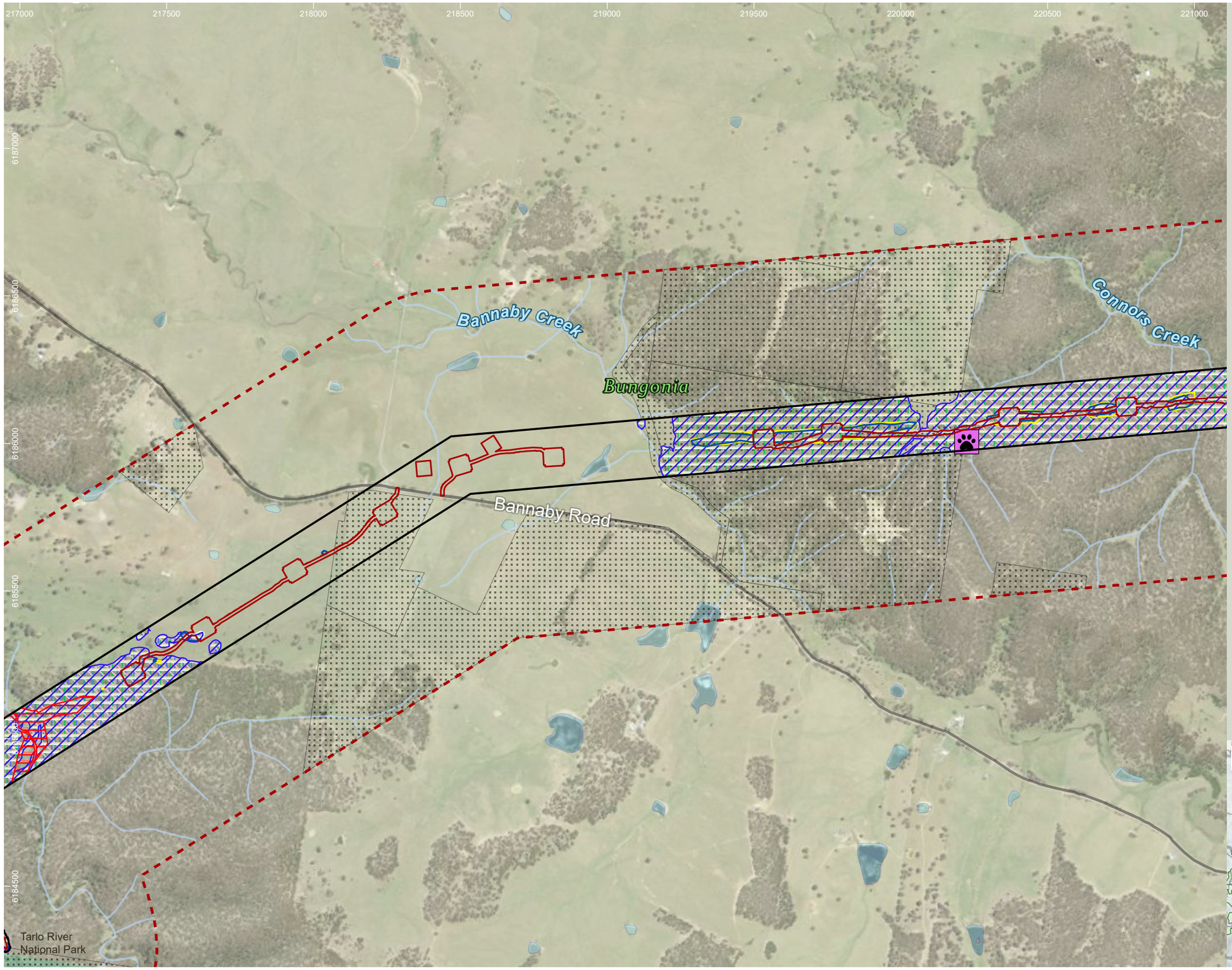
Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 102

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- National Park

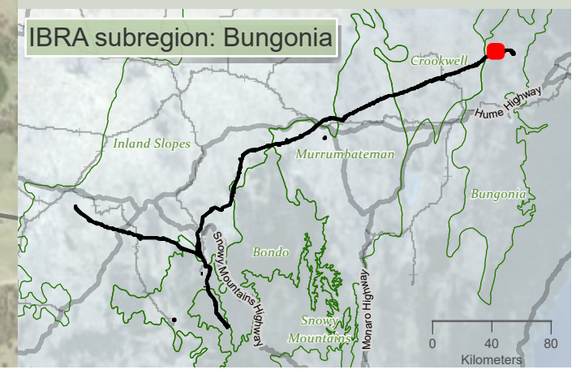
EPBC Act fauna species habitat

- Aprasia parapulchella
- Chalinolobus dwyeri
- Dasyurus maculatus
- Keyacris scurra
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Greater Glider (Petauroides volans)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 103

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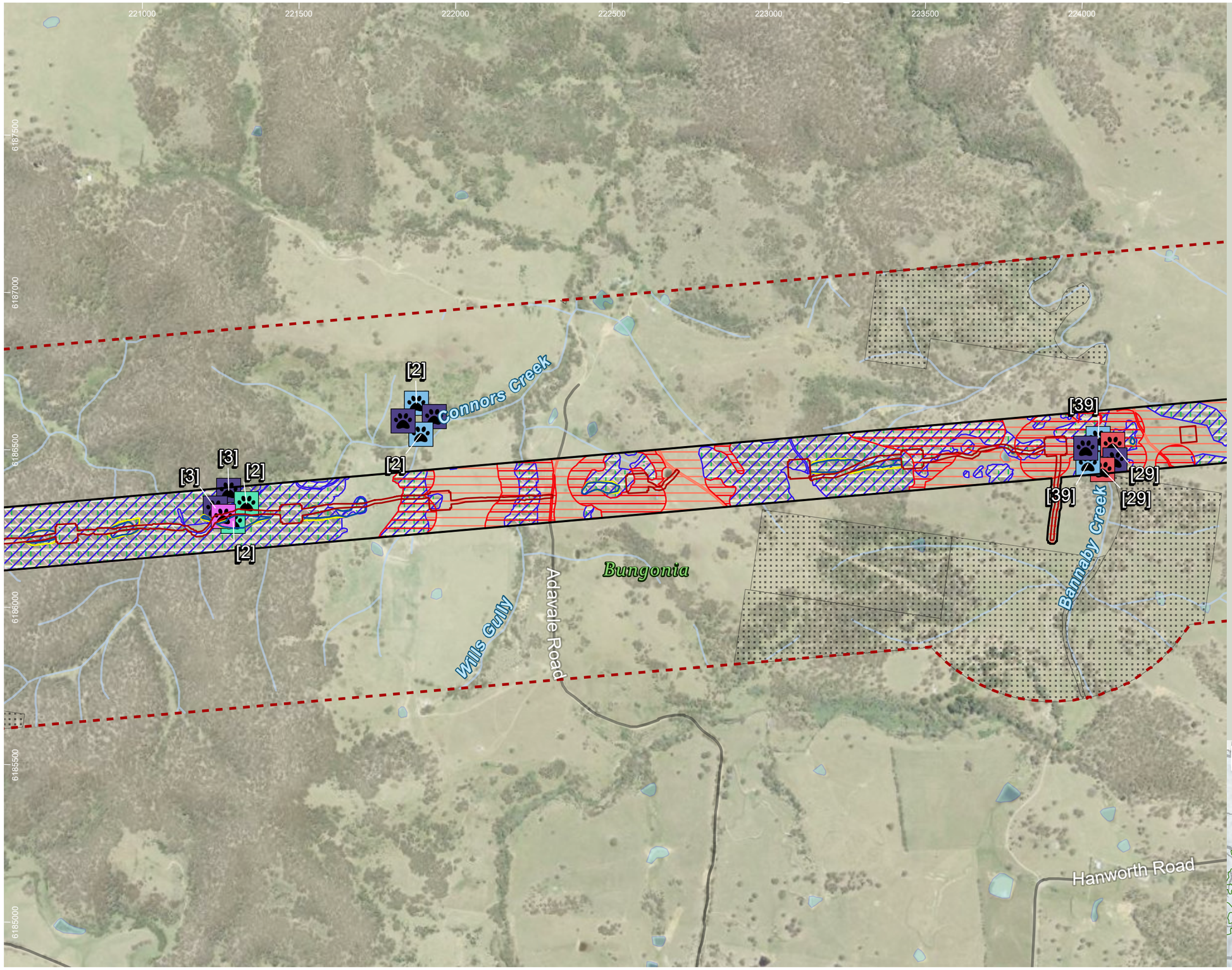


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

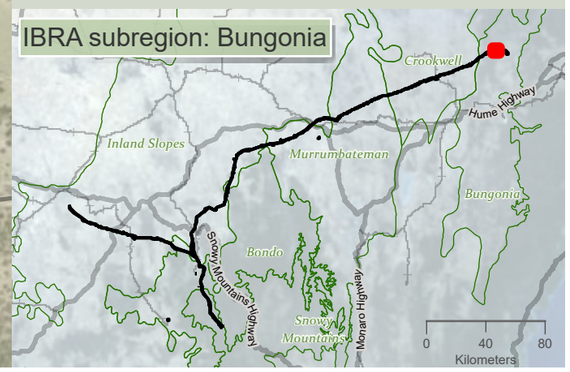
EPBC Act fauna species habitat

- Aprasia parapulchella
- Dasyurus maculatus
- Keyacris scurra
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Greater Glider (Petauroides volans)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 104

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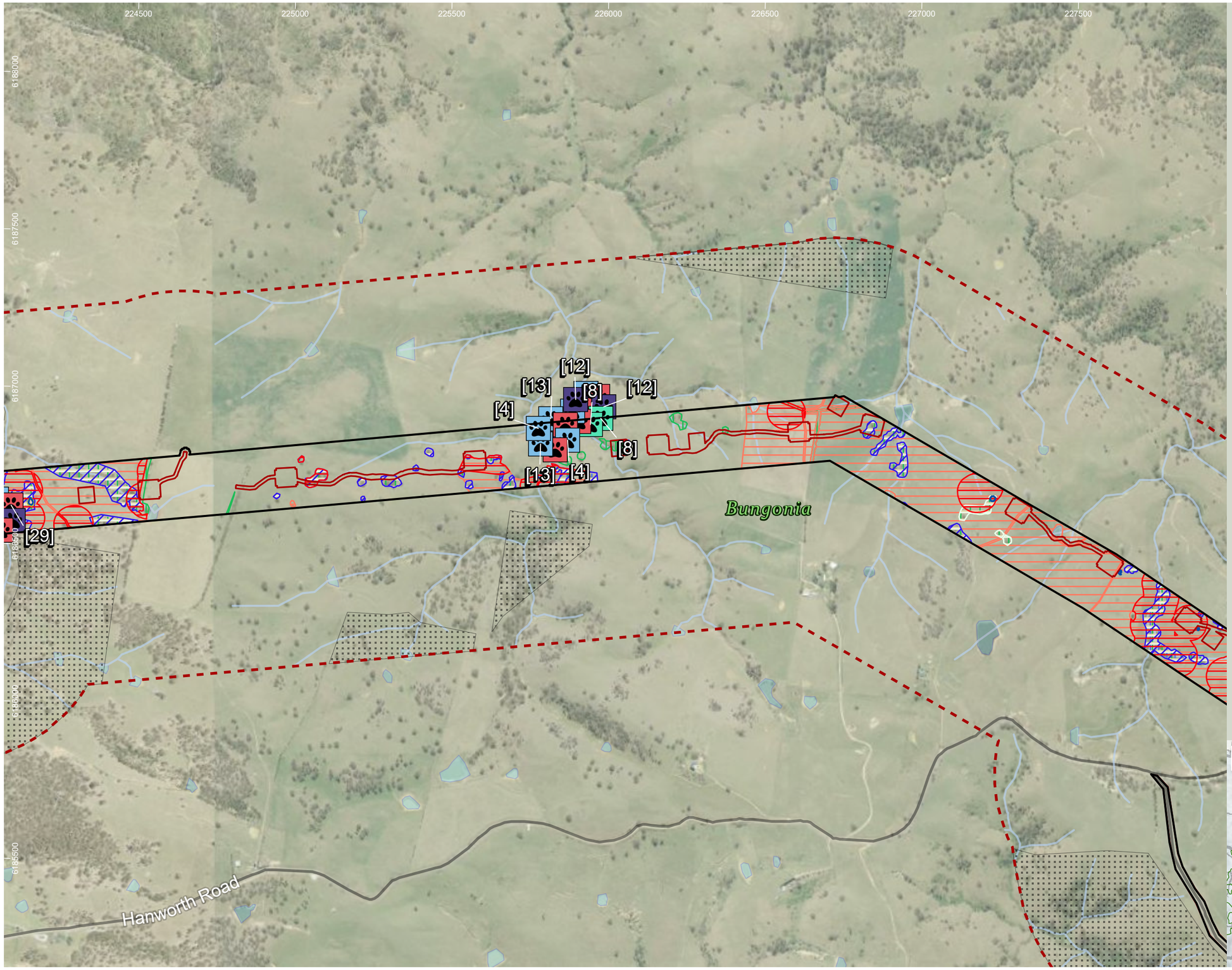
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

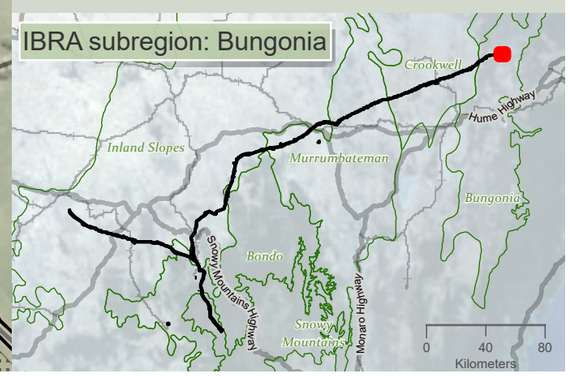
EPBC Act fauna species habitat

- Aprasia parapulchella
- Chalinolobus dwyeri
- Dasyurus maculatus
- Keyacris scurra
- Petauroides volans
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus

Threatened fauna species - Niche and ELA, 2022 (no. of records) [no. of records within individual >1]

Mammalia

- Eastern False Pipistrelle (Falsistrellus tasmaniensis)
- Greater Broad-nosed Bat (Scoteanax rueppellii)
- Large Bent-winged Bat (Miniopterus orianae oceanensis)
- Southern Myotis (Myotis macropus)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 105

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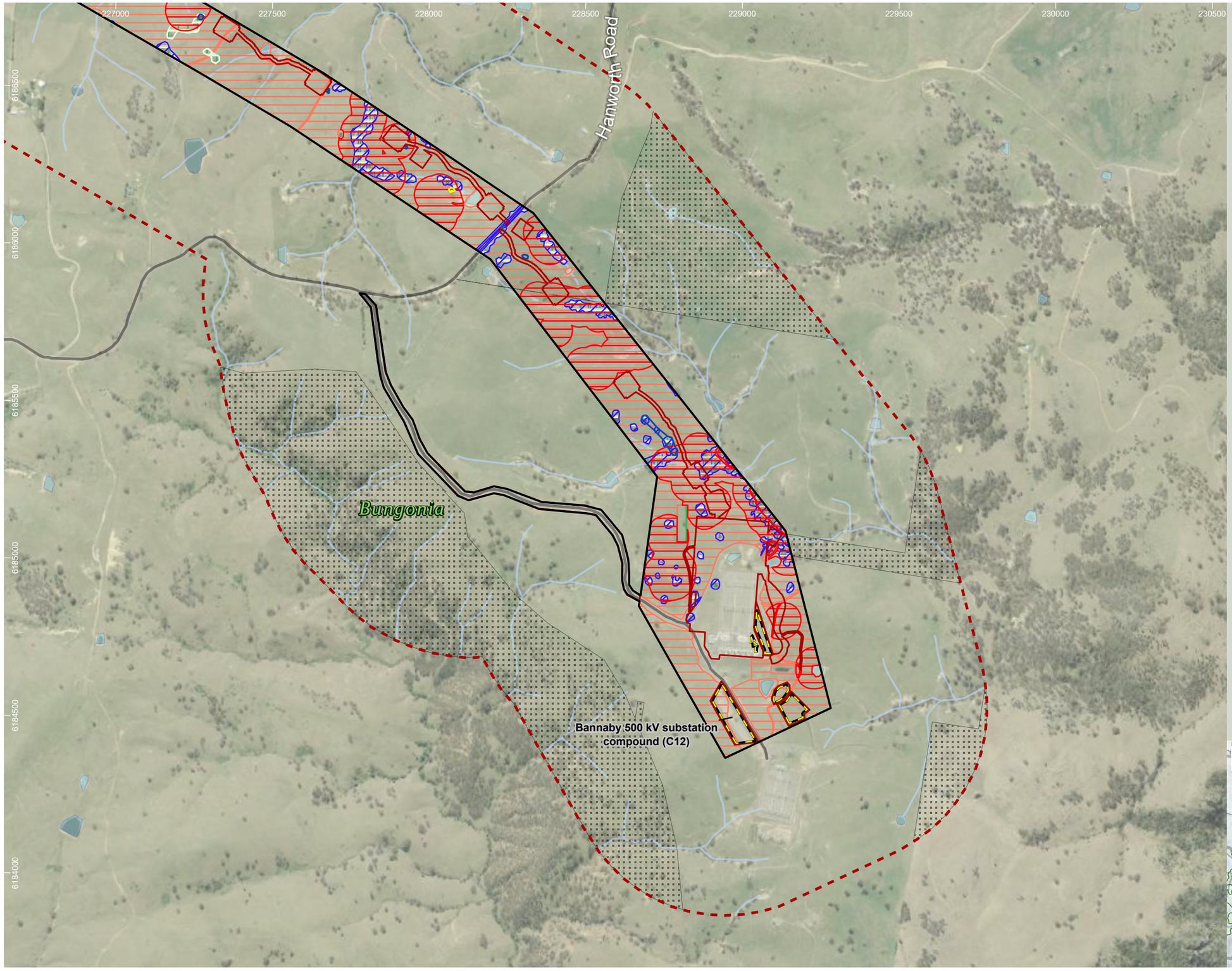


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

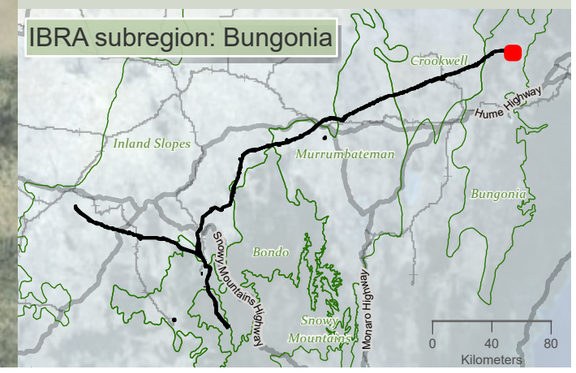
Transport

Road

- Minor road

EPBC Act fauna species habitat

- Aprasia parapulchella
- Chalinolobus dwyeri
- Dasyurus maculatus
- Keyacris scurra
- Petaurus australis
- Phascolarctos cinereus
- Pteropus poliocephalus



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- excluding aves

HumeLink BDAR

Figure 13-19 map reference 106

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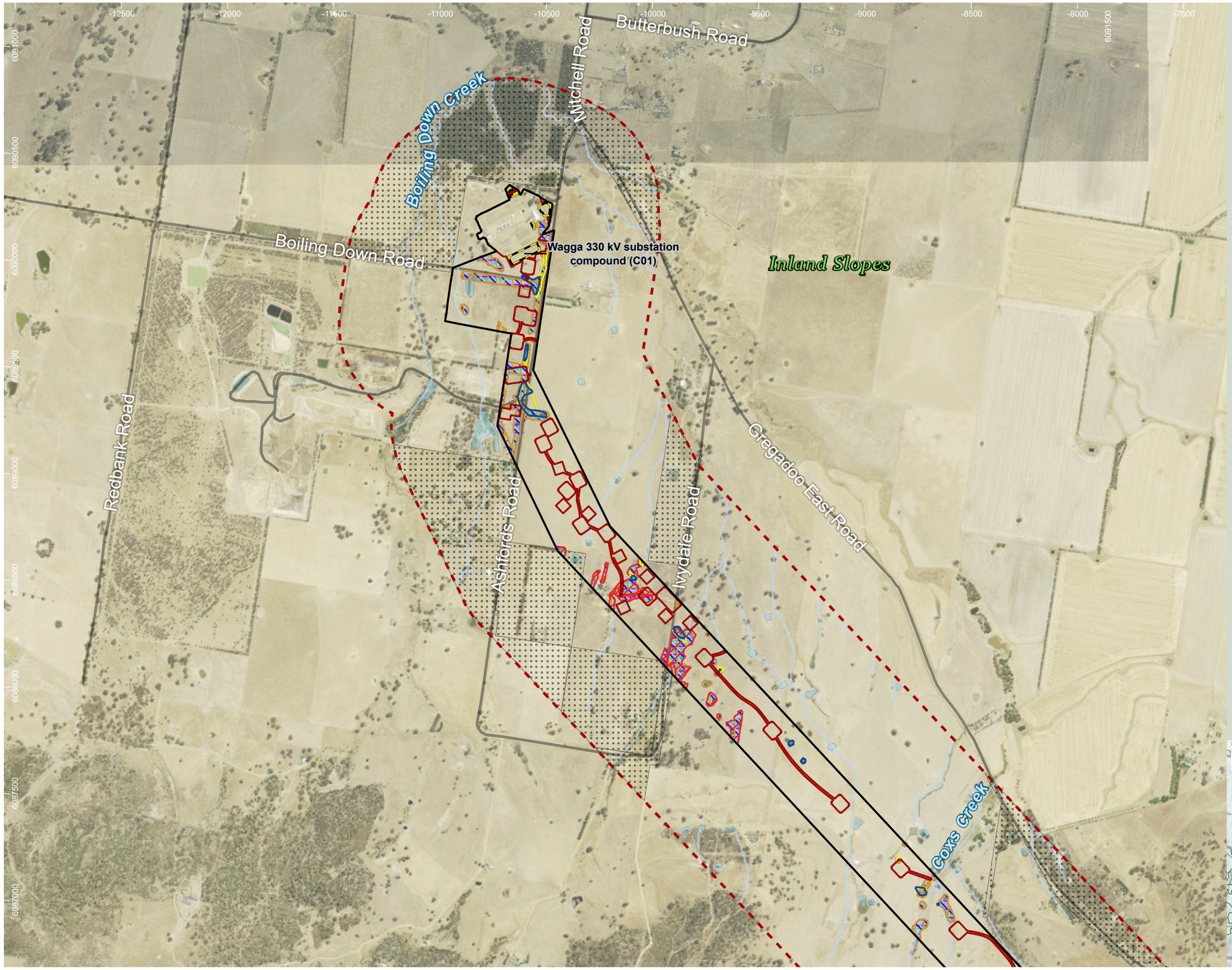


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

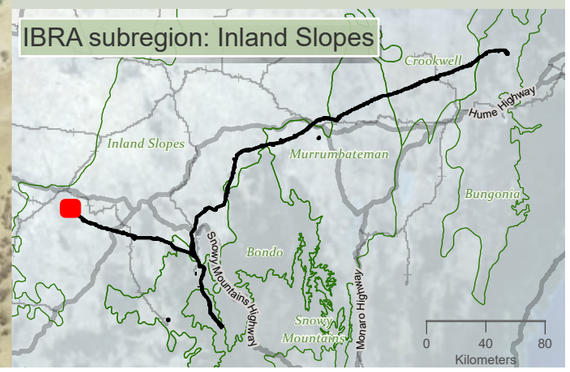
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 1

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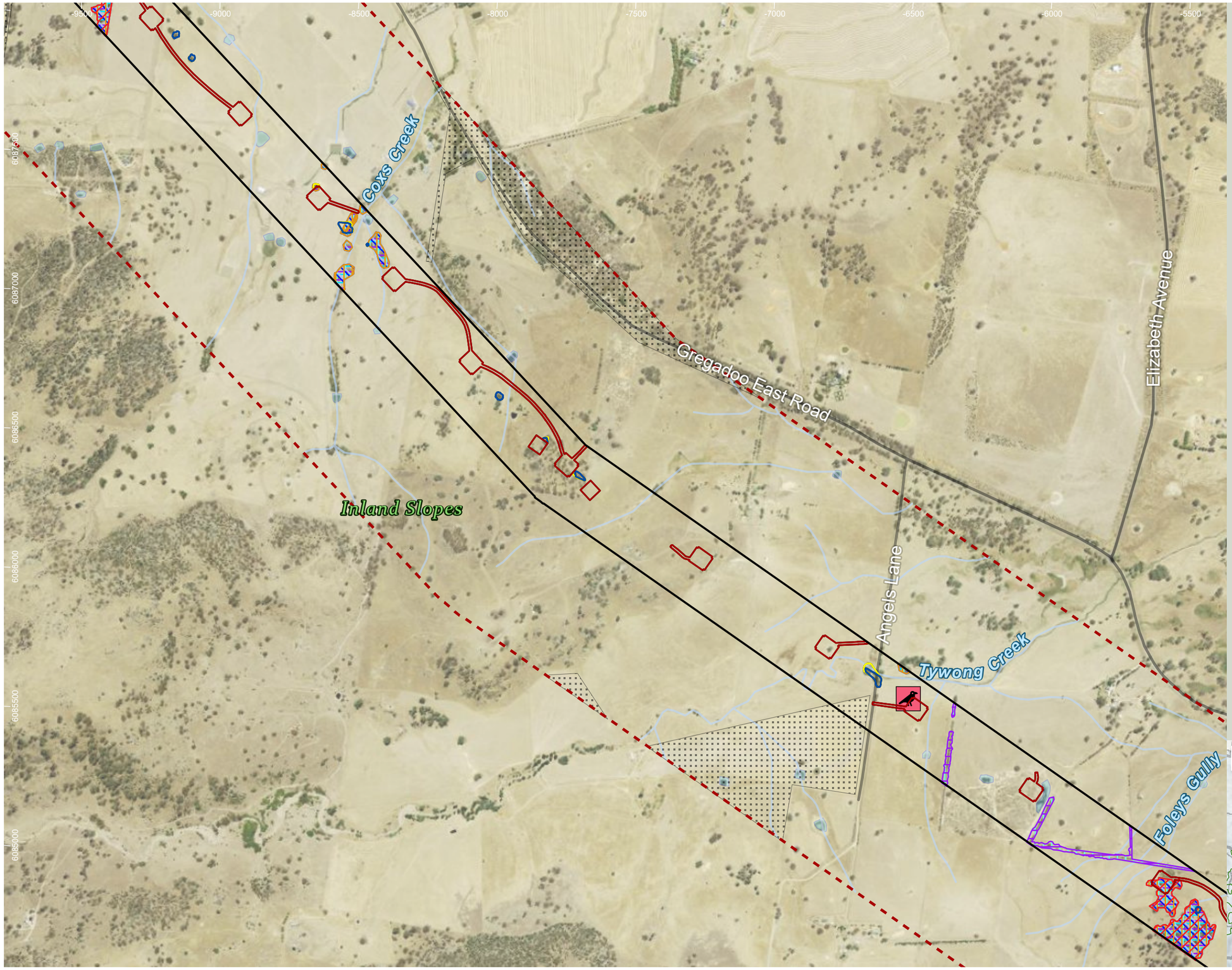


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

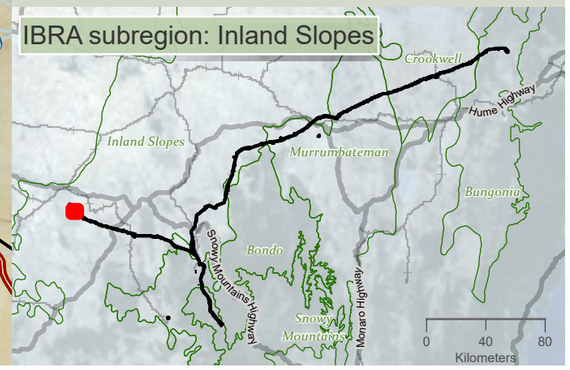
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 2

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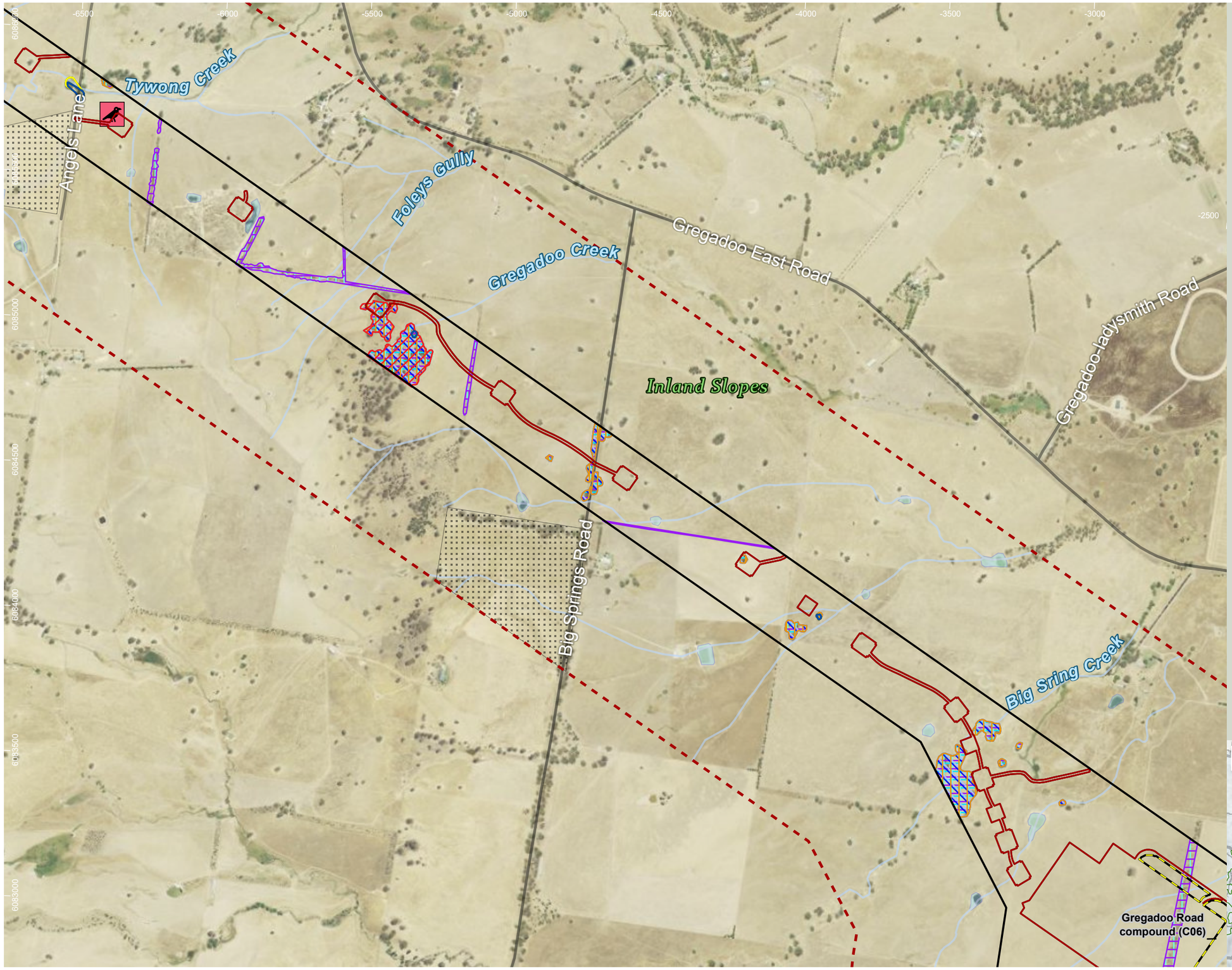


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

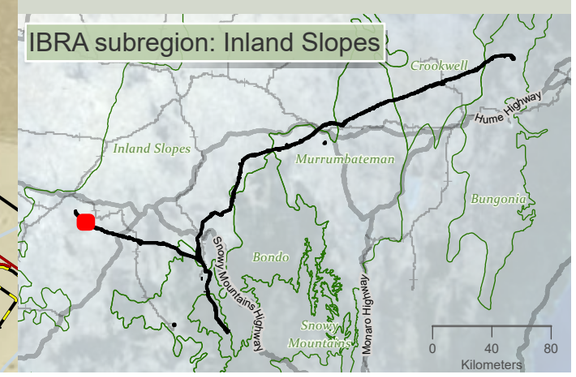
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche9699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 3

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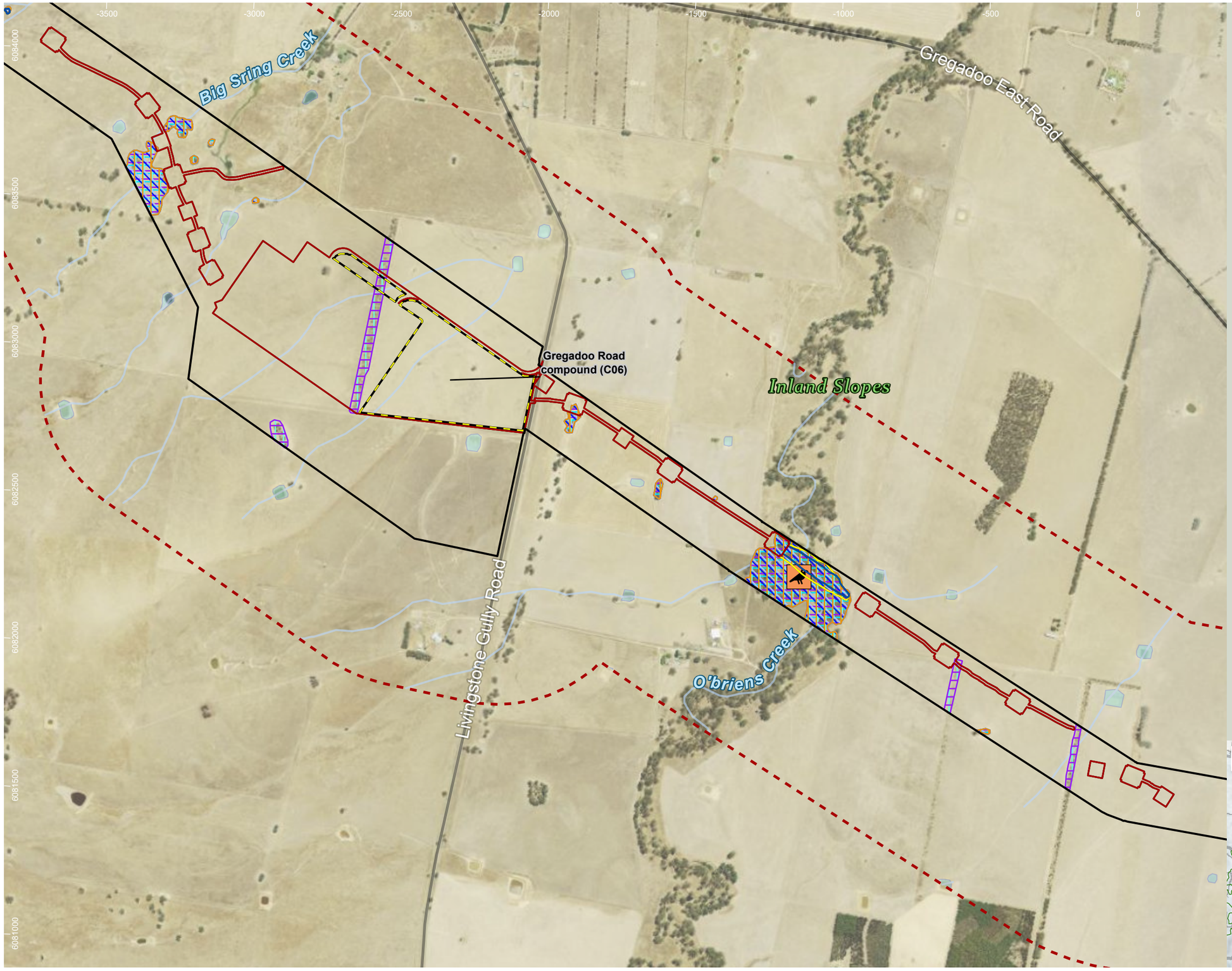


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

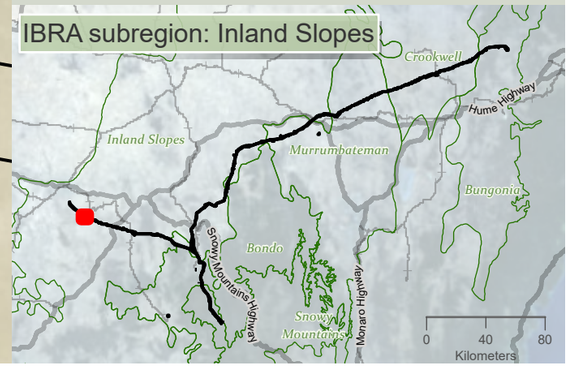
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 4

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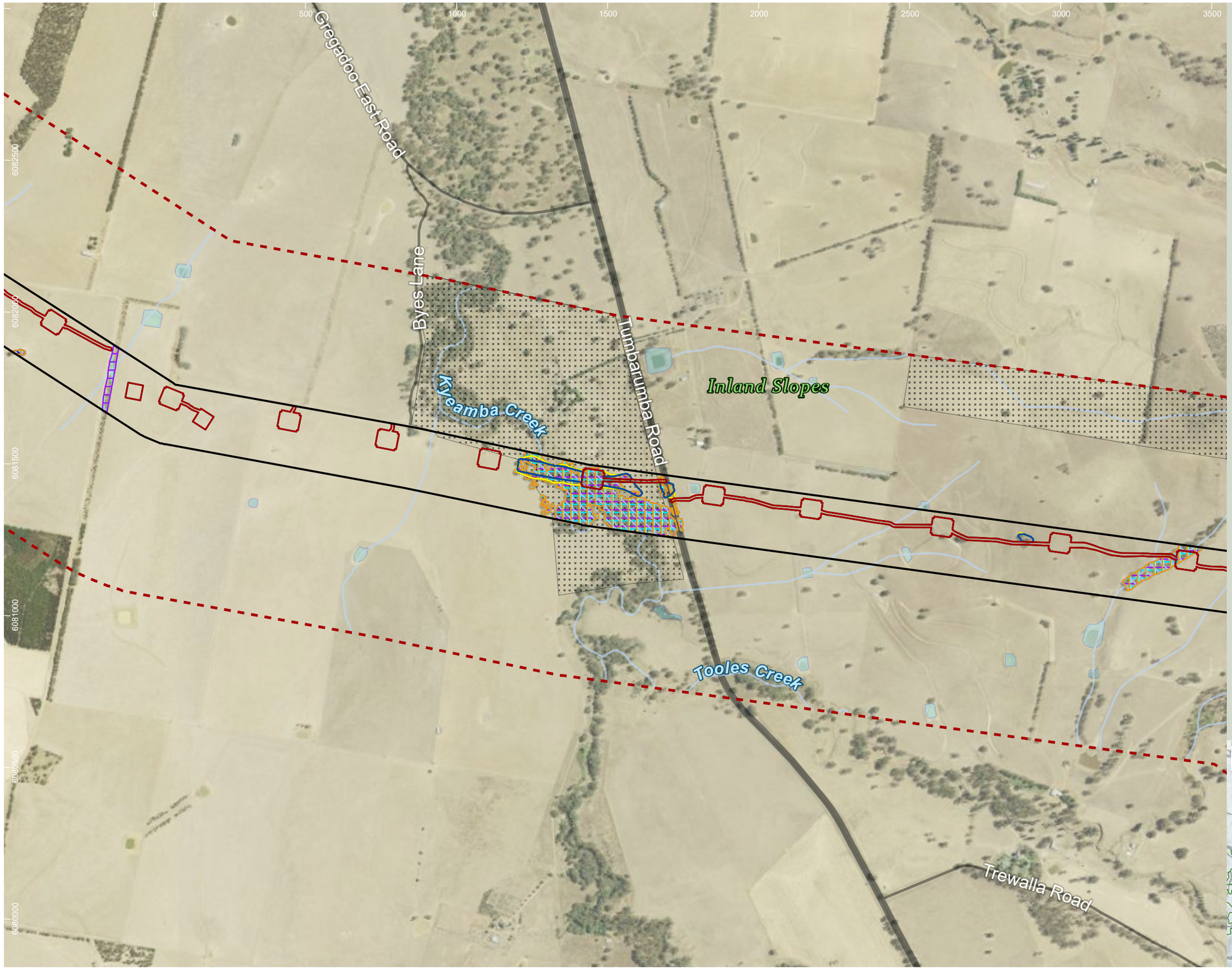


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

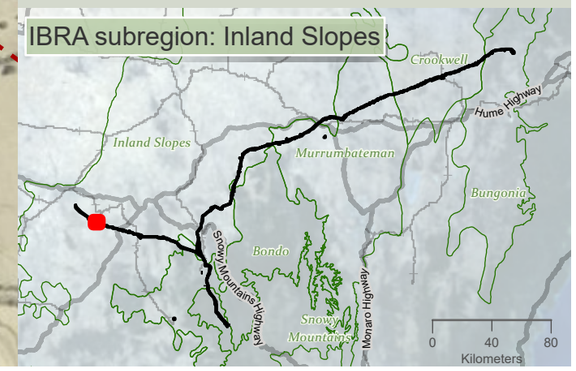
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 5

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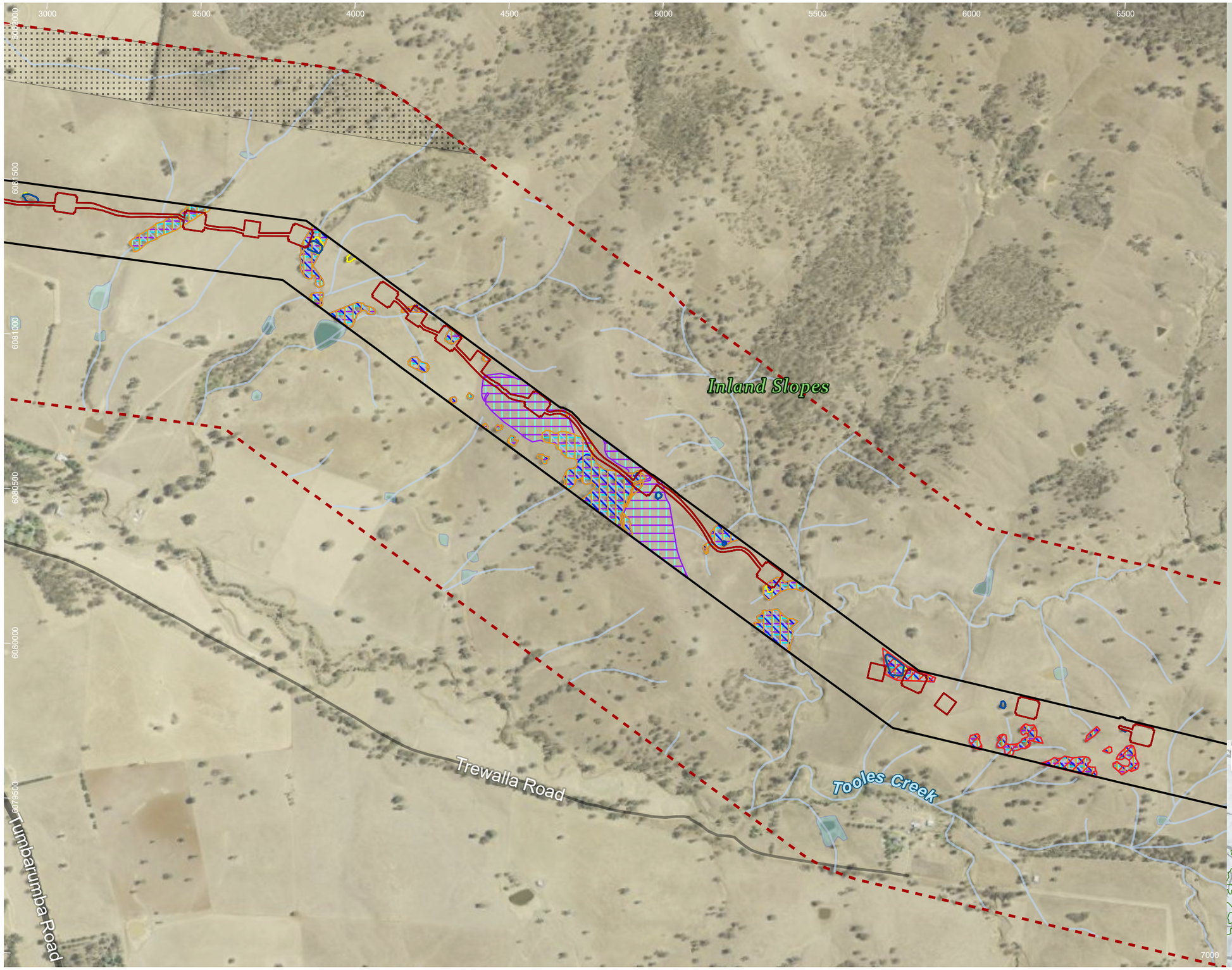


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

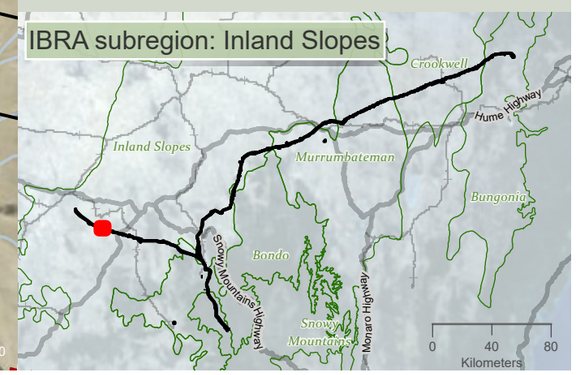
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 6

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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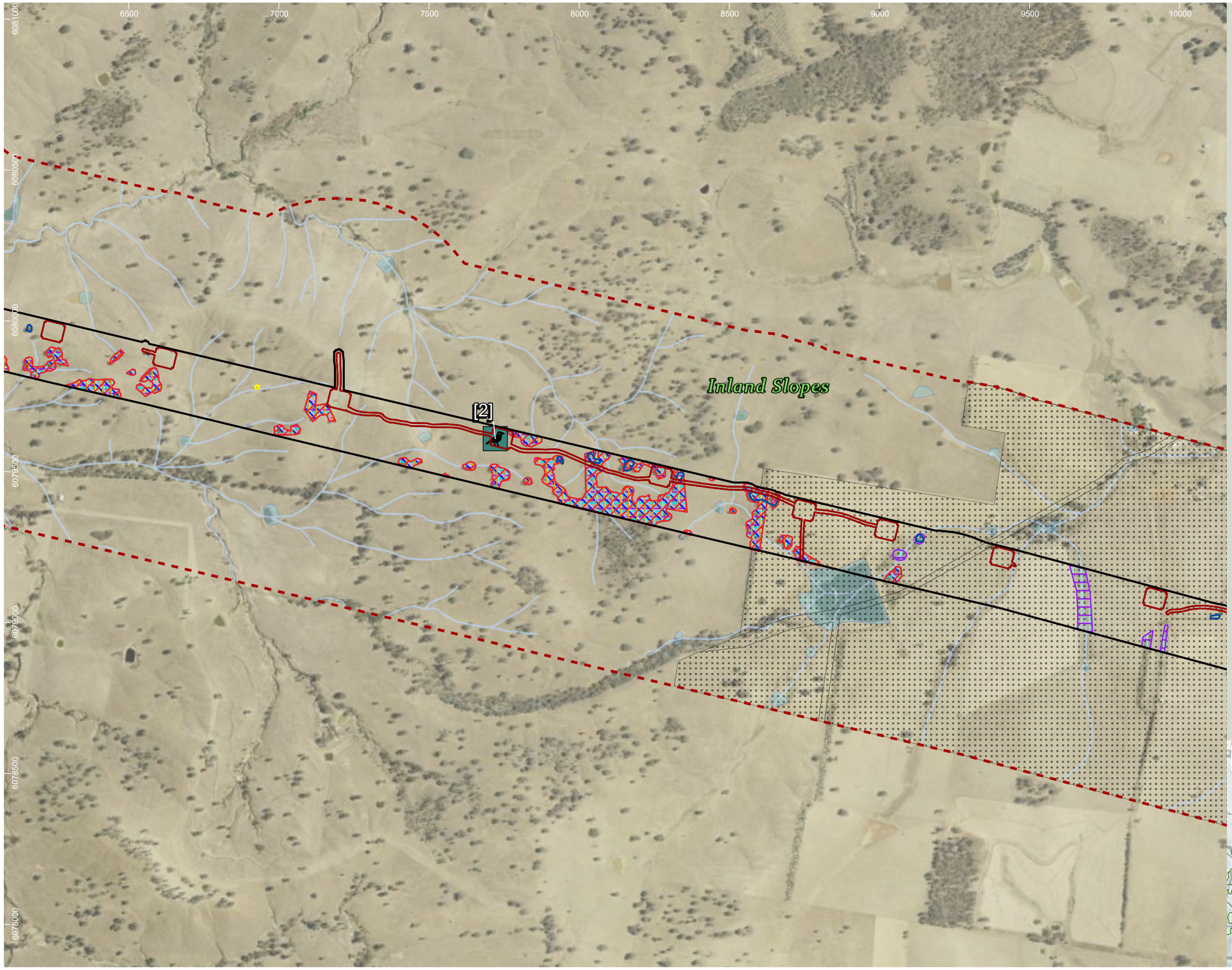


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

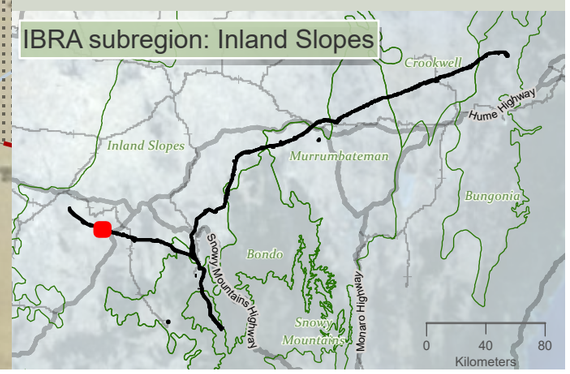
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Grey-crowned Babbler (eastern subspecies) (Pomatostomus temporalis temporalis)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Superb Parrot (Polytelis swainsonii)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 7

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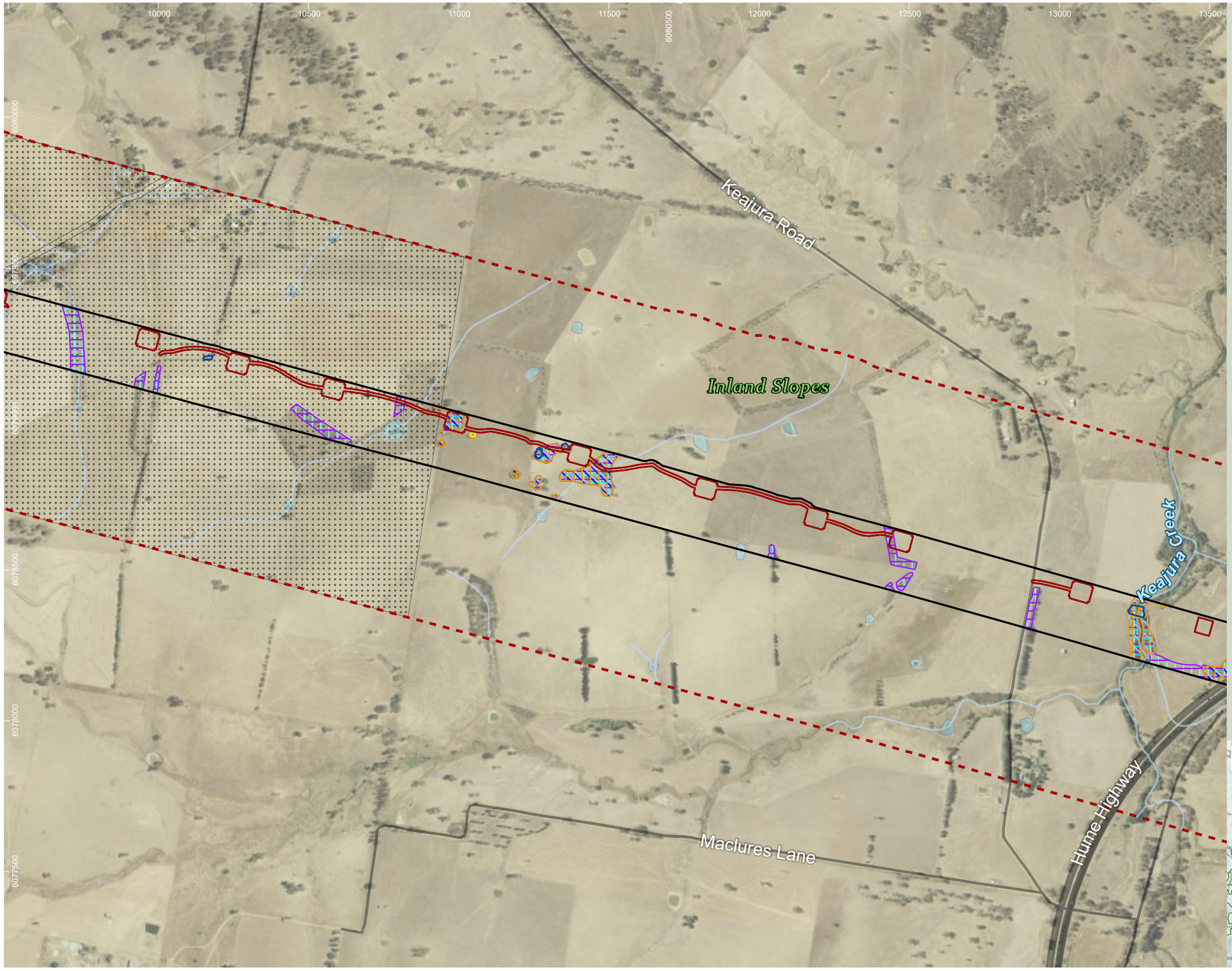
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

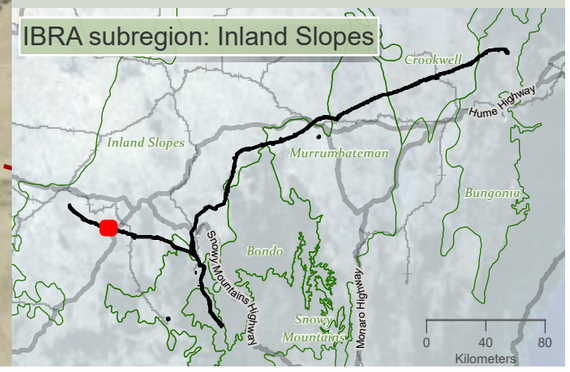
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT- BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 8

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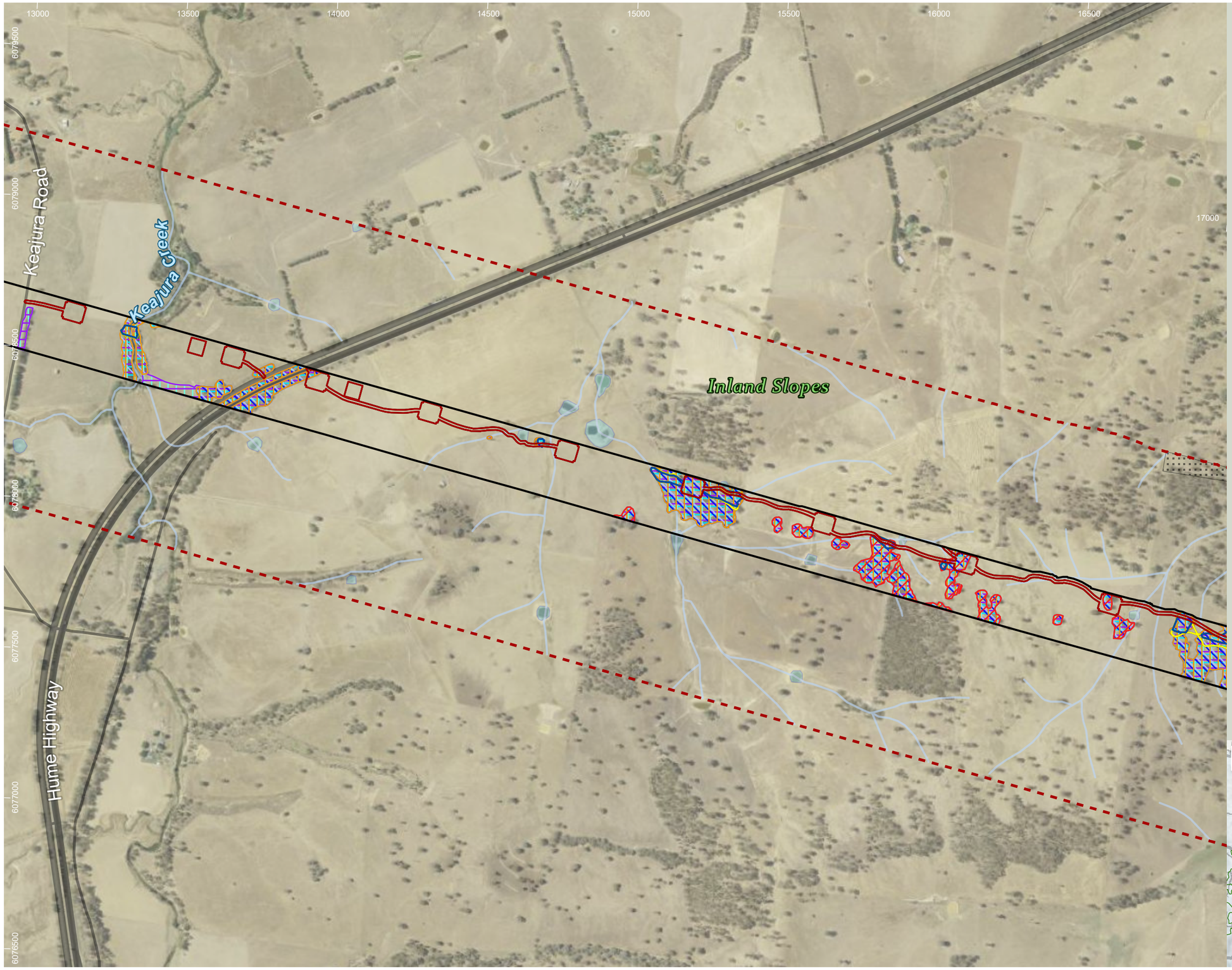


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

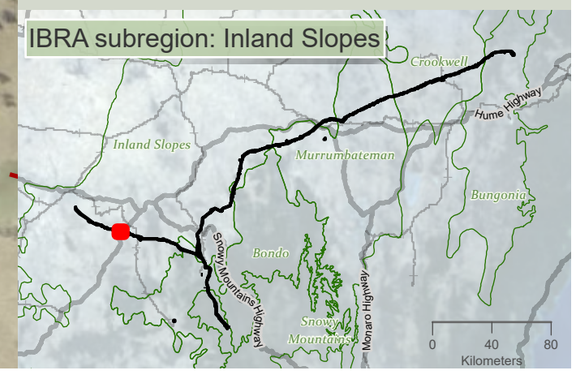
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 9

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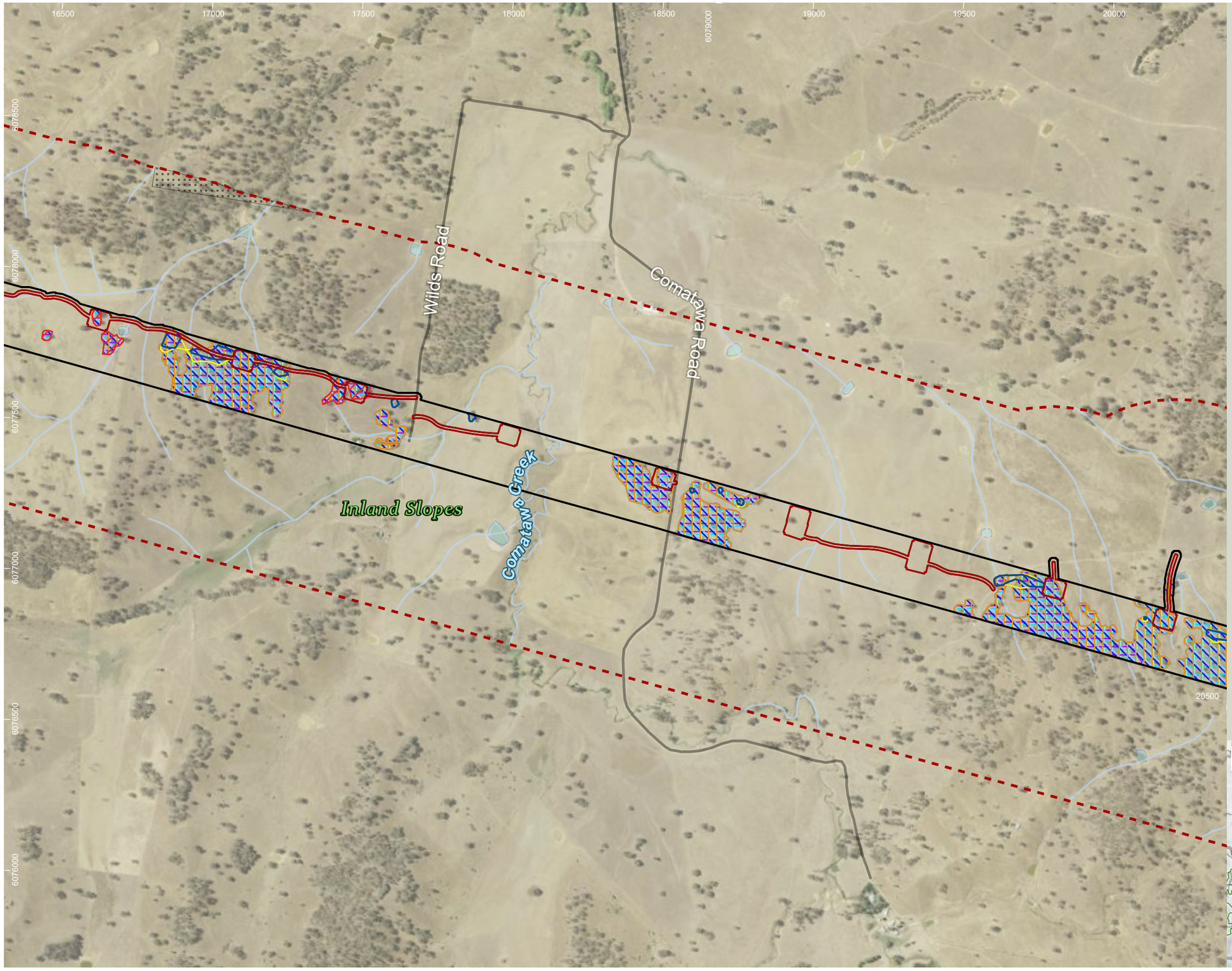
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

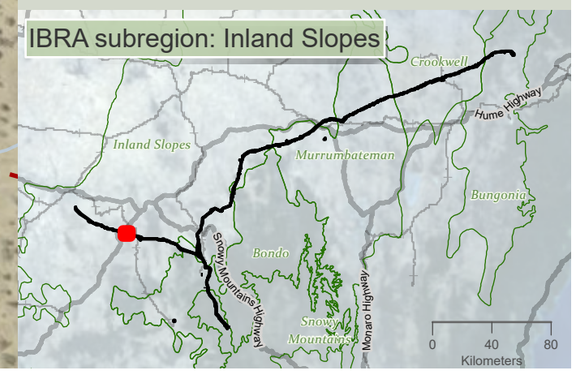
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 10

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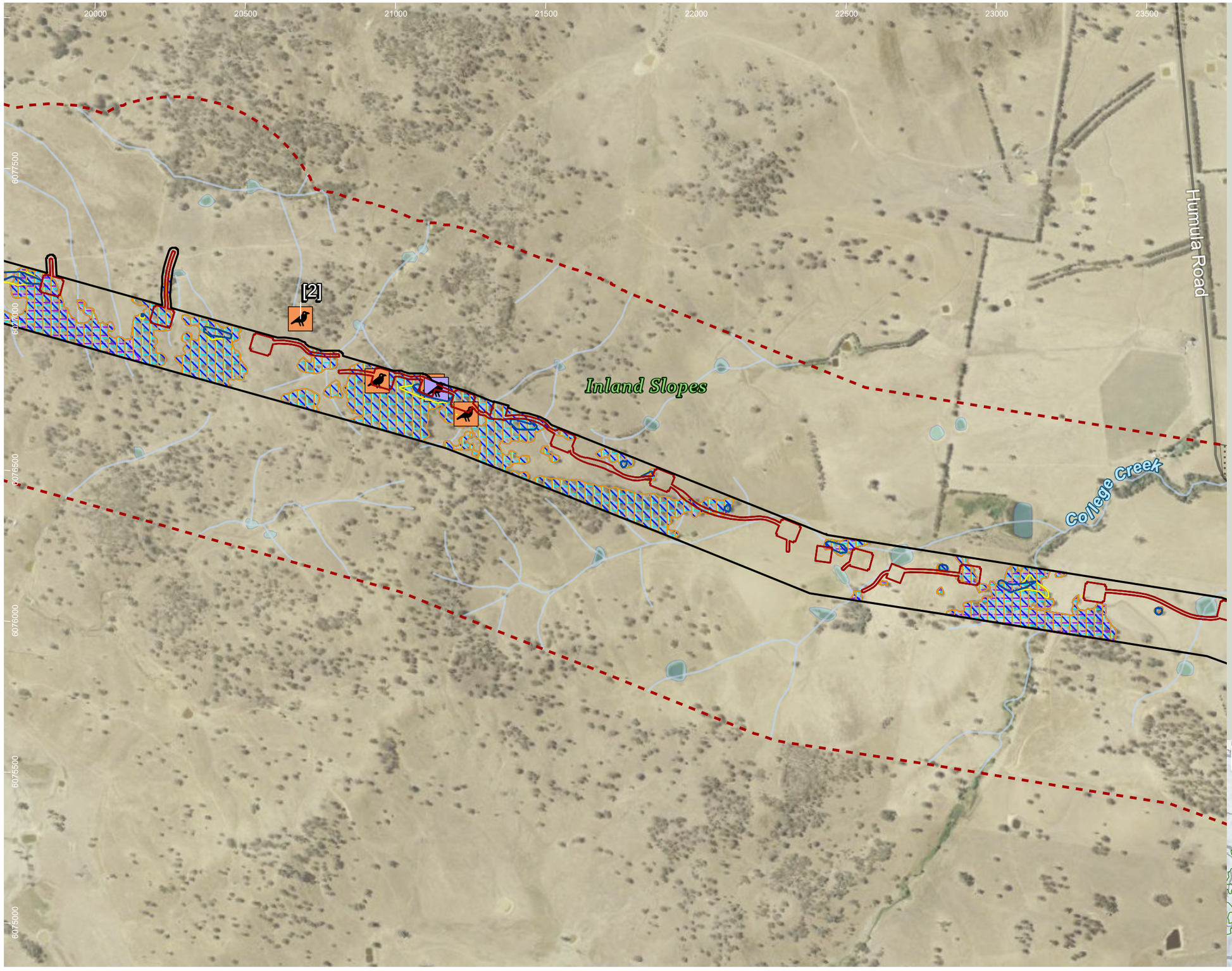


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

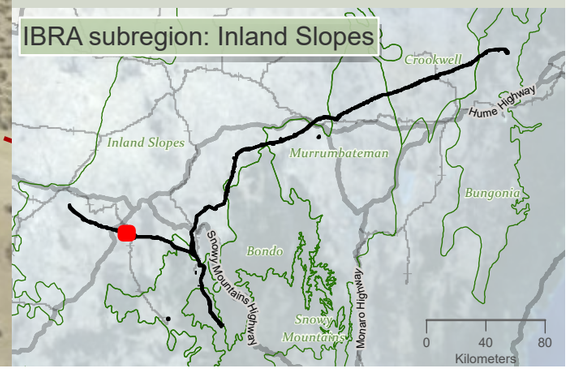
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Varied Sittella (Daphoenositta chrysoptera)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 11

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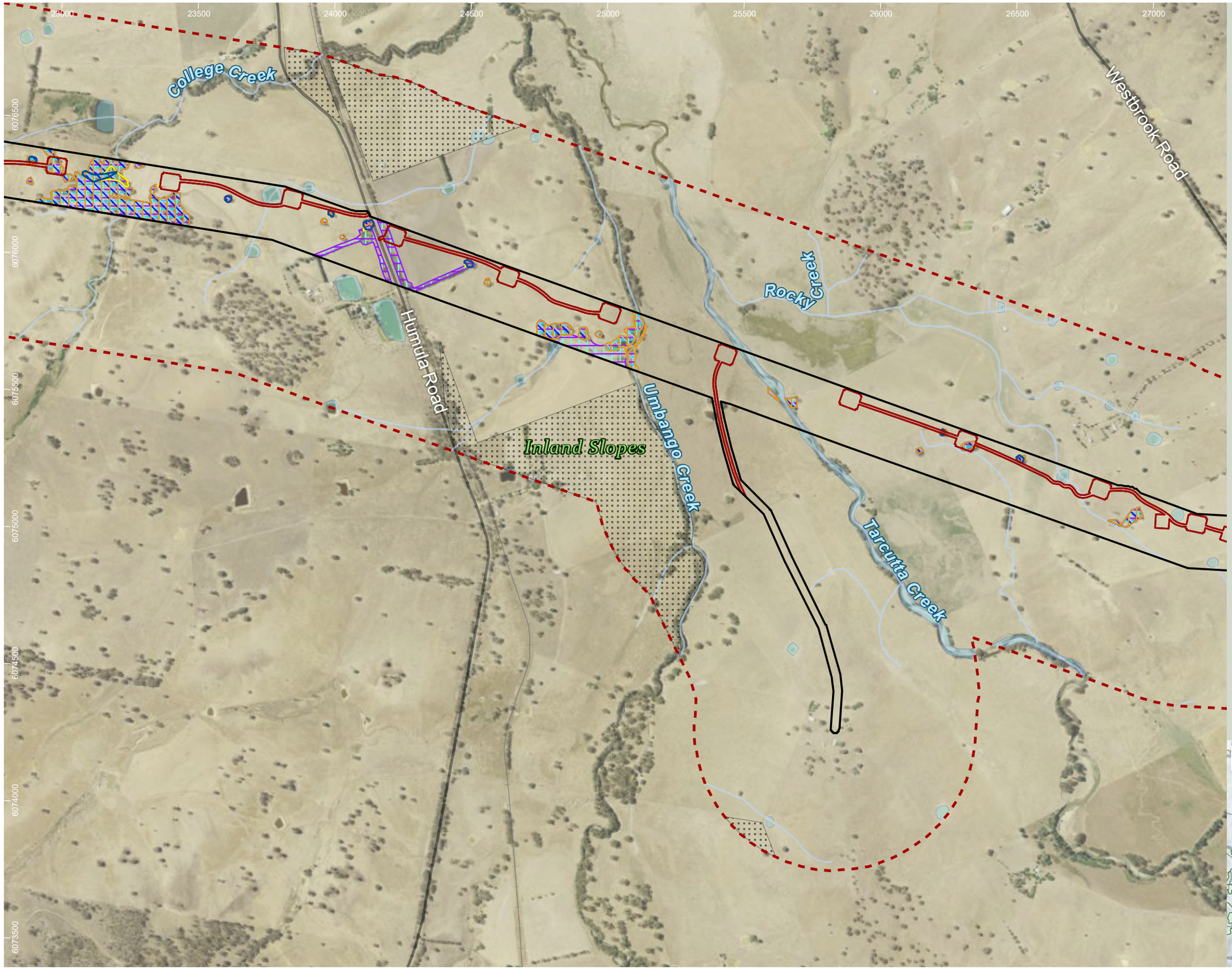
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

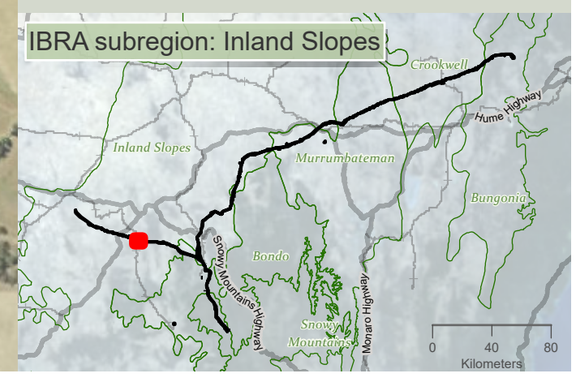
Transport

Road

- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 12

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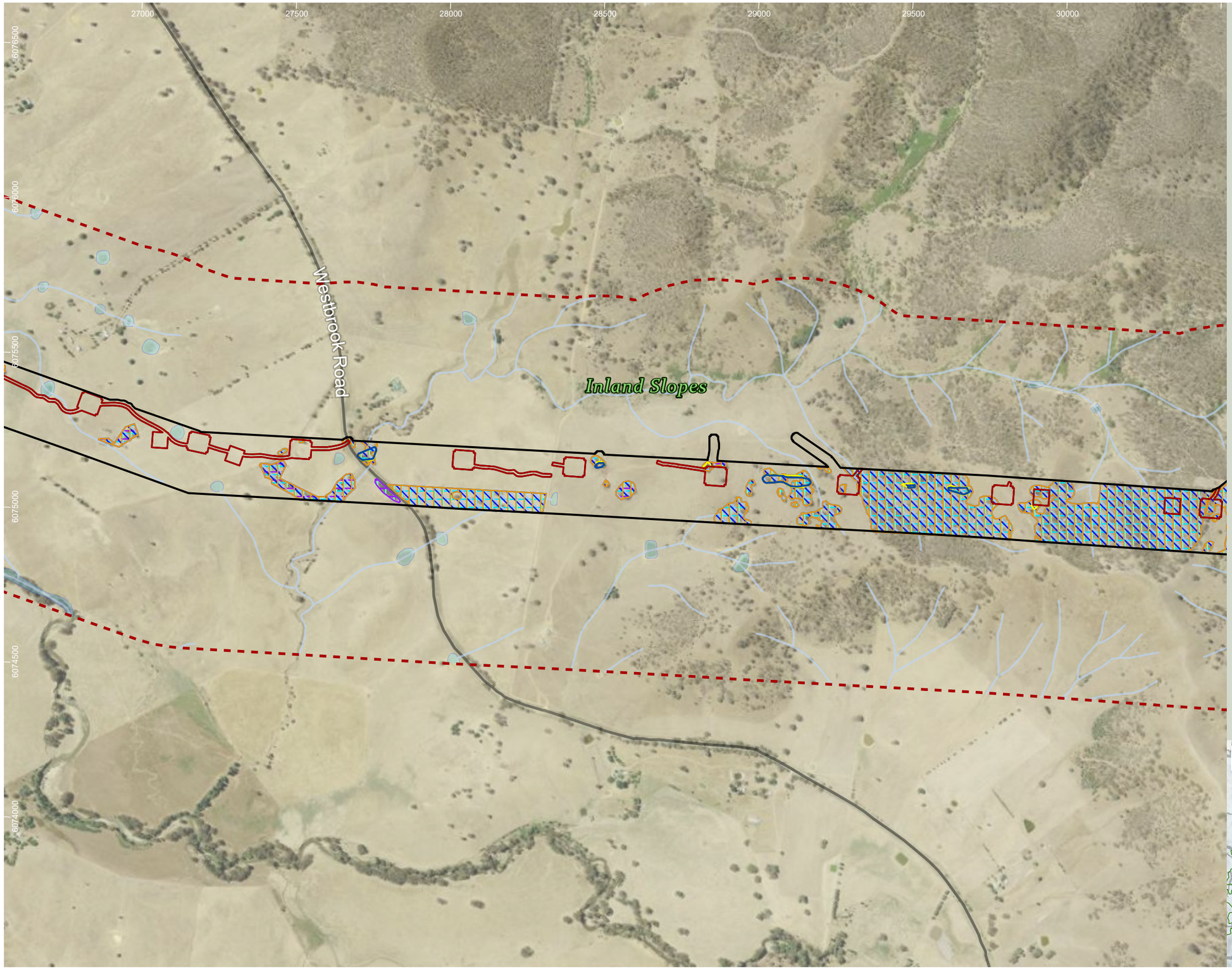


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

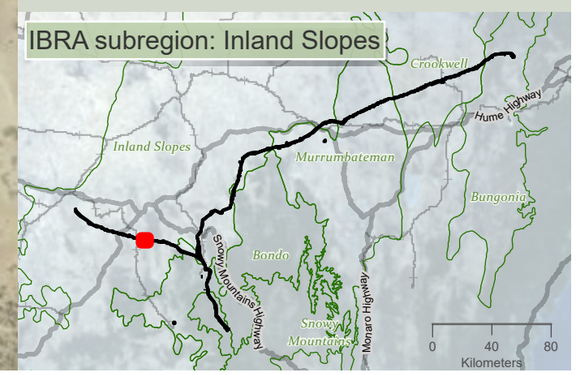
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\SyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 13

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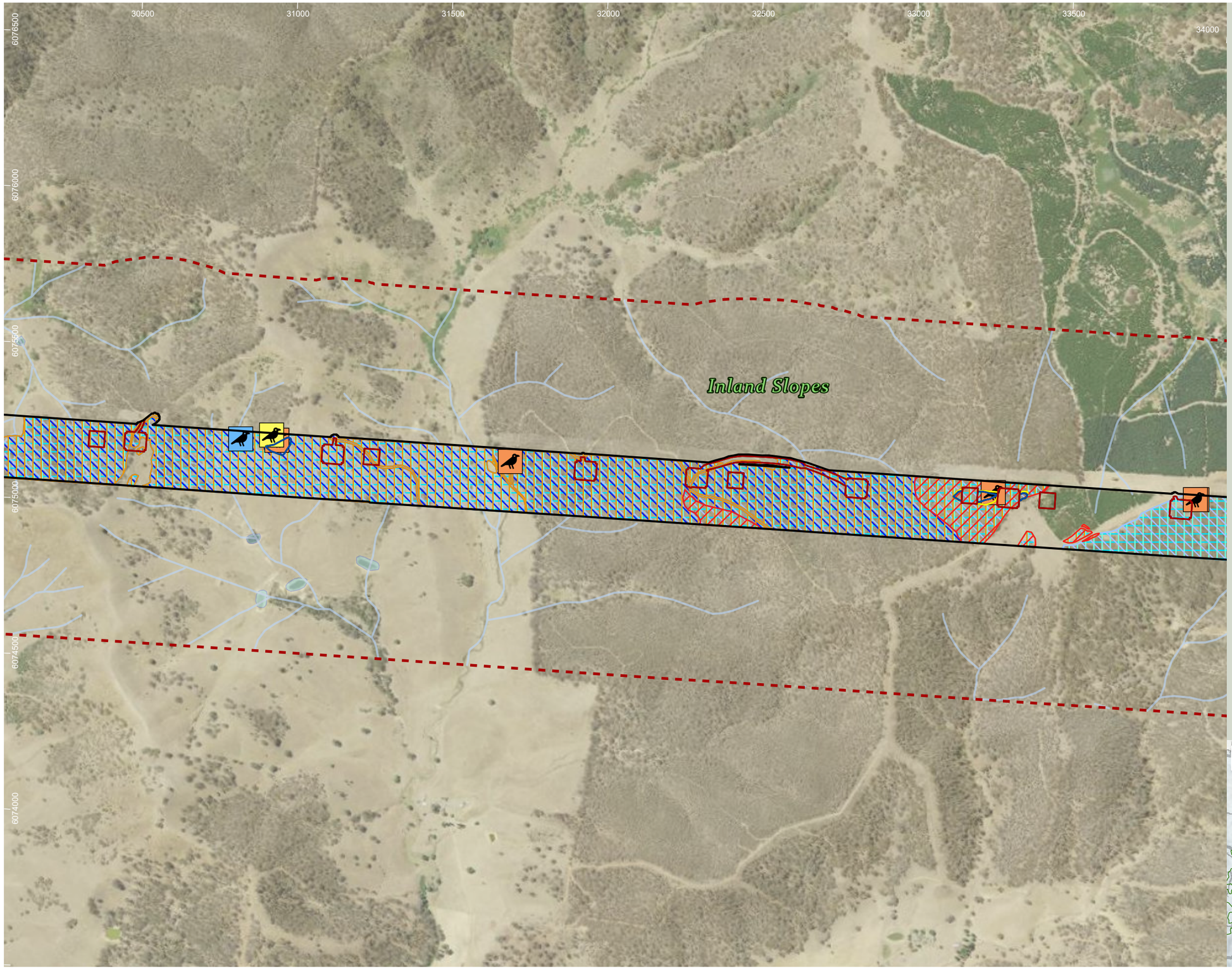


HumeLink project areas

- Project footprint
- Landscape assessment area

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

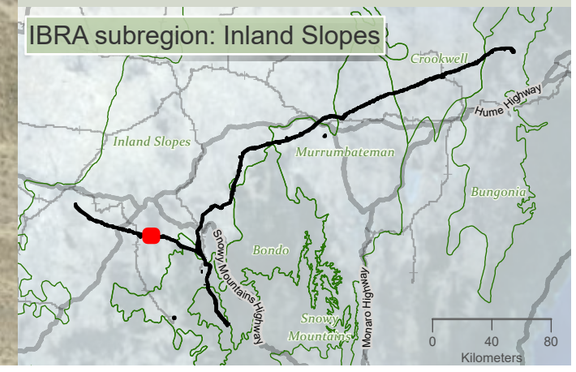
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Diamond Firetail (Stagonopleura guttata)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 14

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34000 34500 35000 35500 36000 36500 37000 37500

6076000 6075500 6075000 6074500 6074000 6073500

Inland Slopes

Turners Creek

Galvins Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

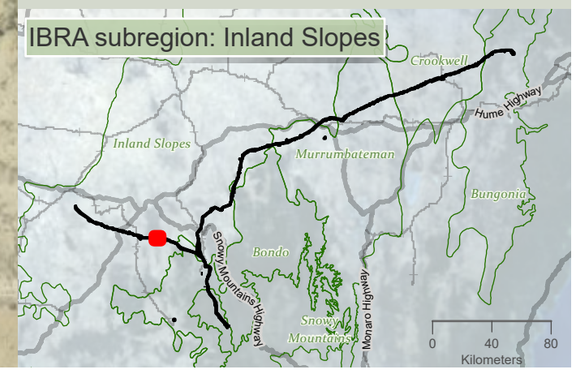
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 15

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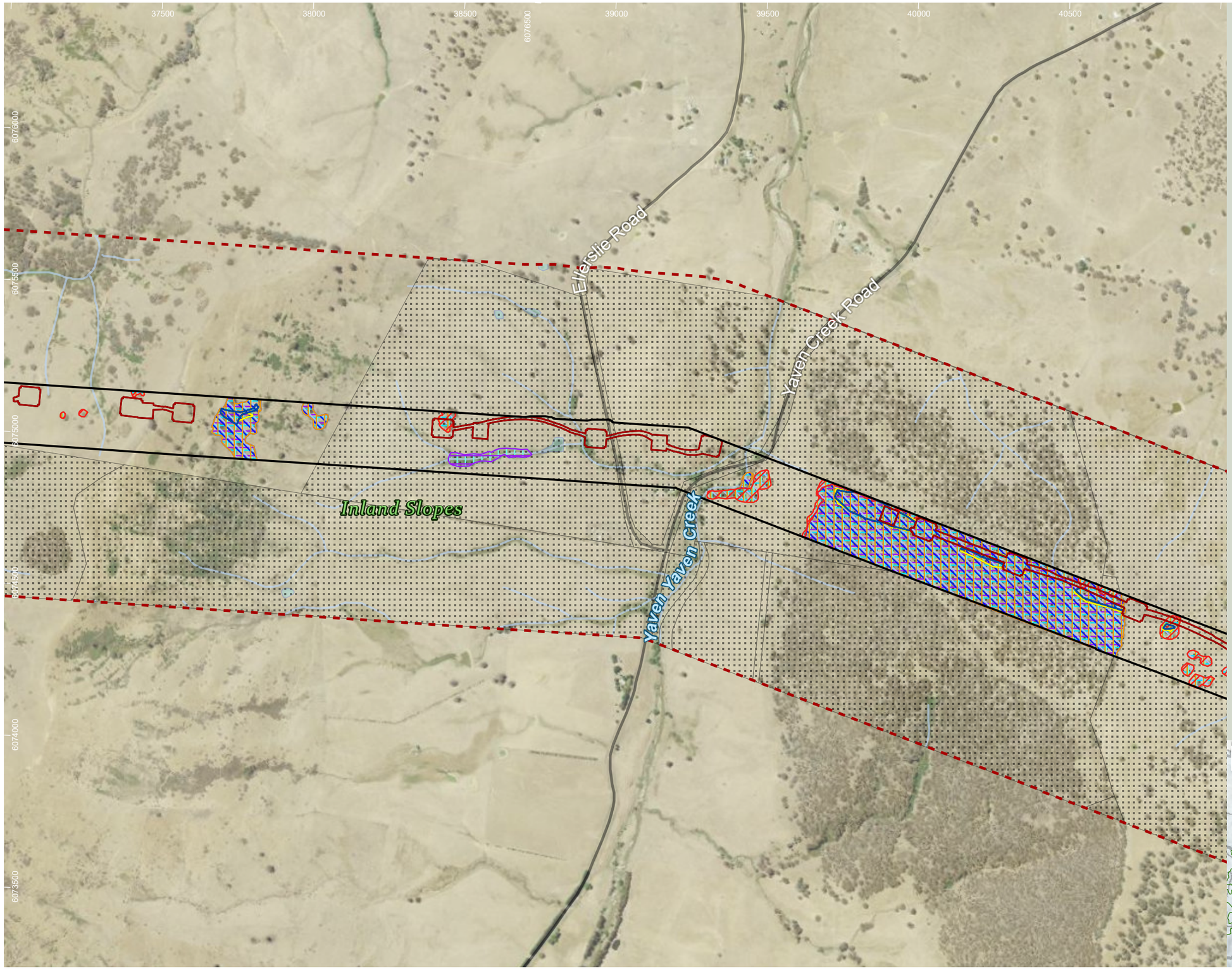
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

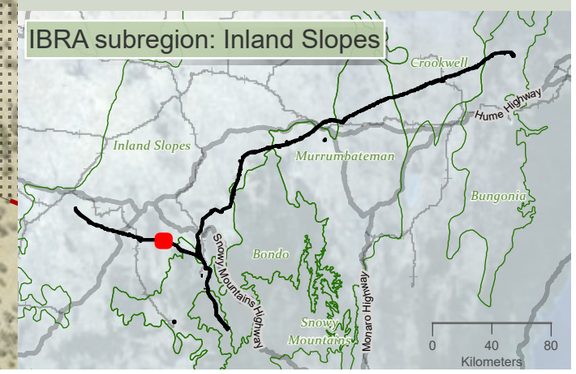
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

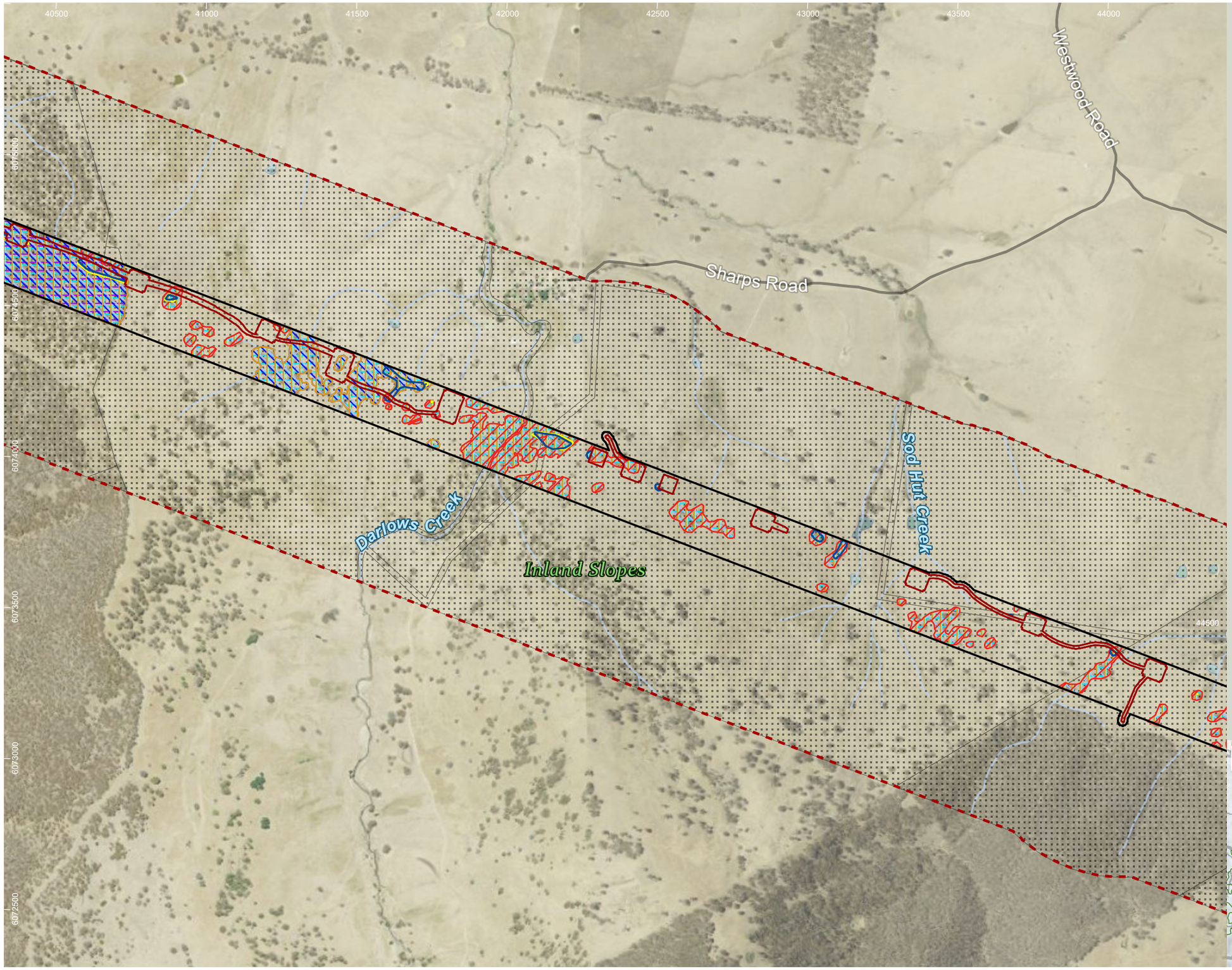
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 16

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

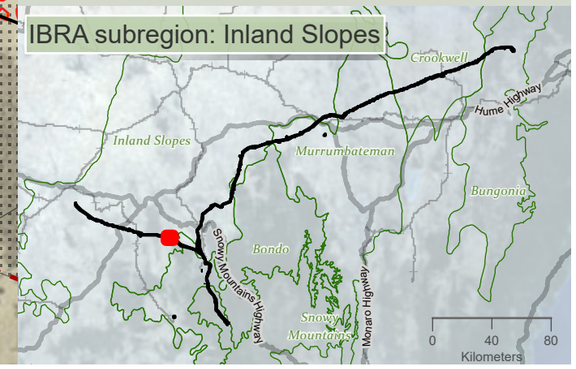
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

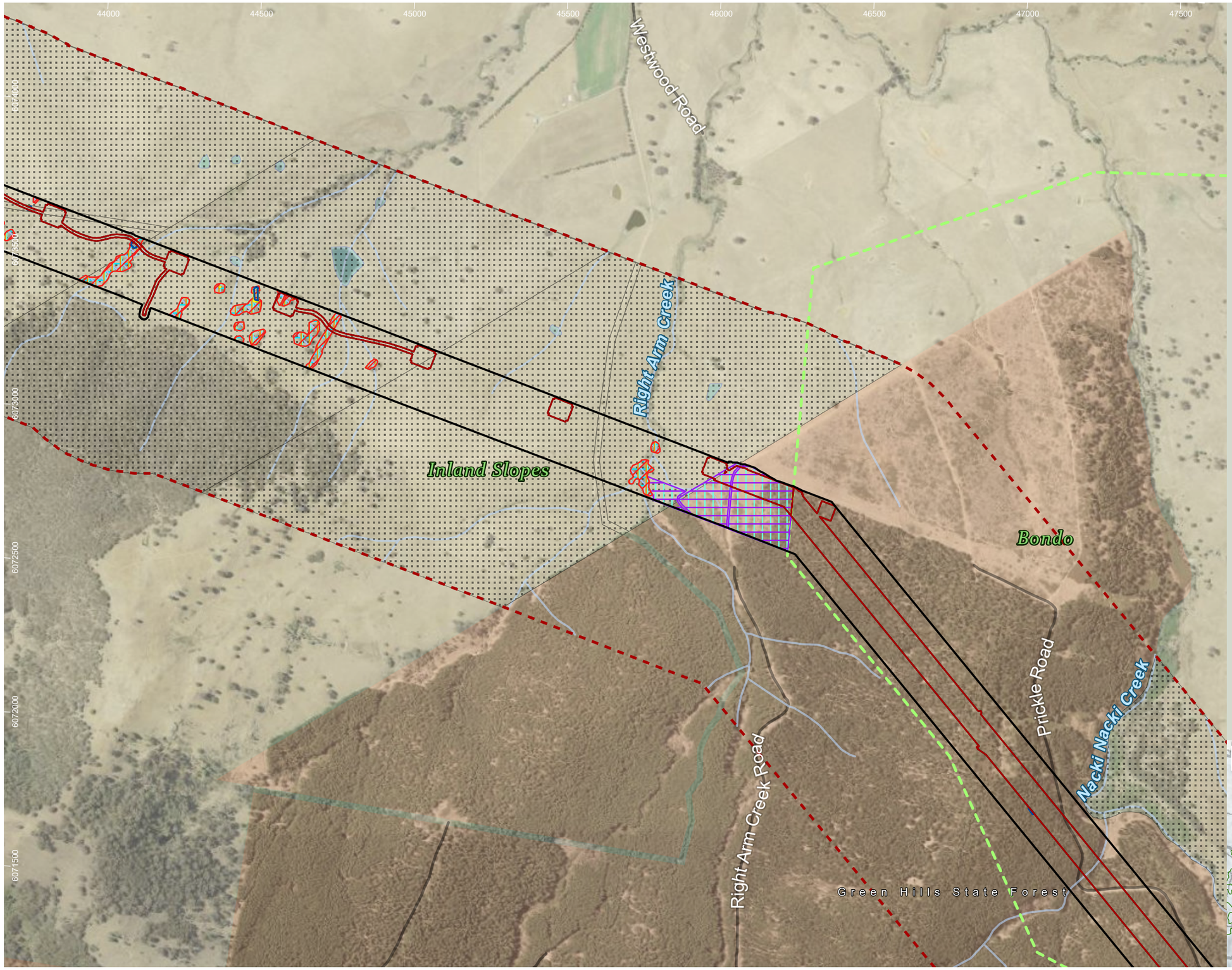
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 17

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

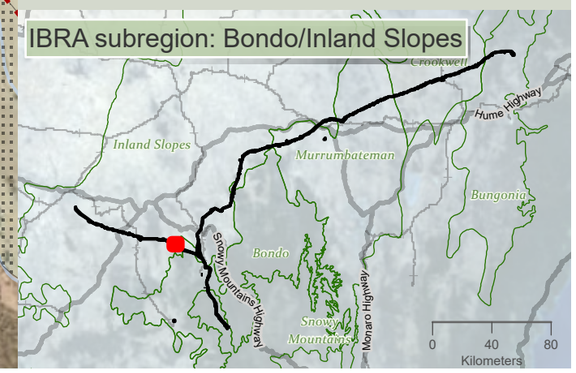
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



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niche Environment and Heritage

0 N 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 18

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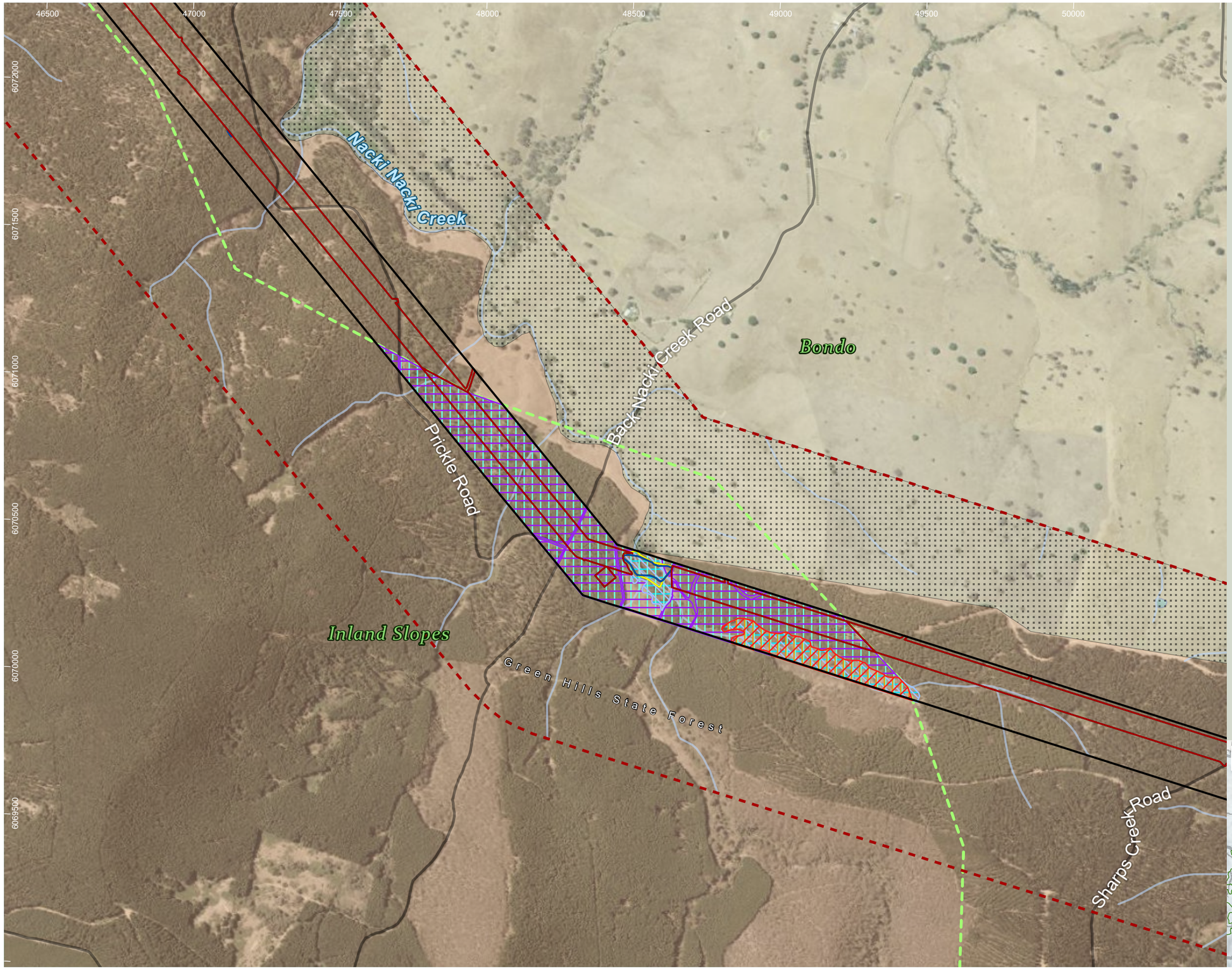


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

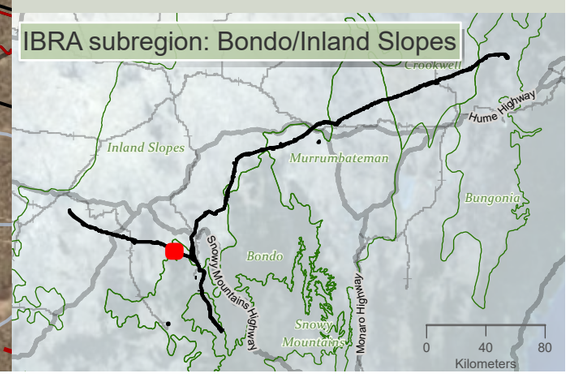
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 19

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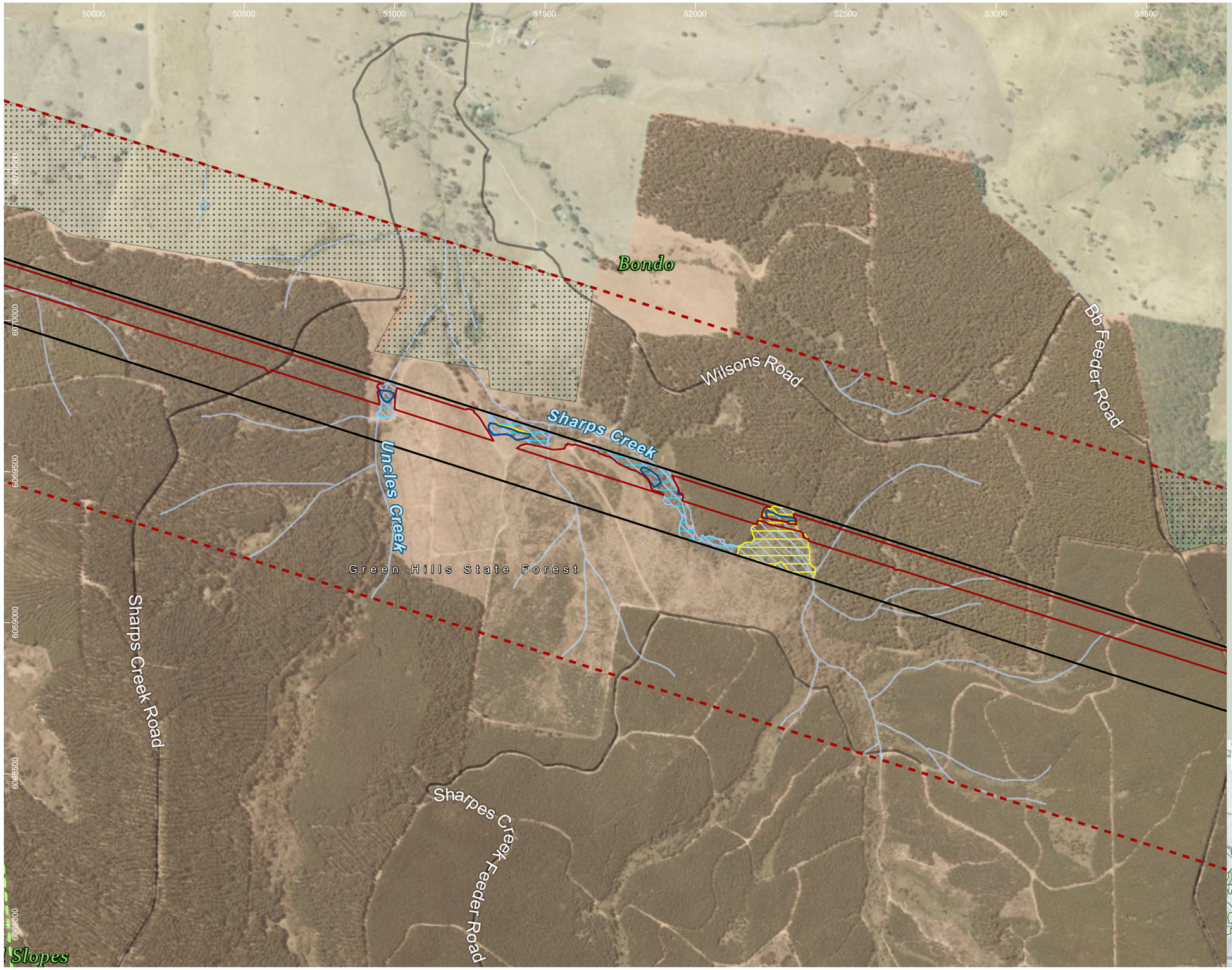


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

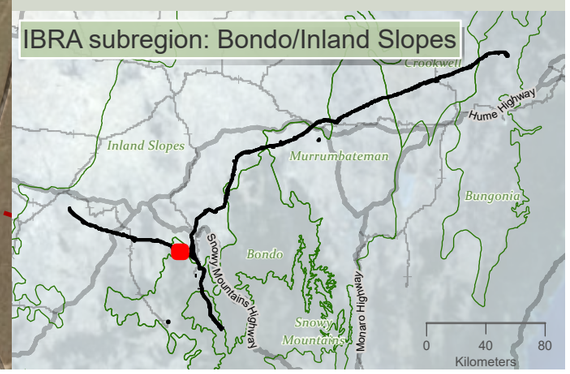
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 20

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx
Impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential

53500 54000 54500 55000 55500 56000 56500 57000

6070000 6069500 6069000 6068500 6068000 6067500

Bondo

Bb Feeder Road

Green Hills State Forest

Wondalga Road

Greenhills Road

Adelong Creek

Inland Slopes

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

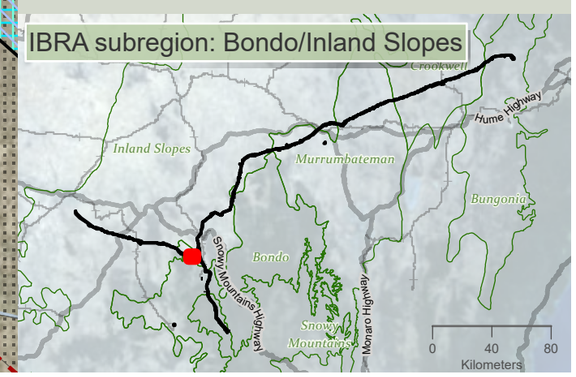
Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Lathamus discolor
- Pycnoptilus floccosus

IBRA subregion: Bondo/Inland Slopes



0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 21

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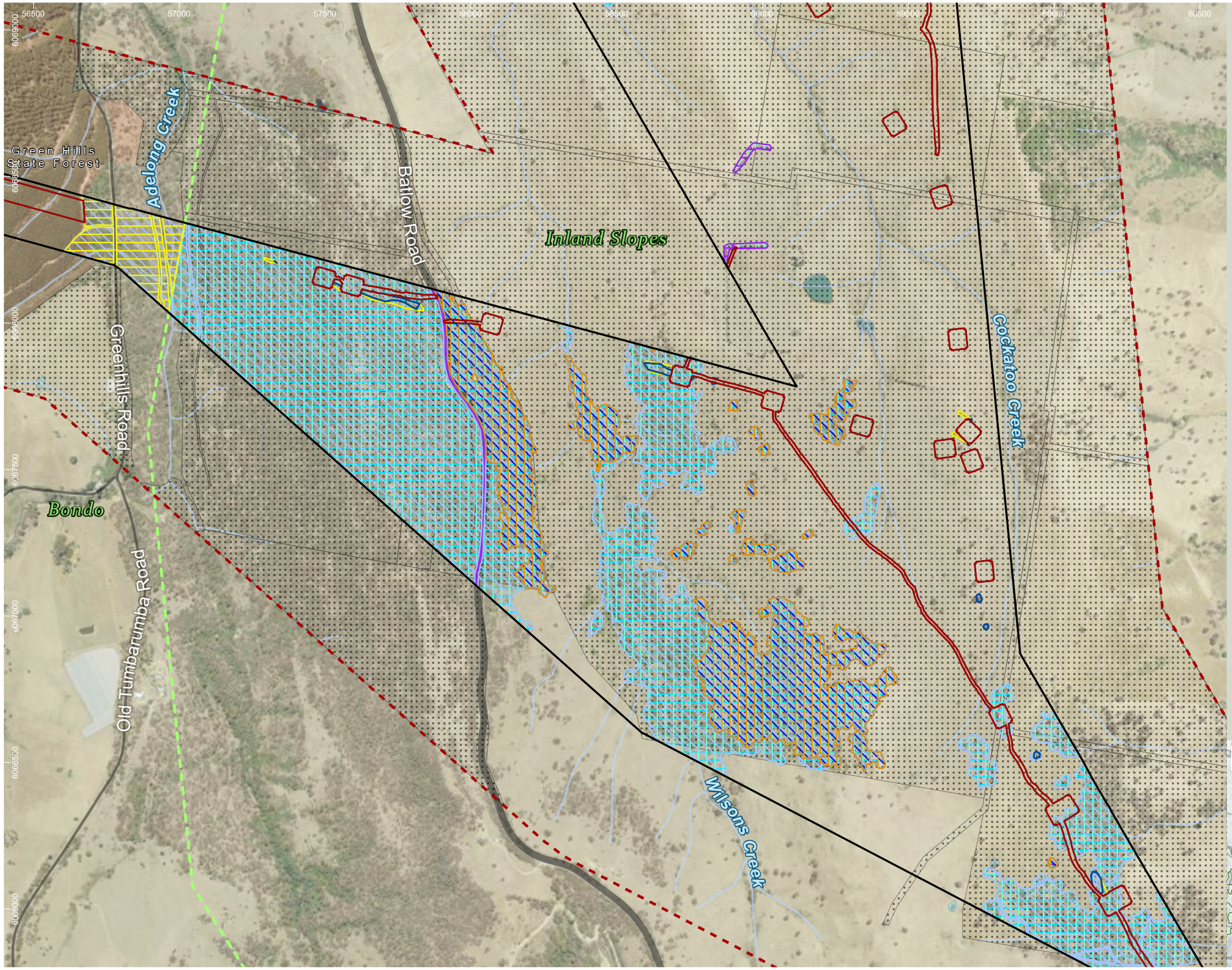
Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

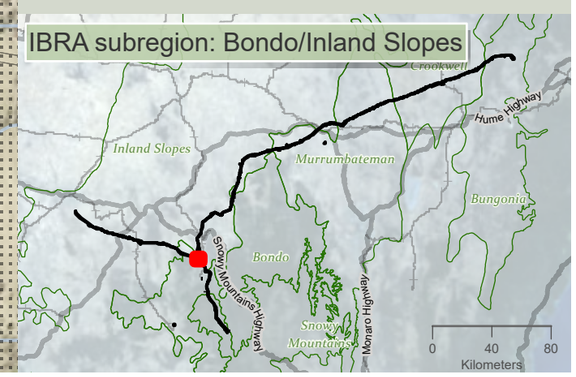
- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii
- Pycnoptilus floccosus



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 22

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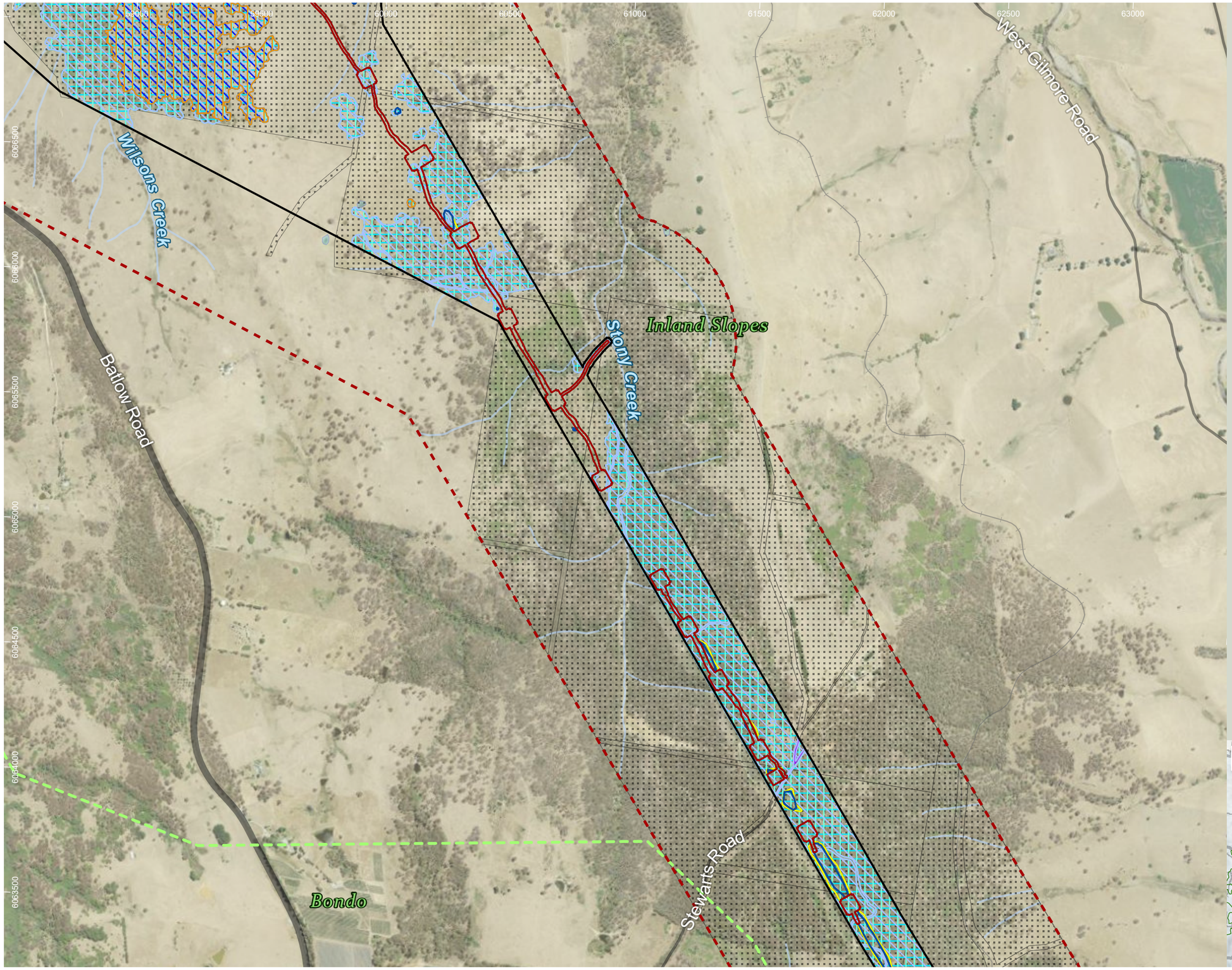


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

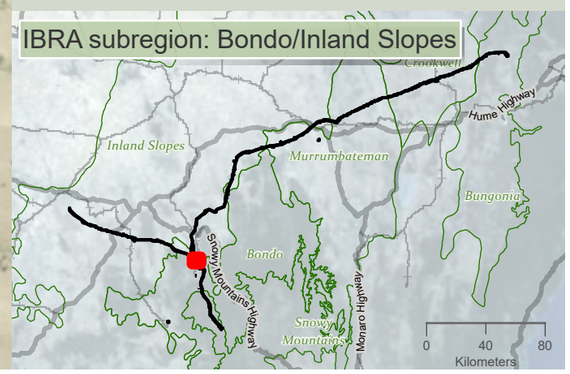
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023; File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 23

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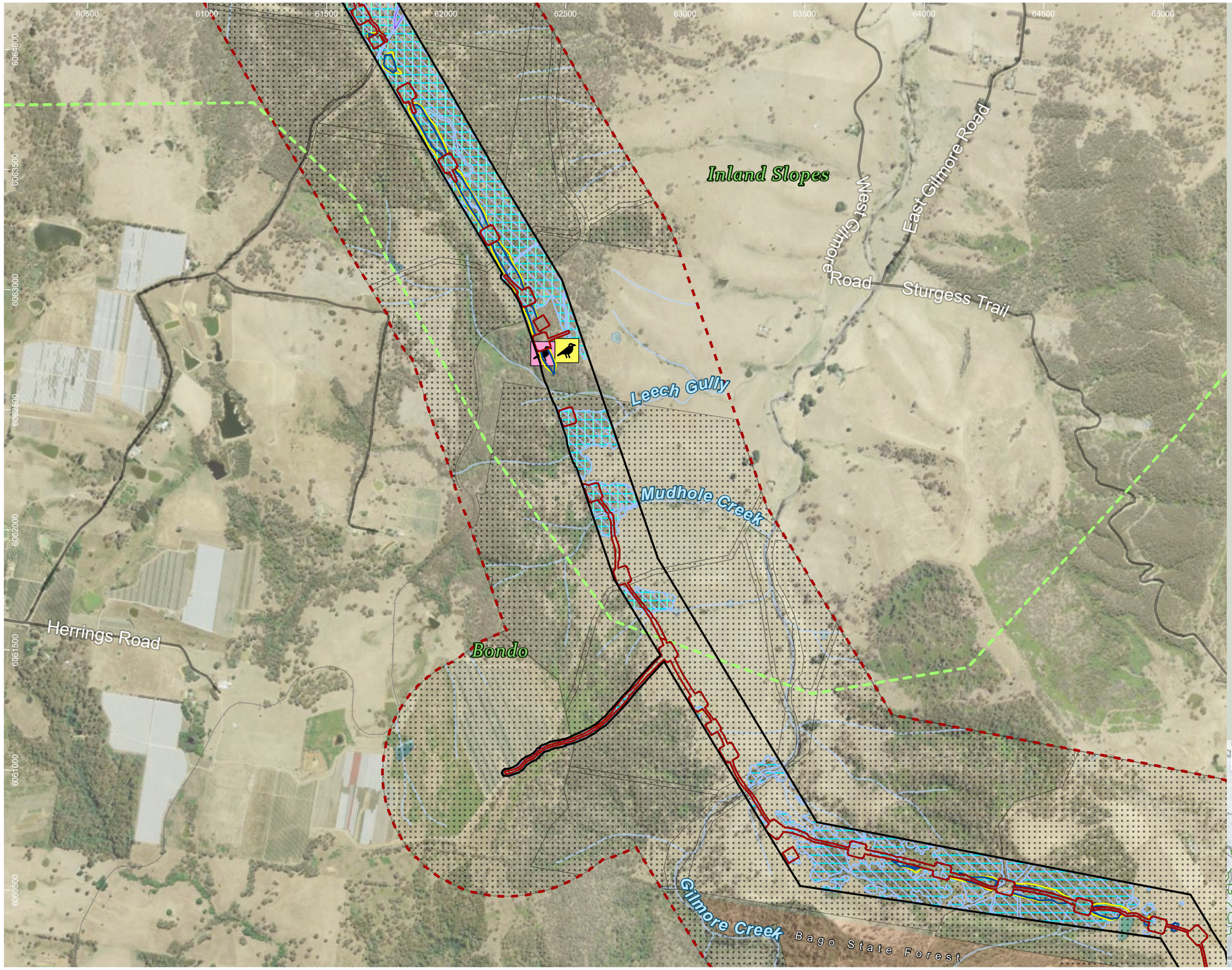


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

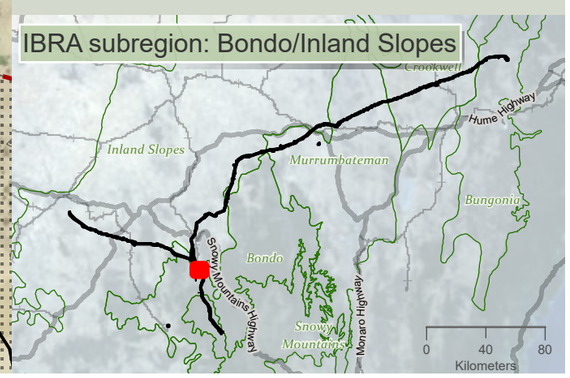
EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Speckled Warbler (Chthonicola sagittata)



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niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 24

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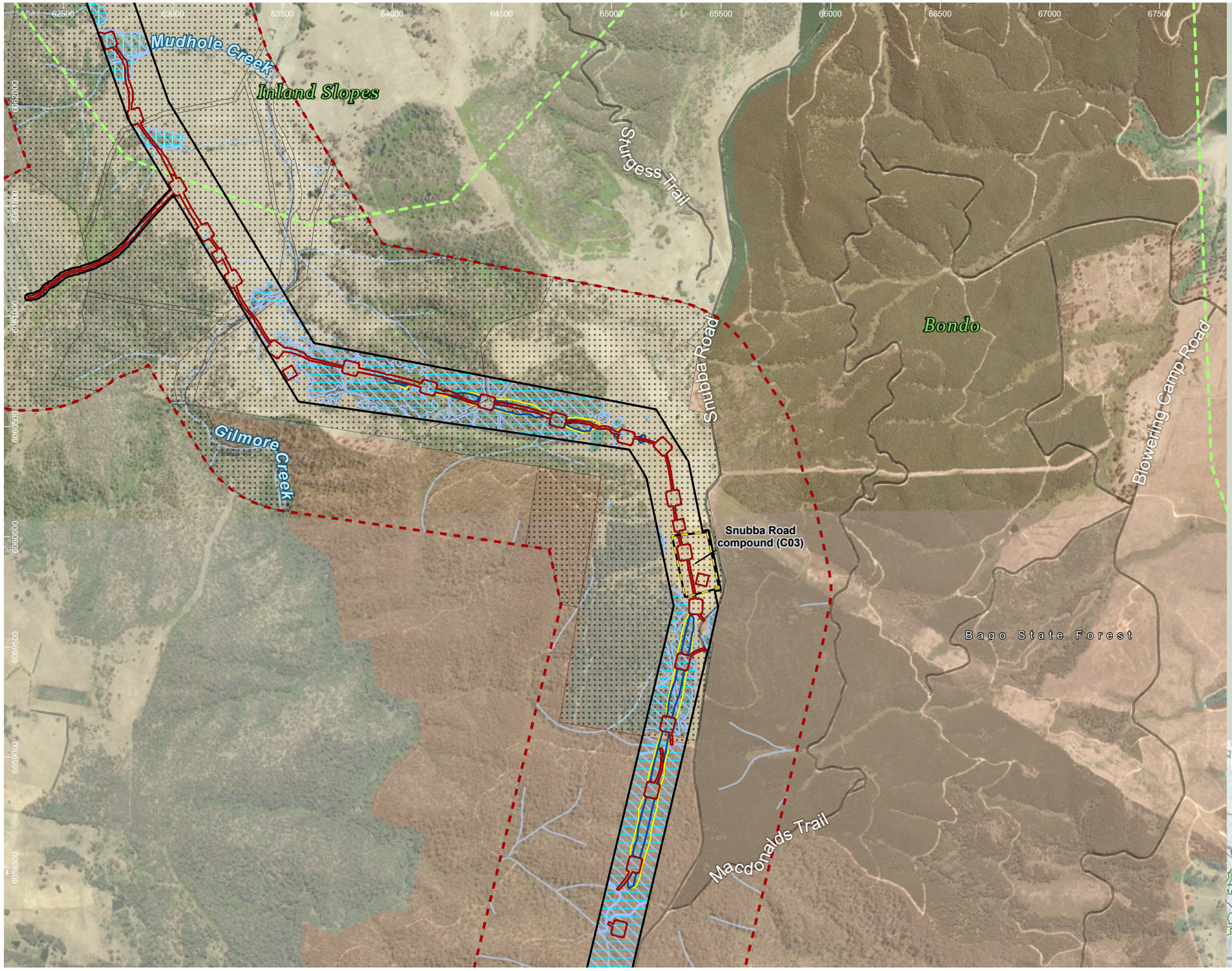


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

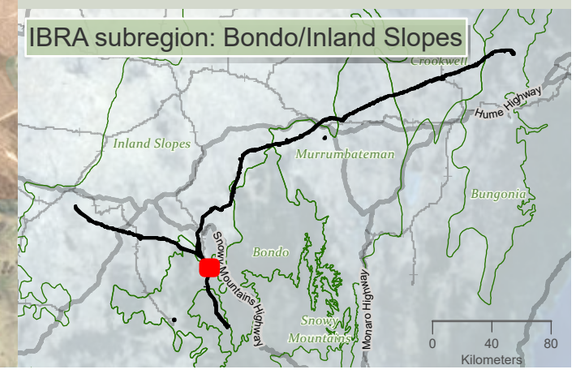
- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Lathamus discolor

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 25

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HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Hydrography

- Waterway
- Waterbody

Transport

Road

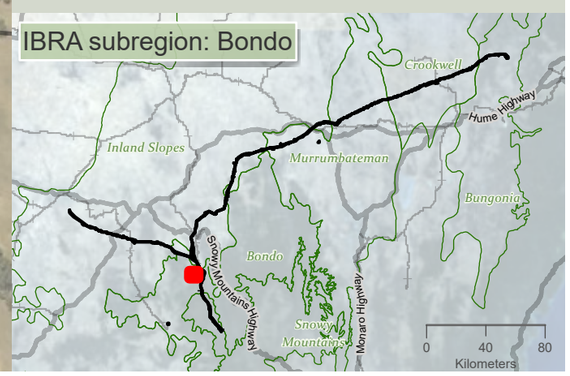
- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 26

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

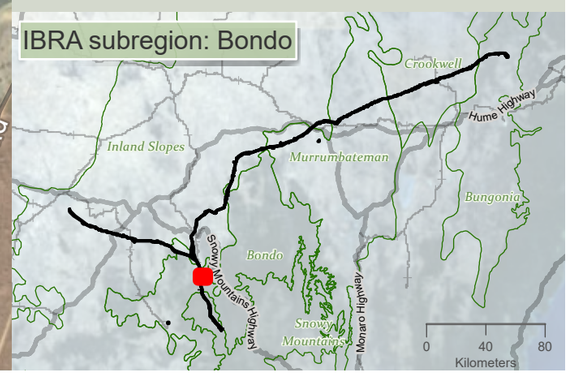
- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

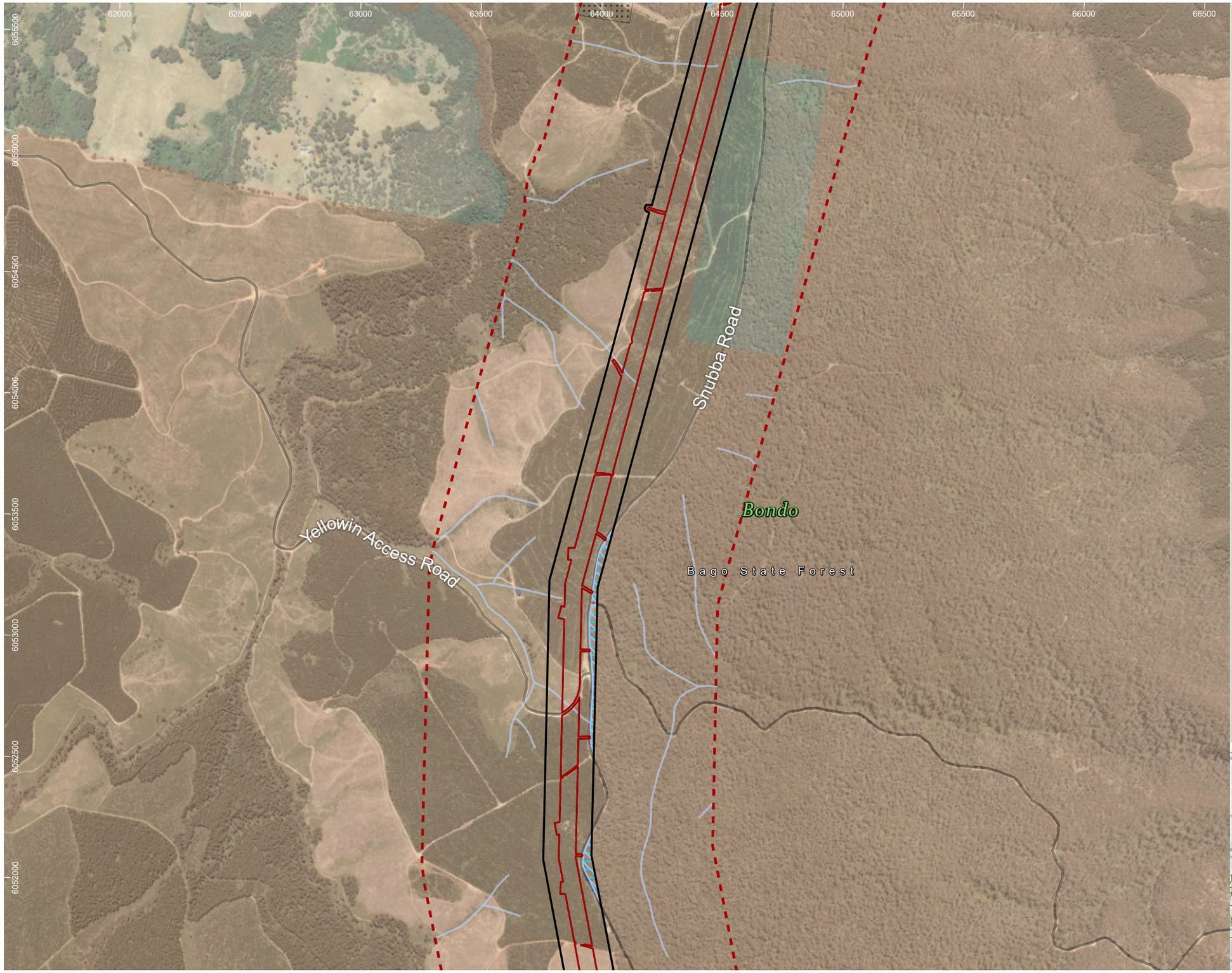
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 28

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

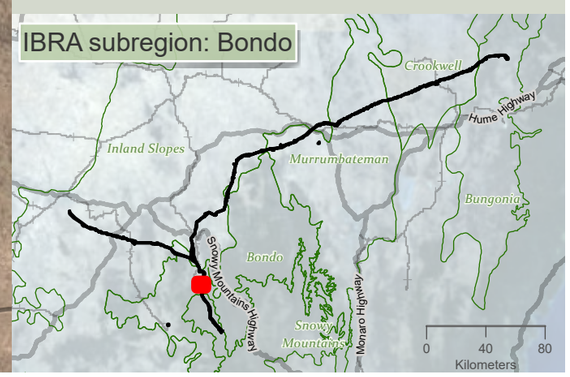
- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 29

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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61500 62000 62500 63000 63500 64000 64500 65000 65500 66000

6052000 6051500 6051000 6050500 6050000 6049500 6049000 6048500 6048000

Yellowin Access Road

Bago State Forest

Snubba Creek

Bondo

Snubba Road

Gilmore Creek

Snubba Road compound (C16)

Ridings Creek

Snowy Mountains

HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

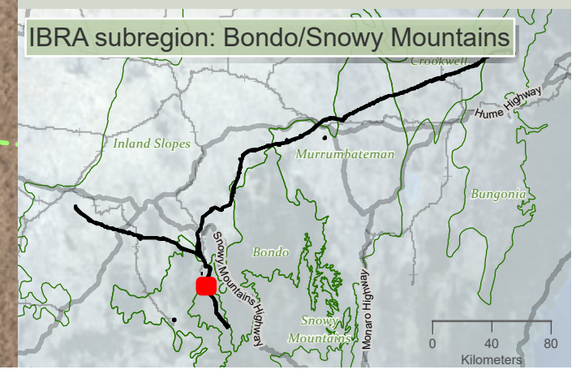
Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

IBRA subregion: Bondo/Snowy Mountains



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 N 550 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 30

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

63000 63500 64000 64500 65000 65500 66000 66500 67000 67500

6048500 6048000 6047500 6047000 6046500 6046000 6045500 6045000

Bondo

Snubba Creek

Bago State Forest

Snowy Mountains

Yellowin Creek

Sandy Creek

Weir Gully

[2]

HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

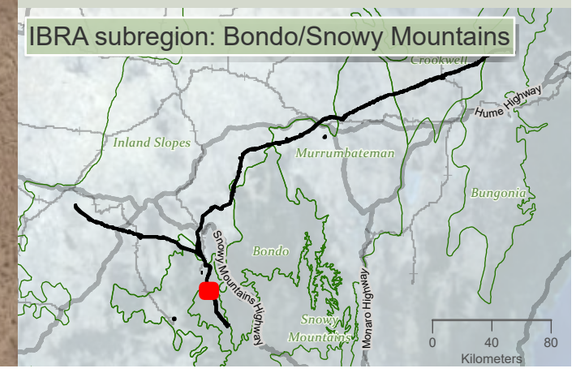
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)
- Olive Whistler (Pachycephala olivacea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 31

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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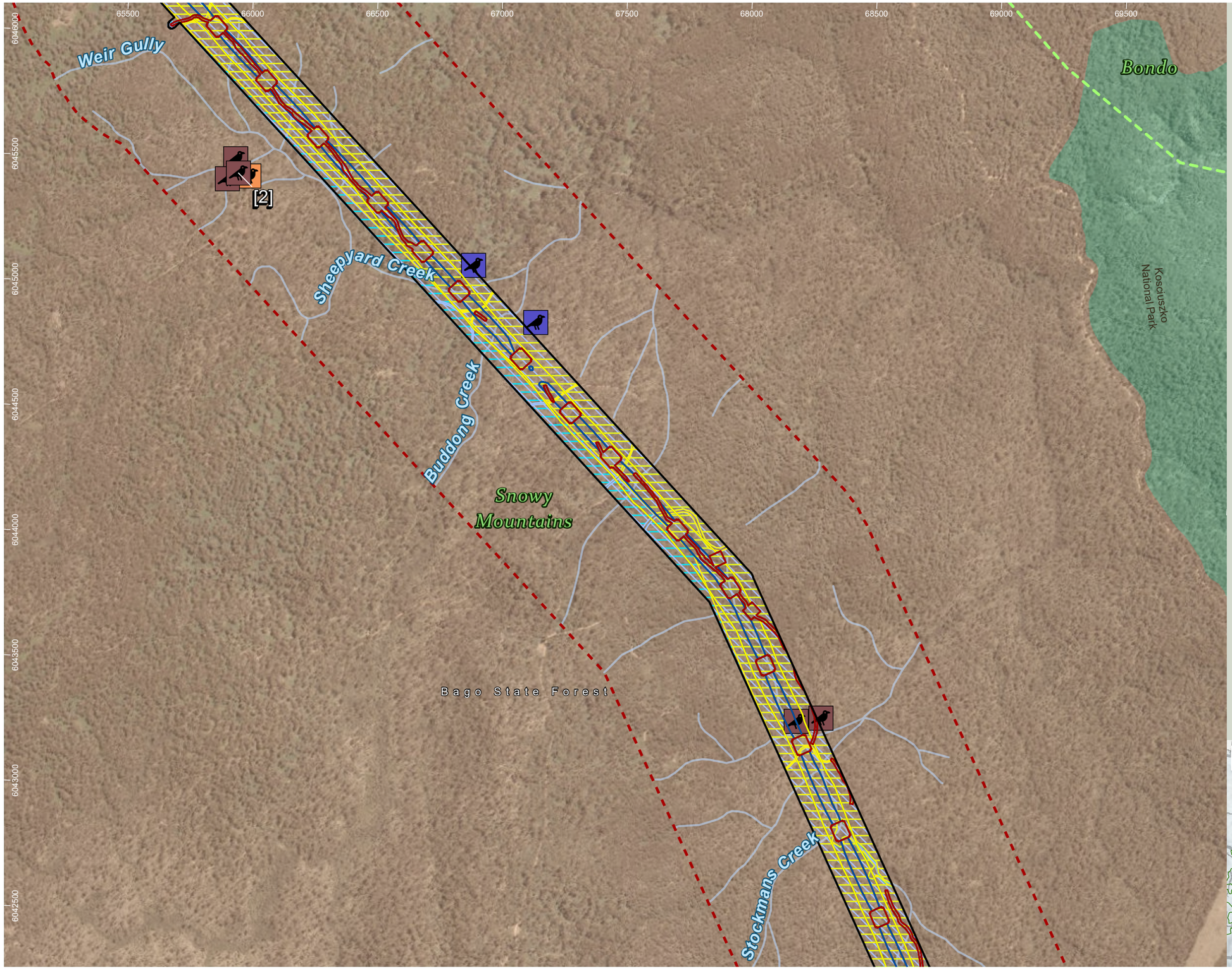


HumeLink project areas

- Project footprint
- Landscape assessment area
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

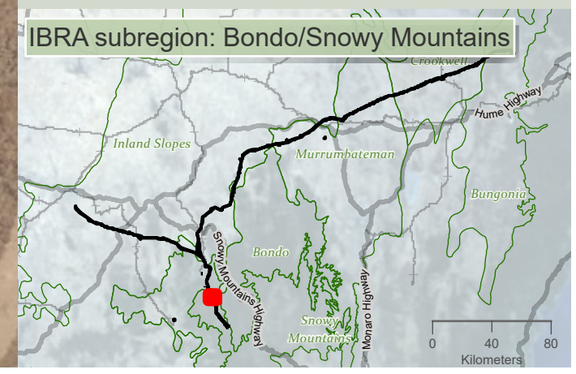
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)
- Olive Whistler (Pachycephala olivacea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 32

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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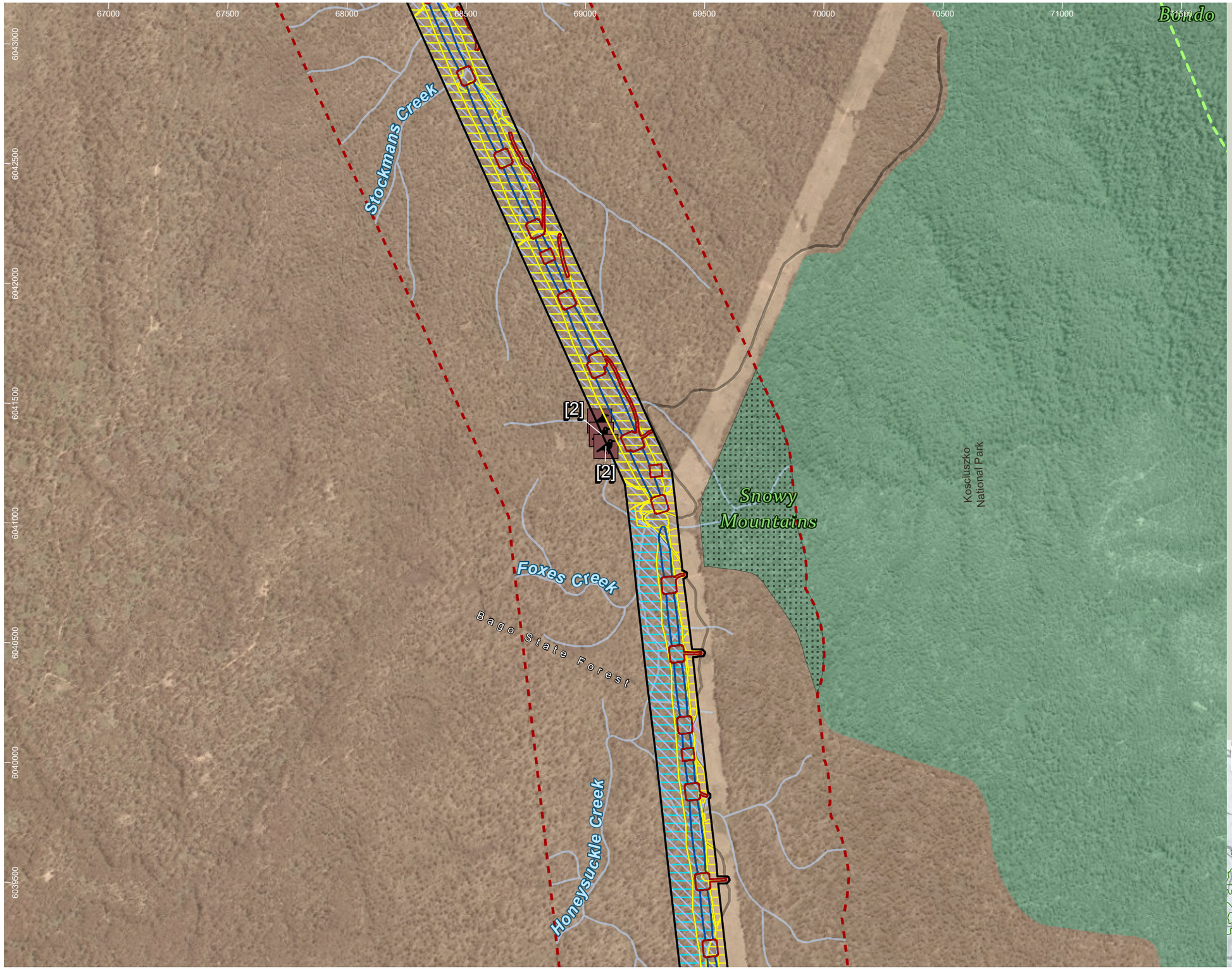


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

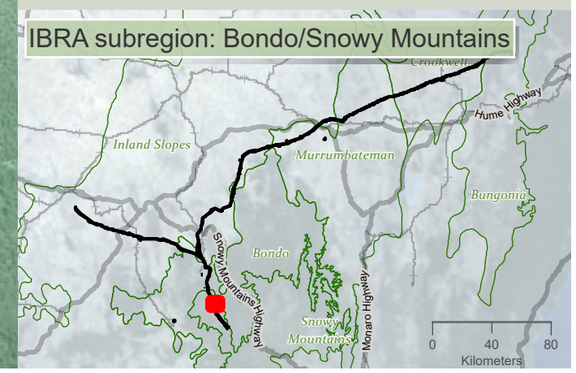
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

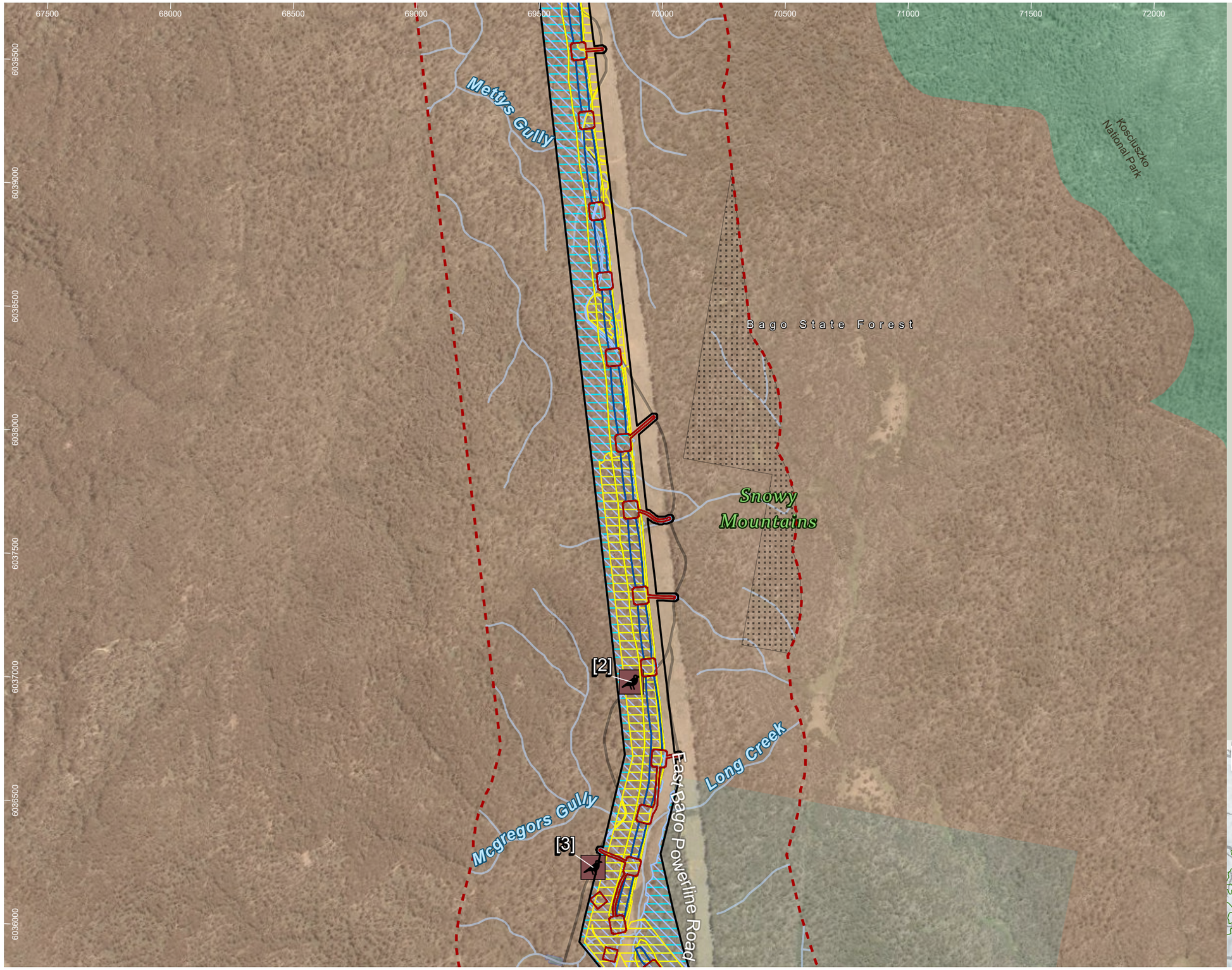
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 33

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

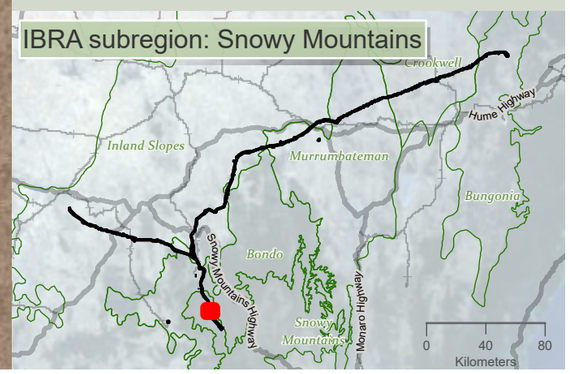
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 34

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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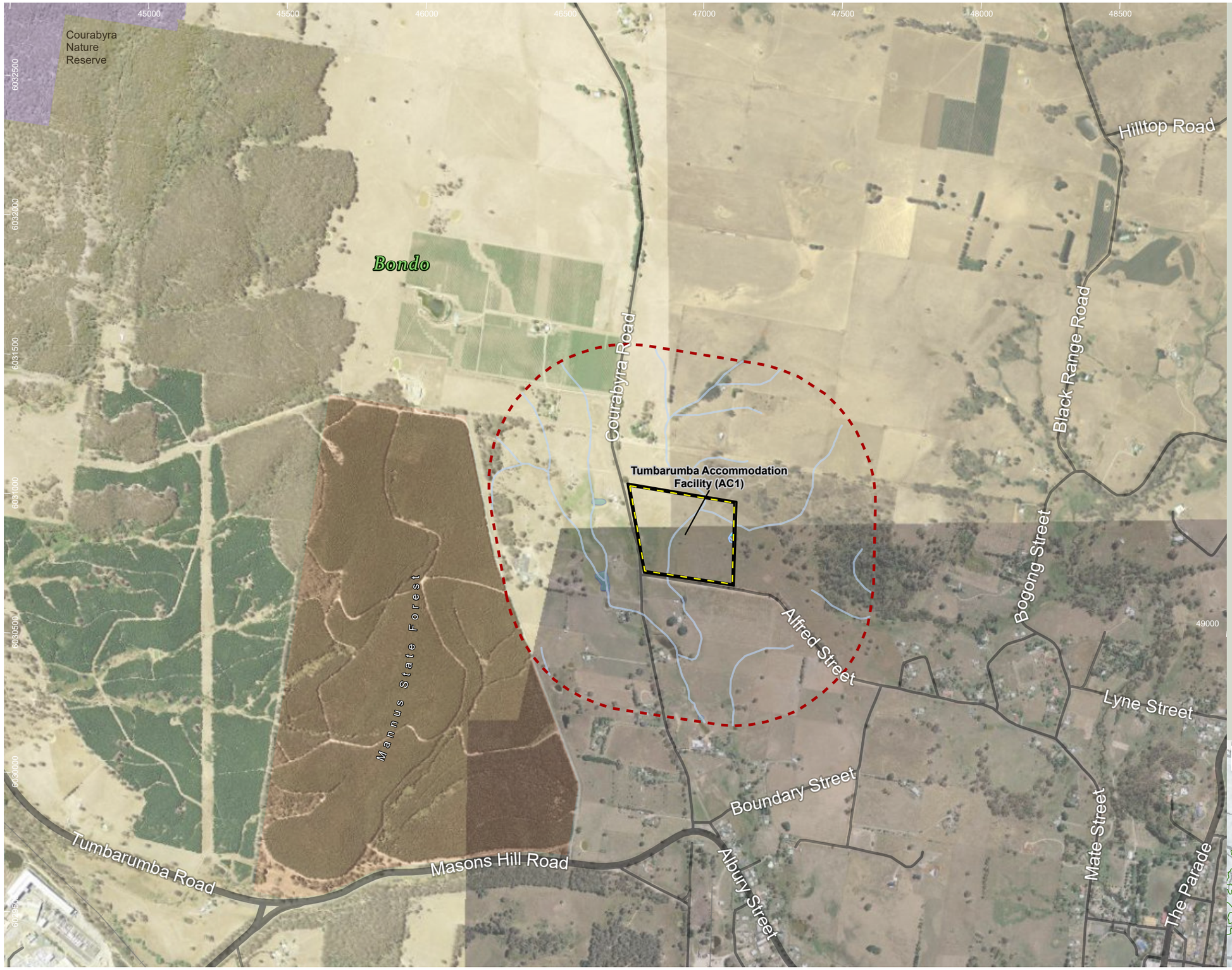


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

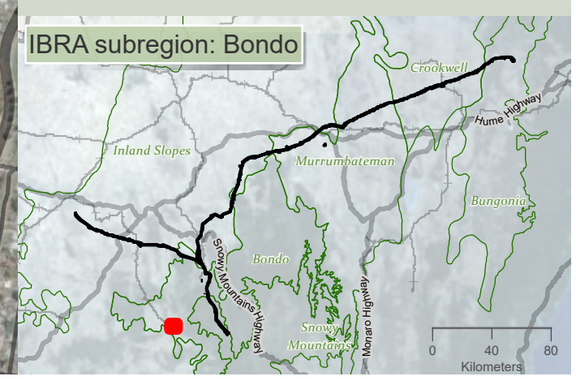
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 35

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

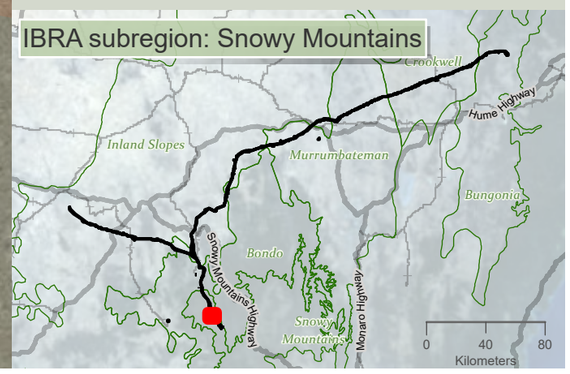
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Barking Owl (Ninox connivens)
- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

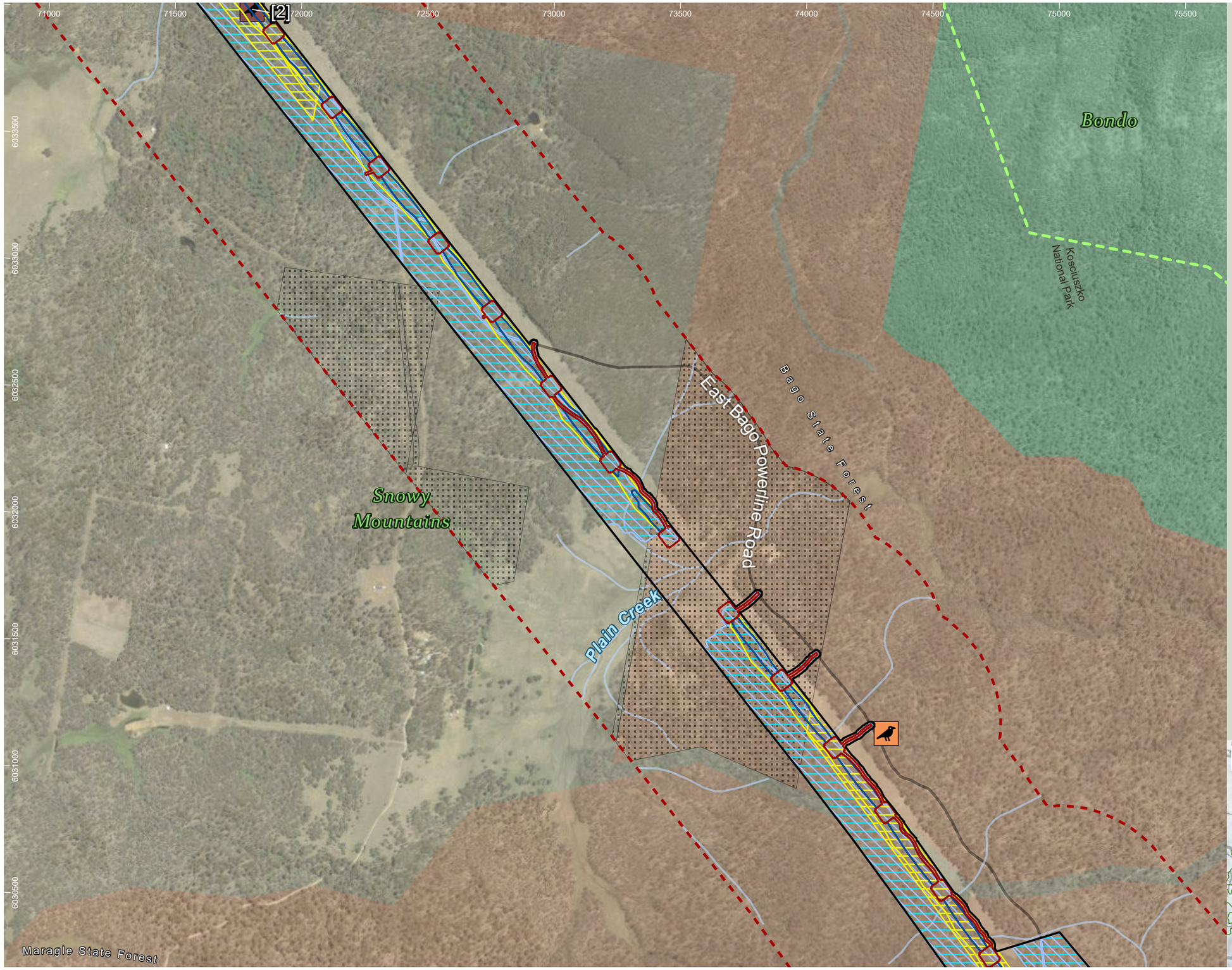
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 36

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

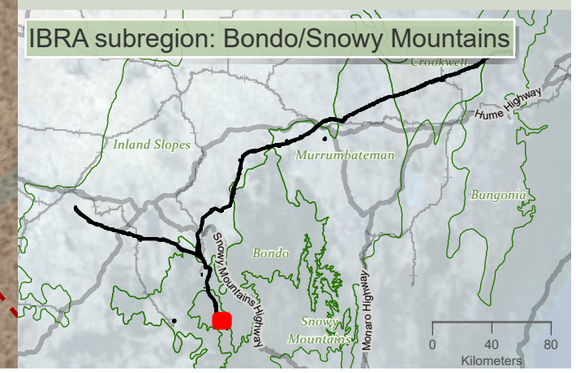
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Barking Owl (Ninox connivens)
Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

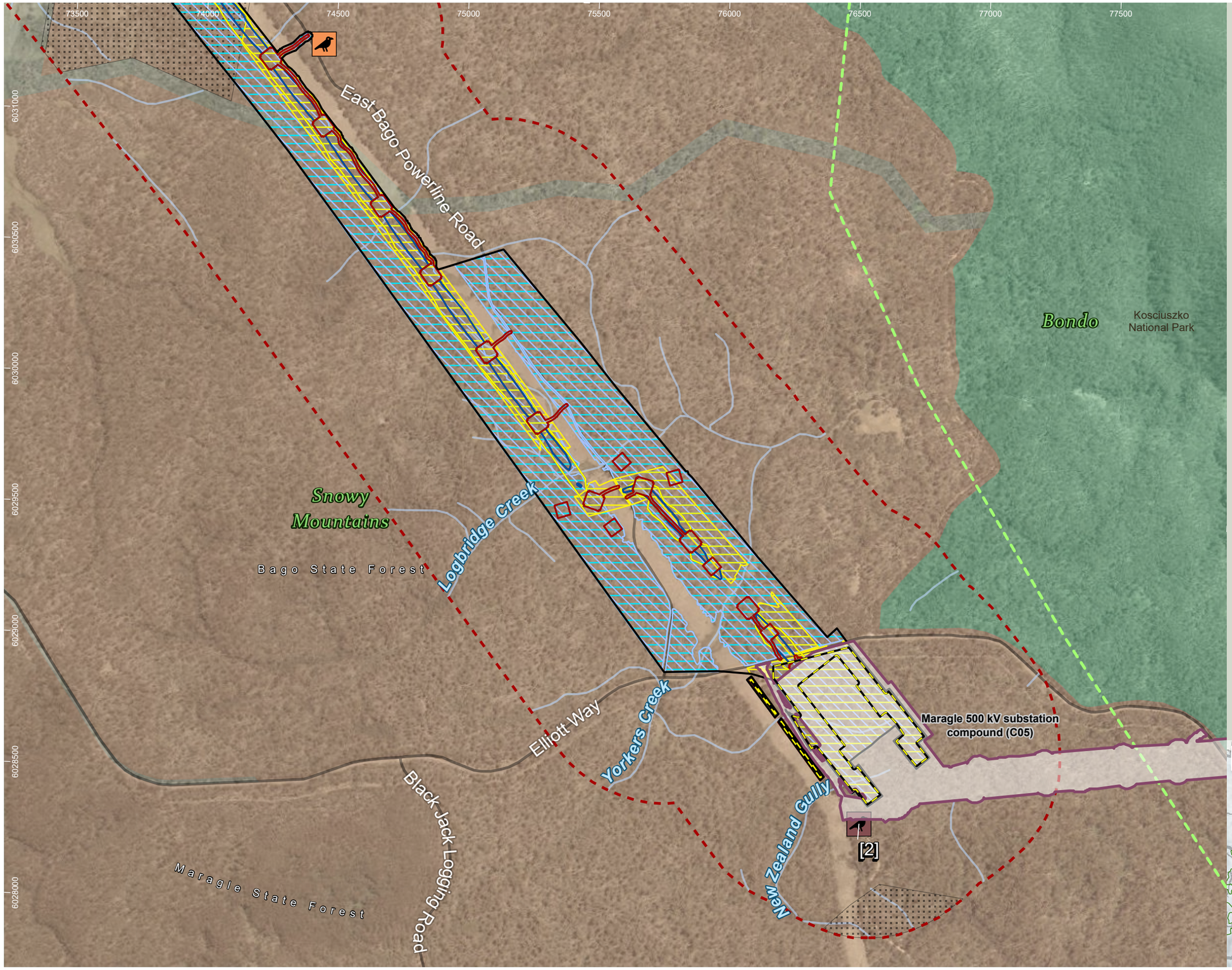
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 37

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- Snowy 2.0 Transmission Connection project
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Pycnoptilus floccosus

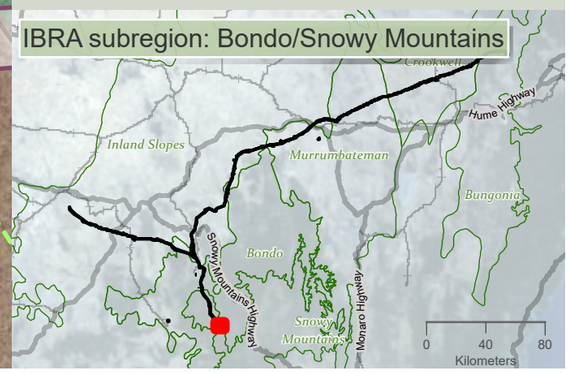
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



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niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

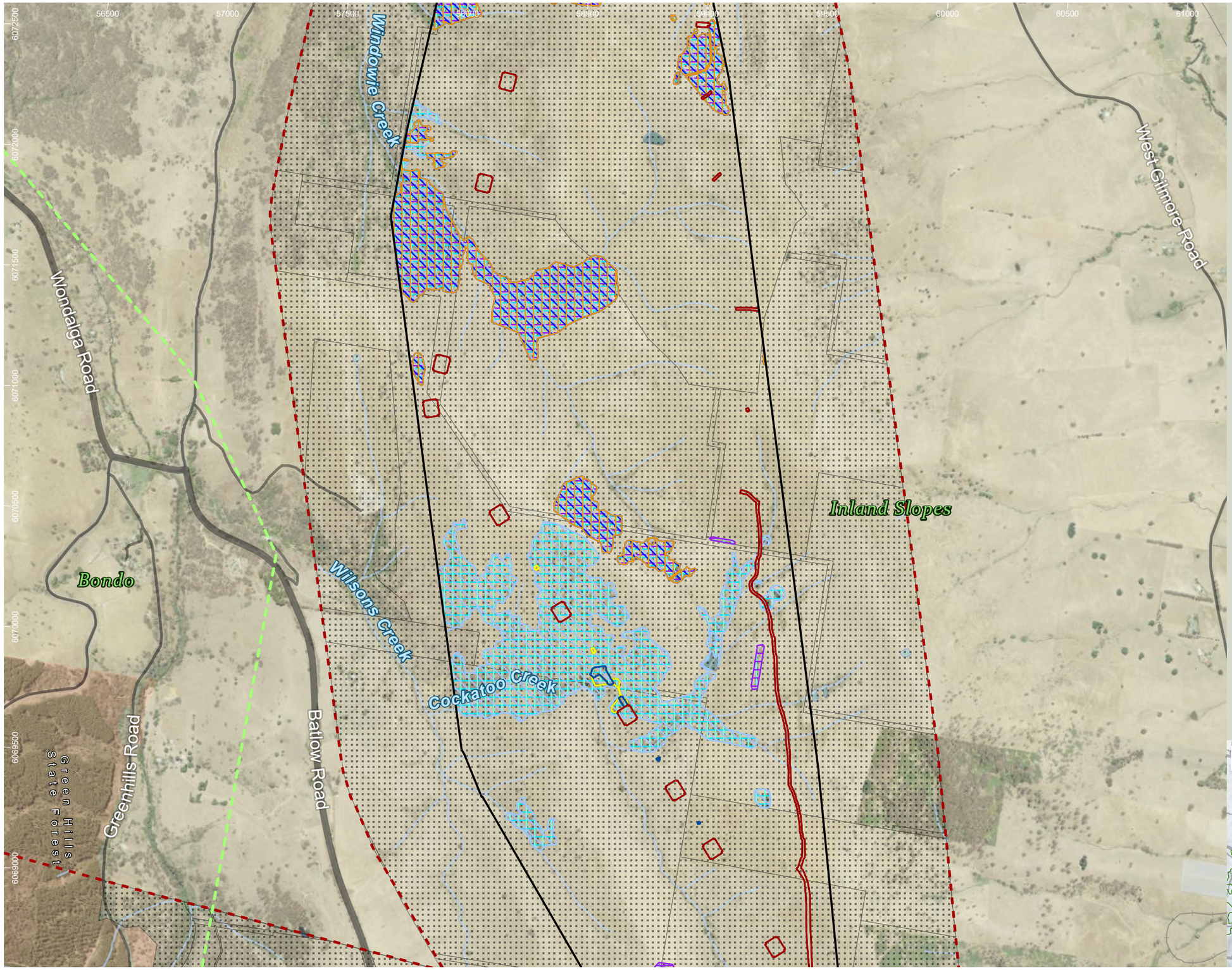
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 38

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

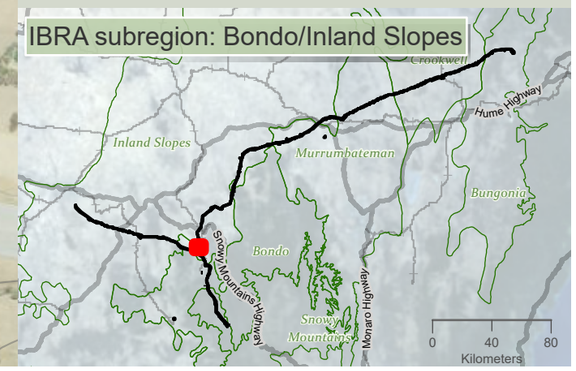
- Major road
- Minor road
- Rail

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

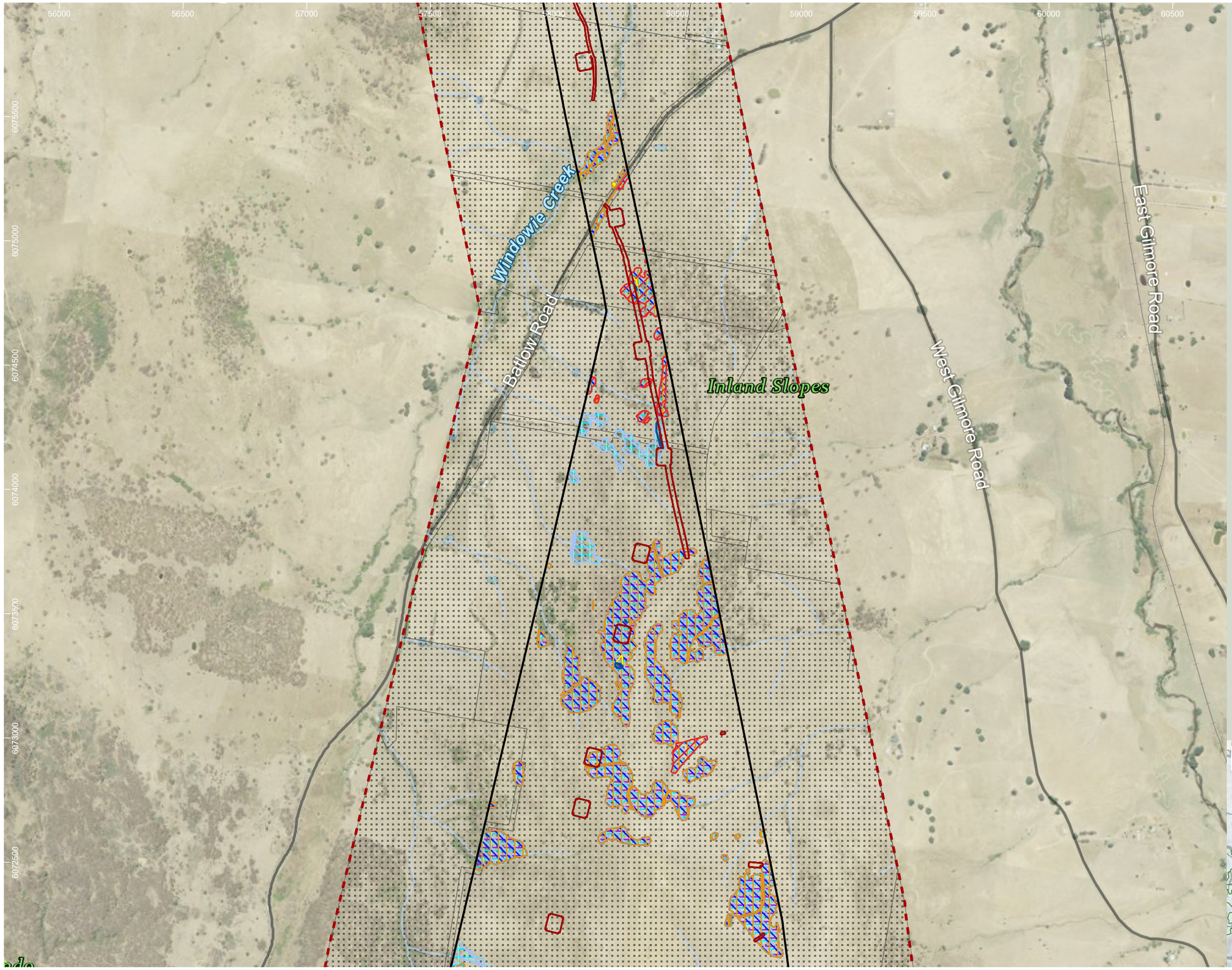
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 39

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699_Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

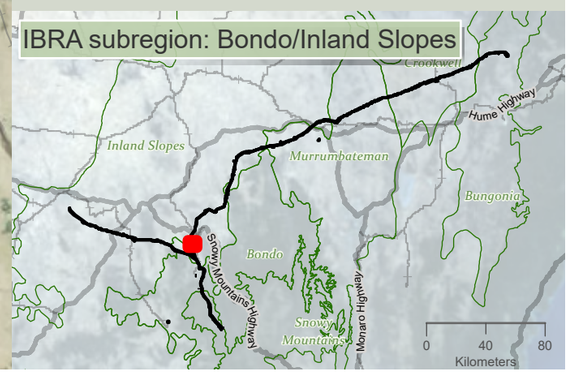
Transport

Road

- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023; File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 40

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55500 56000 56500 57000 57500 58000 58500 59000 59500 60000

6079000 6078500 6078000 6077500 6077000 6076500 6076000

Inland Slopes

Cadara Lane

Windowie Creek

Batlow Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

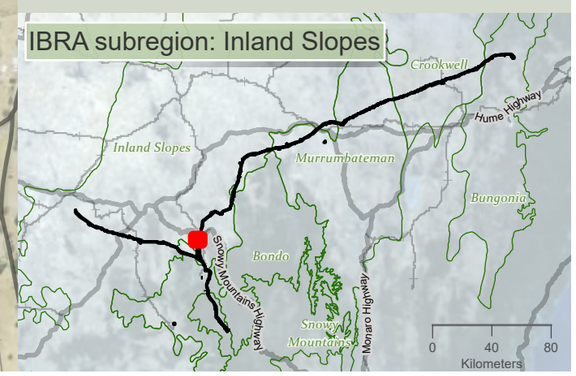
Transport

Road

- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 41

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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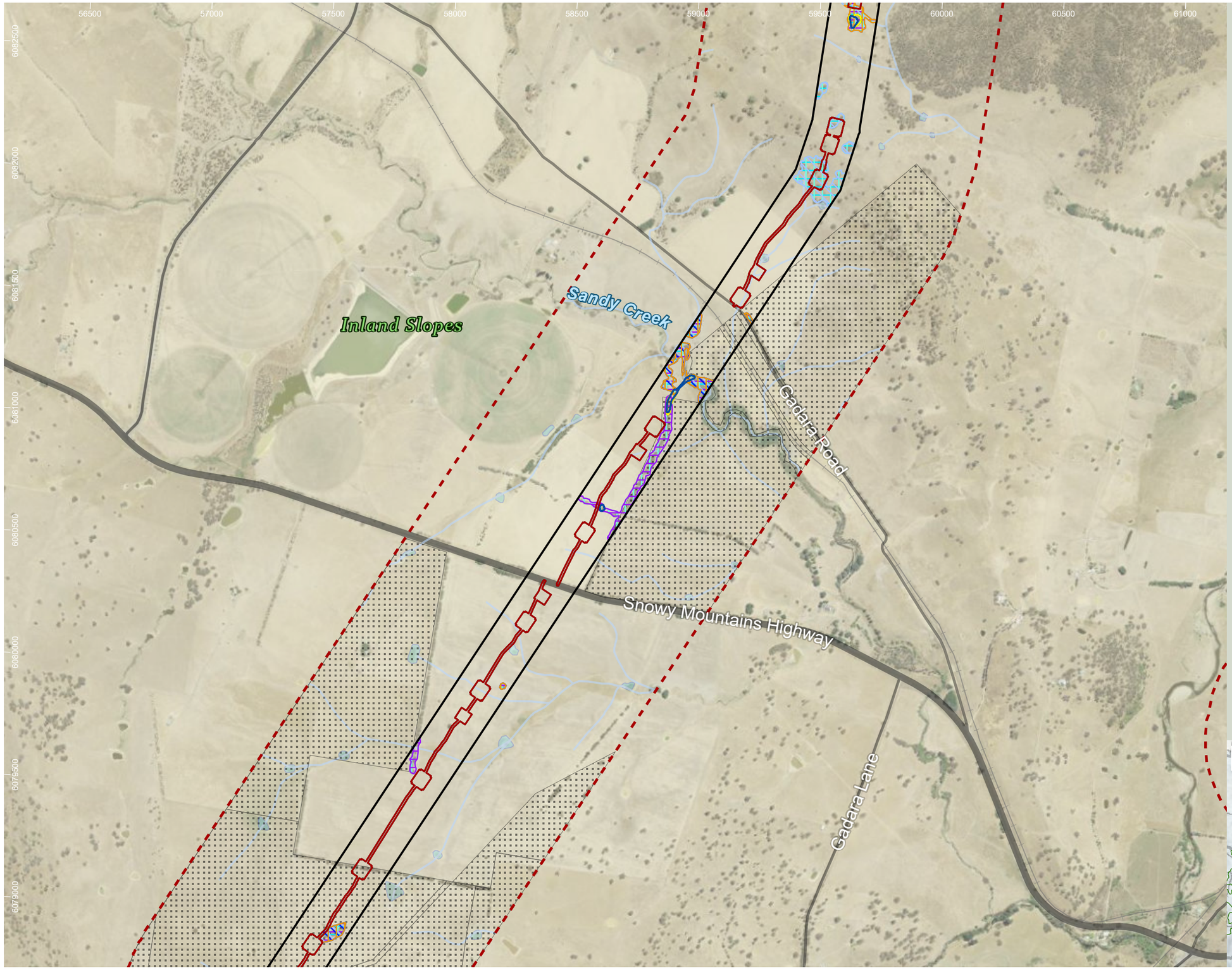


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

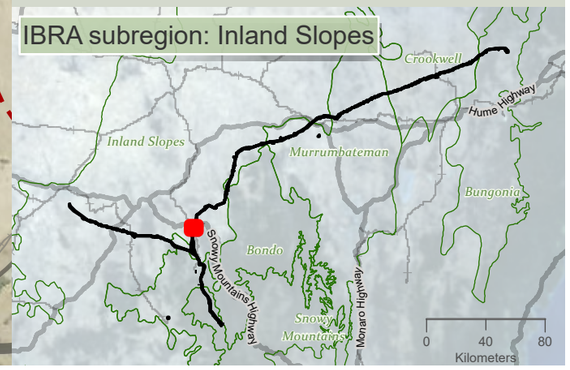
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 42

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

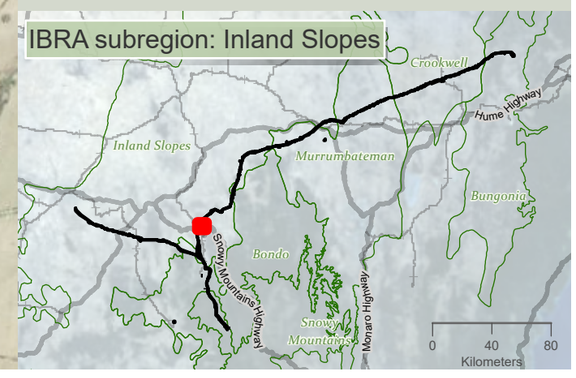
Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

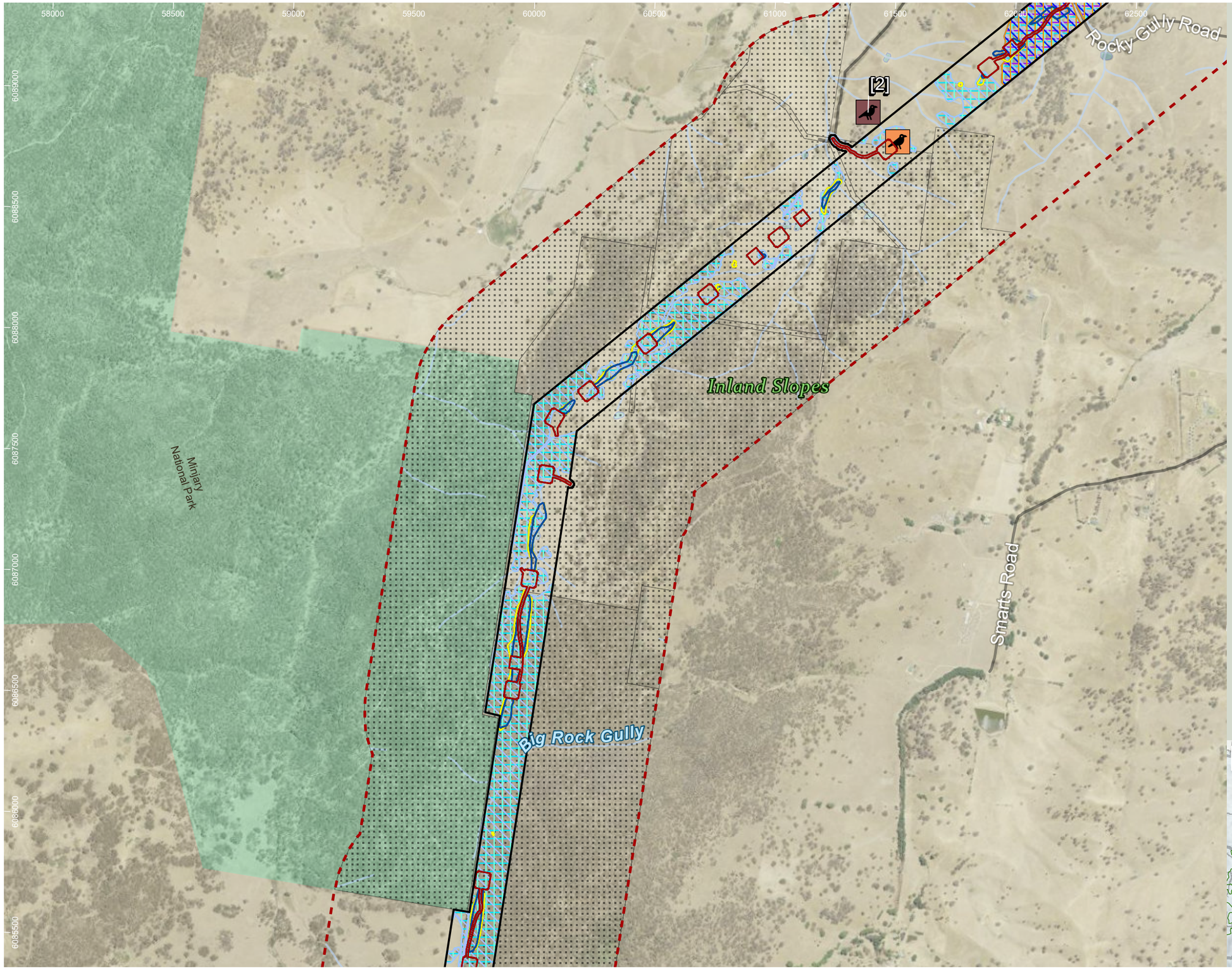
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 44

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- National Park

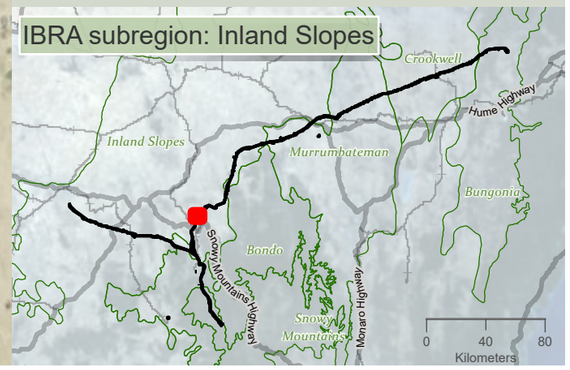
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 45

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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61000 61500 62000 62500 63000 63500 64000 64500

6091500 6091000 6090500 6090000 6089500 6089000 6088500

Inland Slopes

Meadow Creek Road

Gocup Road

Gocup Creek

Tumut River

Rocky Gully Road

Gocup Farms Road

[2]

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

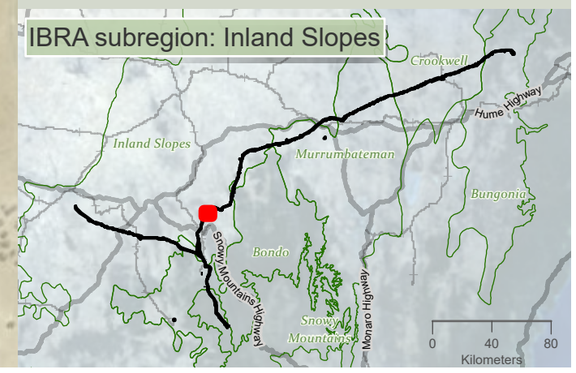
- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)
- Flame Robin (Petroica phoenicea)

IBRA subregion: Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 46

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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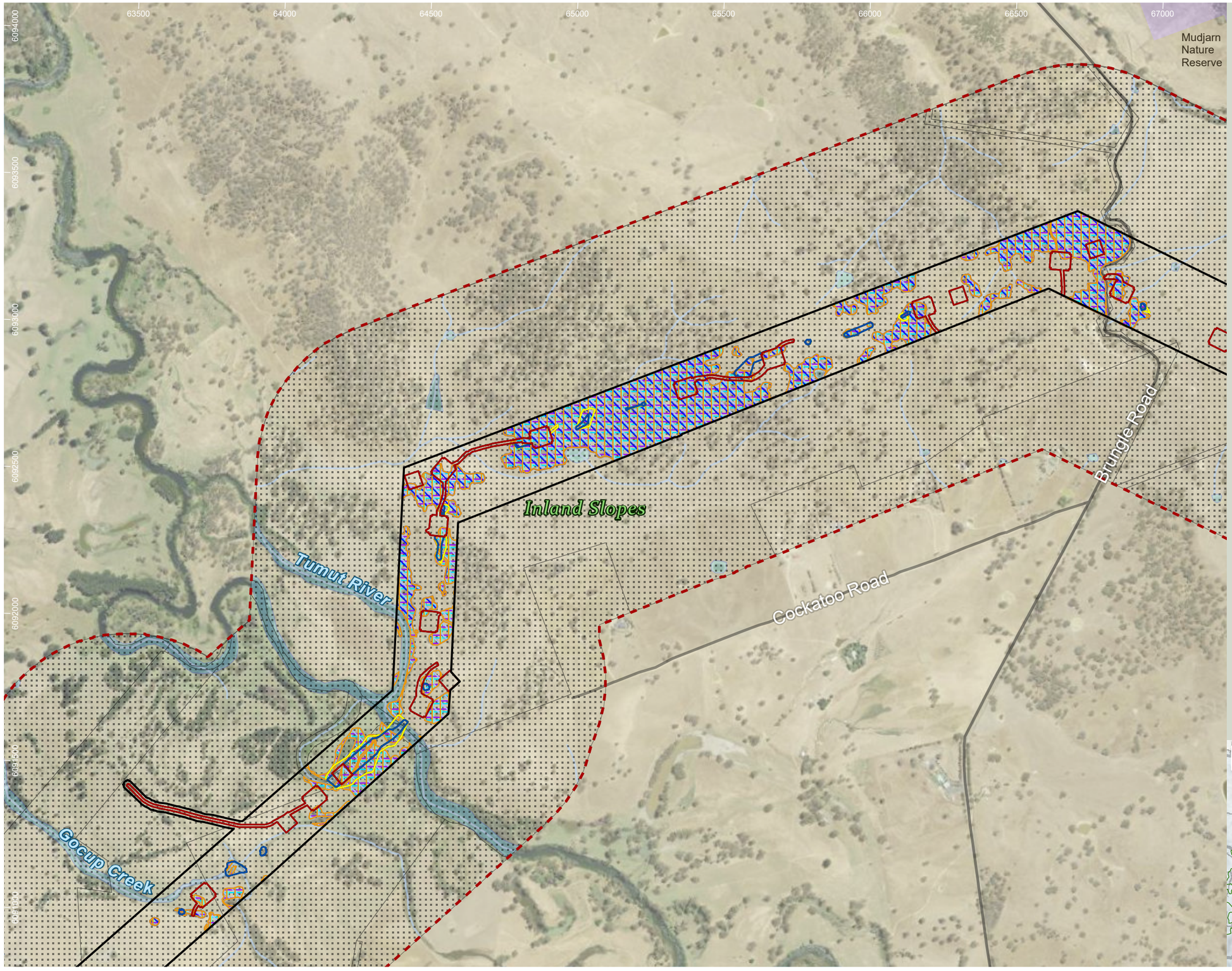


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

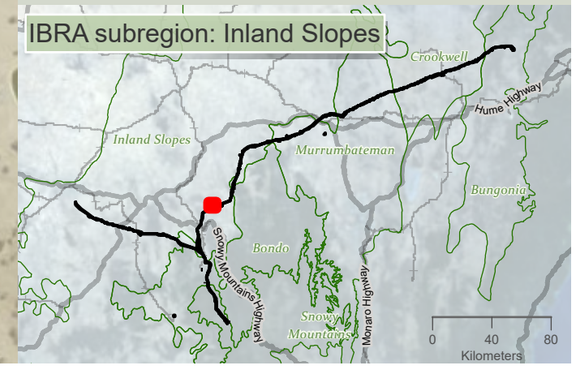
Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

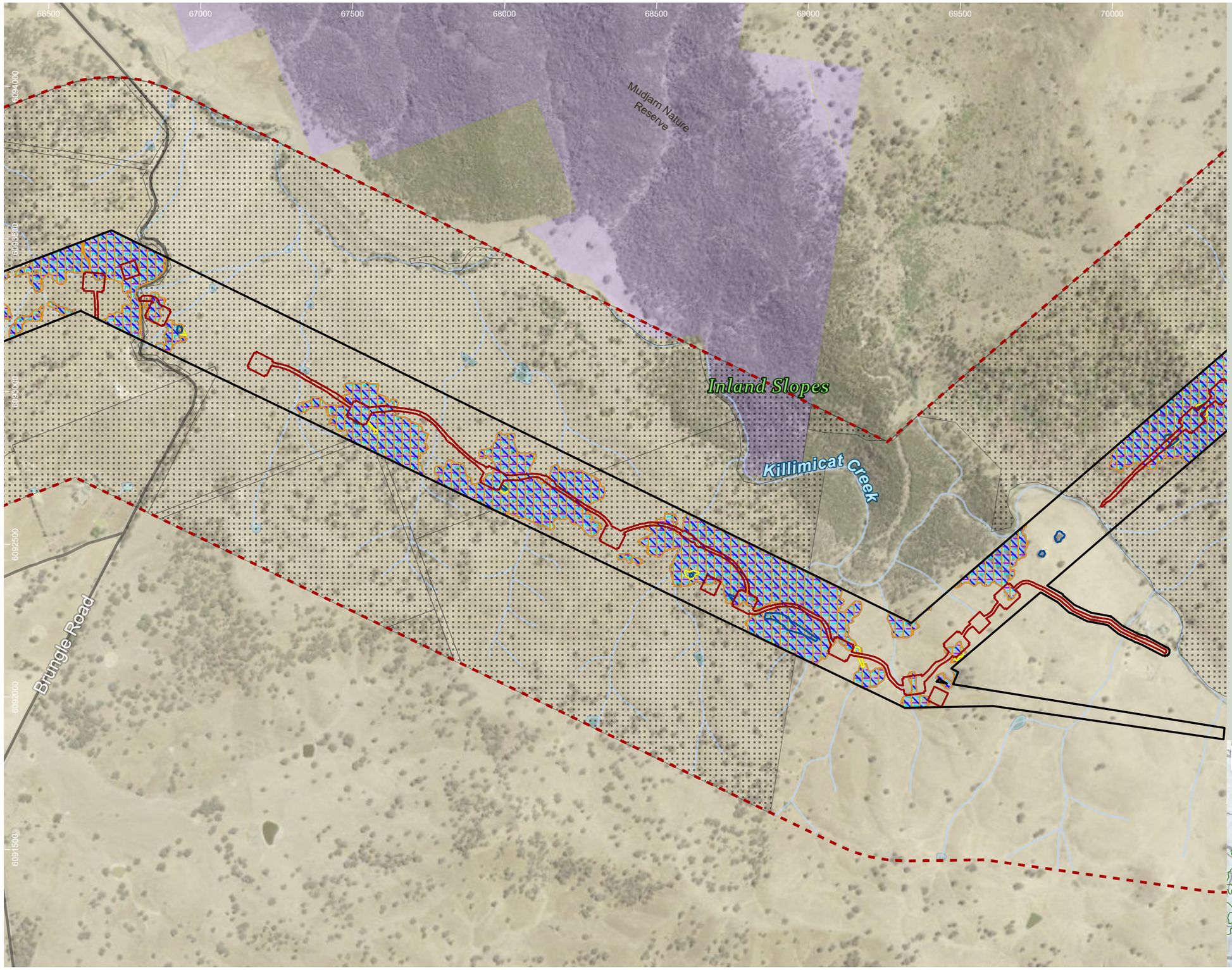
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 47

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

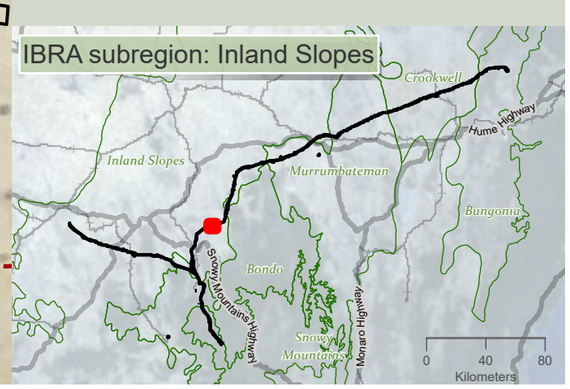
- Nature Reserve

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 48

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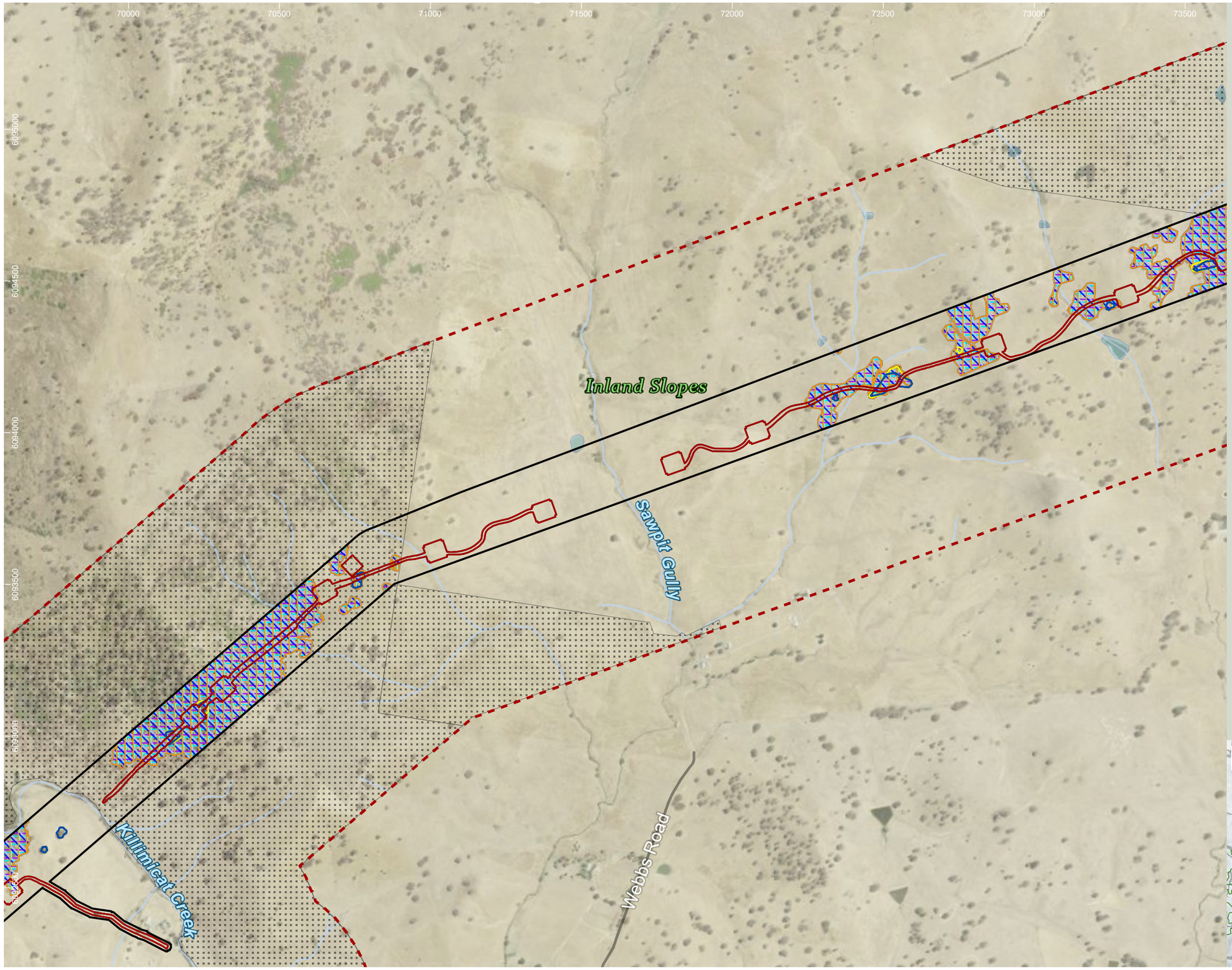


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

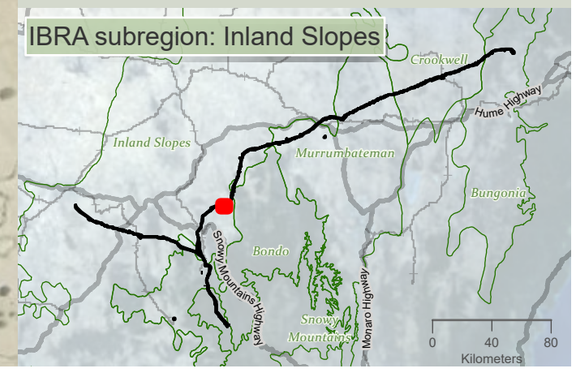
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 49

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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72500 73000 73500 74000 74500 75000 75500 76000 76500

6097500 6097000 6096500 6096000 6095500 6095000 6094500 6094000

Brungle Creek Road

Brungle Creek

Inland Slopes

Wee Jasper Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

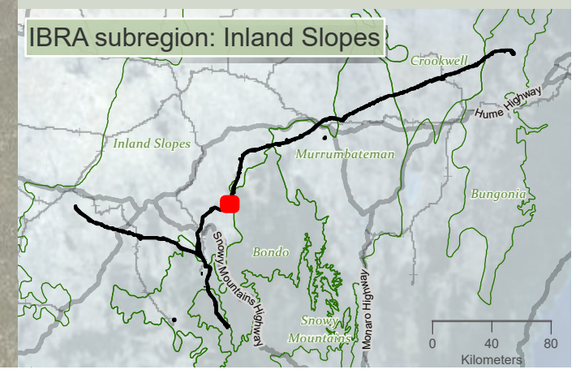
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 50

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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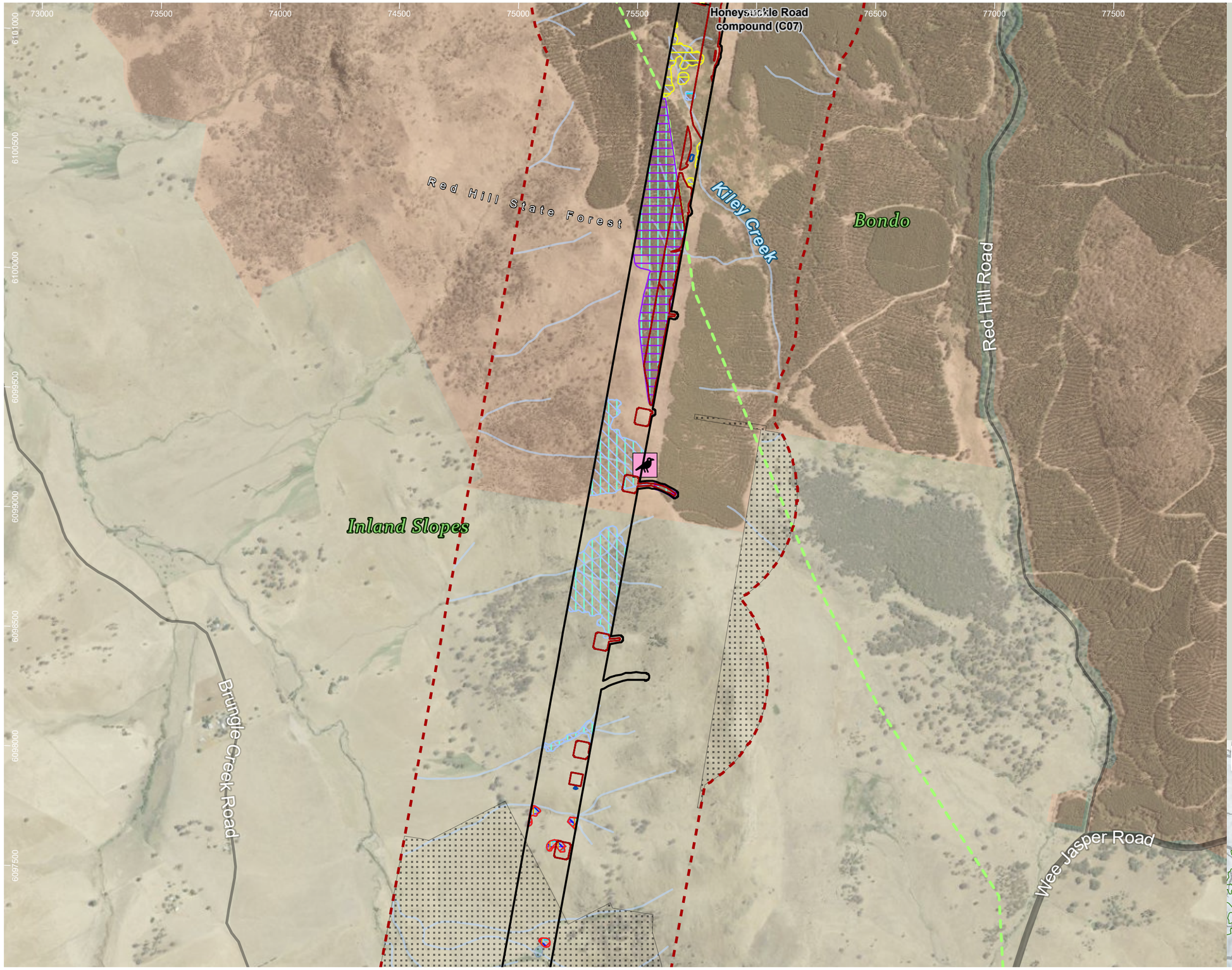


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

Administrative and Property Boundaries

- State Forest

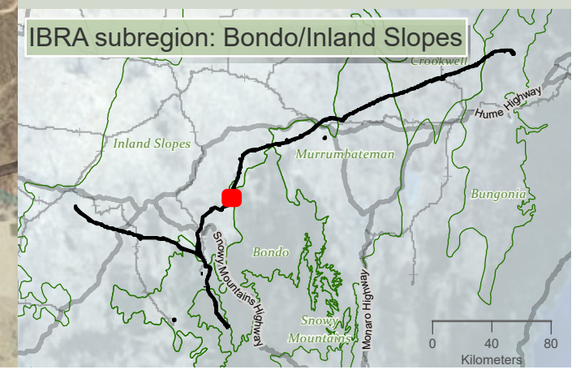
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii
- Pycnoptilus floccosus

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Speckled Warbler (Chthonicola sagittata)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 51

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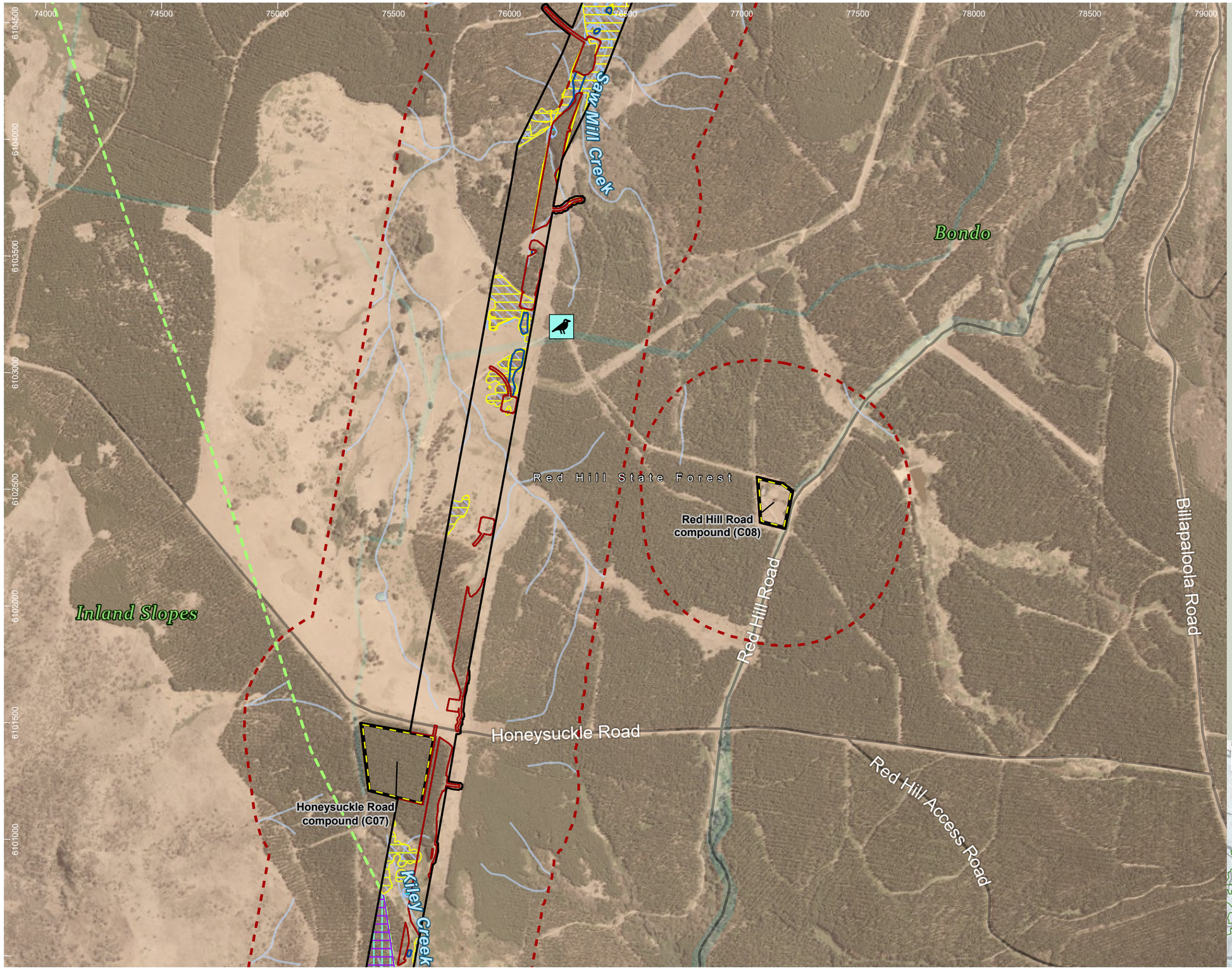


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii
- Pycnoptilus floccosus

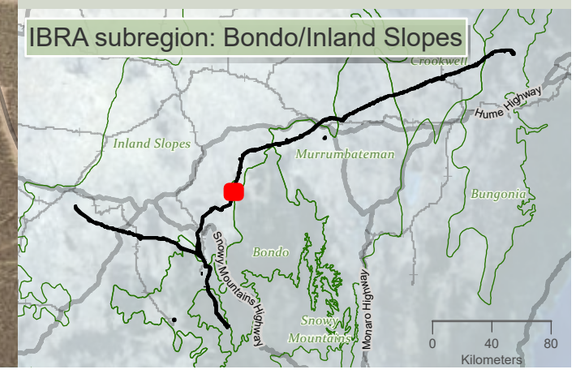
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 52

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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74500 75000 75500 76000 76500 77000 77500 78000 78500 79000

6108000 6107500 6107000 6106500 6106000 6105500 6105000 6104500

Adjungbilly Creek

Inland Slopes

Fernhill Road

Red Hill Road

Bondo

Saw Mill Creek

Red Hill State Forest

Billapaloola Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

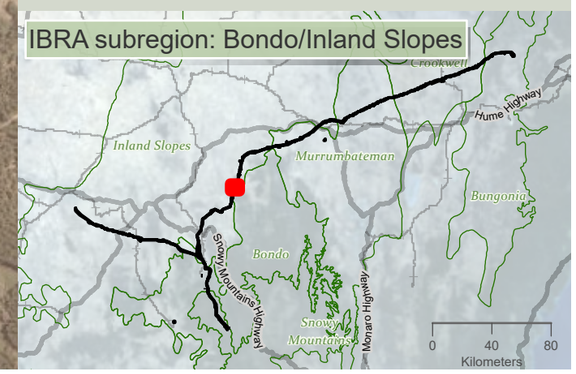
- State Forest

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii
- Pycnoptilus floccosus

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 500
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 53

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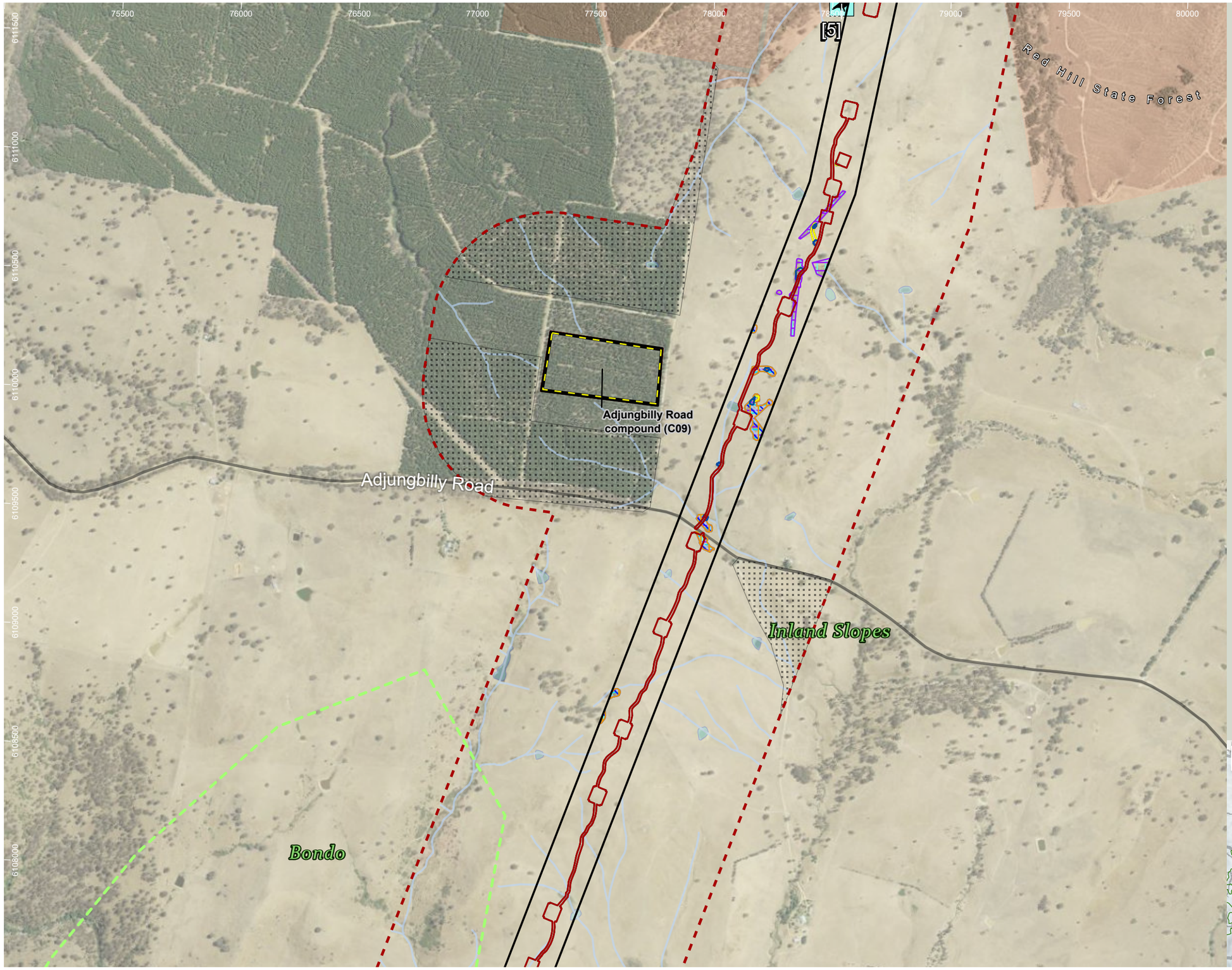
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

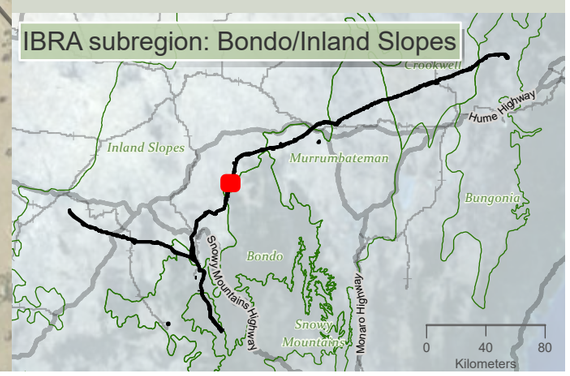
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 54

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v2.0



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Administrative and Property Boundaries

- State Forest

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

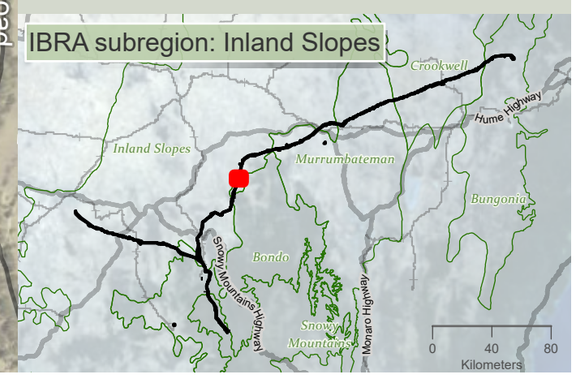
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)
- Powerful Owl (Ninox strenua)



niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 55

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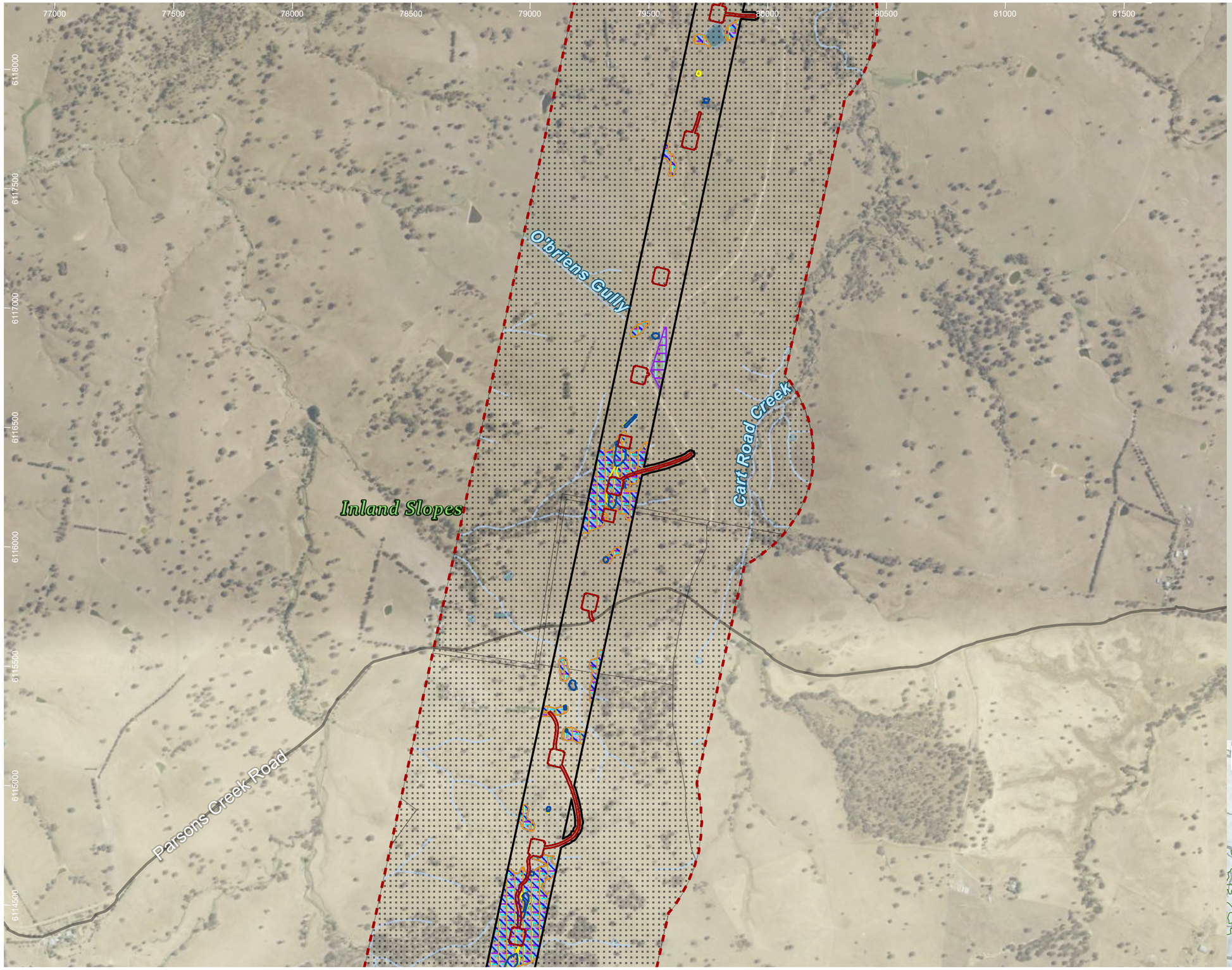
Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

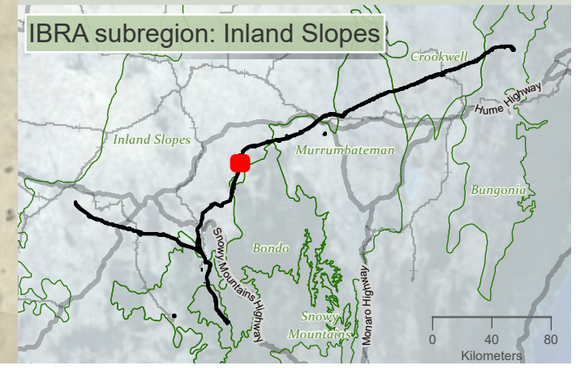
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 56

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77500 78000 78500 79000 79500 80000 80500 81000 81500 82000

6121500 6121000 6120500 6120000 6119500 6119000 6118500 6118000

Oak Creek

Inland Slopes

Cart Road Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

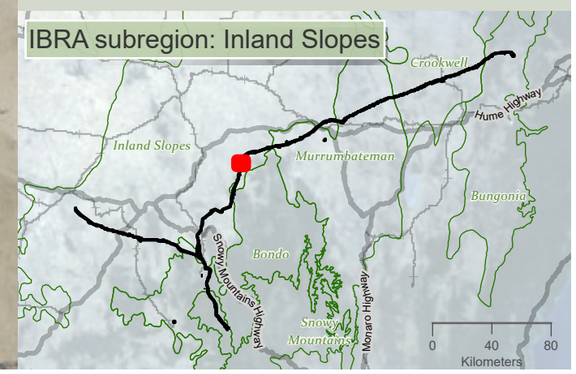
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 57

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

79000 79500 80000 80500 81000 81500 82000 82500 83000

6124500 6124000 6123500 6123000 6122500 6122000 6121500

Inland Slopes

Yellow Clay Creek

Oak Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

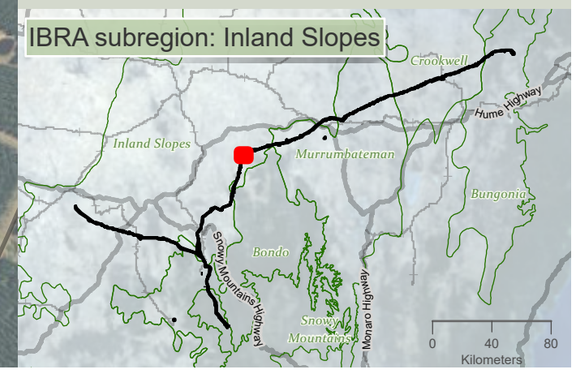
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 58

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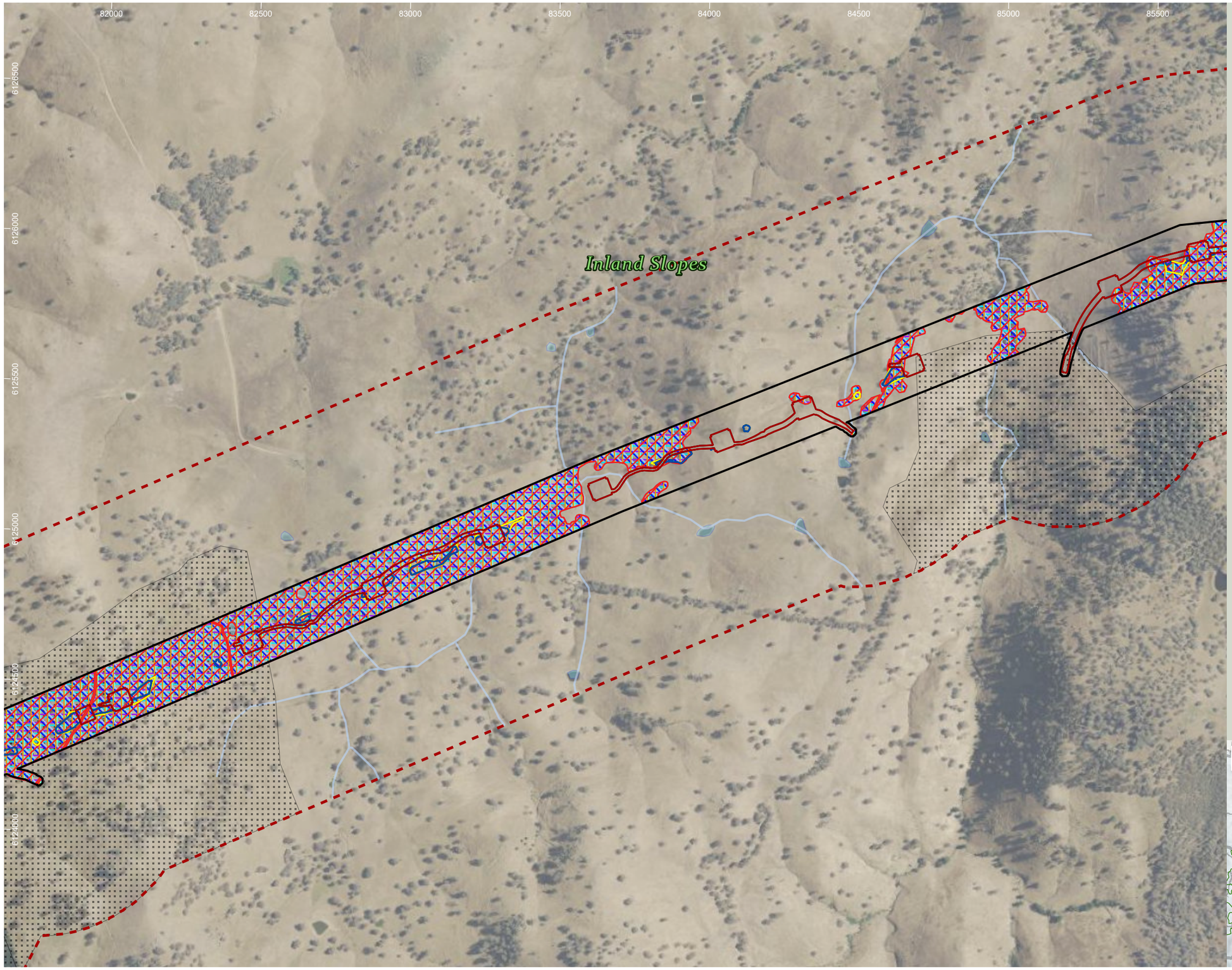
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential\Impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

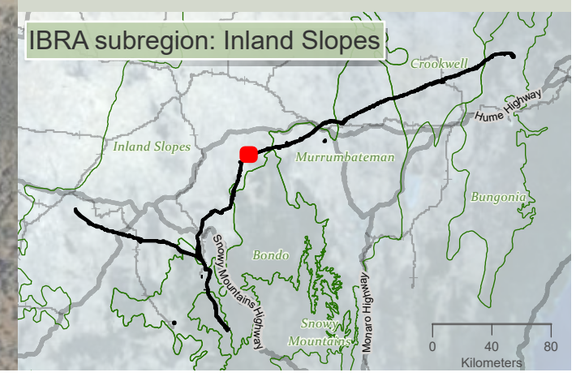
- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 59

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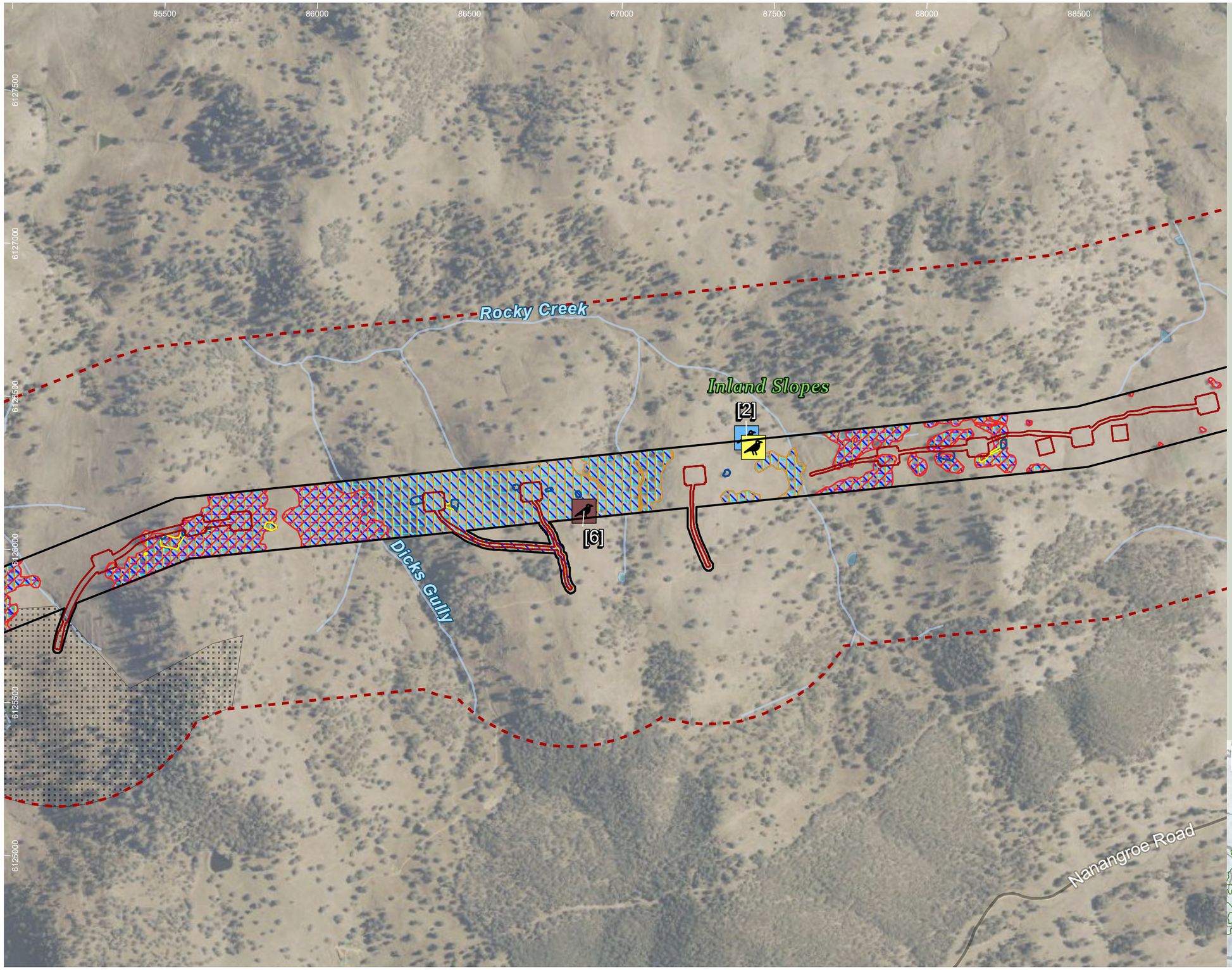
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

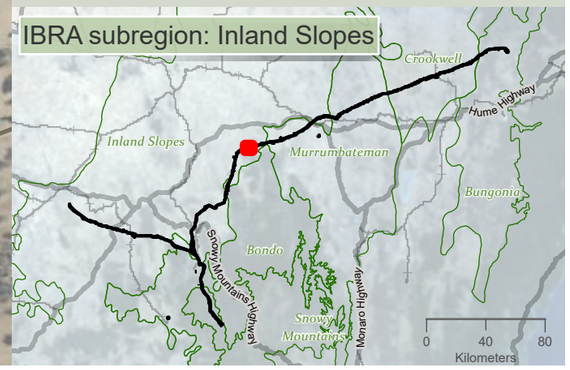
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Flame Robin (Petroica phoenicea)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 60

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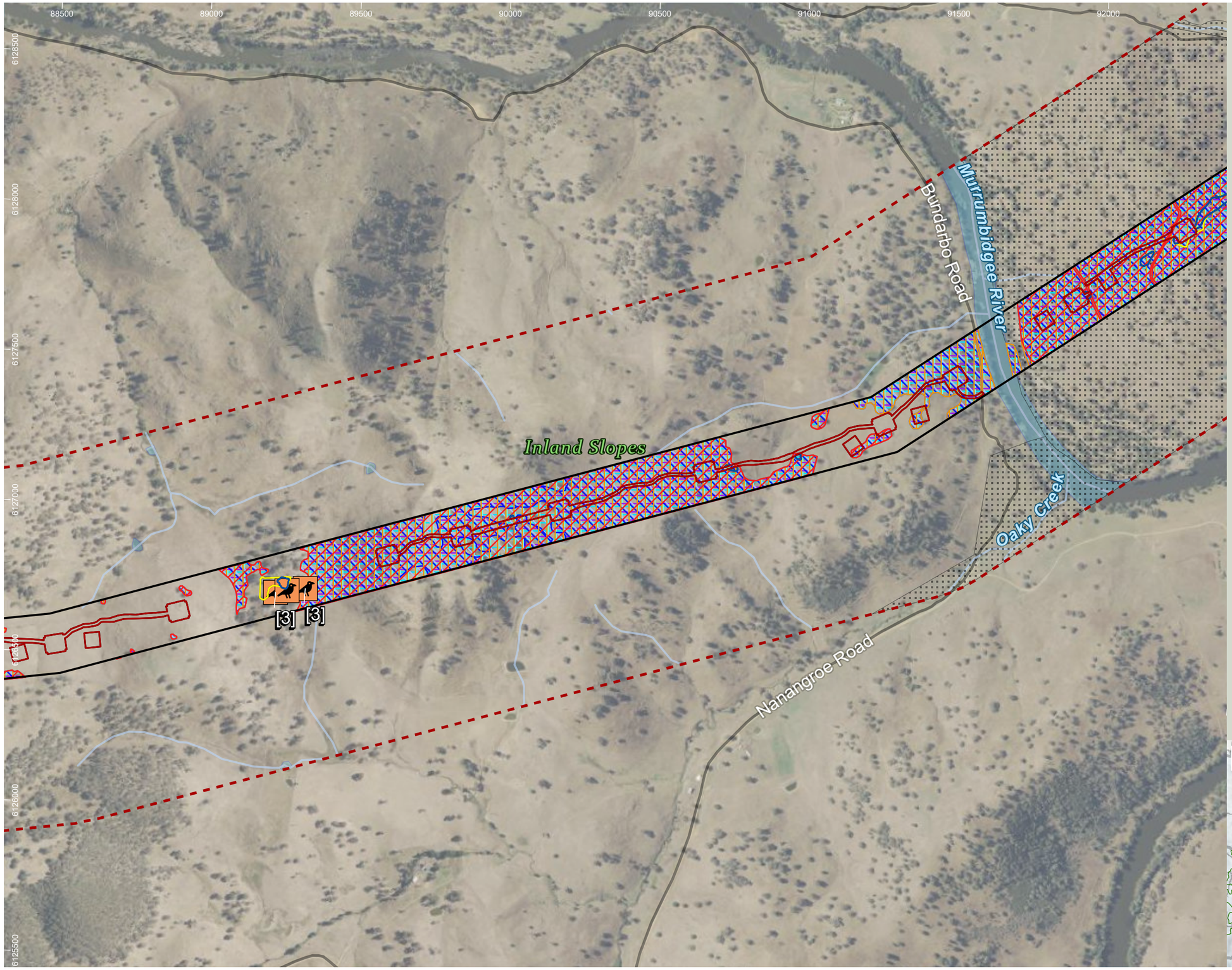
Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

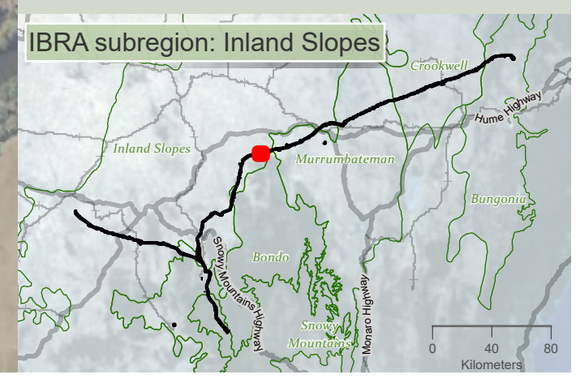
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Brown Treecreeper (eastern subspecies) (Climacteris picumnus victoriae)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 61

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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92000 92500 93000 93500 94000 94500 95000 95500

6130000 6129500 6129000 6128500 6128000 6127500 6127000

Nanangroe Road
Childowla Road
Oak Creek
Inland Slopes
Murrumbidgee River
Oaky Creek
Bondo

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

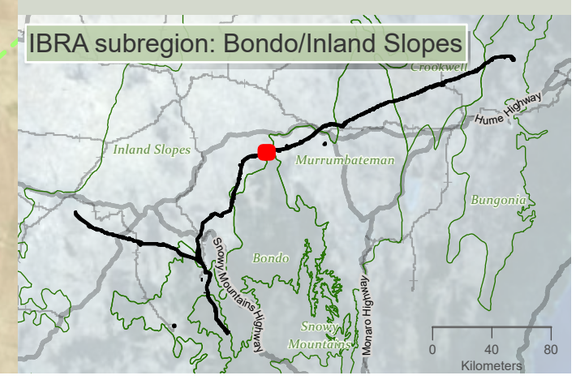
Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

IBRA subregion: Bondo/Inland Slopes



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 62

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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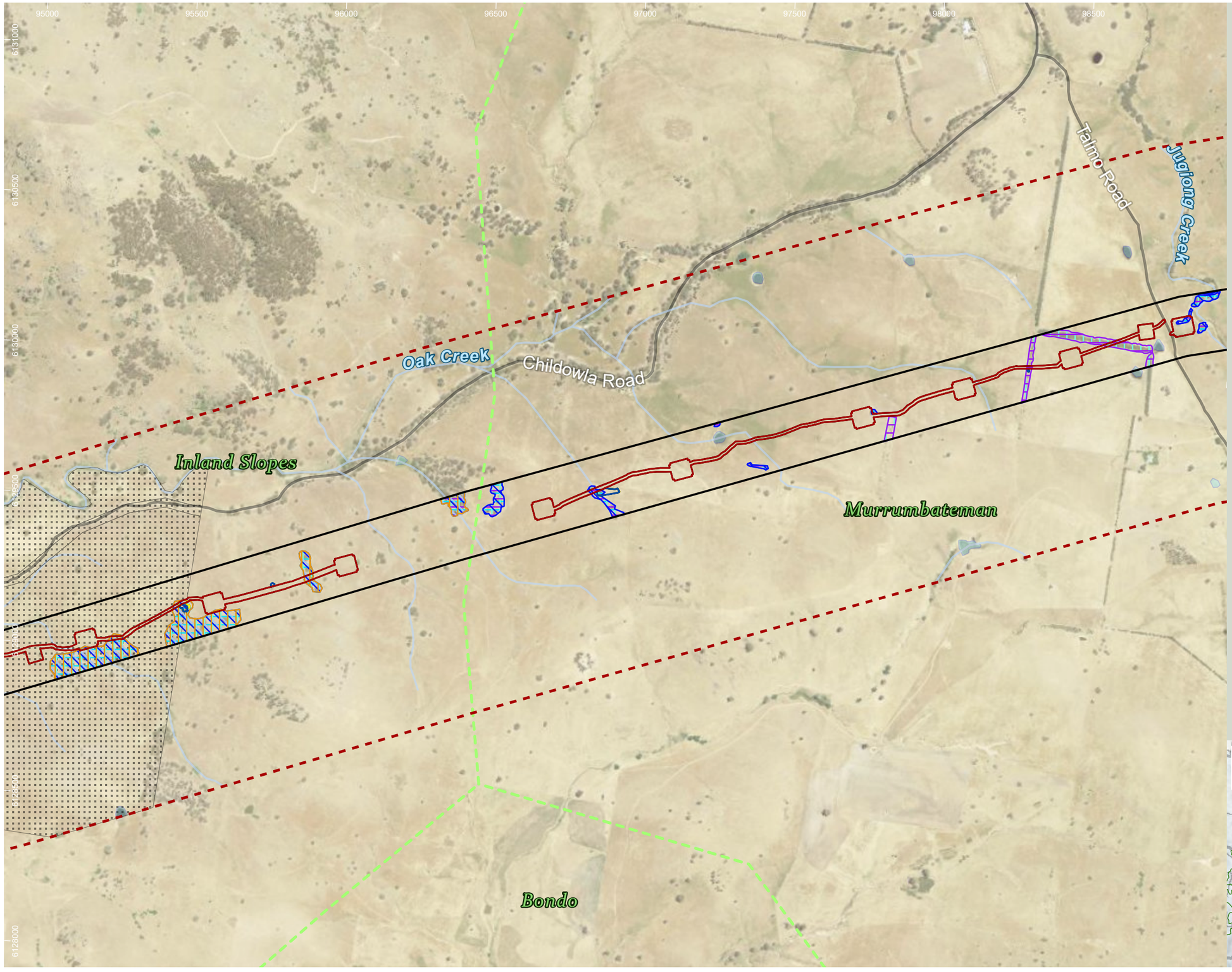


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

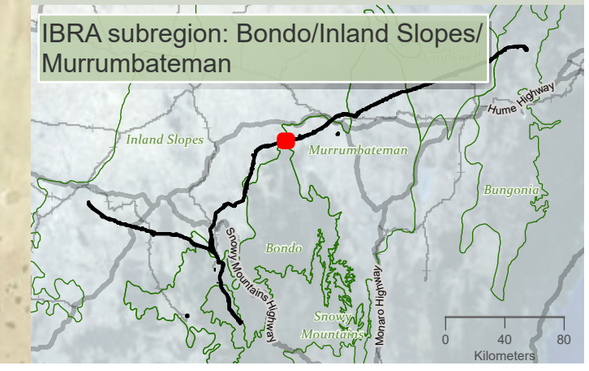
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 N 400
m

WGS 1984 Web Mercator

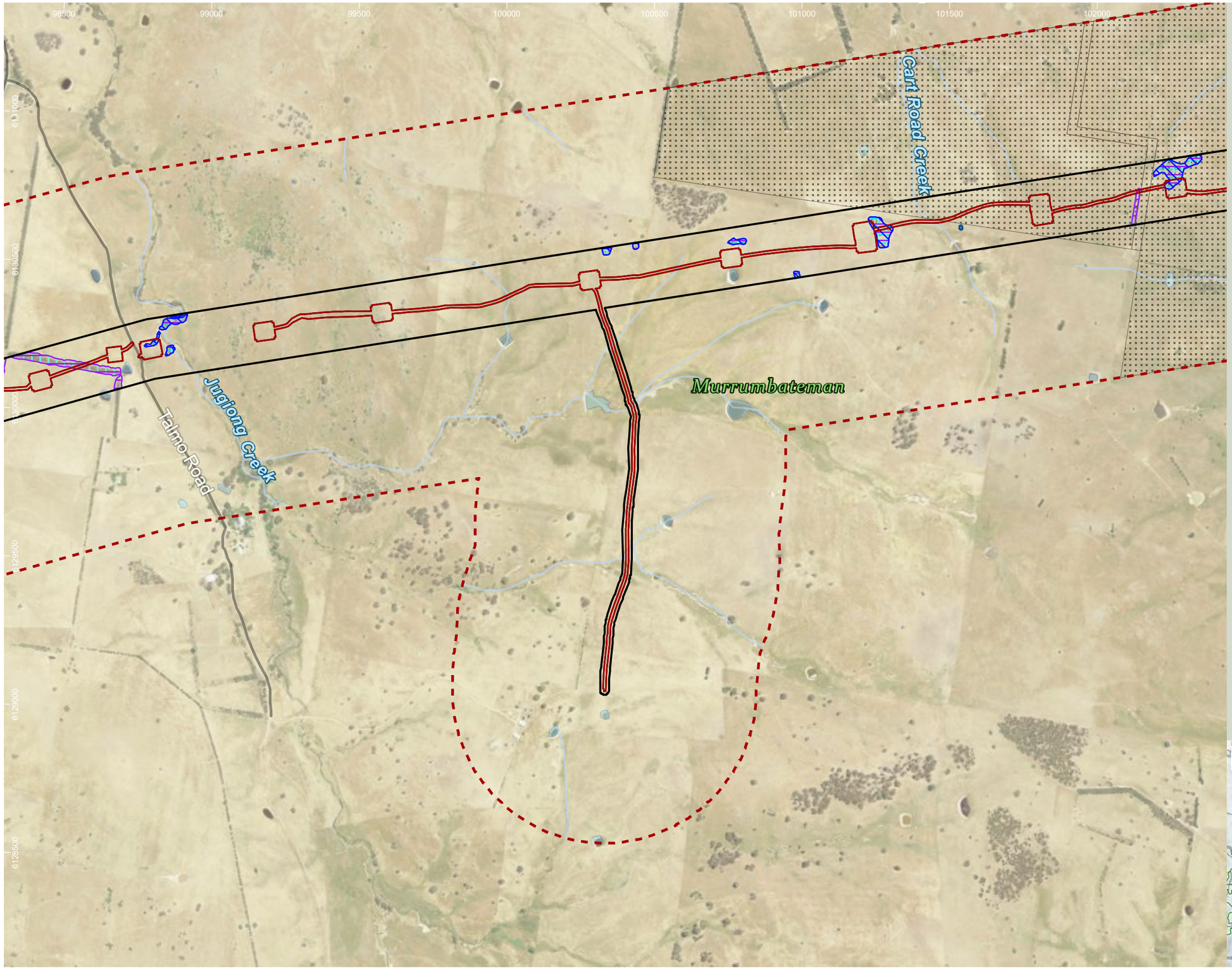
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 63

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

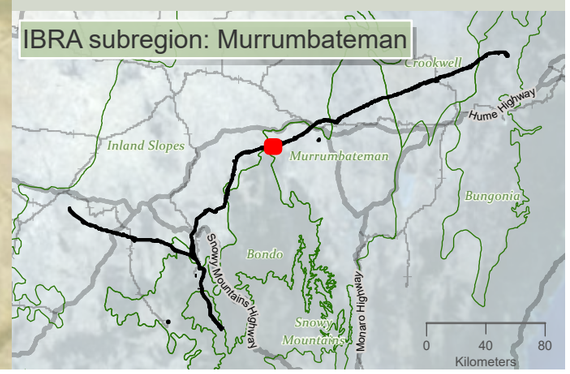
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 64

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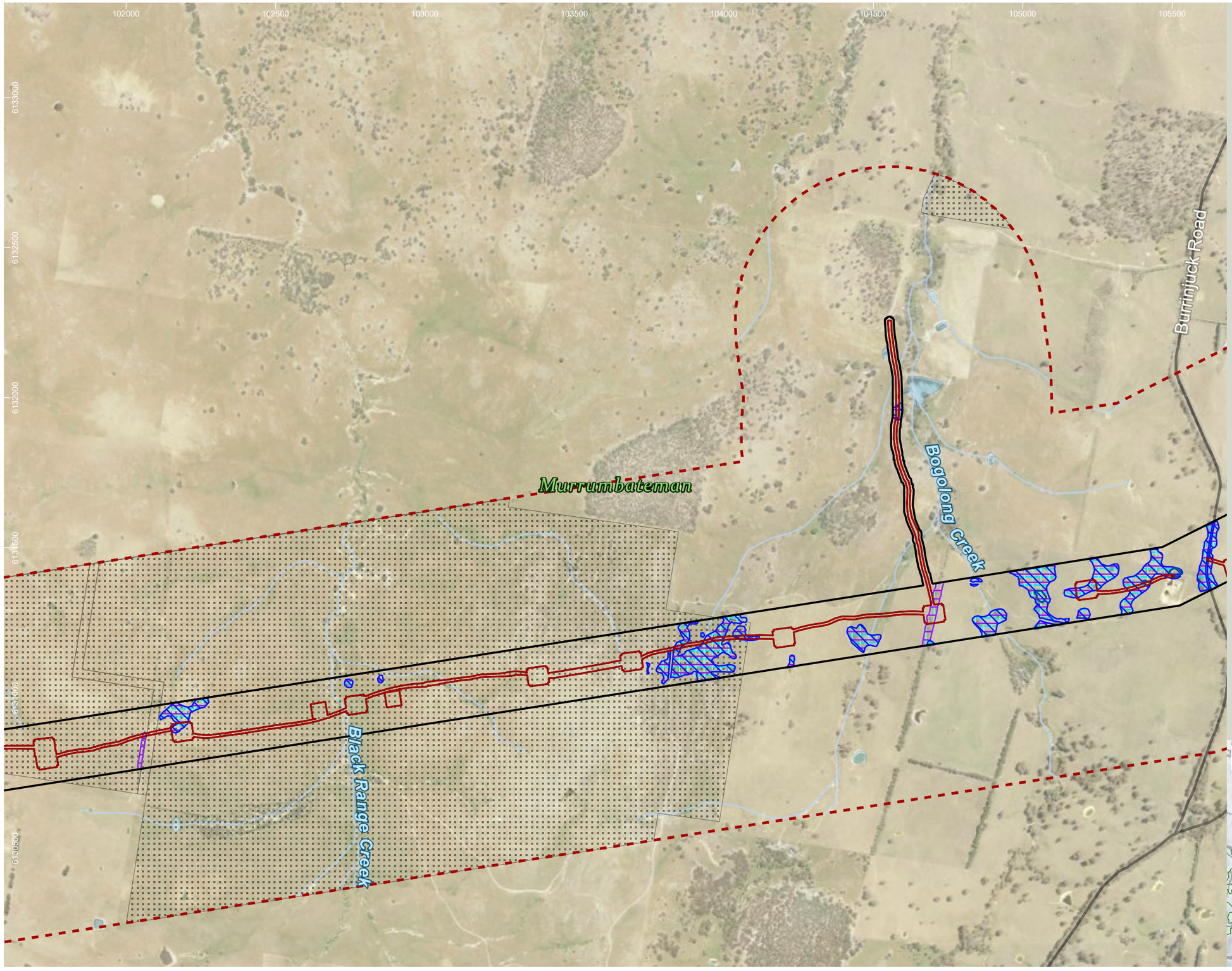


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

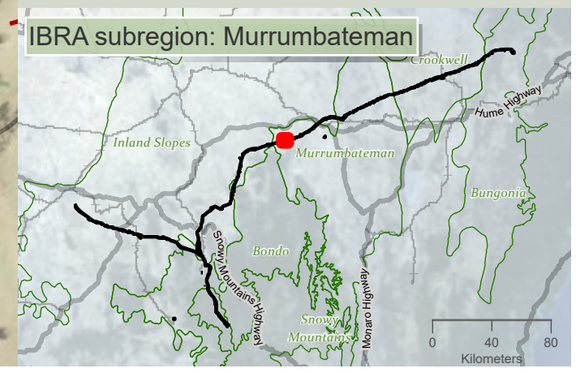
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii



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niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 65

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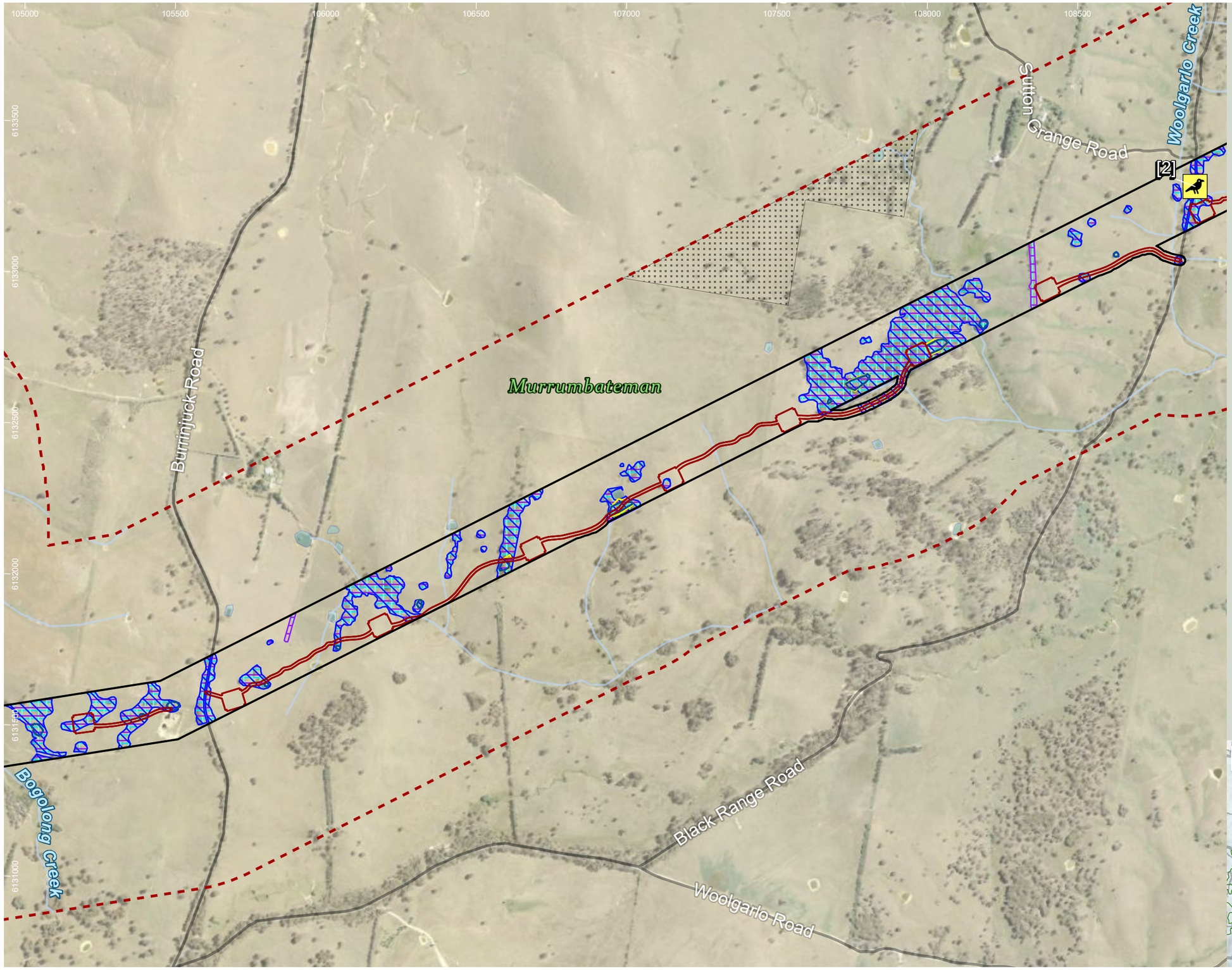


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

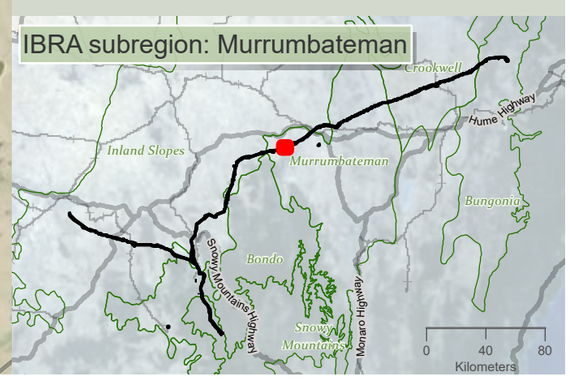
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 66

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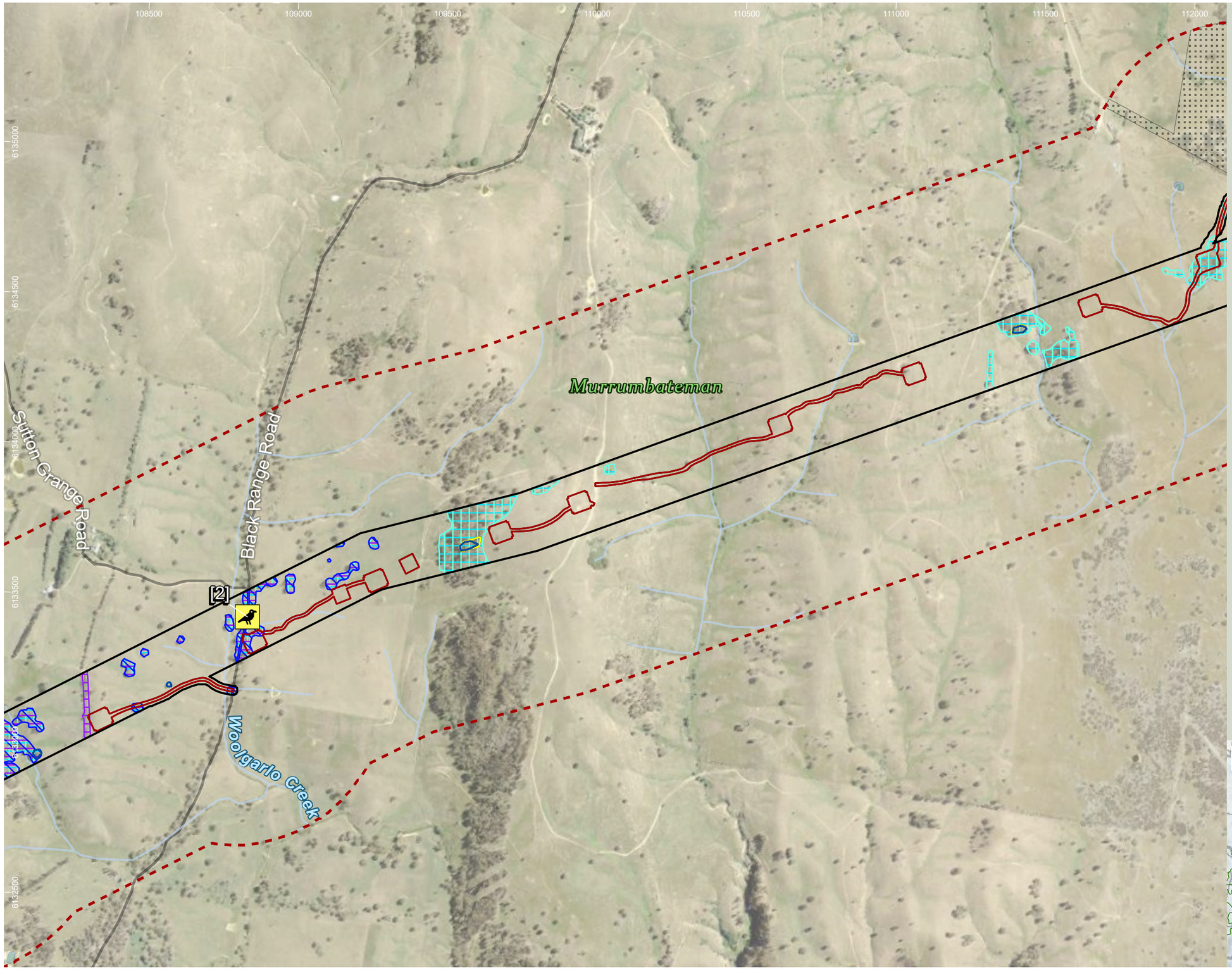


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

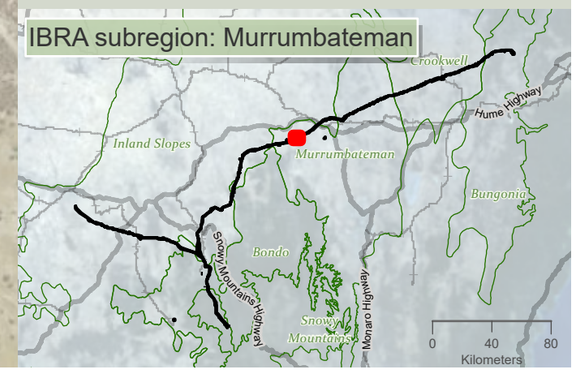
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 67

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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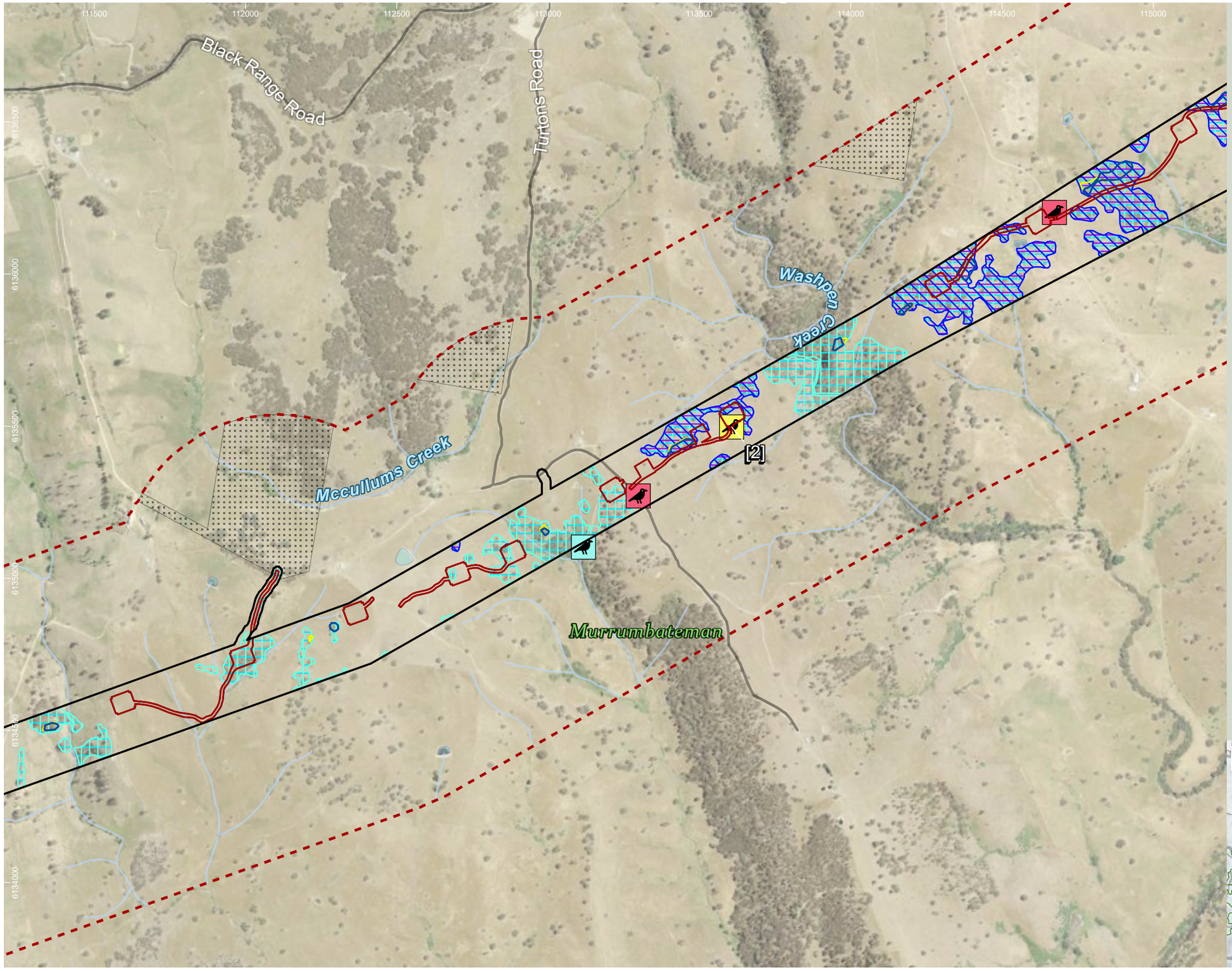


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

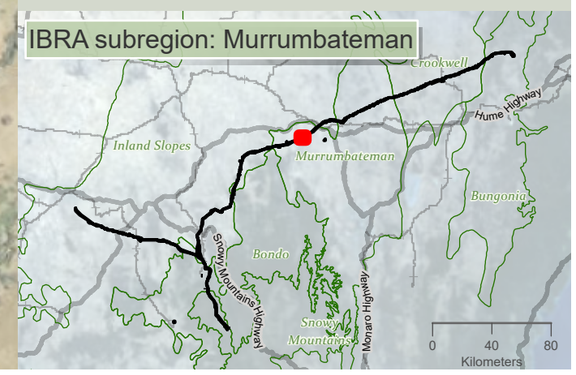
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Little Eagle (Hieraaetus morphnoides)
- Scarlet Robin (Petroica boodang)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 68

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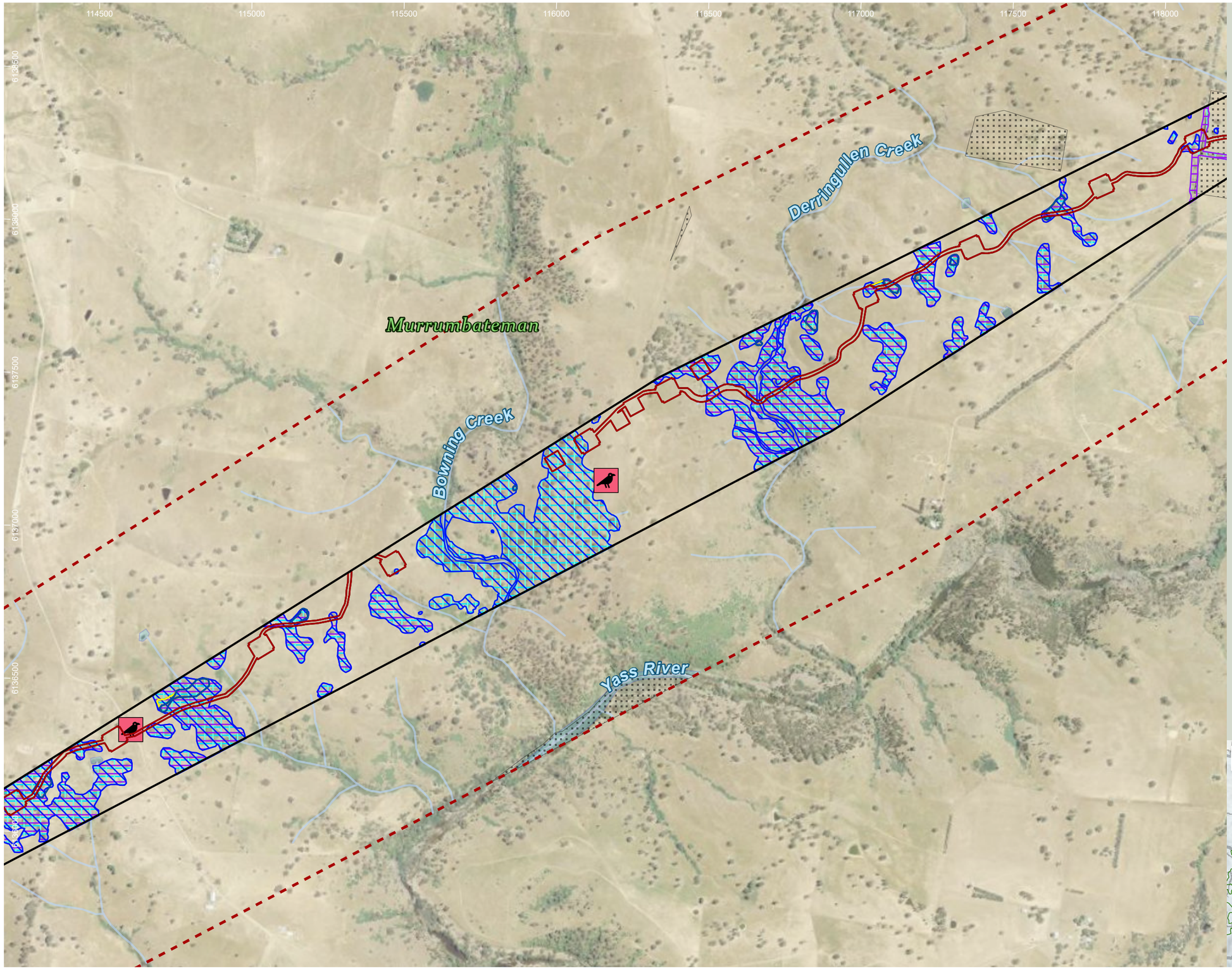


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

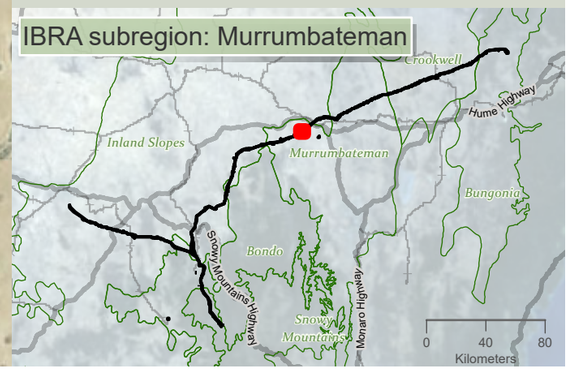
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides)



niche Environment and Heritage

0 N 350
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 69

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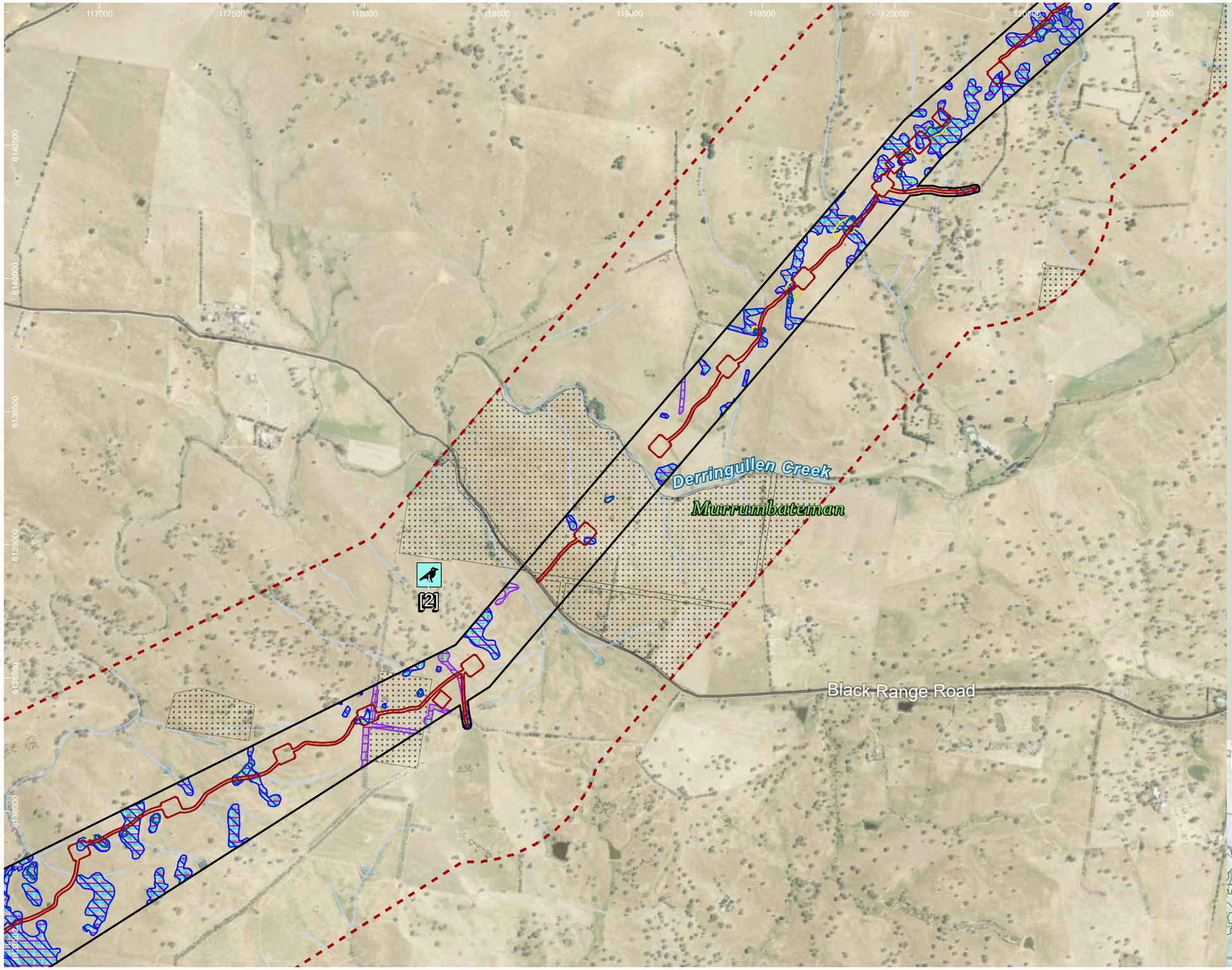


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

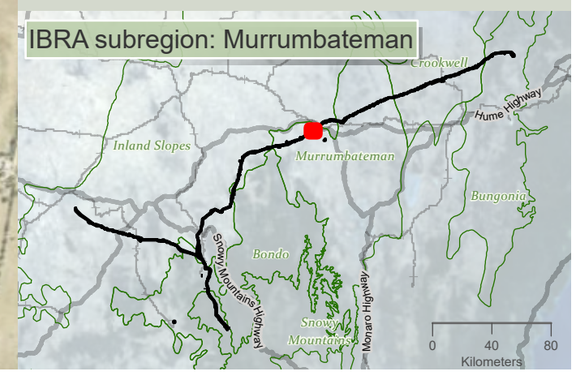
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)



niche Environment and Heritage

0 450 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 70

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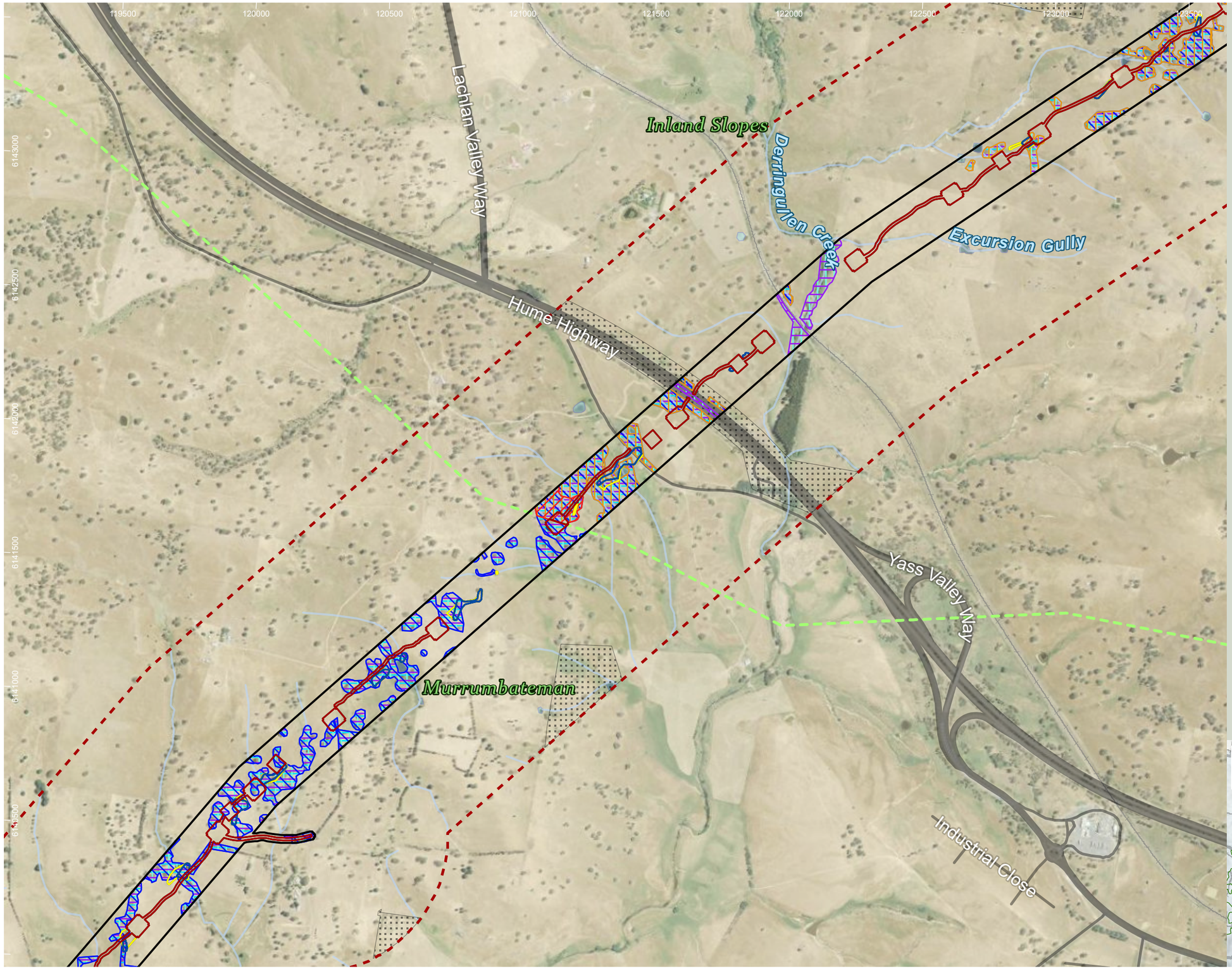


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

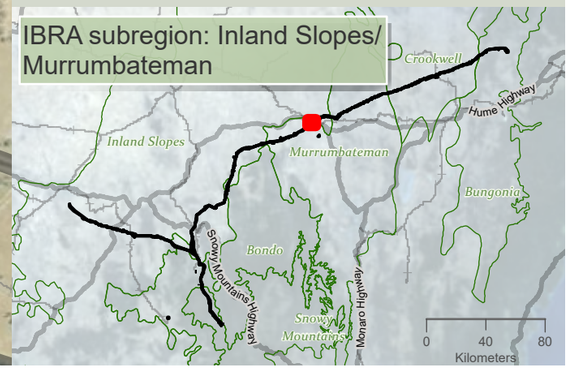
Transport

Road

- Major road
- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 450
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 71

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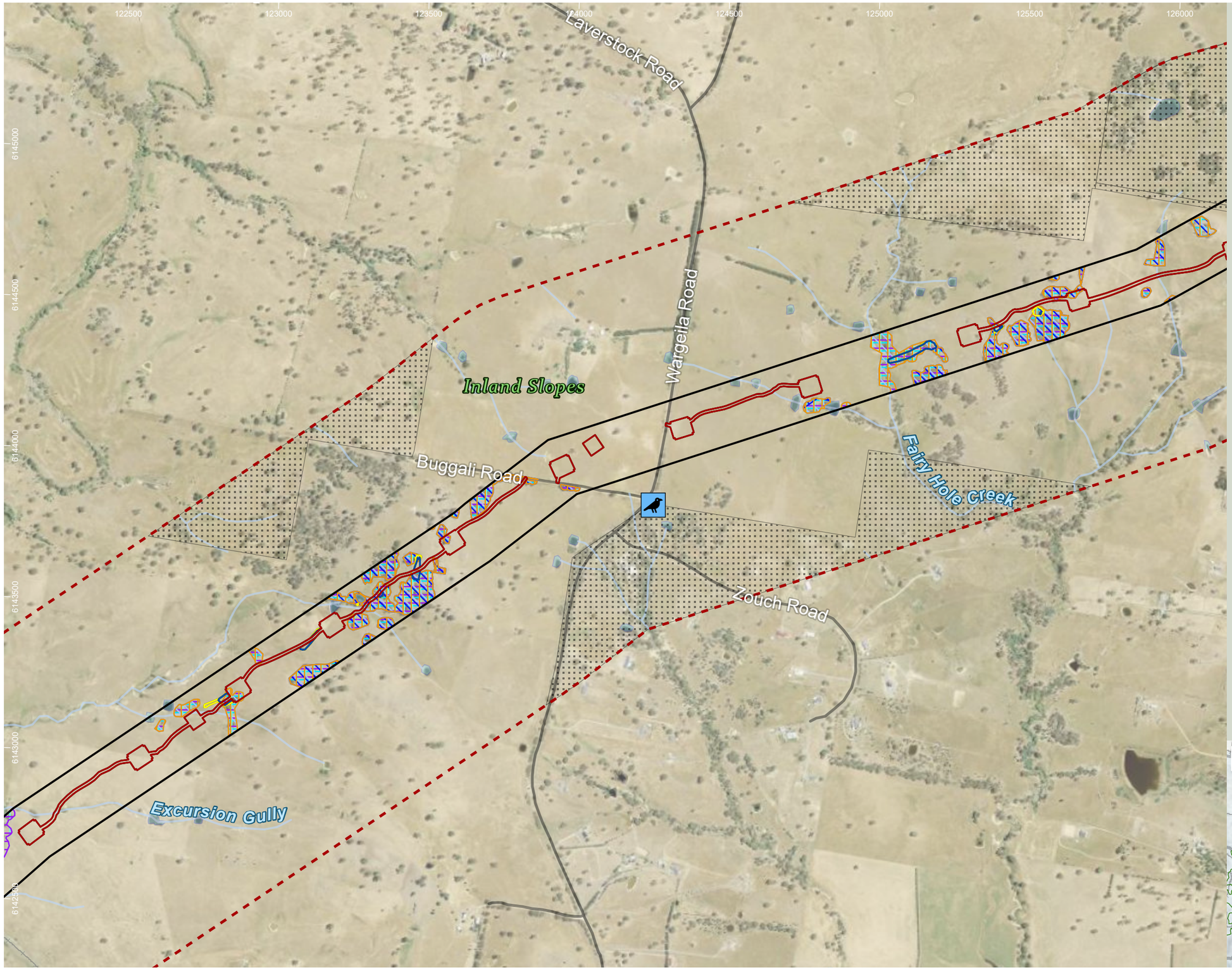


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

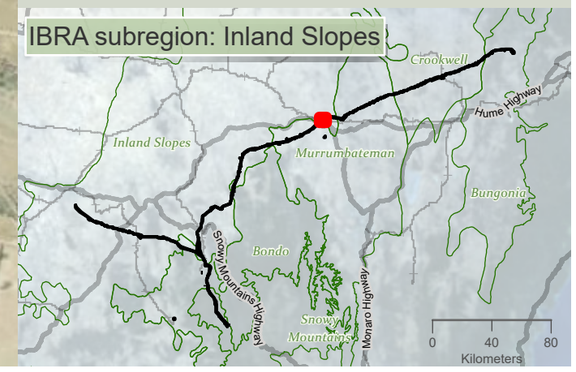
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 73

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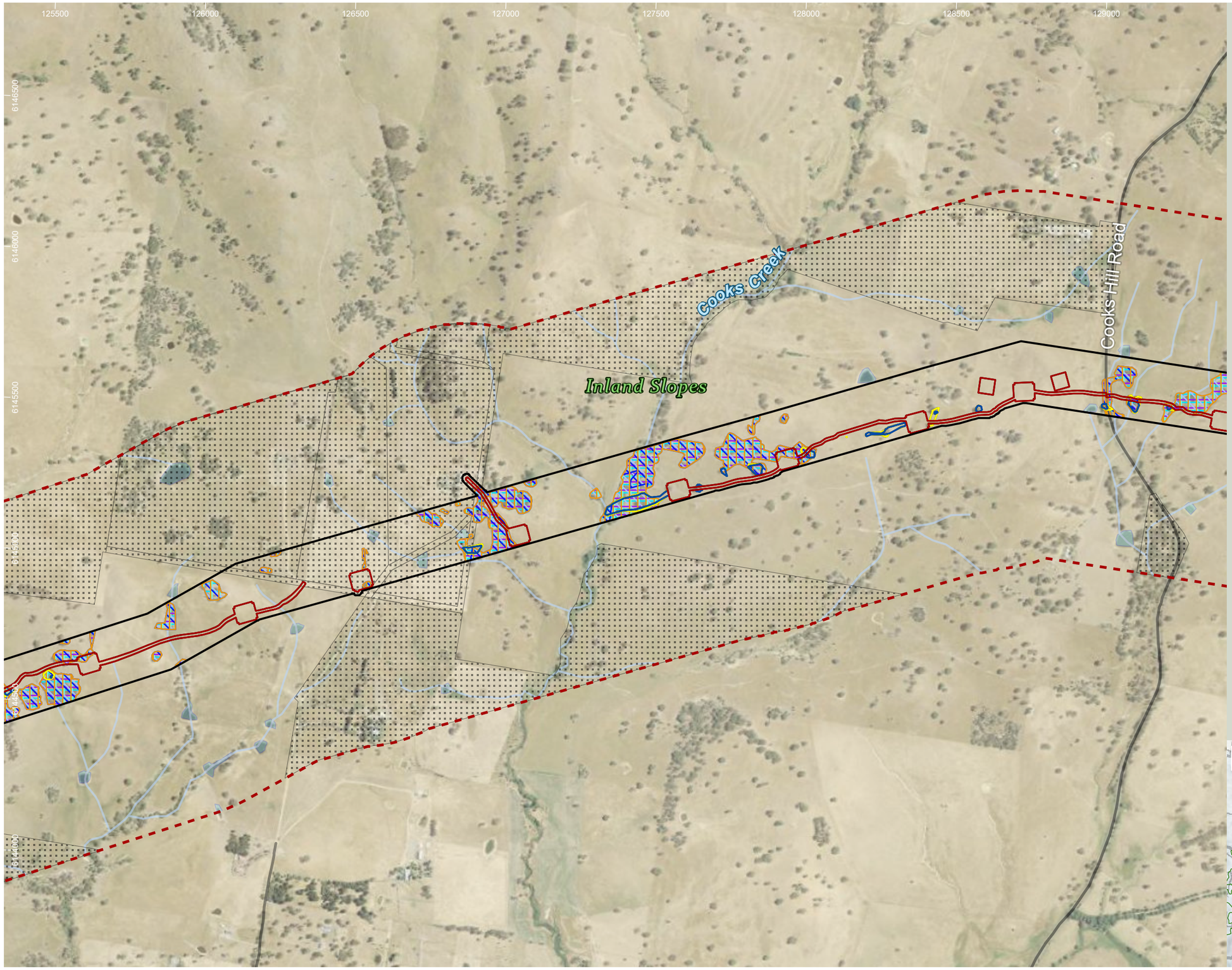
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

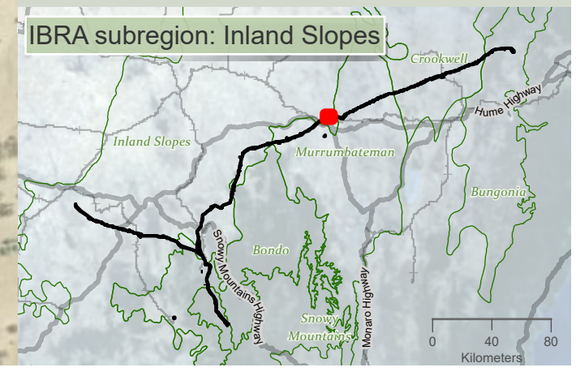
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Superb Parrot (Polytelis swainsonii)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

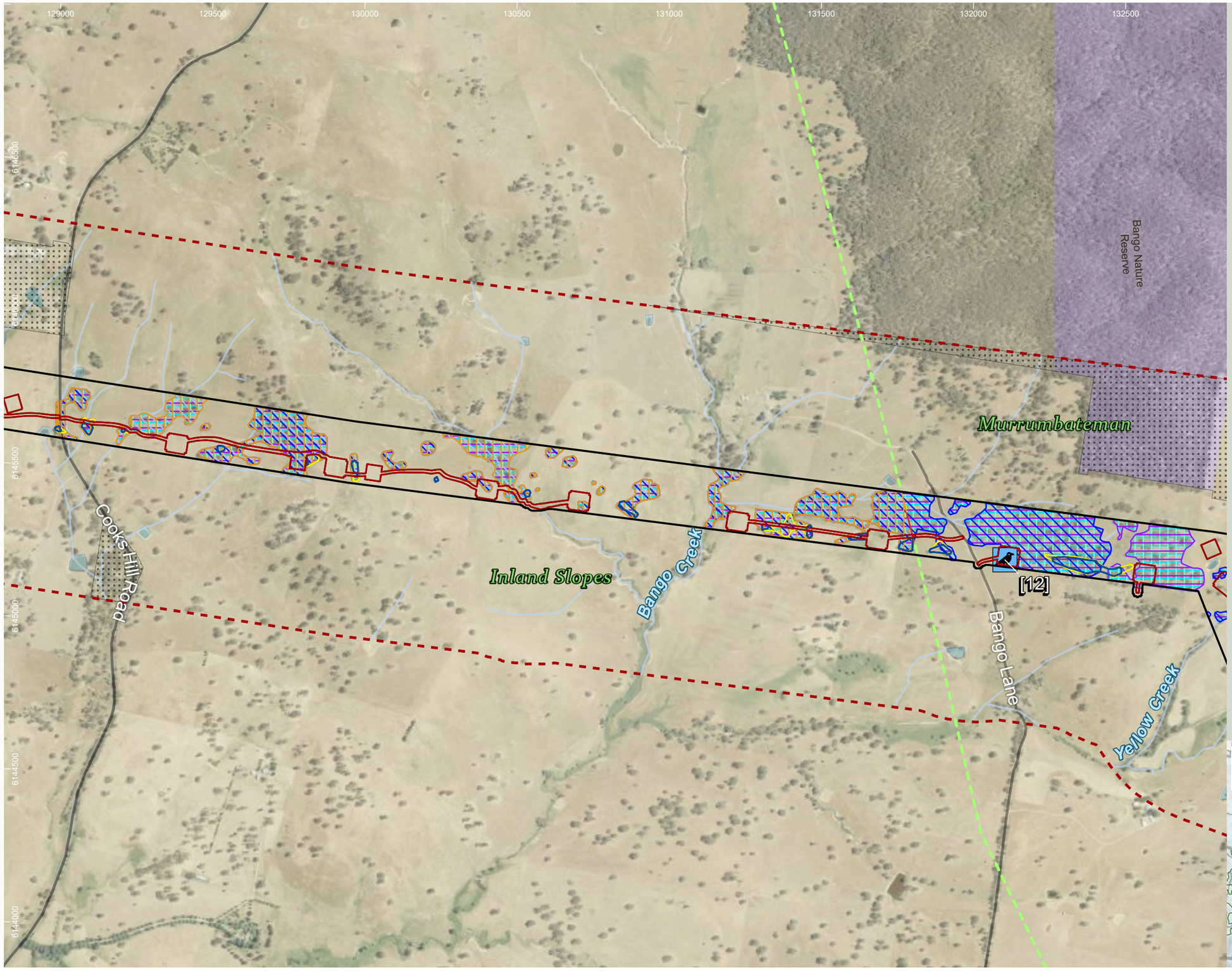
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 74

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Grantiella picta
- Hirundapus caudacutus
- Lathamus discolor
- Polytelis swainsonii

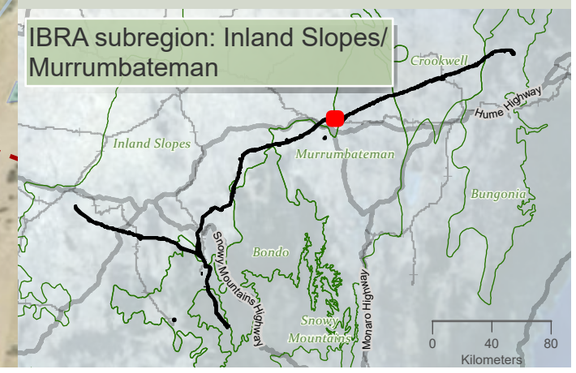
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)
Superb Parrot (Polytelis swainsonii)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 75

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

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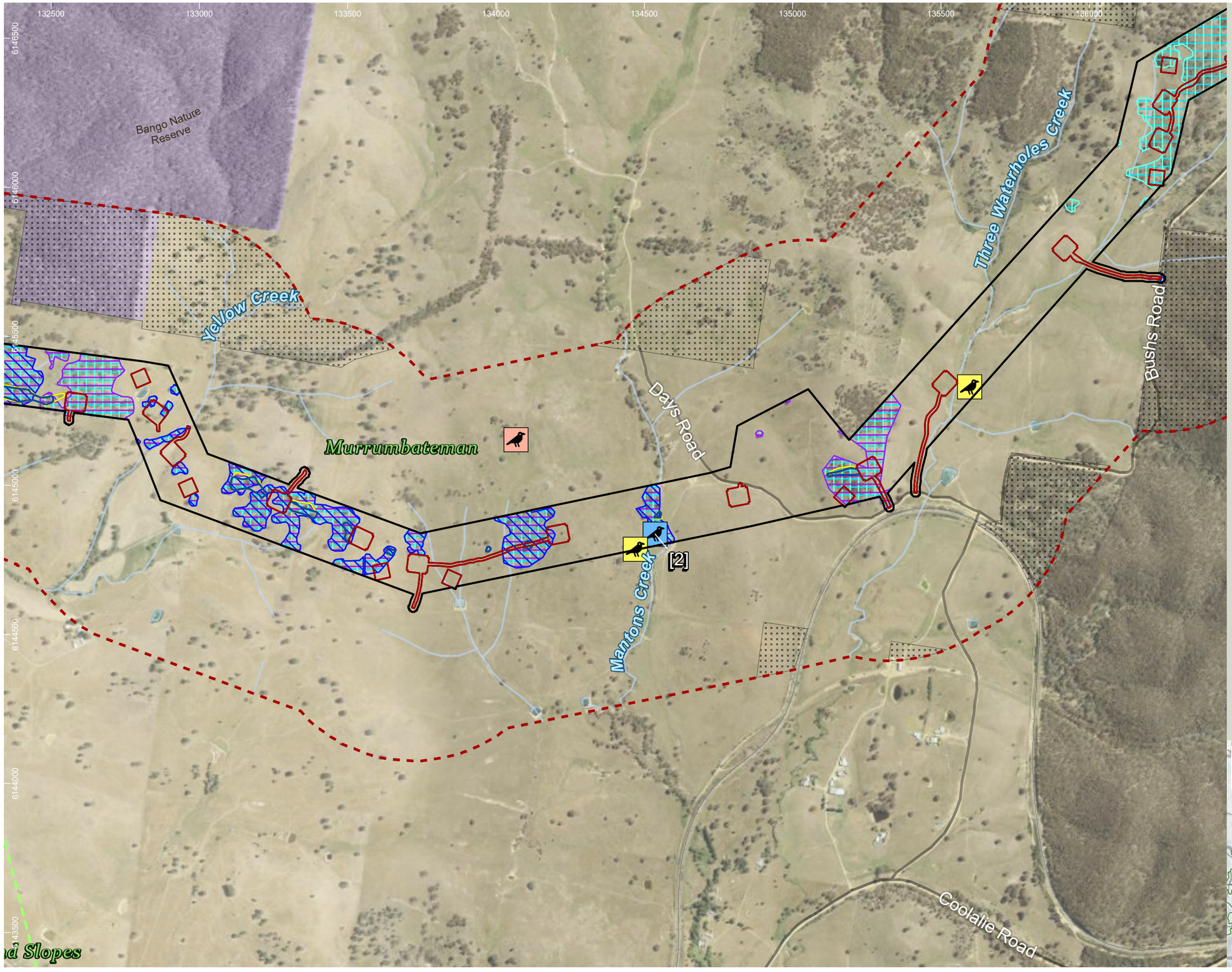


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road
- Rail

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

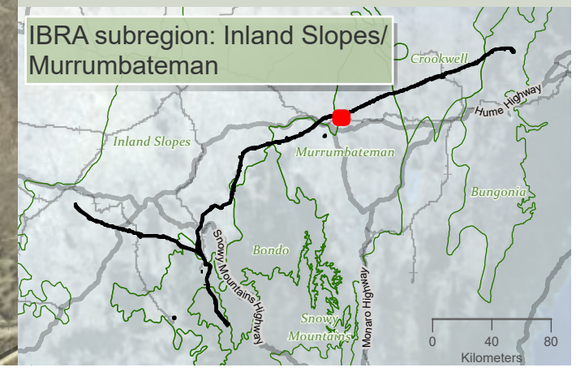
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Diamond Firetail (Stagonopleura guttata)
- Dusky Woodswallow (Artamus cyanopterus cyanopterus)
- Spotted Harrier (Circus assimilis)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 76

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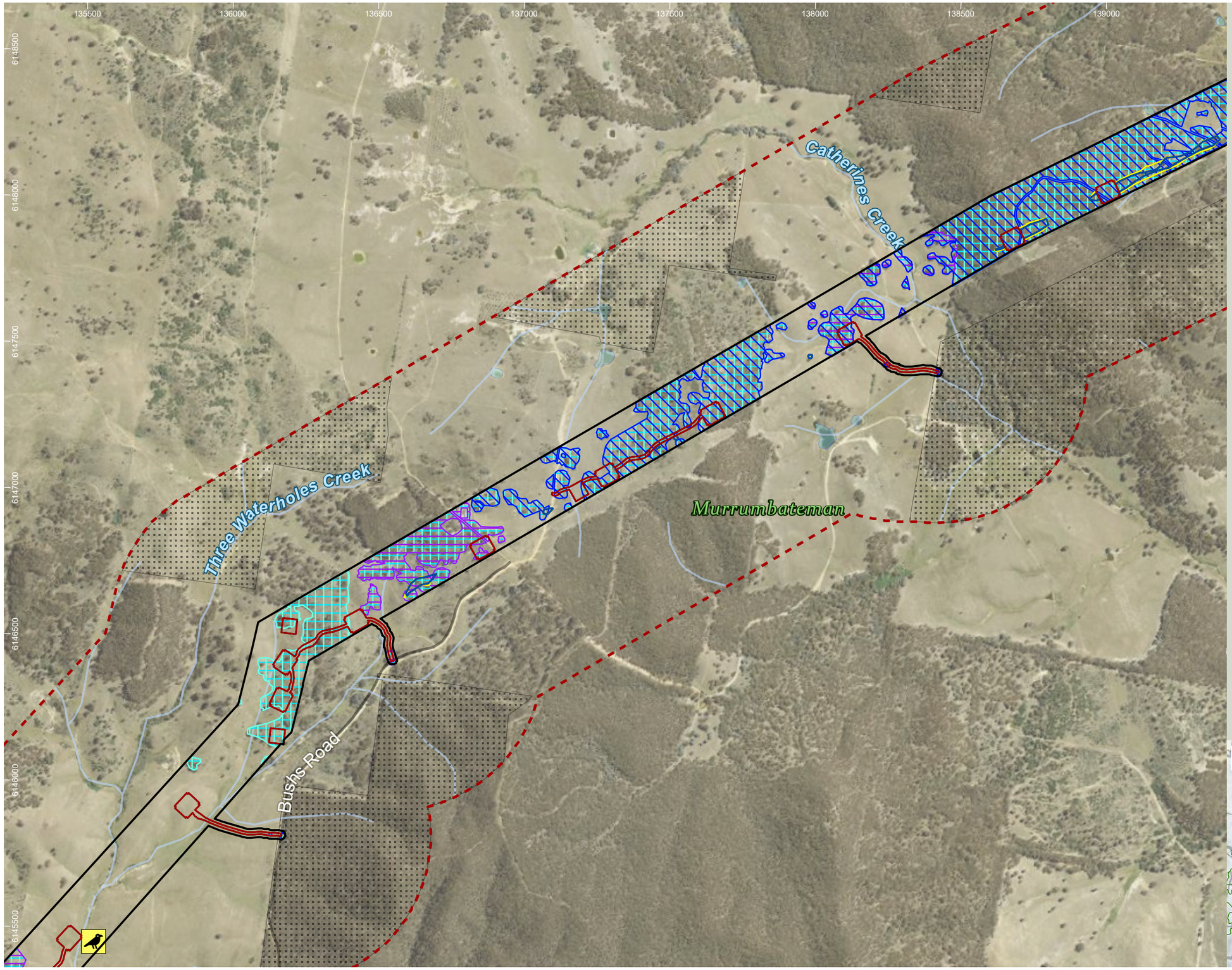


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

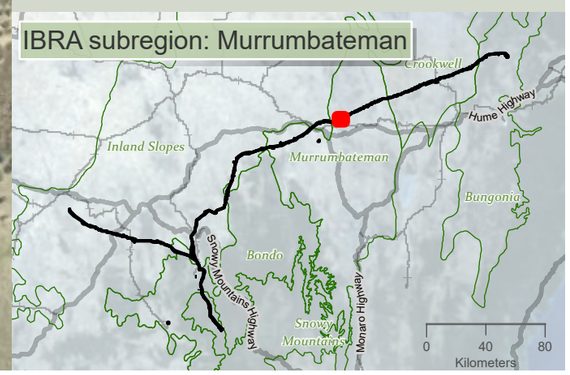
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Dusky Woodswallow (Artamus cyanopterus cyanopterus)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 77

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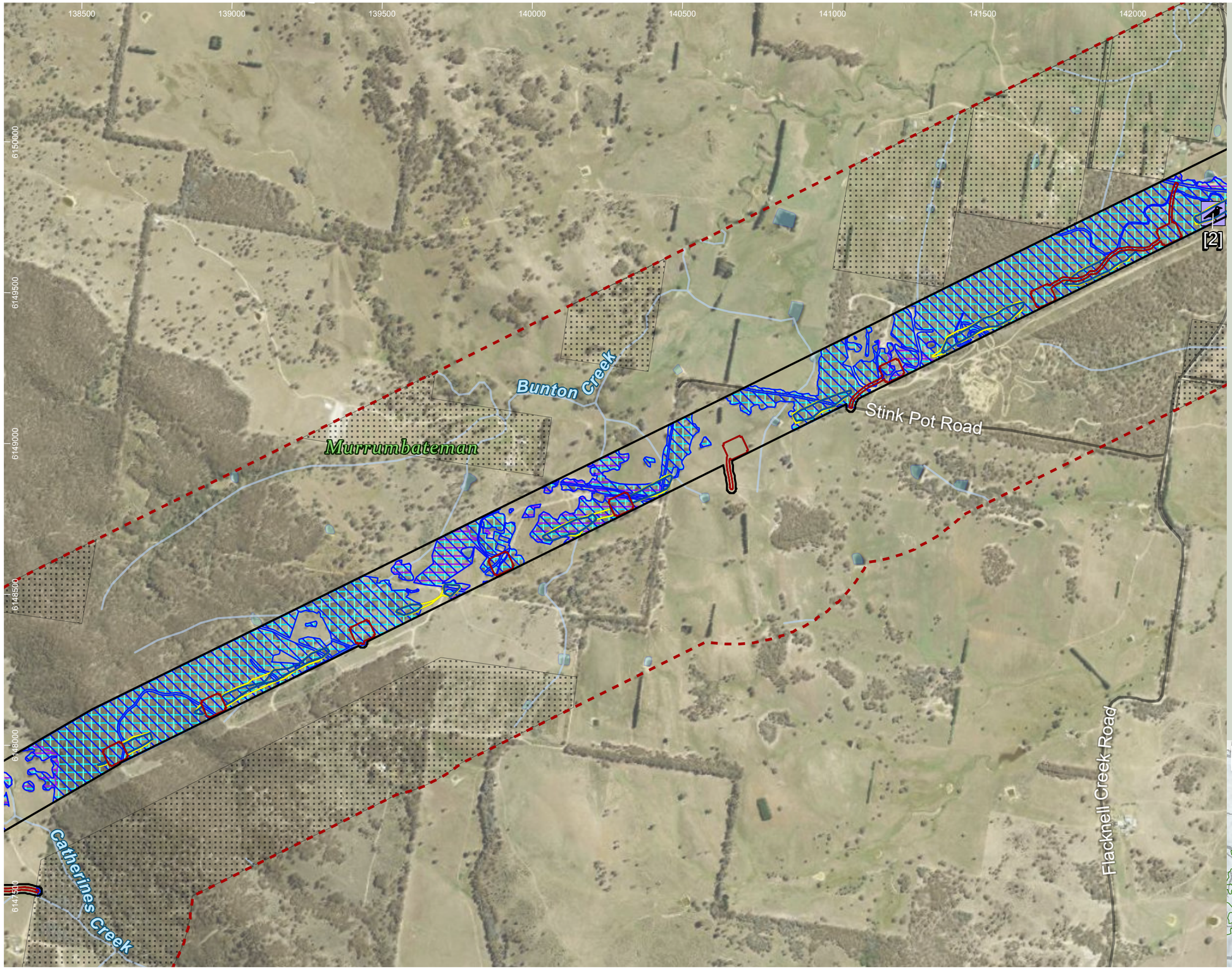


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

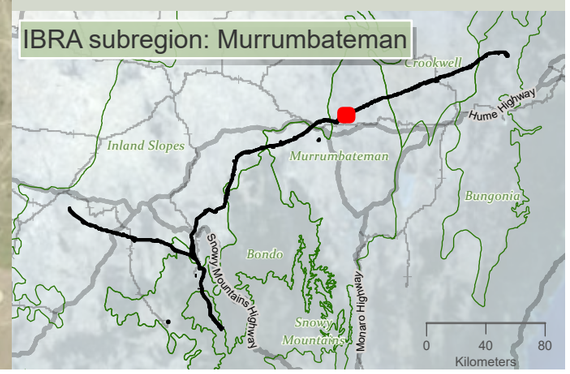
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

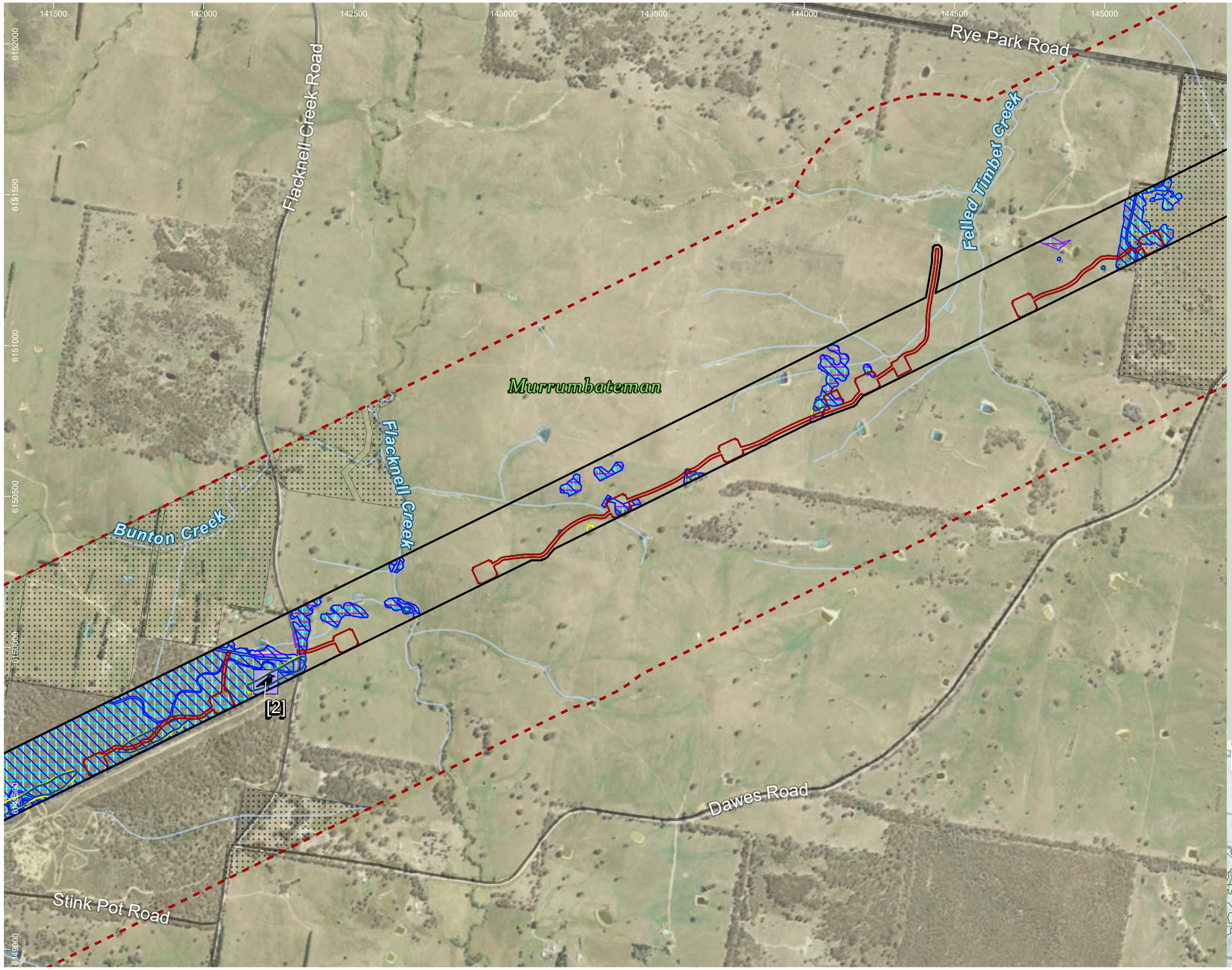
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 78

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

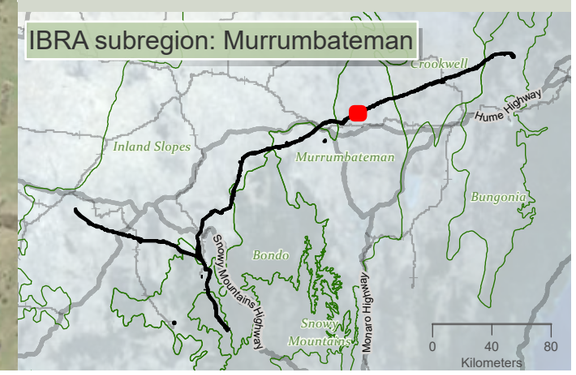
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 79

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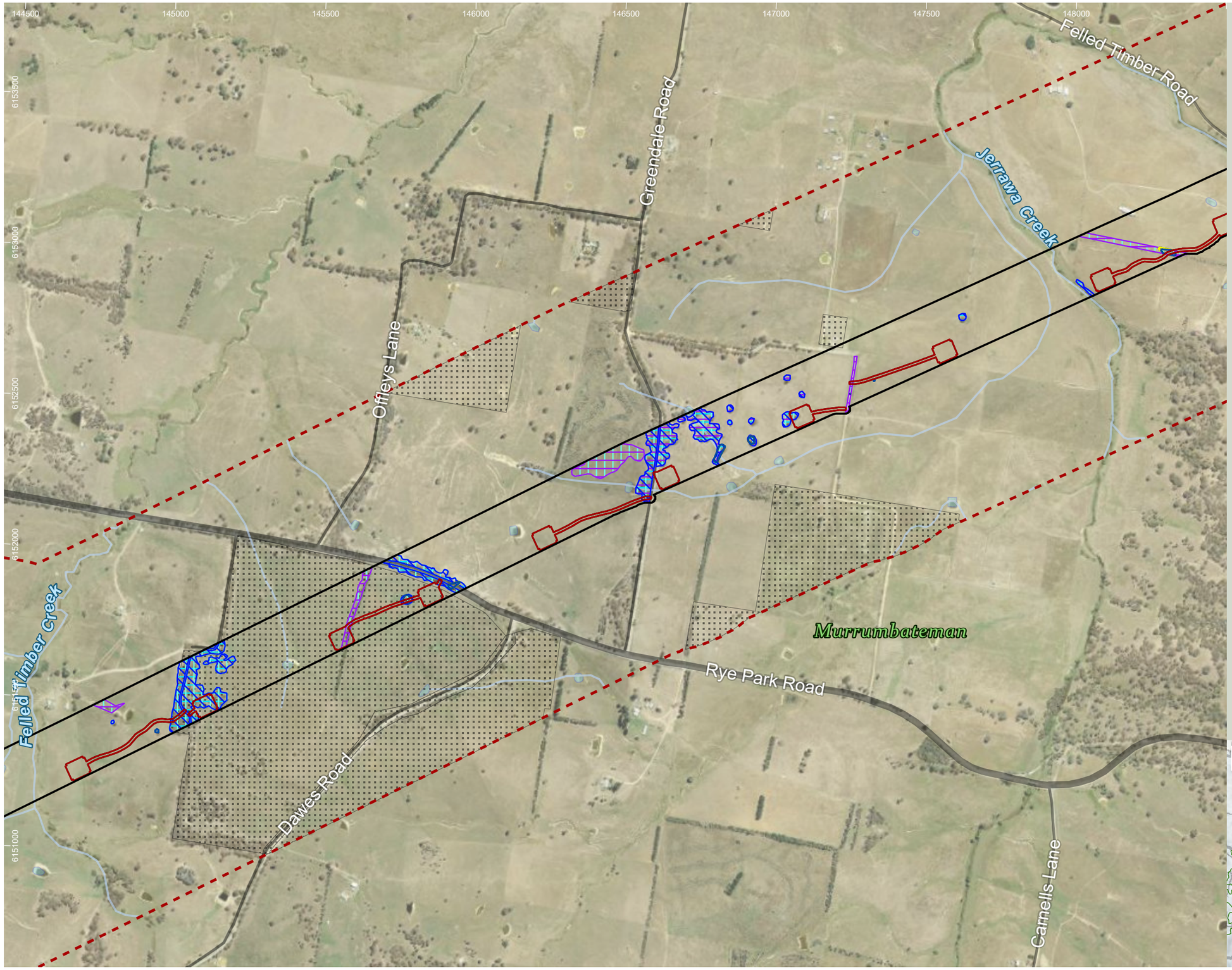


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

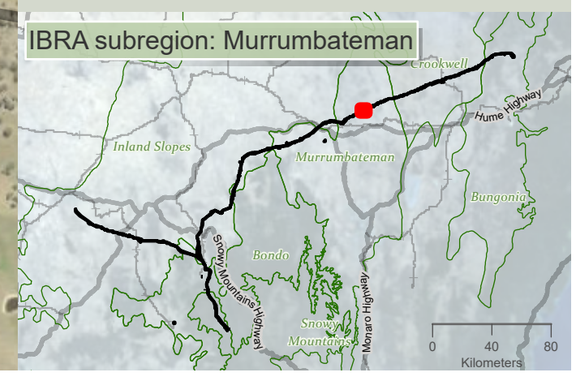
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 80

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148000 148500 149000 149500 150000 150500 151000 151500

6155000 6154500 6154000 6153500 6153000 6152500

Murrumbateman

Felled Timber Road

Rugby Road

Jerrawa Creek

Oolong Creek

Walshs Road

Sams Creek

Dowlings Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

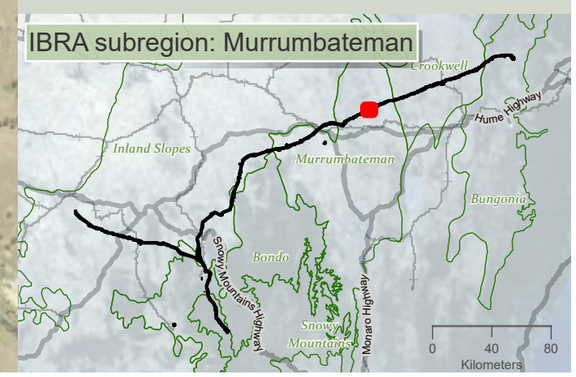
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 81

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

151000 151500 152000 152500 153000 153500 154000 154500

6156500 6156000 6155500 6155000 6154500 6154000

Merrill Creek

Lachlan River

Murrumbateman

Dowlings Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

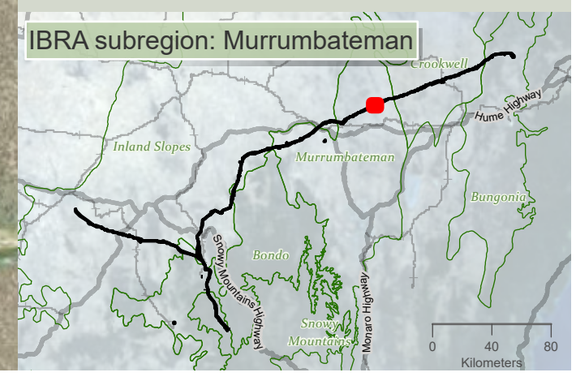
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Little Eagle (Hieraaetus morphnoides)
- White-bellied Sea-Eagle (Haliaeetus leucogaster)



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 82

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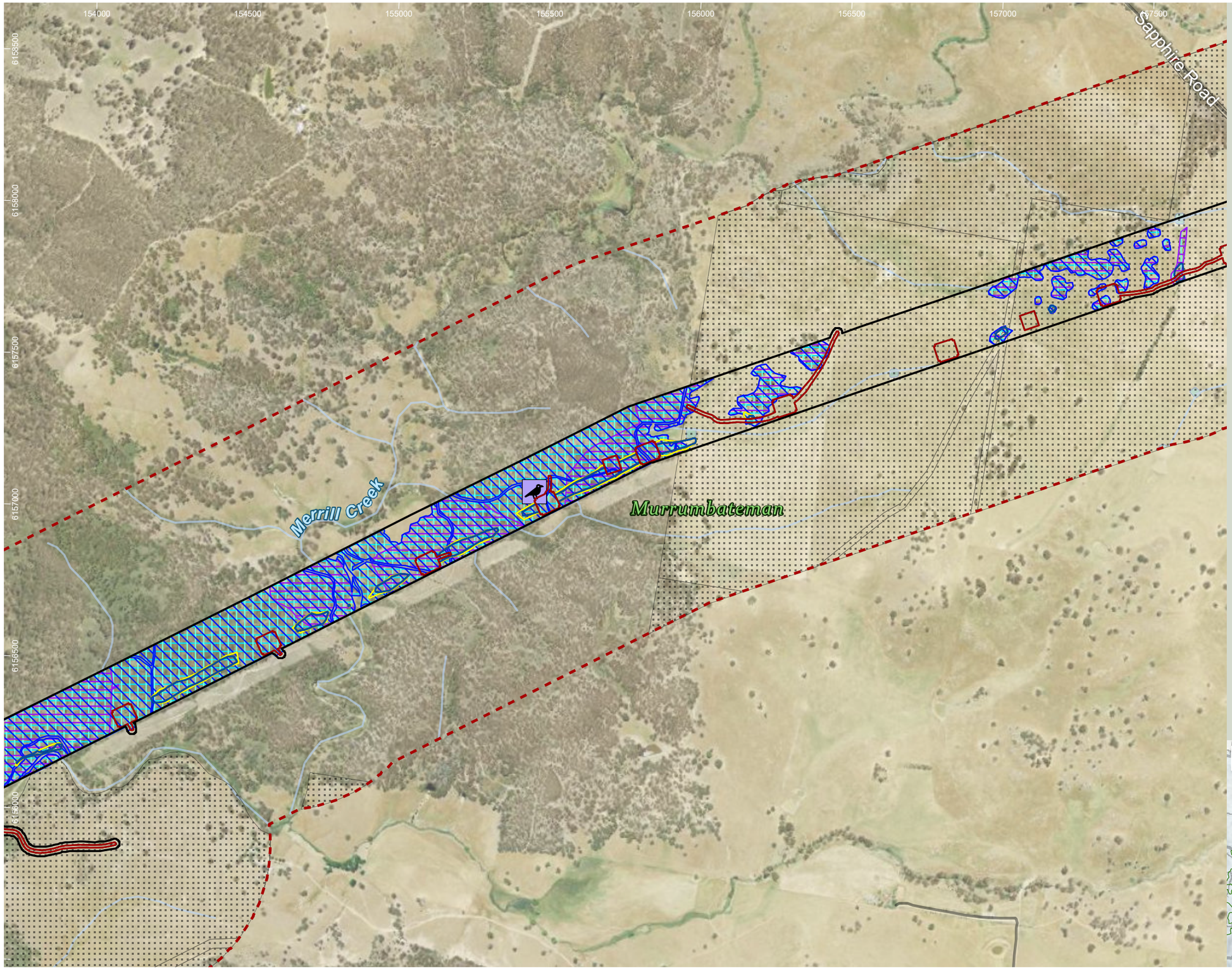
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

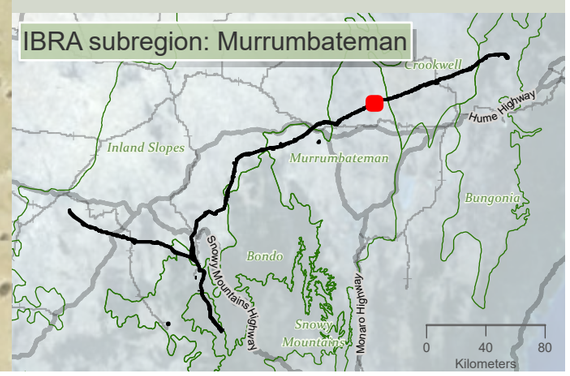
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Varied Sittella (Daphoenositta chrysoptera)



niche Environment and Heritage

0 N 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 83

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Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

157000 157500 158000 158500 159000 159500 160000 160500

6159500 6159000 6158500 6158000 6157500 6157000

Murrumbateman

Sapphire Road

Middle Creek

Clancys Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

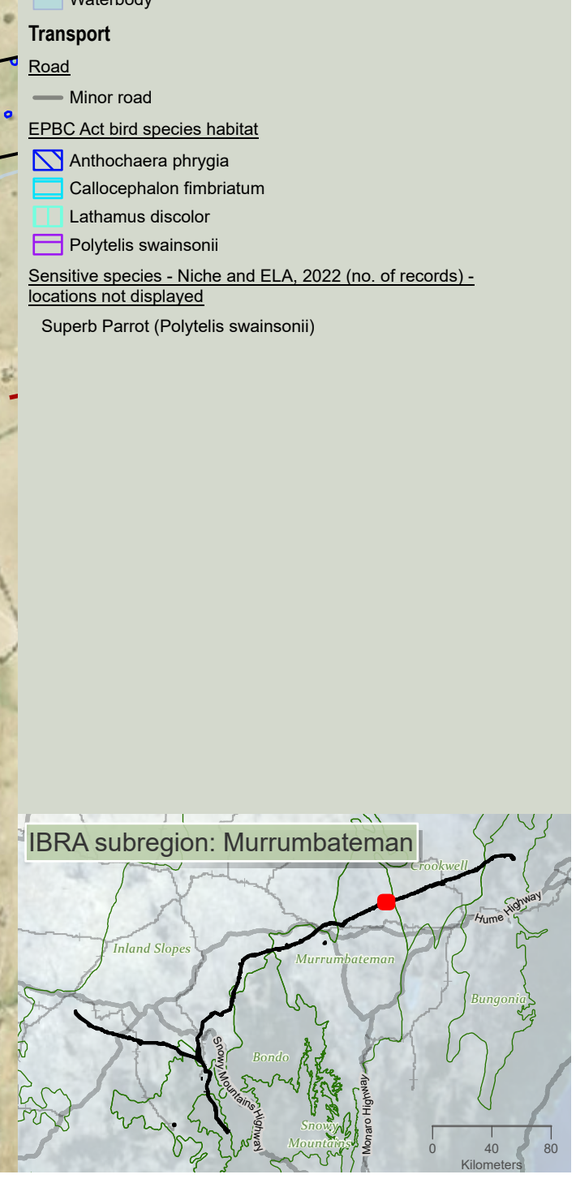
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Superb Parrot (Polytelis swainsonii)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

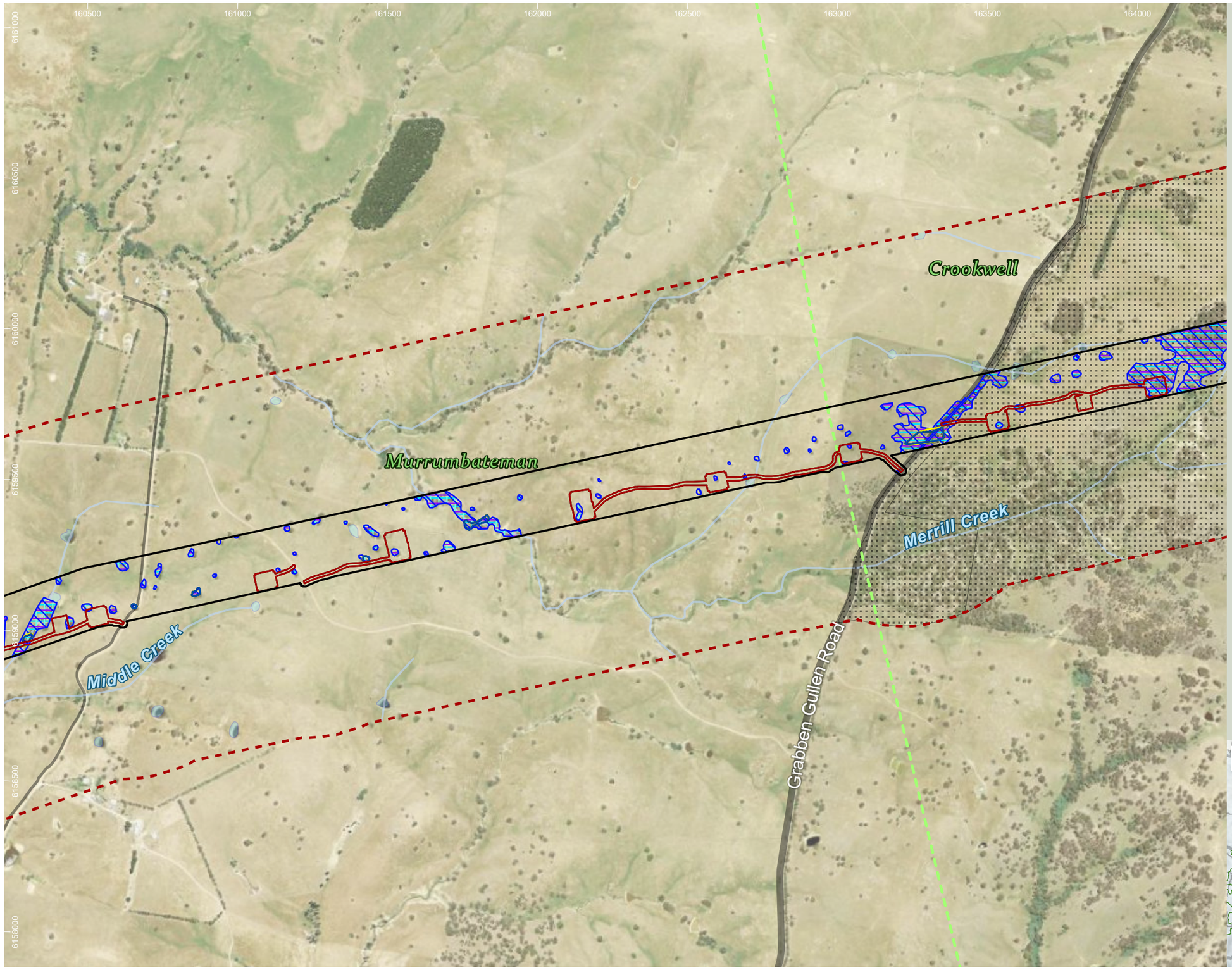
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 84

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

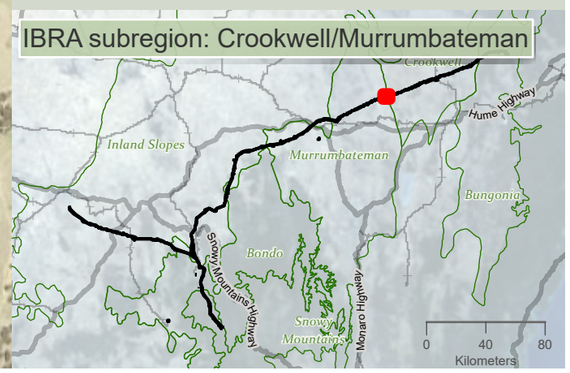
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Lathamus discolor
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

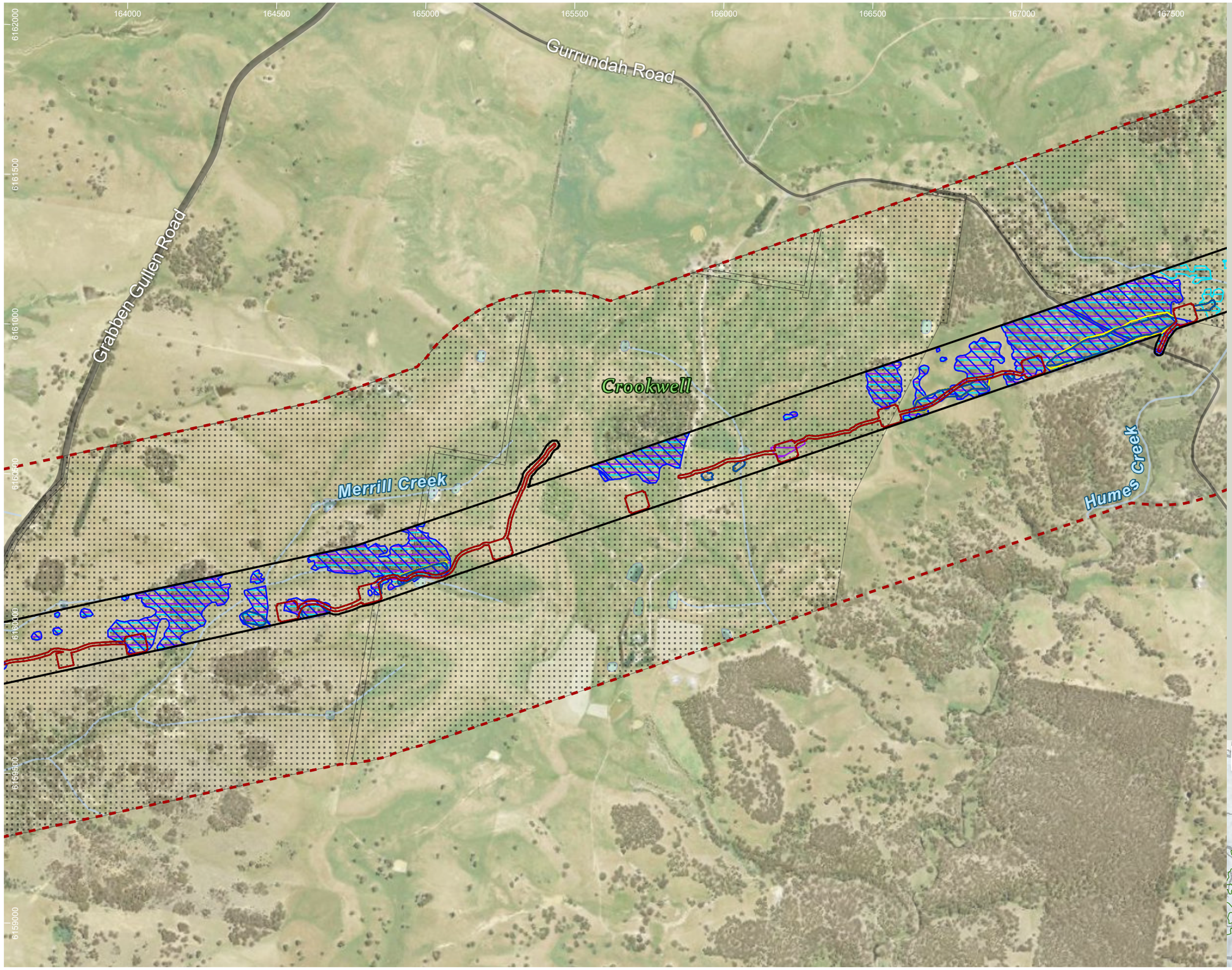
Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 85

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

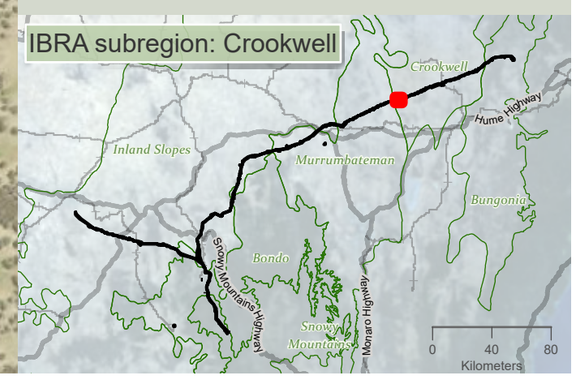
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

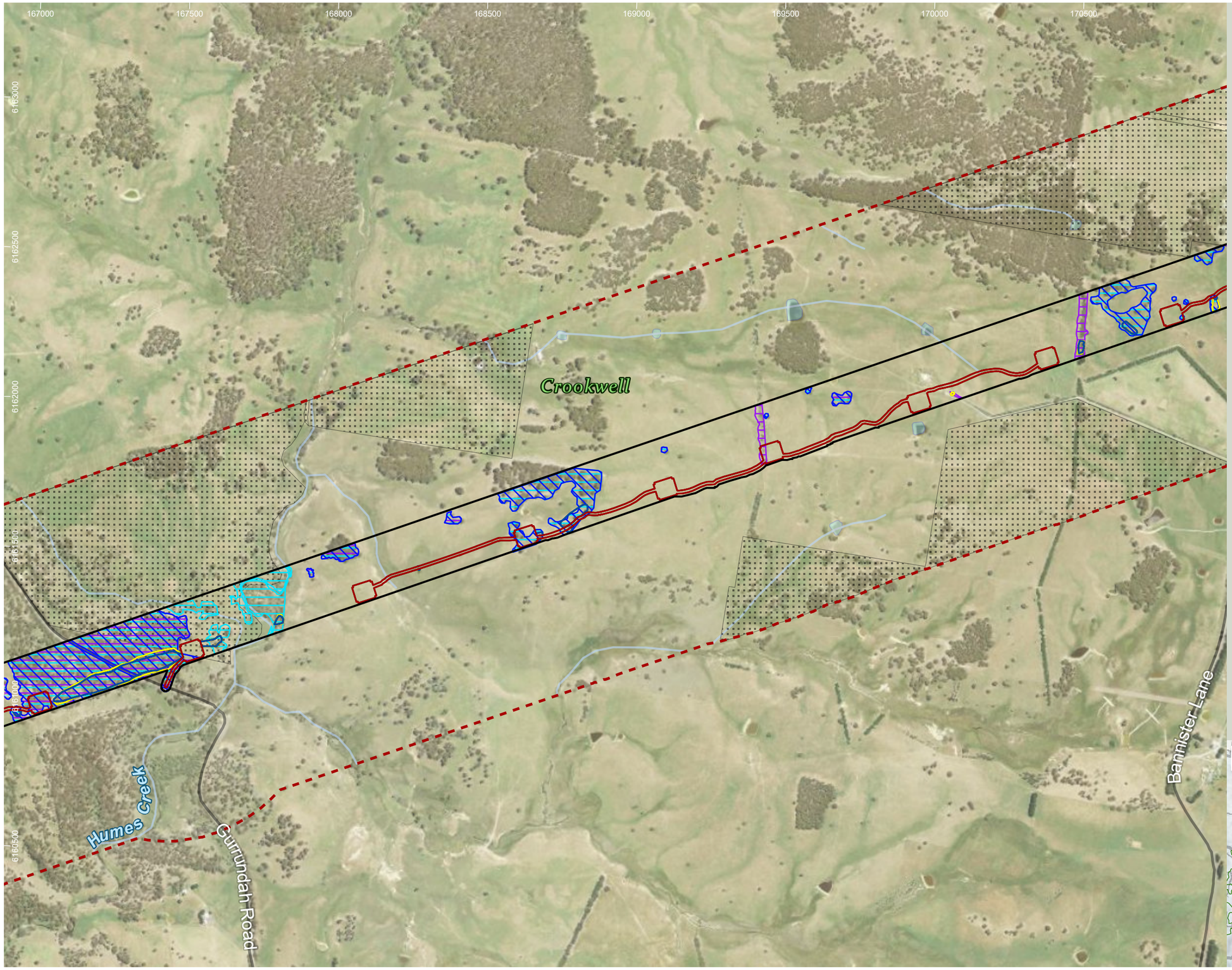
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 86

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

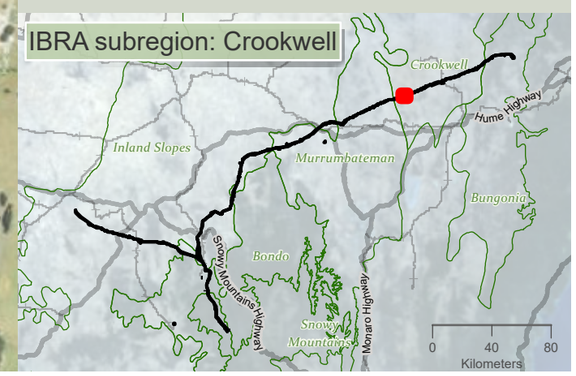
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400
m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 87

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

170500 171000 171500 172000 172500 173000 173500 174000

6164500 6164000 6163500 6163000 6162500 6162000 6161500

Bannister Lane

Crookwell

Prices Lane

Gurrundah Creek

Heffernans Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

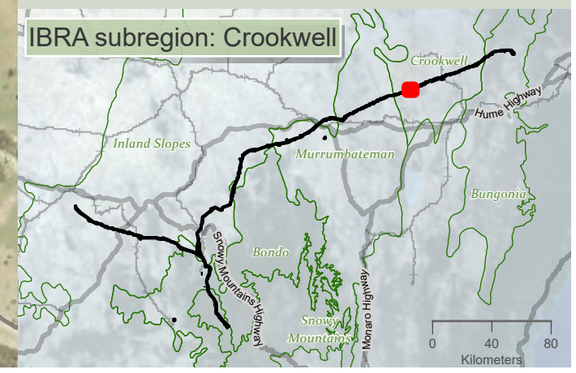
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

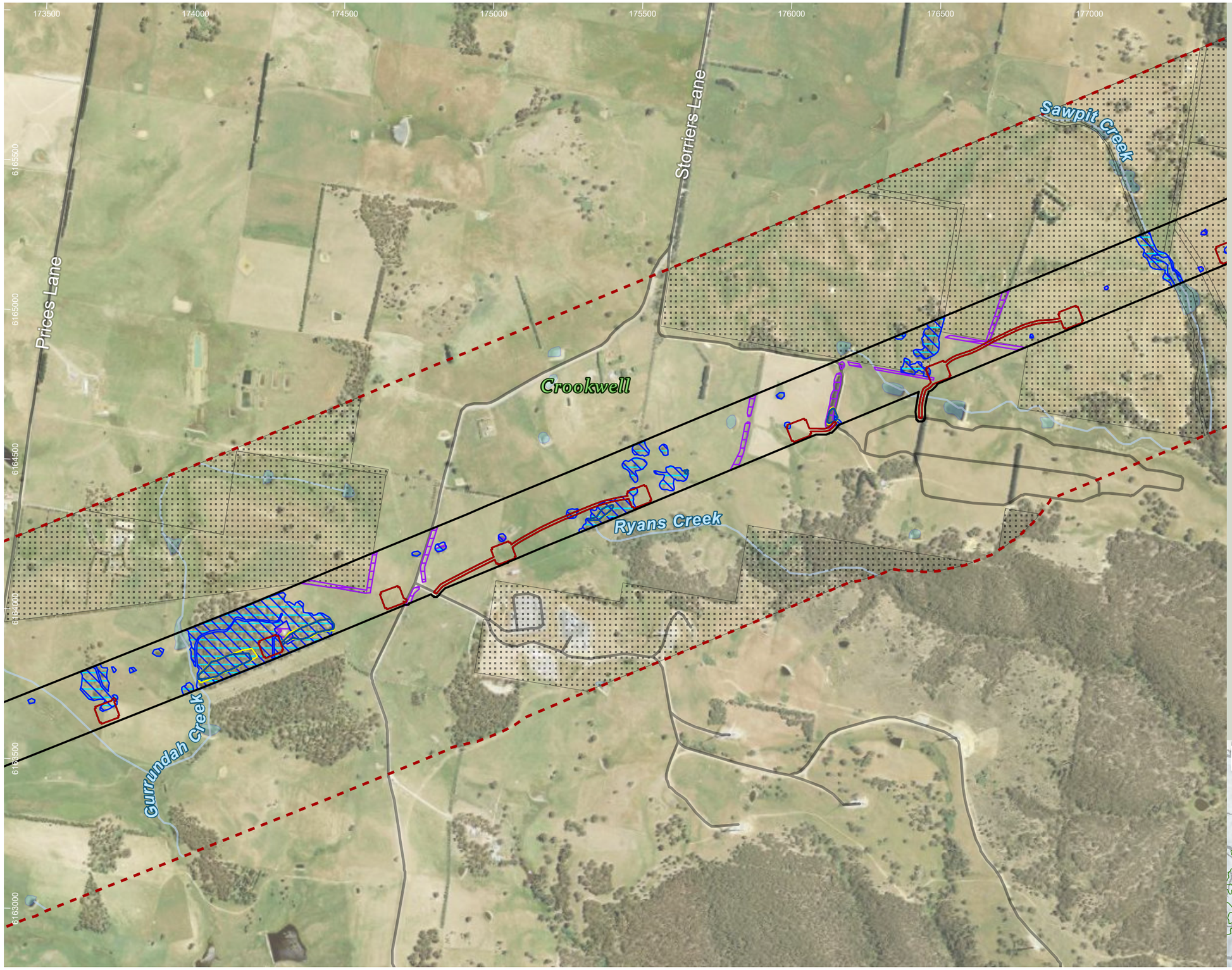
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 88

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

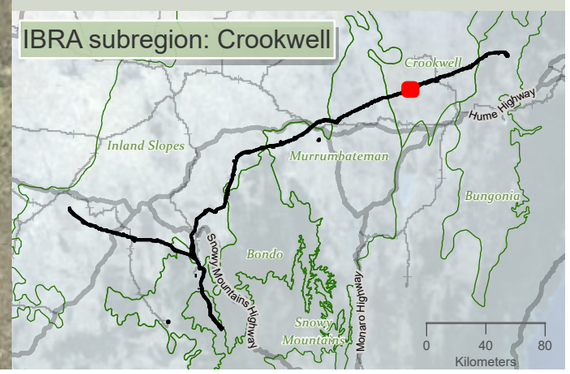
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 89

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

177000 177500 178000 178500 179000 179500 180000 180500

6167500 6167000 6166500 6166000 6165500 6165000 6164500

Walkoms Lane

Crookwell

Kialla Creek

Range Road

Sawpit Creek

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

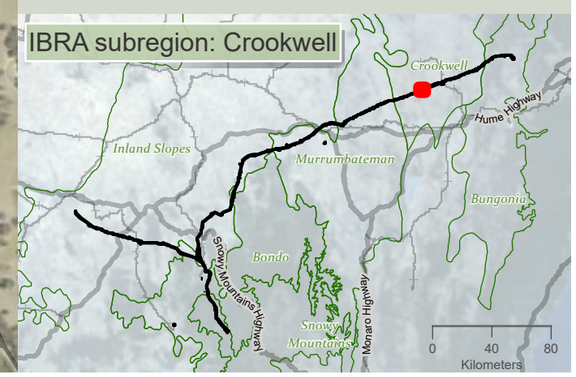
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 90

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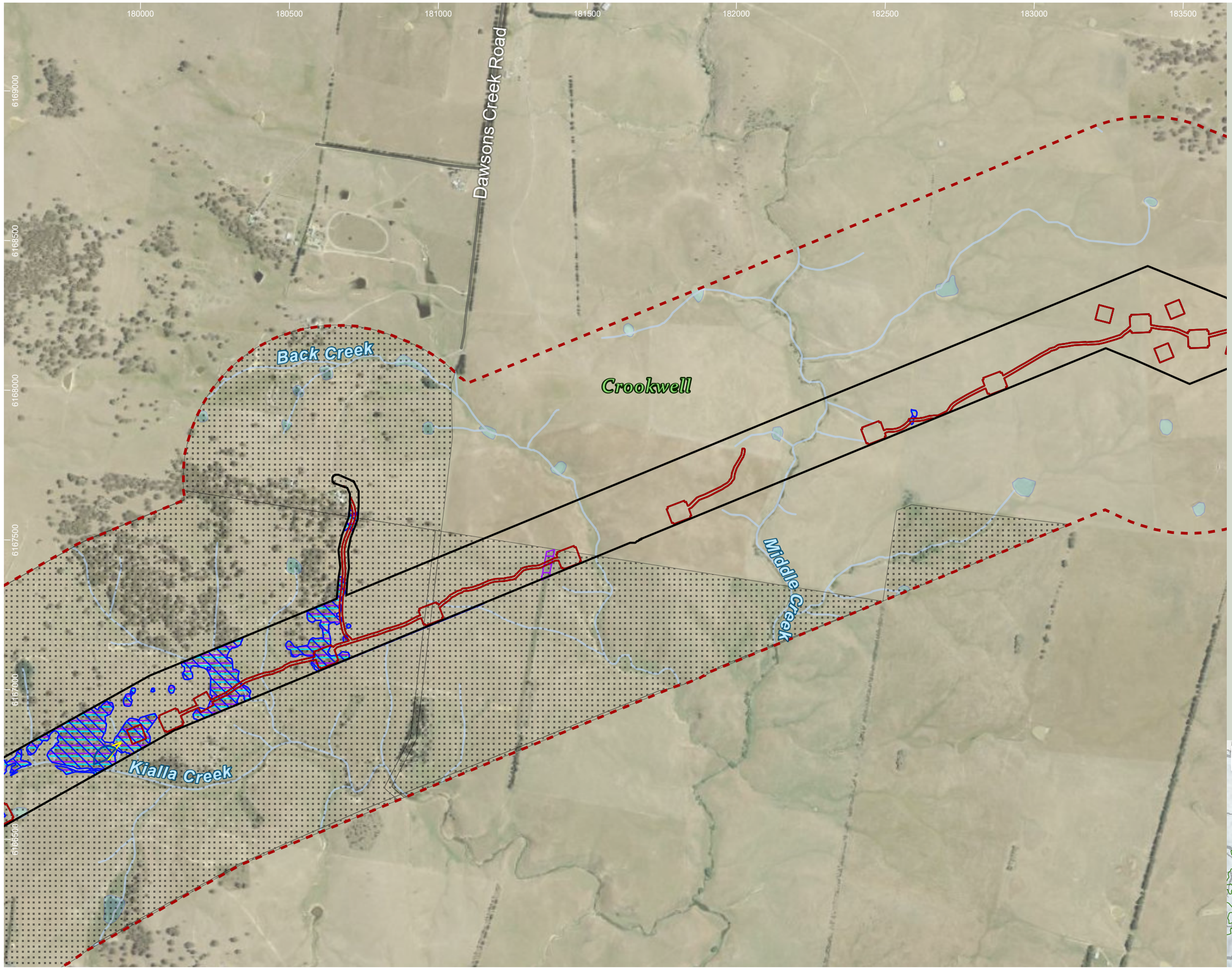
Drawn by: MatthewZajaczkowski Last updated: 26/07/2023 File: C:\OneDriveSyncFolder\Niche6999 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

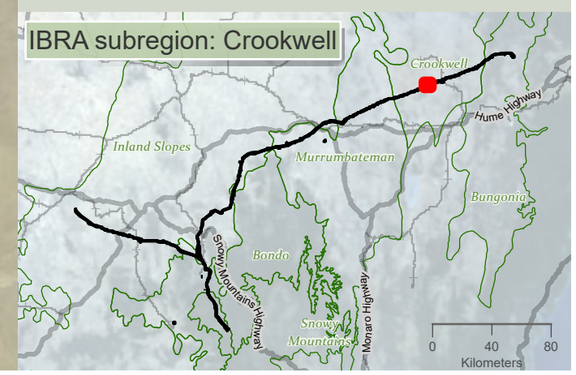
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

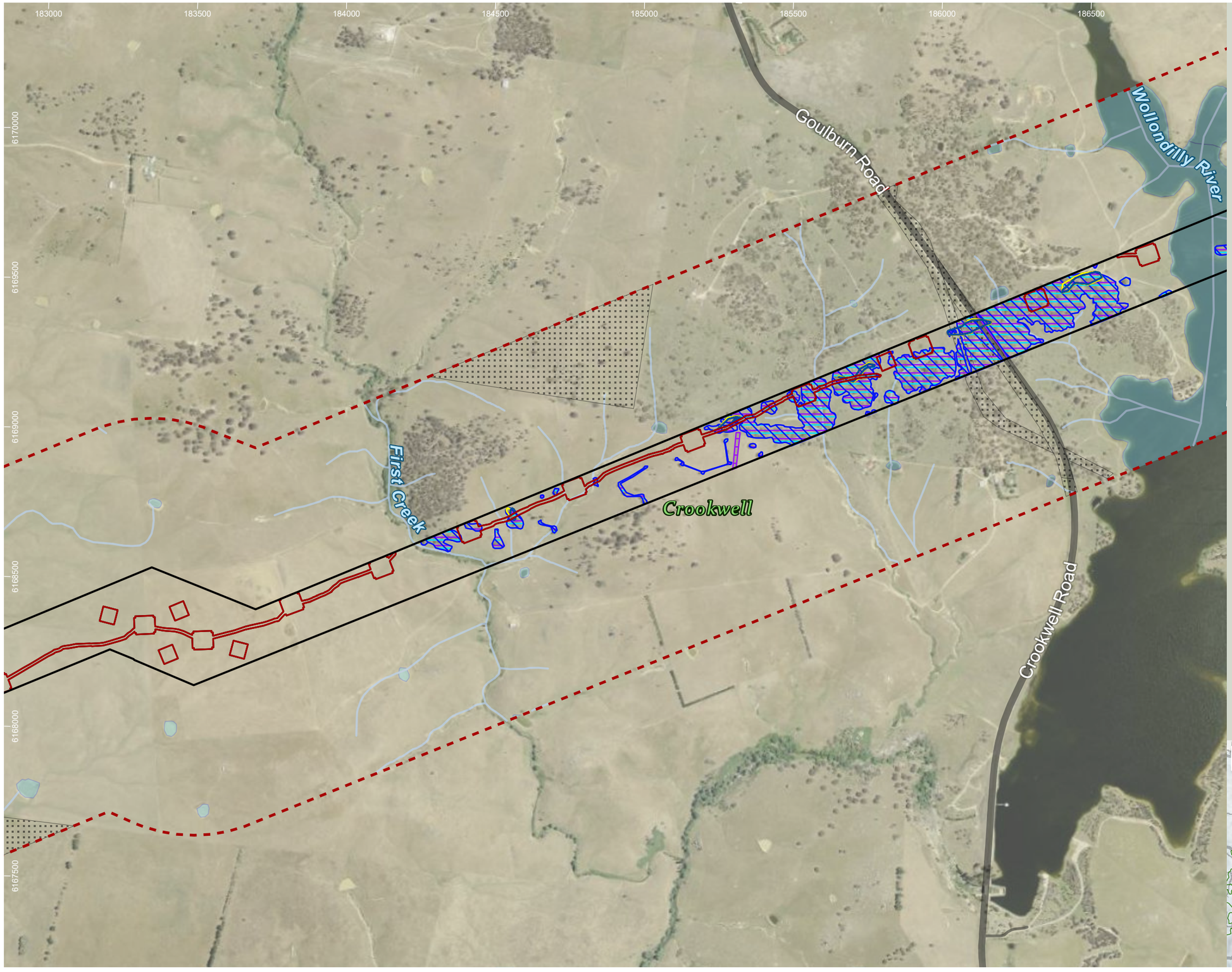
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 91

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

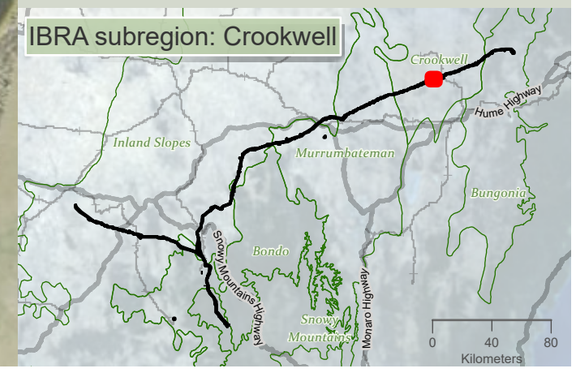
Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 92

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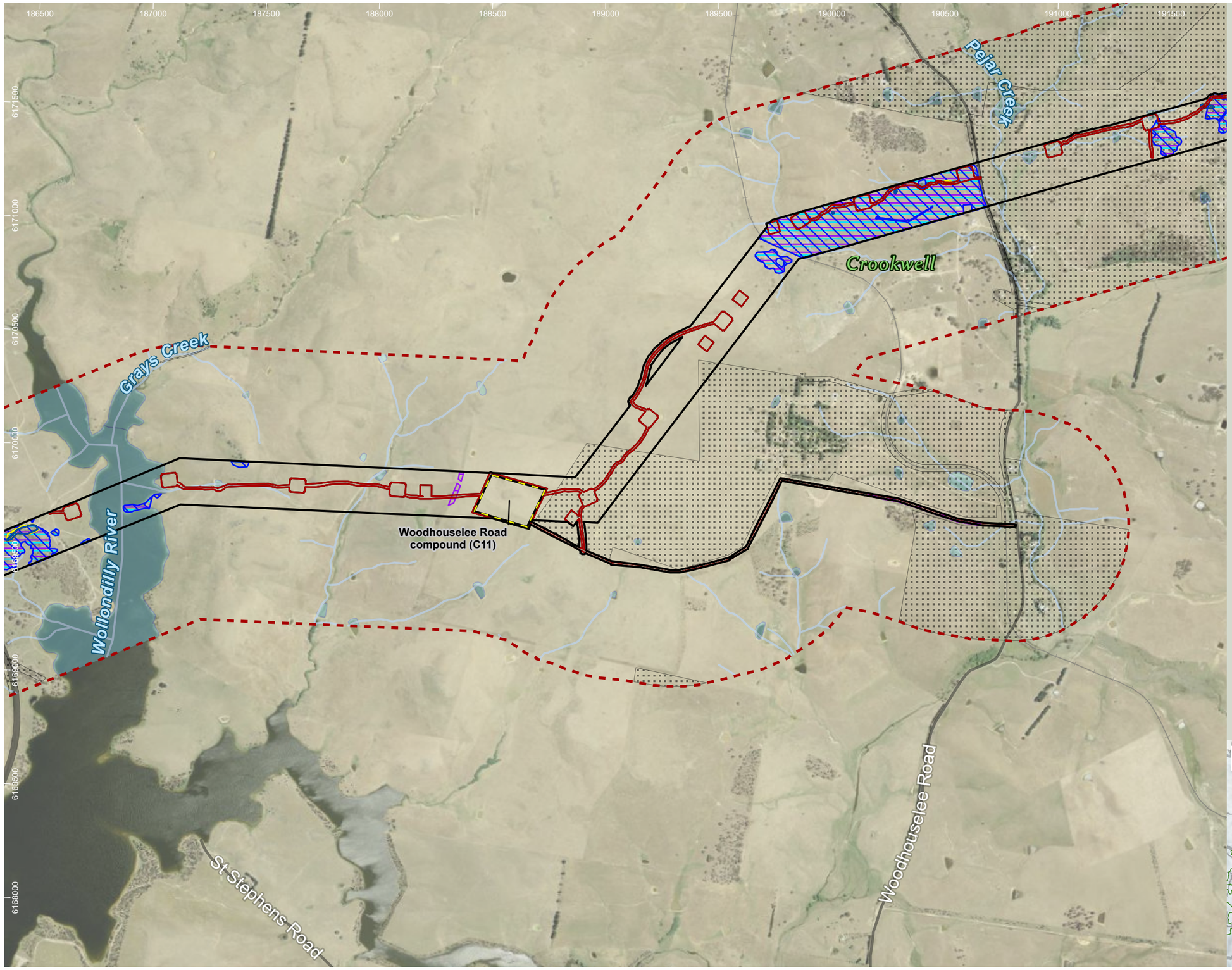
Drawn by: MatthewZajaczkowski | Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

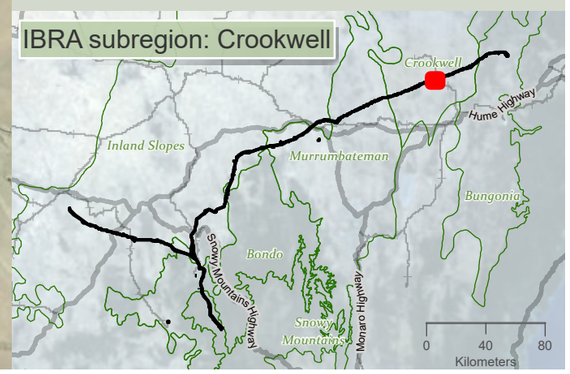
- Major road
- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDrive\Sync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 500 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 93

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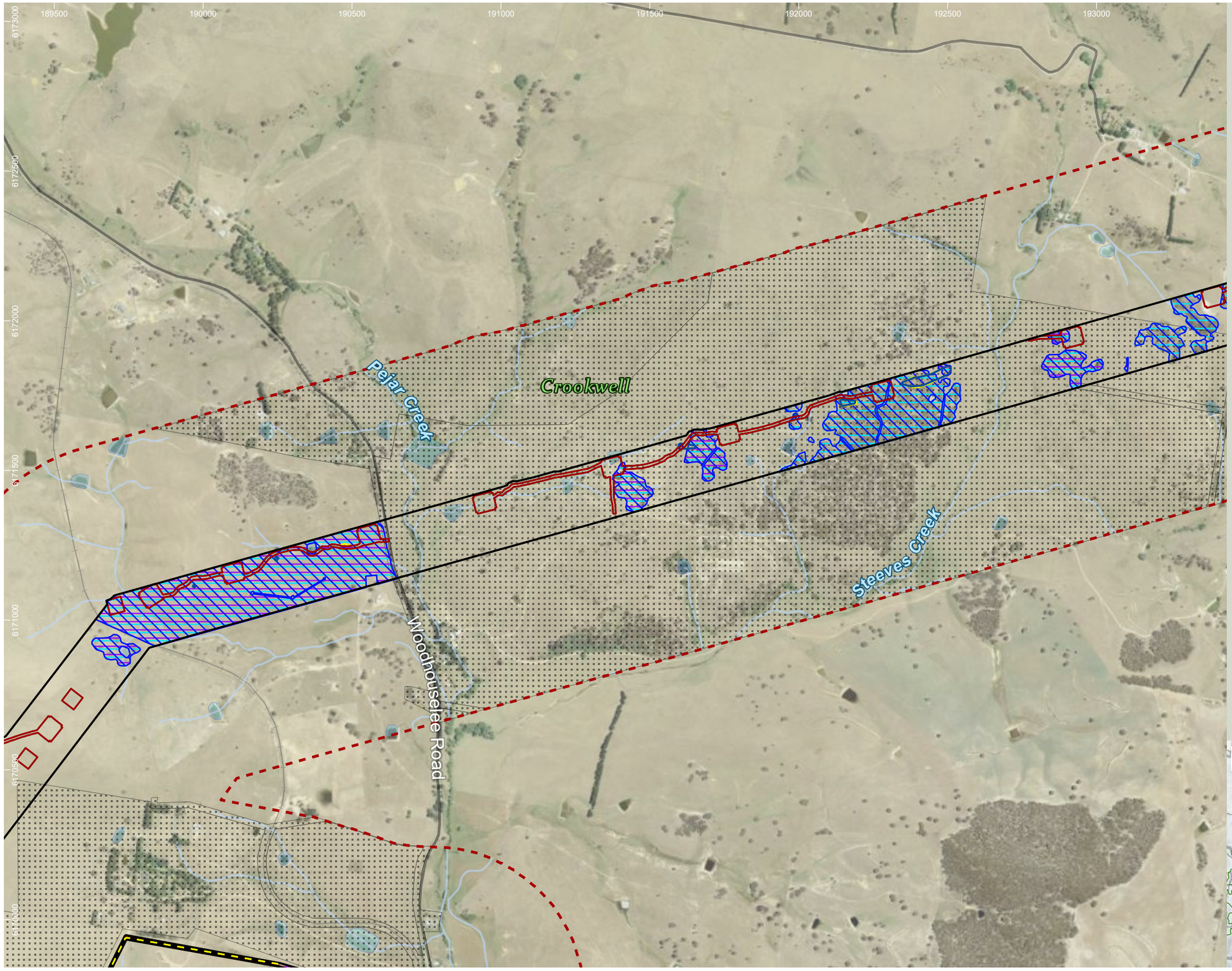


HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

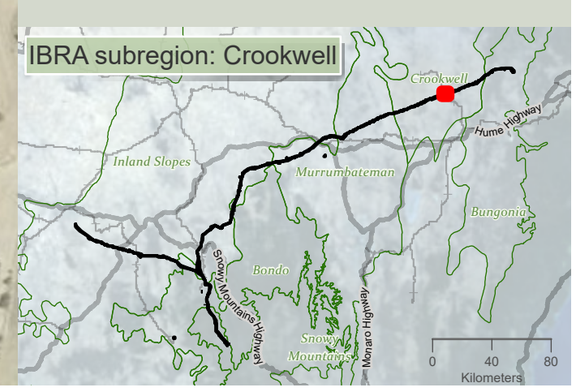
- Minor road
- Rail

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

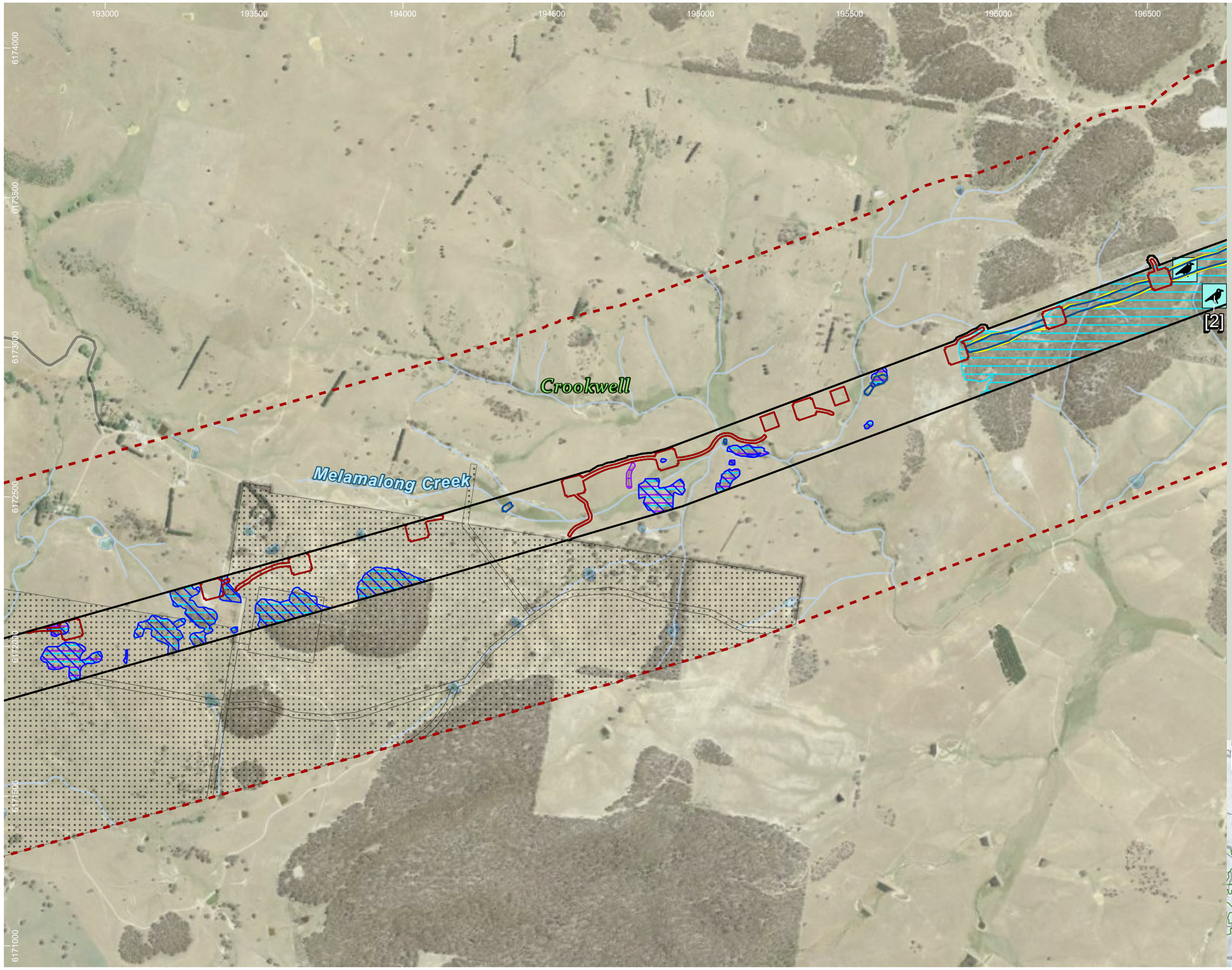
Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 94

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx - Confidential impact assessment



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

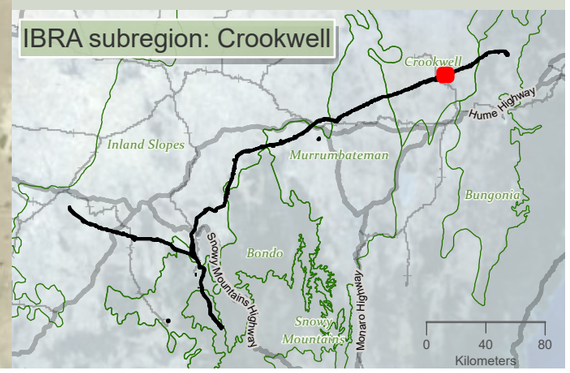
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 95

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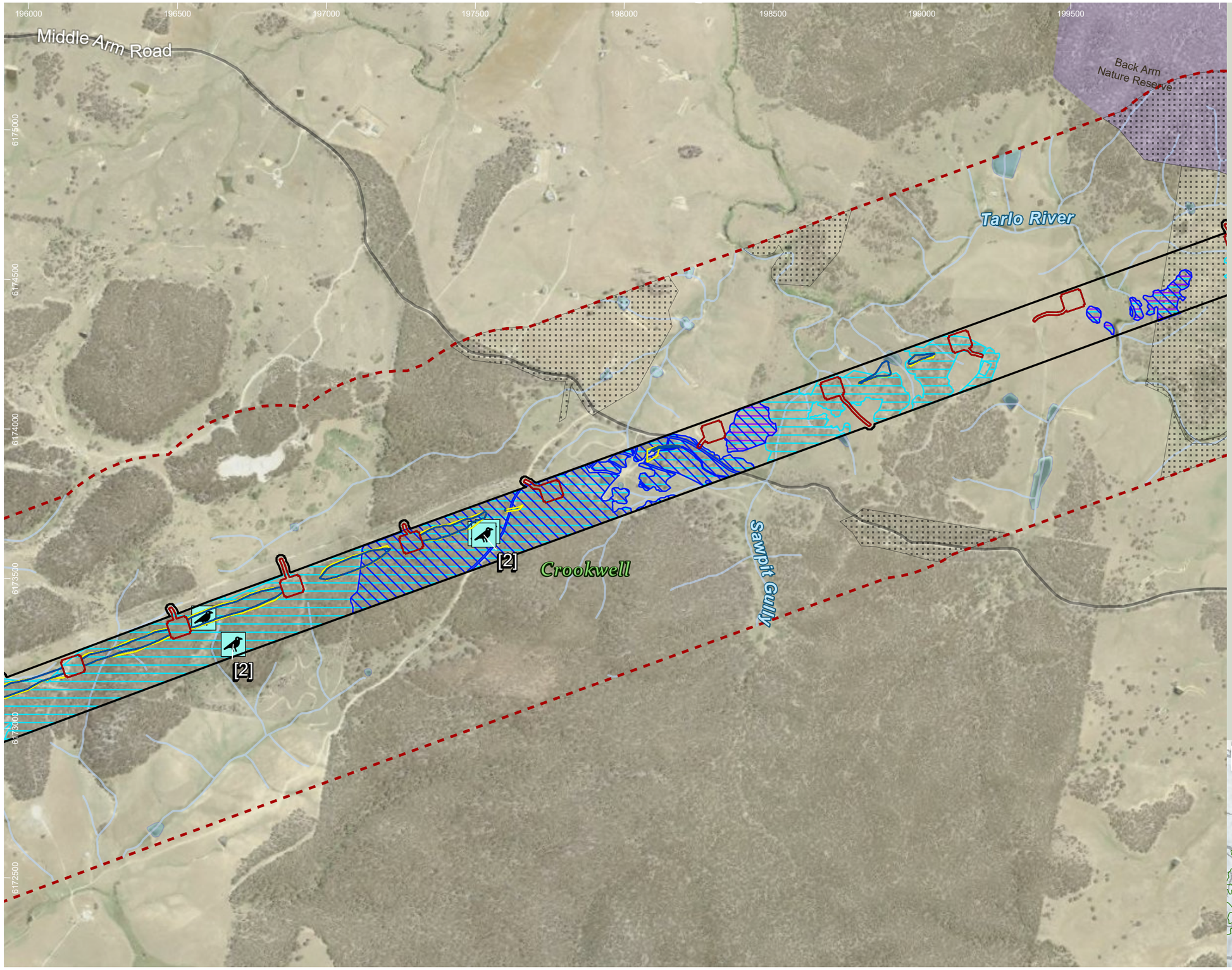


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

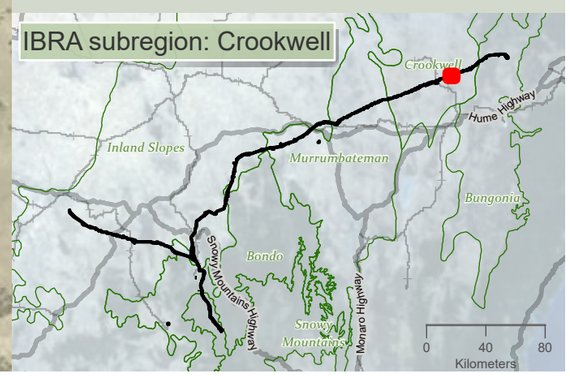
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 96

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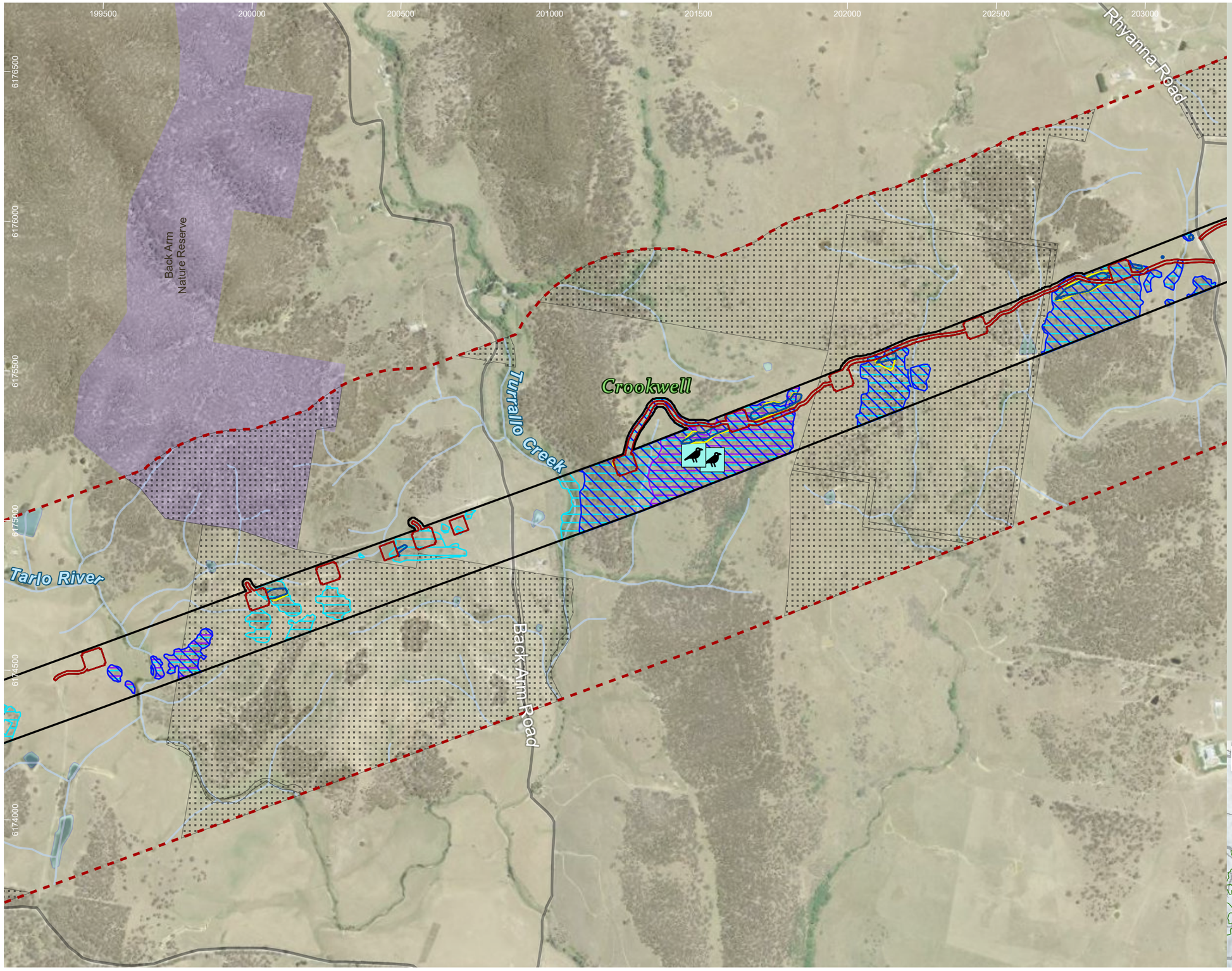


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- Nature Reserve

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

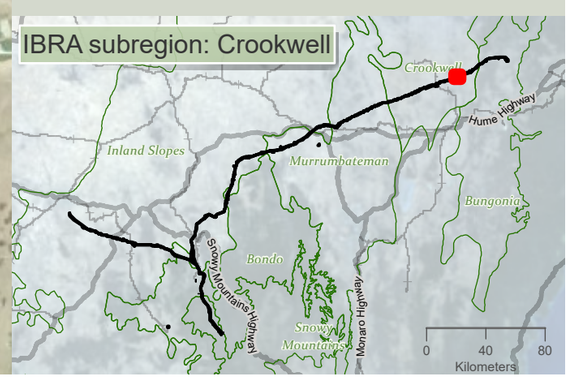
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 97

Niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

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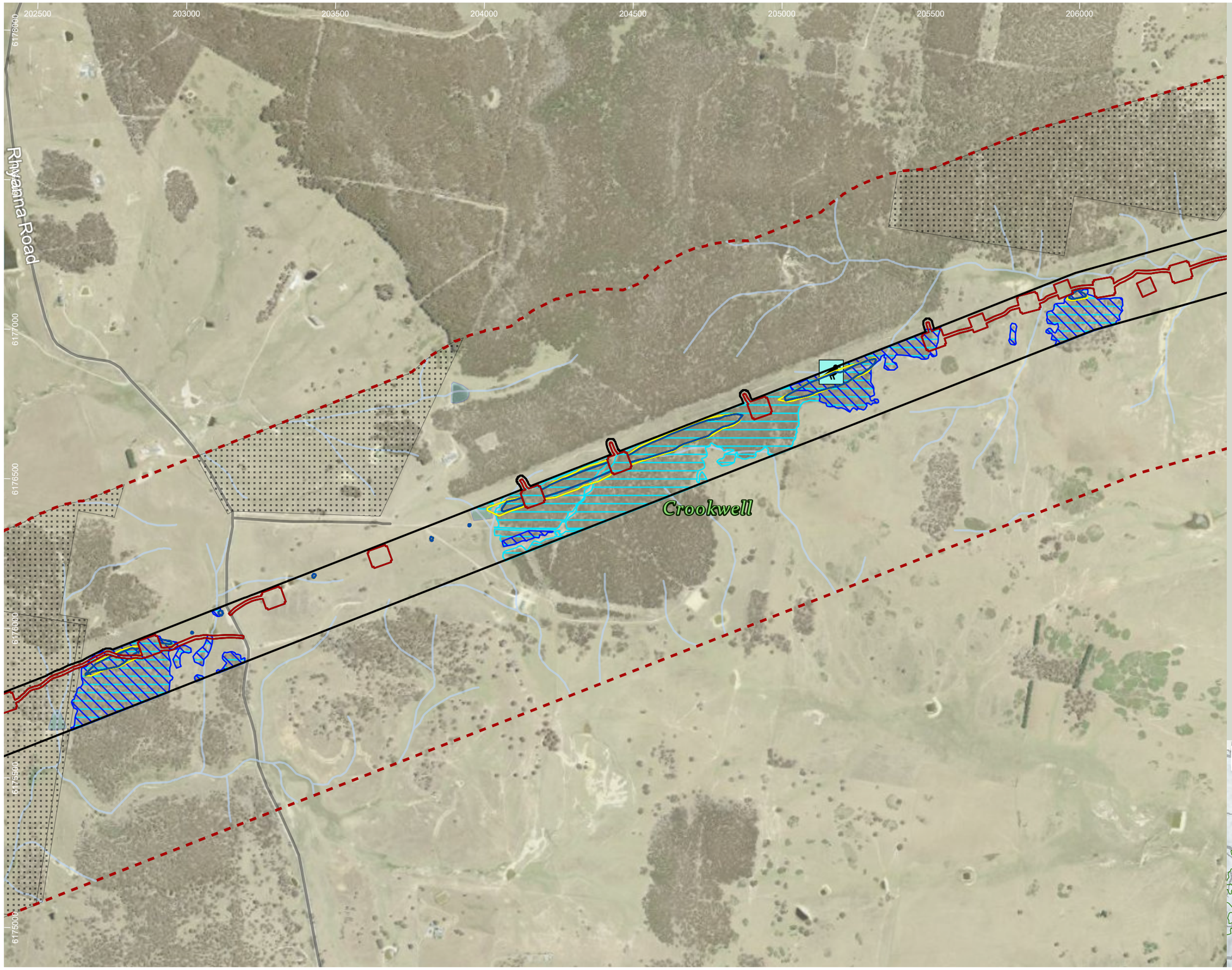


HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum

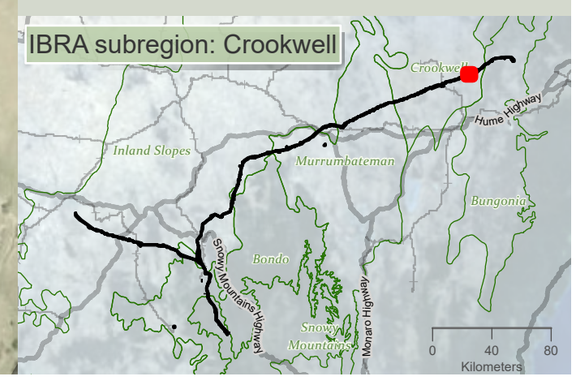
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\Folder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 98

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206000 206500 207000 207500 208000 208500 209000 209500

6179000 6178500 6178000 6177500 6177000 6176500

Cowpers Lane

Myrtle Creek

Crookwell

Cowpers Creek

Taralga Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

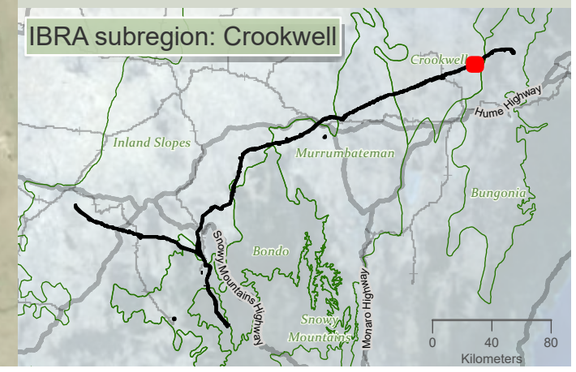
- Major road
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 99

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208500 209000 209500 210000 210500 211000 211500 212000 212500

6181000 6180500 6180000 6179500 6179000 6178500

Hillcrest Road
Soldiers Settlement Road
Dawsons Flat Creek
Myrtle Creek
Crookwell
Bungonia

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone

Hydrography

- Waterway
- Waterbody

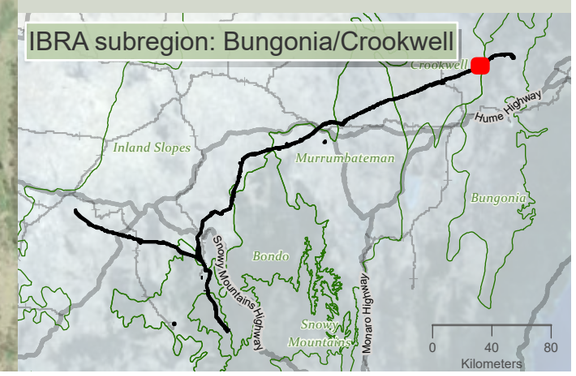
Transport

Road

- Minor road

EPBC Act bird species habitat

- Callocephalon fimbriatum
- Polytelis swainsonii



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 100

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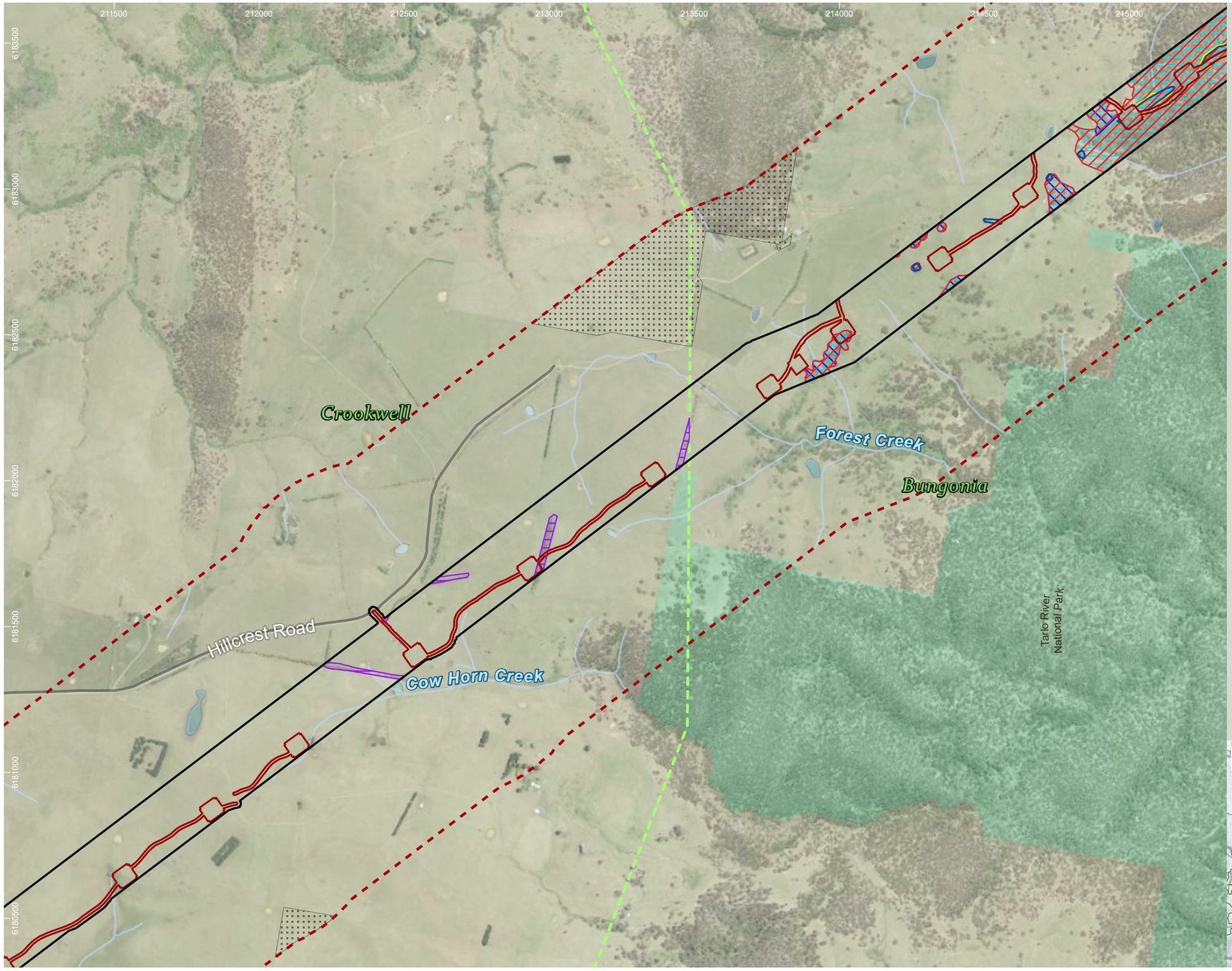
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSync\FoldenNiche\6699 - Confidential impact assessment SEC-EXT\ - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access
- IBRA subregion

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- National Park

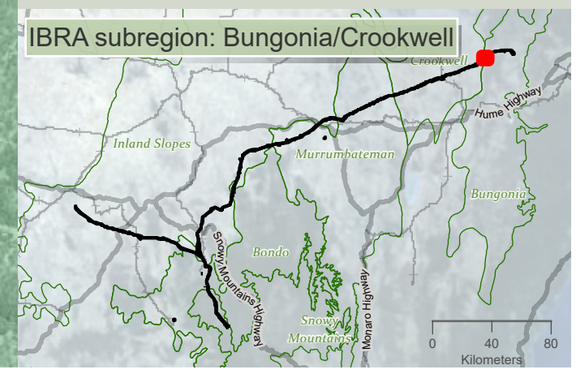
EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami
- Polytelis swainsonii

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)

Glossy Black-Cockatoo (Calyptorhynchus lathami)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 101

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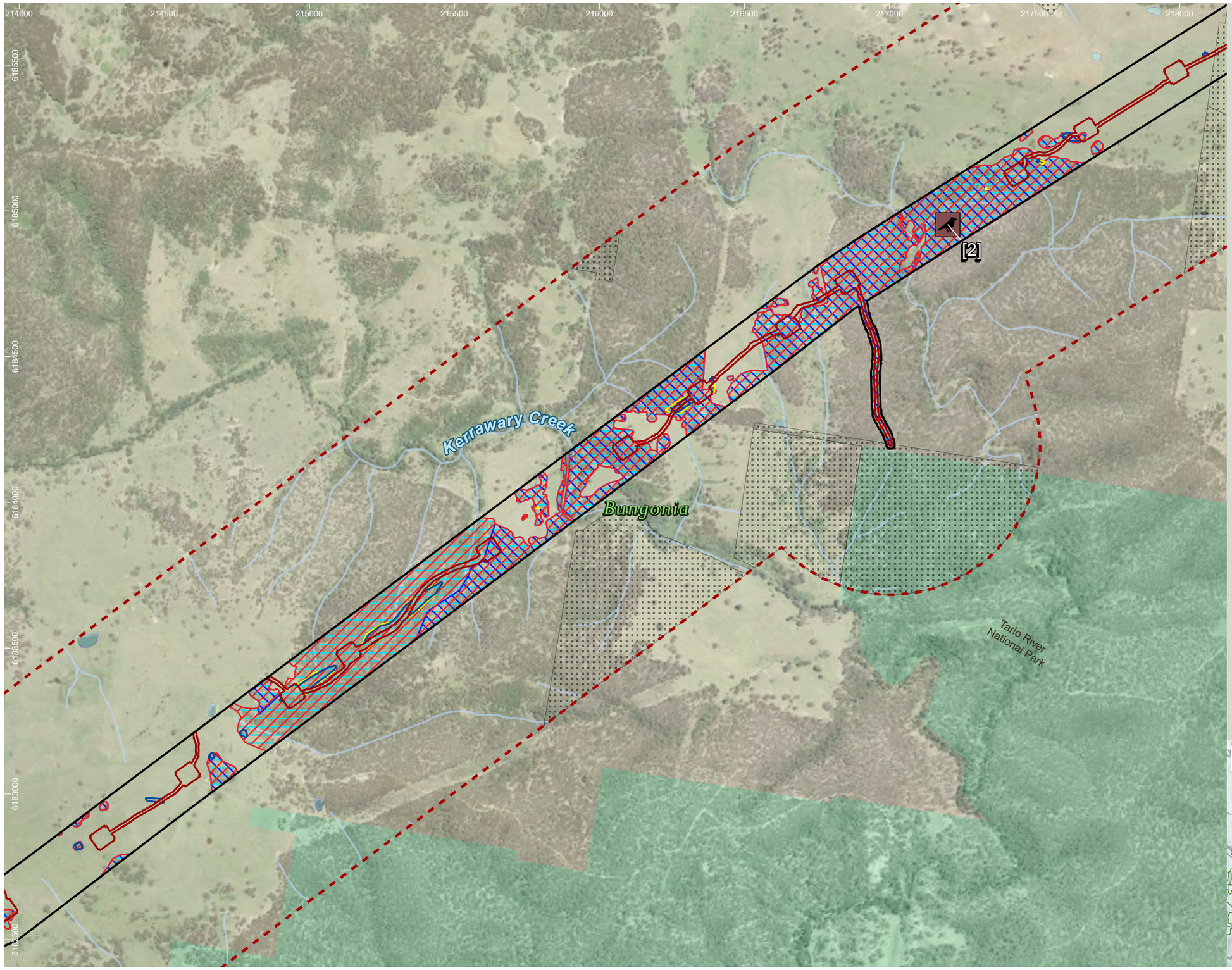
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699_Humelink_BDAR_Stage 2 Part A.aprx Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami

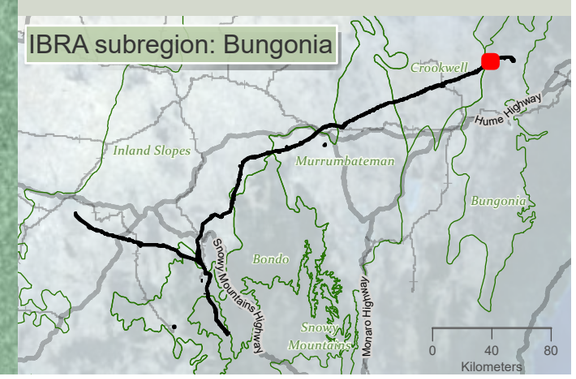
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)
- Glossy Black-Cockatoo (Calyptorhynchus lathami)
- Powerful Owl (Ninox strenua)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 102

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217500 218000 218500 219000 219500 220000 220500 221000

6187000 6186500 6186000 6185500 6185000 6184500

Bannaby Creek

Connors Creek

Bungonia

Bannaby Road

[2]

Tarlo River
National Park

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

- Minor road

Protected Areas of NSW

NPWS Reserve

- National Park

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami

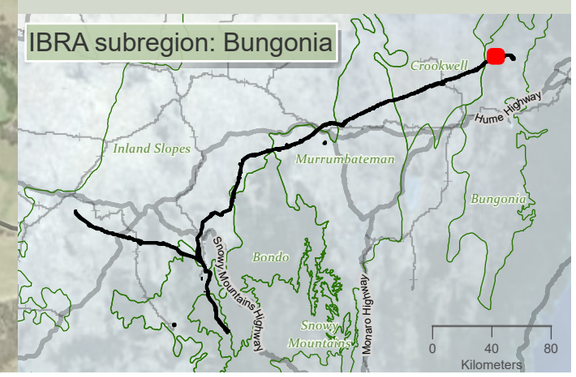
Threatened fauna species - Niche and ELA, 2022 (no. of records)[no. of records within individual >1]

Aves

- Flame Robin (Petroica phoenicea)
- Scarlet Robin (Petroica boodang)

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

Gang-gang Cockatoo (Callocephalon fimbriatum)



niche Environment and Heritage

0 400 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 103

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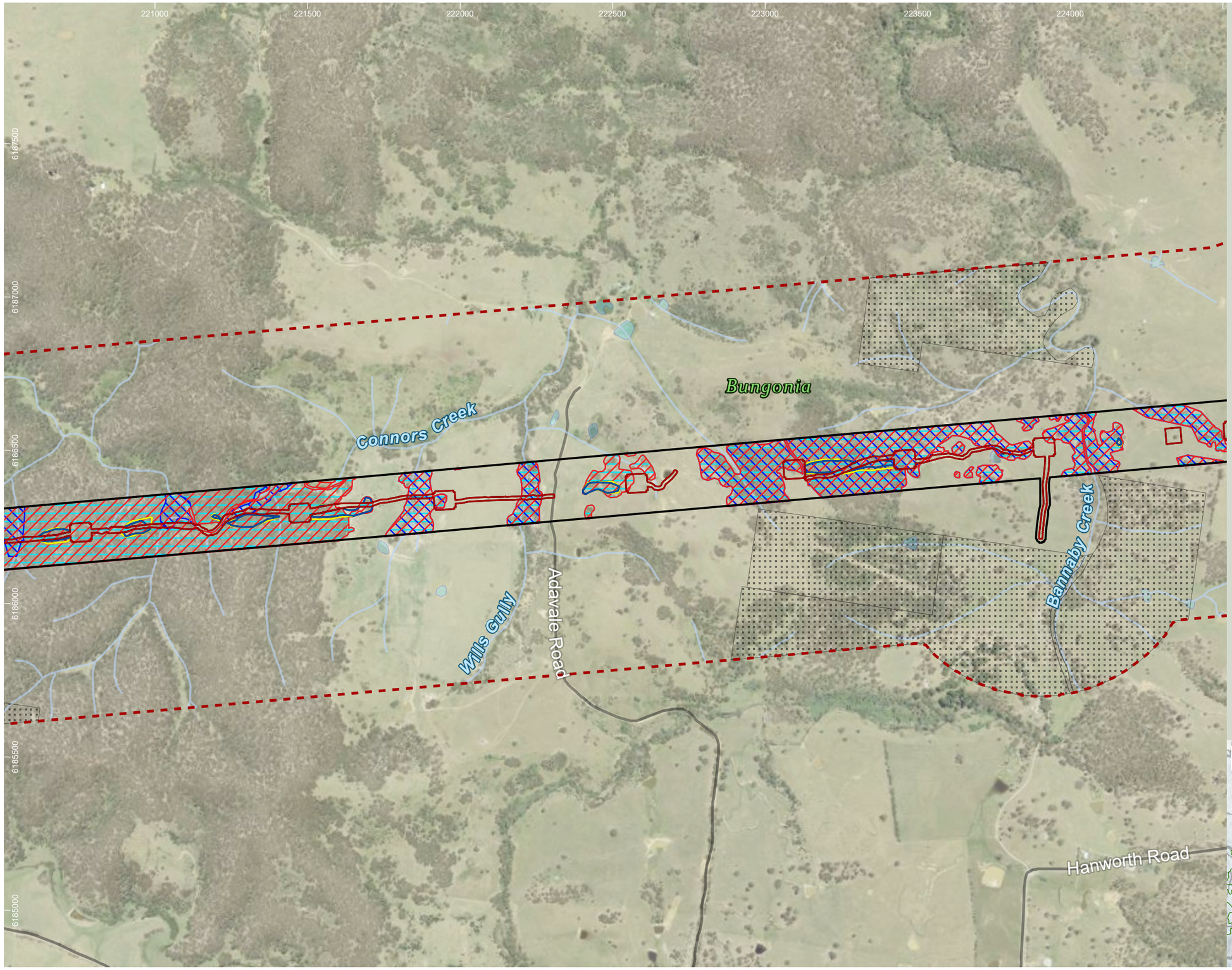
Drawn by: MatthewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche 6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

Transport

Road

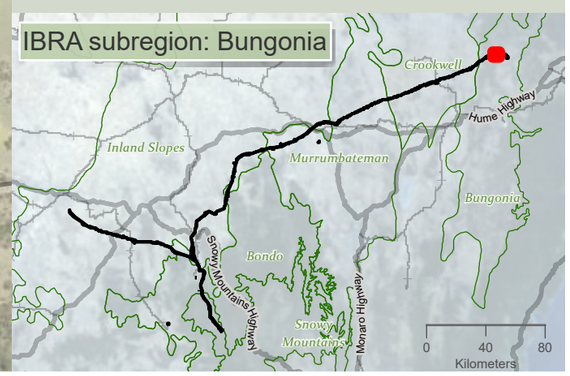
- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami

Sensitive species - Niche and ELA, 2022 (no. of records) - locations not displayed

- Gang-gang Cockatoo (Callocephalon fimbriatum)



Drawn by: MathewZajaczkowski; Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche6699 - Confidential impact assessment\SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx

niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 104

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224500 225000 225500 226000 226500 227000 227500

6188000 6187500 6187000 6186500 6186000 6185500

Bannaby Creek

Bungonia

Hanworth Road

HumeLink project areas

- Project footprint
- Landscape assessment area
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

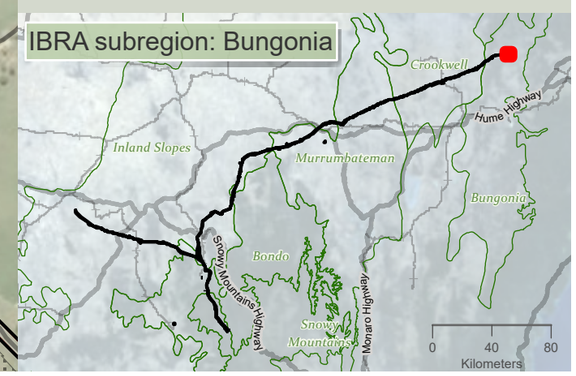
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 105

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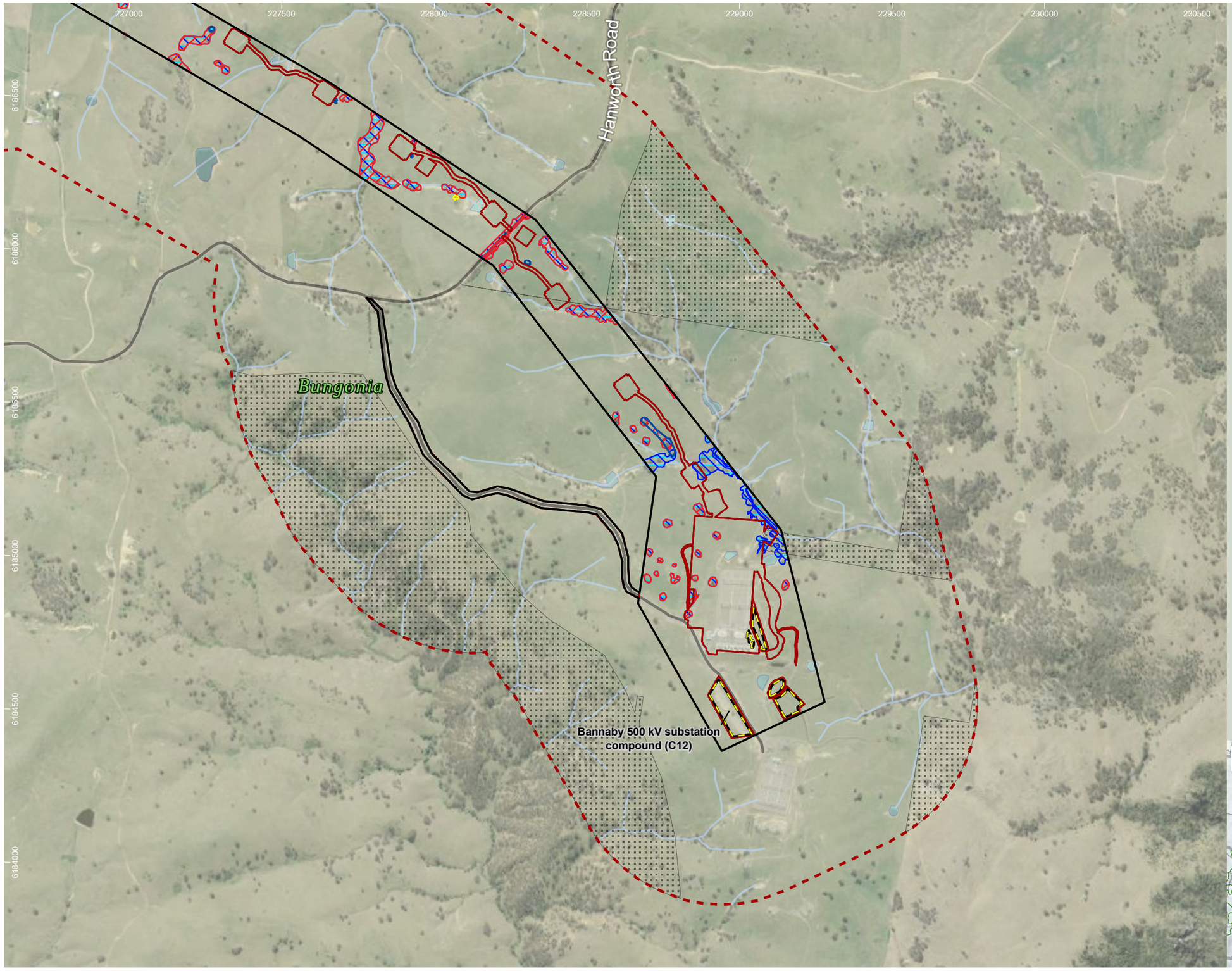
Drawn by: MathewZajaczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment\EC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx



HumeLink project areas

- Project footprint
- Landscape assessment area
- Proposed construction compounds
- No land access

Indicative disturbance areas based on indicative design as at 25 October 2022. Subject to refinement in line with detailed design

- Total Clearing Zone
- Easement Clearing Zone
- Hazard Tree Zone

Hydrography

- Waterway
- Waterbody

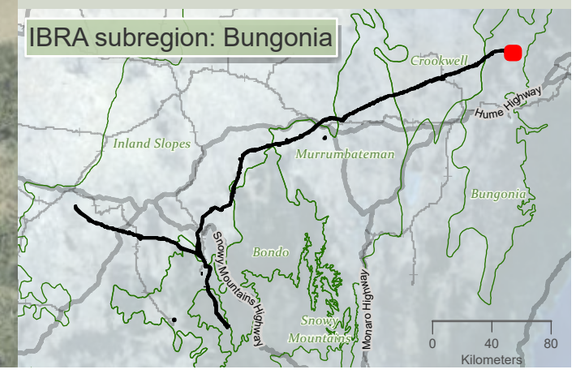
Transport

Road

- Minor road

EPBC Act bird species habitat

- Anthochaera phrygia
- Callocephalon fimbriatum
- Calyptorhynchus lathami



niche Environment and Heritage

0 350 m

WGS 1984 Web Mercator

Niche PM: Simon Tweed
Niche Proj. #: 6699
Client: Aurecon

Matters of National Environmental Significance fauna species habitat- aves

HumeLink BDAR

Figure 13-20 map reference 106

public/NSW_Imagery: © Department of Customer Service 2020 | Watercourses, Waterbodies, Road and Rail alignments, Protected areas of NSW © Spatial Services 2021. | Niche uses GDA2020 as standard for all project-related data. In order to ensure that data from numerous sources and coordinate systems is aligned, on-the-fly transformation to WGS1984 Web Mercator Auxilliary Sphere is used in the map above. For ease of reference, the grid tick marks and labels shown around the border of the map are presented in GDA2020, using the relevant MGA zone.

Drawn by: MathewZajeczkowski Last updated: 28/07/2023 File: C:\OneDriveSyncFolder\Niche\6699 - Confidential impact assessment SEC-EXT - BDAR_v2\a6699_Humelink_BDAR_Stage 2 Part A.aprx