

Modification of Infrastructure Approval

Section 5.25 of the *Environmental Planning & Assessment Act 1979*

As delegate of the Minister for Planning and Public Spaces under the Instrument of Delegation dated 11 October 2017,

I approve the modification of the State significant infrastructure approval referred to in Schedule 1, subject to the conditions in Schedule 2.



David Kitto
Executive Director
Special Projects

Sydney

27 March 2020

SCHEDULE 1

Infrastructure Approval:

SSI 9208 granted by the Minister for Planning and Public Spaces on 7 February 2019

For the following:

Snowy 2.0 Exploratory Works

Modification:

Tunnel boring machine and project layout refinements

SCHEDULE 2

1. In the TABLE OF CONTENTS in Schedule 1, delete “recreational area” and replace with “boat ramp”.
2. In the definition of EIS in the table of DEFINITIONS in Schedule 1, delete the last dot point and insert
 - *Modification Report* dated 6 June 2019, *Submissions Report* dated 2 September 2019, and letter to the Department titled *Amendment to the Hours of Operation on Upper Lobs Hole Ravine Road* dated 4 October 2019
 - *Modification Report* dated 17 October 2019 and *Submissions Report* dated 10 January 2020
3. In the table of DEFINITIONS in Schedule 1, delete the definition for and ‘RMS’, and insert the following in alphabetical order:

OSOM A Class 1 heavy vehicle under the *Heavy Vehicle National Law (NSW)* that is carrying a large indivisible item

TfNSW Transport for NSW, including the Roads and Maritime Service
4. Delete all references to “Applicant” and replace with “Proponent”.
5. Delete all references to “over-dimensional”, and replace with “OSOM”
6. In the heading for condition 4 of Schedule 3, delete “RECREATION AREA” and replace with “BOAT RAMP”
7. Delete condition 4 of Schedule 3 and replace with the following:
 4. The Proponent:
 - (a) may only use the Talbingo Boat Ramp, O’Hares Campground Boat Ramp and/or Middle Bay Barge Ramp to launch and remove vessels associated with the development to and from the Talbingo Reservoir;
 - (b) must minimise any disruption to other boat ramp users when it is using the Talbingo Boat Ramp; and
 - (c) keep the local community informed about any use and/or temporary closure of the Talbingo Boat Ramp.
8. Following condition 5A of Schedule 3, insert the following:

5B Within 2 months of the approval of Modification 2, unless the Planning Secretary agrees otherwise, the Proponent must pay the NPWS an additional \$304,990.
9. In condition 6 (b) of Schedule 3:
 - ii. following the second bullet point, insert the following:
 - minimise the tree trimming required along Lobs Hole Ravine Road to allow OSOM vehicles to access the site;
 - iii. in the fifth bullet point, following the words “(*Cercatetus nanus*);”, insert the following:
 - Regent Honeyeater (*Anthochaera phrygia*);
10. In condition 22 of Schedule 3:
 - i. insert the following after point (c):
 - (d) not place any material obtained from tunnel excavation using the tunnel boring machine in Talbingo Reservoir;
 - ii. sequentially increase the numbering of points (d) to (f) into points (e) to (g)

11. Following condition 40 of Schedule 3, insert the following:

Lobs Hole Ravine Road - North

- 40A. Prior to using Lobs Hole Ravine Road – North, unless the Planning Secretary agrees with otherwise, the Proponent must:
- (a) upgrade Lobs Hole Road – North in accordance with the approved plans (see the figures in Appendix 2) to the satisfaction of NPWS; and
 - (b) seal the last 30 metres of the road before its intersection with the Snowy Mountains Highway to the satisfaction of the TfNSW.
- 40B. Once Lobs Hole Ravine Road – North has been upgraded in accordance with Condition 40A above, the Proponent must restrict the use of the road by the development to:
- access to and egress from the site during emergencies; and
 - light vehicles at all other times with:
 - a maximum of 120 vehicle movements a day (60 each way); and
 - an annual average maximum of 60 vehicle movements a day (30 each way).

12. Following condition 41 of Schedule 3, insert the following:

Sharp Street Roundabouts

42. Prior to using any OSOM vehicles to deliver the tunnel boring machine or concrete segments required to line the exploratory tunnel to the site, the Proponent must:
- (a) prepare detailed designs for the upgrade of the following intersections to the satisfaction of TfNSW and Snowy Monaro Regional Council:
 - Snowy Mountains Highway/Sharp Street and Bombala Street intersection; and
 - Snowy Mountains Highway/Sharp Street and Vale Street intersection;
 - (b) ensure the designs comply with the relevant requirements in the *Austroads Guide to Road Design* (as amended by TfNSW supplements), and include works to the existing kerbs, signage and internal roundabout pavement to accommodate OSOM vehicle movements; and
 - (c) carry out the approved upgrades to the satisfaction of TfNSW.

13. In condition 43 of Schedule 3:

- i. in point (b), insert “and” after “Ravine campground;”
- ii. replace points (c) to (e) with:
 - (c) Middle Bay Boat Ramp.

14. Delete condition 45 of Schedule 3

15. Sequentially increase the numbering of conditions 42 to 44 of Schedule 3, to become conditions 43 to 45 of Schedule 3

16. In condition 46 of Schedule 3:

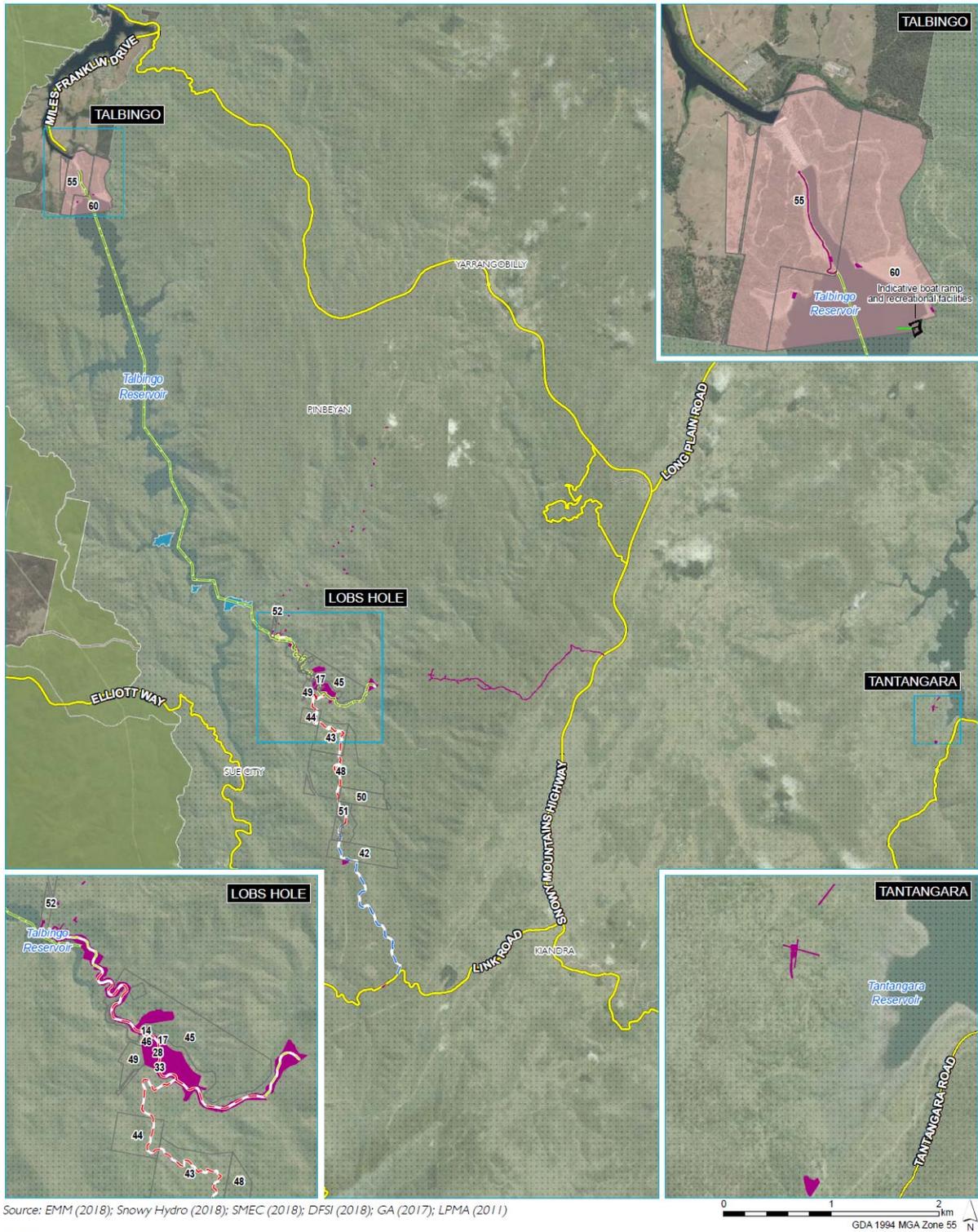
- i. in point (a), delete the word “RMS” and replace with “TfNSW”;
- ii. in the first bullet point of point (b), following the word “Marica;”, insert the following:
 - road users at the Snowy Mountains Highway/Lobs Hole Ravine Road – North intersection
- iii. following point (c), insert the following:
 - (d) include a heavy vehicle salvage strategy for the development, covering the salvage of heavy vehicles on the road network in KNP and on the public road network;
- iv. sequentially increase the numbering of points (d) and (e), to become points (e) and (f)

17. In condition 5 of Schedule 4, after the words “becomes aware of”, insert the word “an”

18. In the Table in Appendix 1 – Schedule of Land, delete the following rows:

1	1	728290
2	18	728290
53	3	235380
56	1	235381
57	50	1091285
58	52	1096317
59	53	1096317

19. In Appendix 1, delete Figures 1-1 and 1-2 and replace with the following:



KEY

- Access road upgrade - without widening
- Access road upgrade - with widening
- Access road extension
- Communications cable
- Exploratory Works disturbance footprint
- Dredging footprint
- Subaqueous rock emplacement area

- Impacted cadastral lot - land ownership
- Snowy Hydro-owned land
- NSW Government-owned land
- Indicative boat ramp and recreational facilities
- Existing beach area
- Existing gabion wall
- Foreshore reserve

- Main road
- Kosciuszko National Park
- State forest

Schedule of land

Snowy 2.0
Exploratory Works

Figure 1a



Figure 1-1: Schedule of land and land ownership

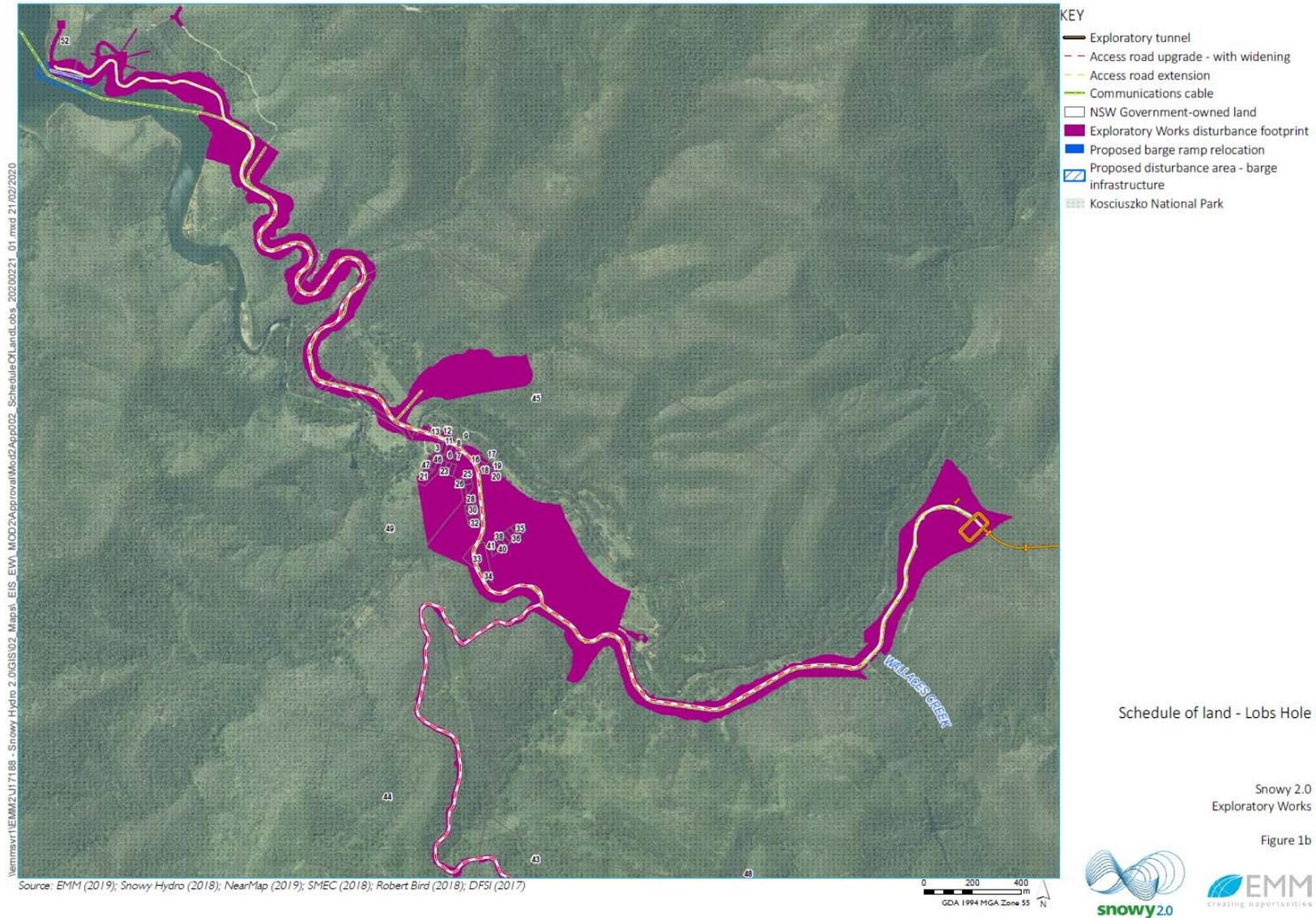


Figure 1-2: Schedule of land and land ownership – Lobs Hole

20. Delete Appendix 2 – Site Layout and insert the following:

APPENDIX 2 – SITE LAYOUT

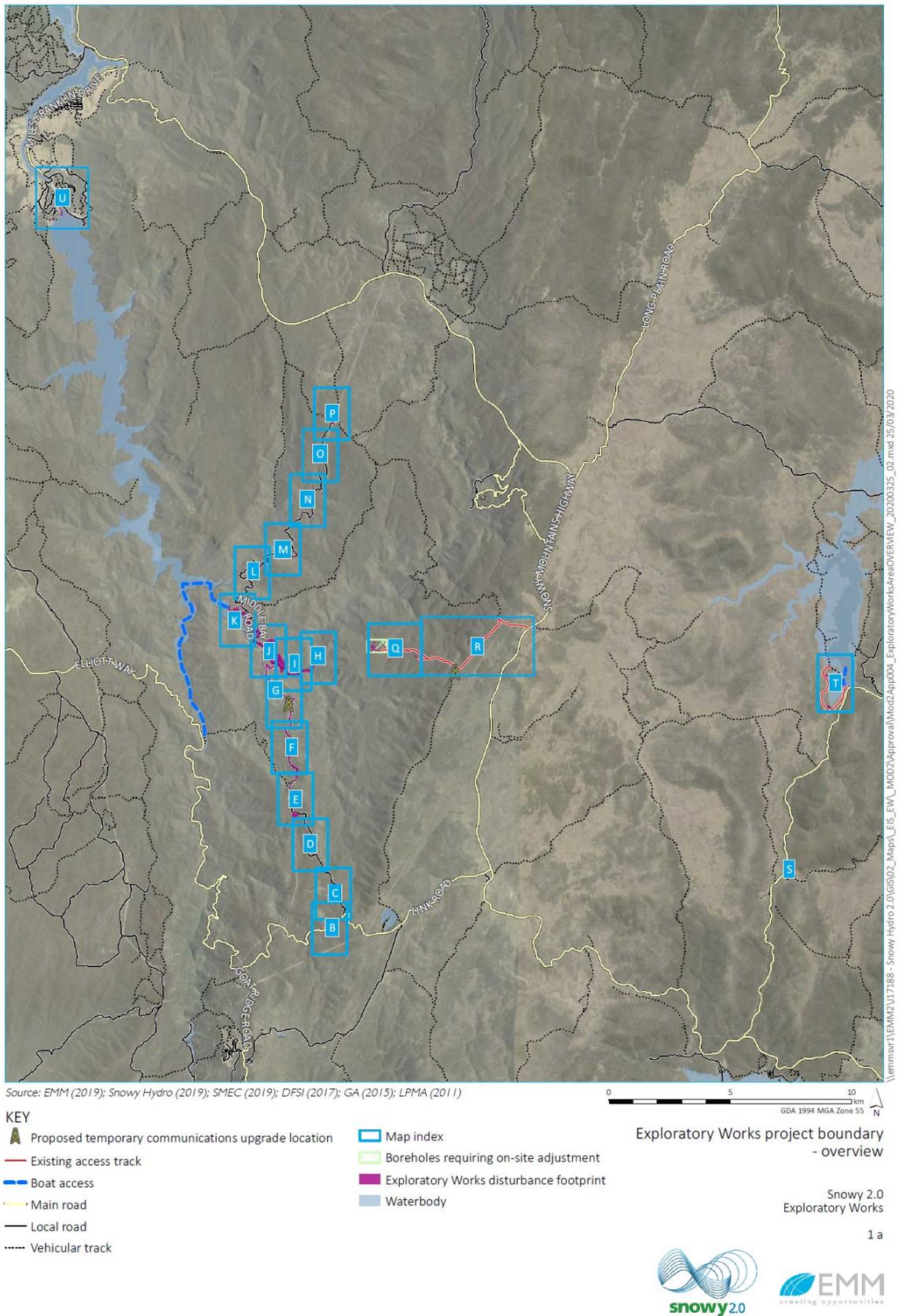
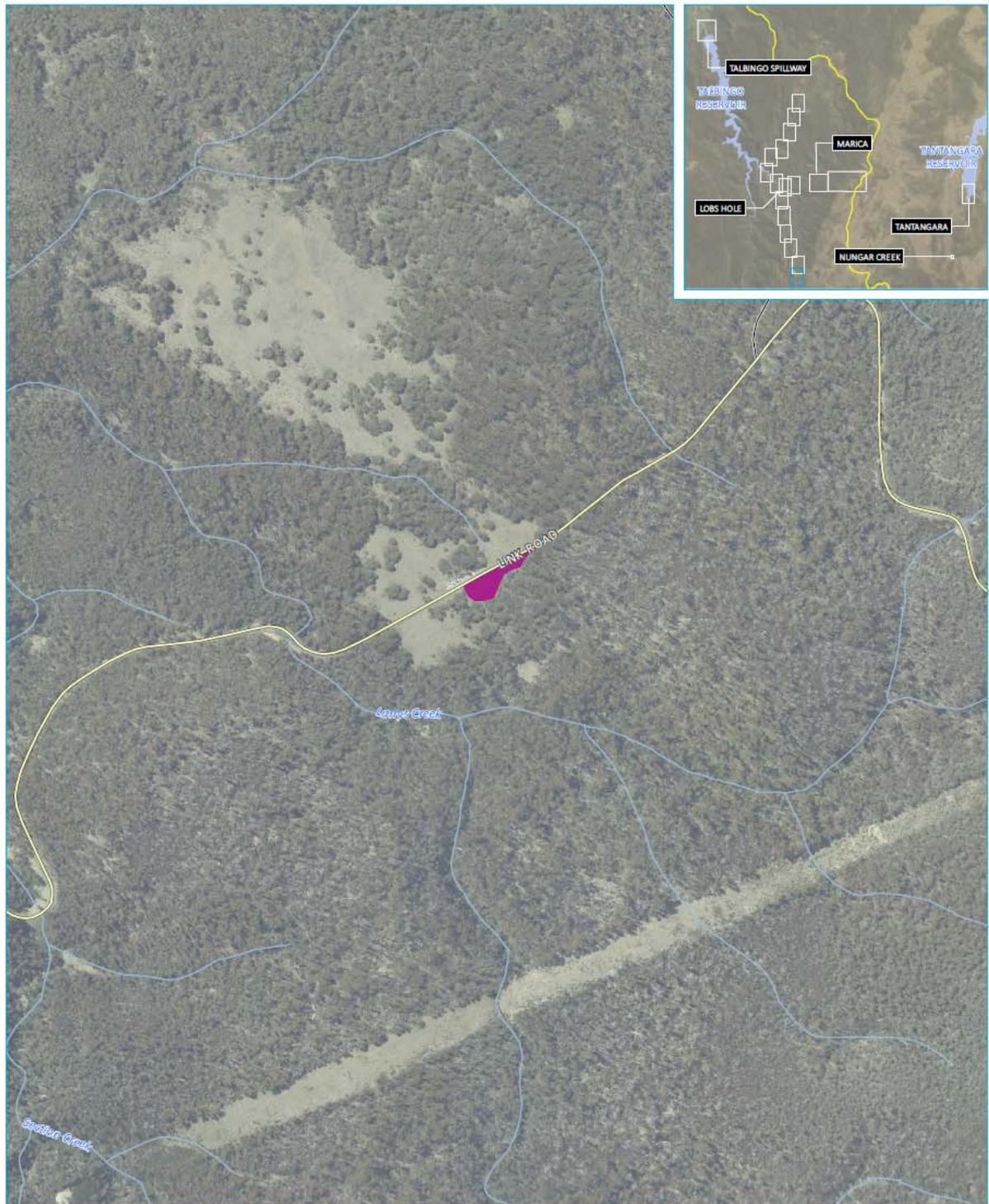


Figure 2-1: Project Boundary – Overview



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Dangerous tree
 - Main road
 - Local road
 - Watercourse/drainage line
 - Exploratory Works disturbance footprint

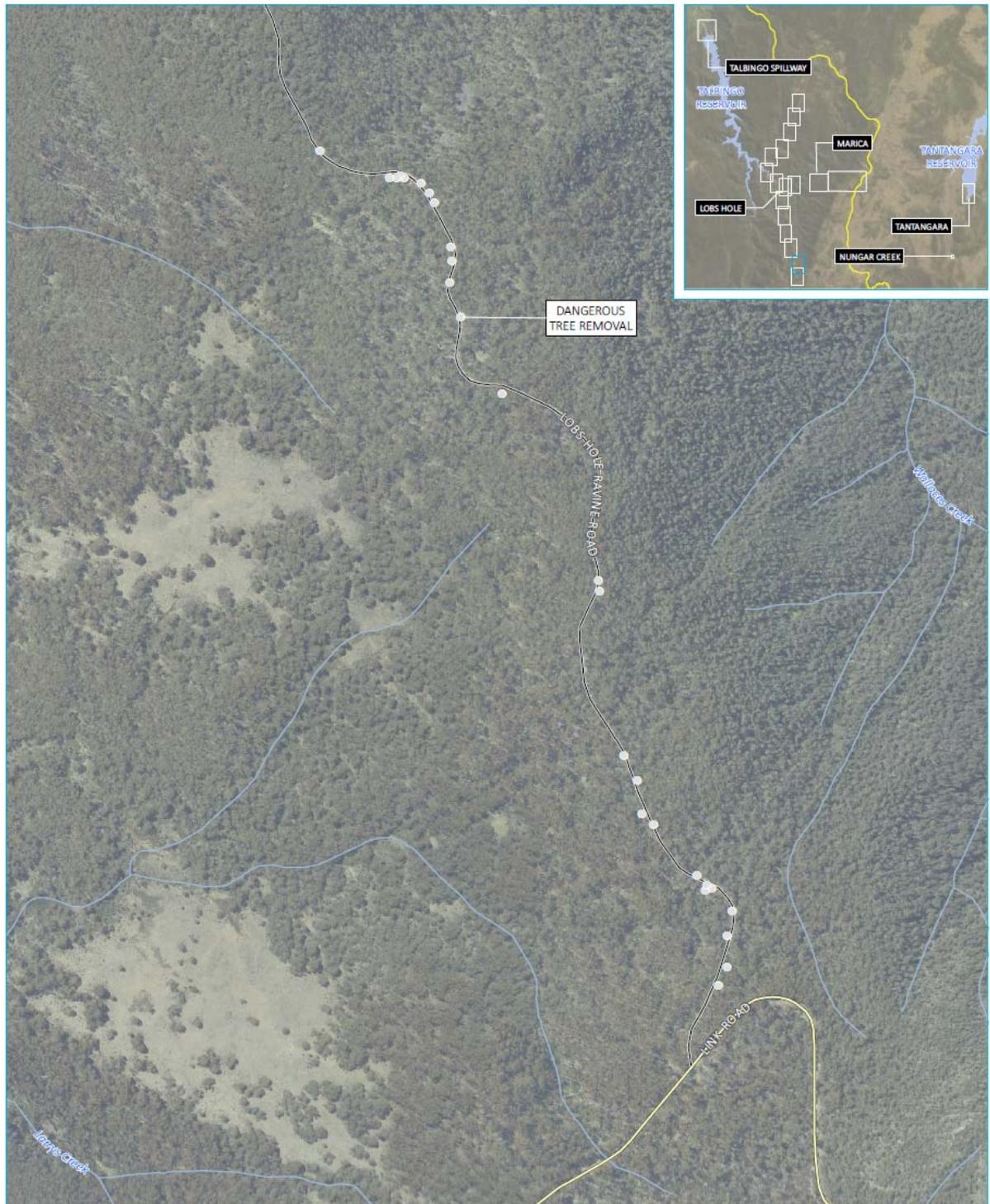
GDA 1994 MGA Zone 55
 Exploratory Works project boundary
 - Link Road turnaround area

Snowy 2.0
 Exploratory Works

1 b



Figure 2-2: Project Boundary – Link Road turnaround area



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- Main road
- Local road
- Watercourse/drainage line

Exploratory Works project boundary
- Lobs Hole Ravine Road (Upper) 1

Snowy 2.0
Exploratory Works

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Figure 2-3: Project Boundary – Lobs Hole Ravine Road (Upper) 1



Source: EMM (2019); Snowy Hydro (2019); PhotoMapping (2018); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

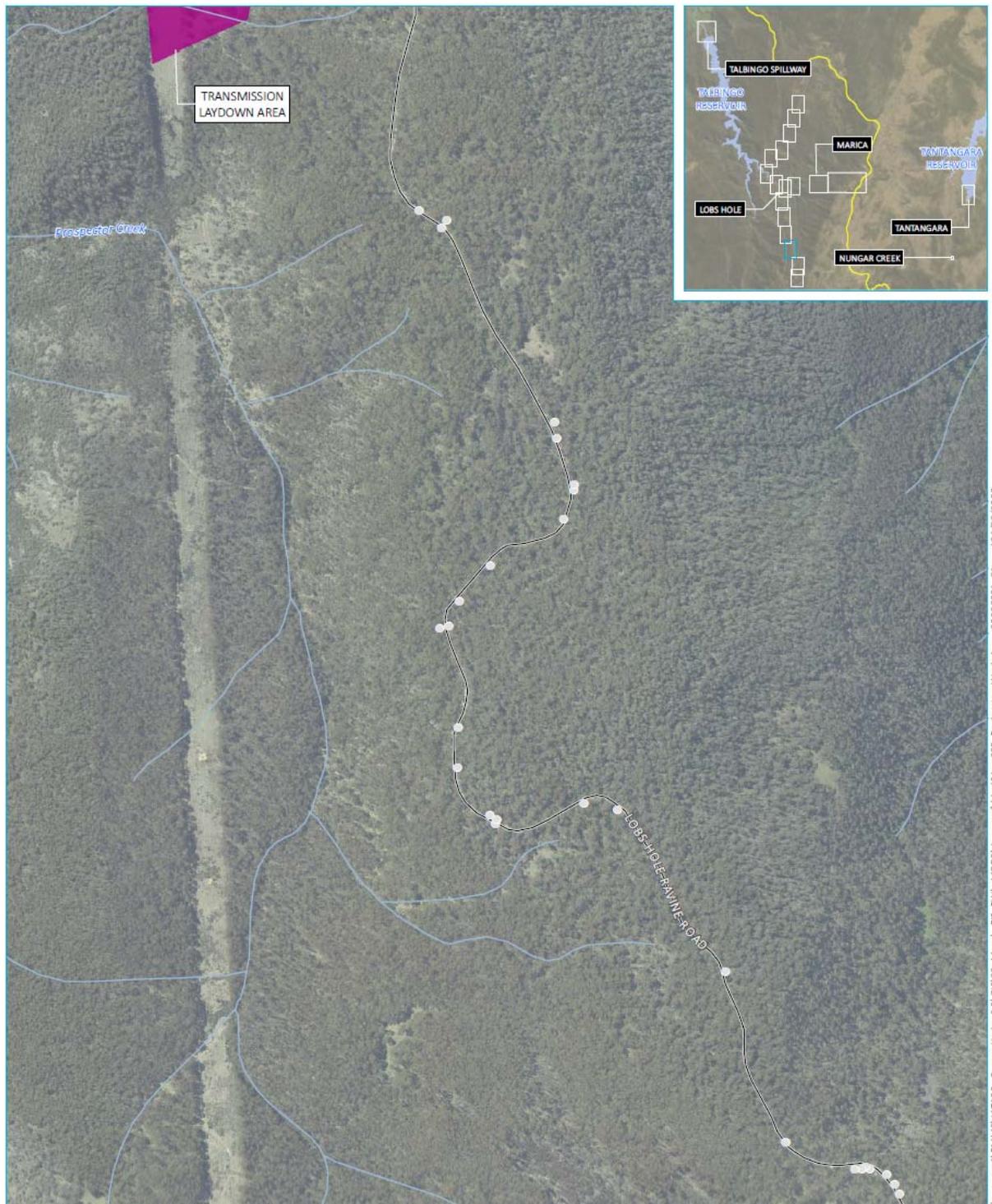
- KEY**
- Dangerous tree
 - Local road
 - Watercourse/drainage line
 - EW approved construction footprint

Exploratory Works project boundary
- Lobs Hole Ravine Road (Upper) 2

Snowy 2.0
Exploratory Works EIS
Modification 1
1 c



Figure 2-4: Project Boundary – Lobs Hole Ravine Road (Upper) 2



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- Local road
- Watercourse/drainage line
- Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55
N

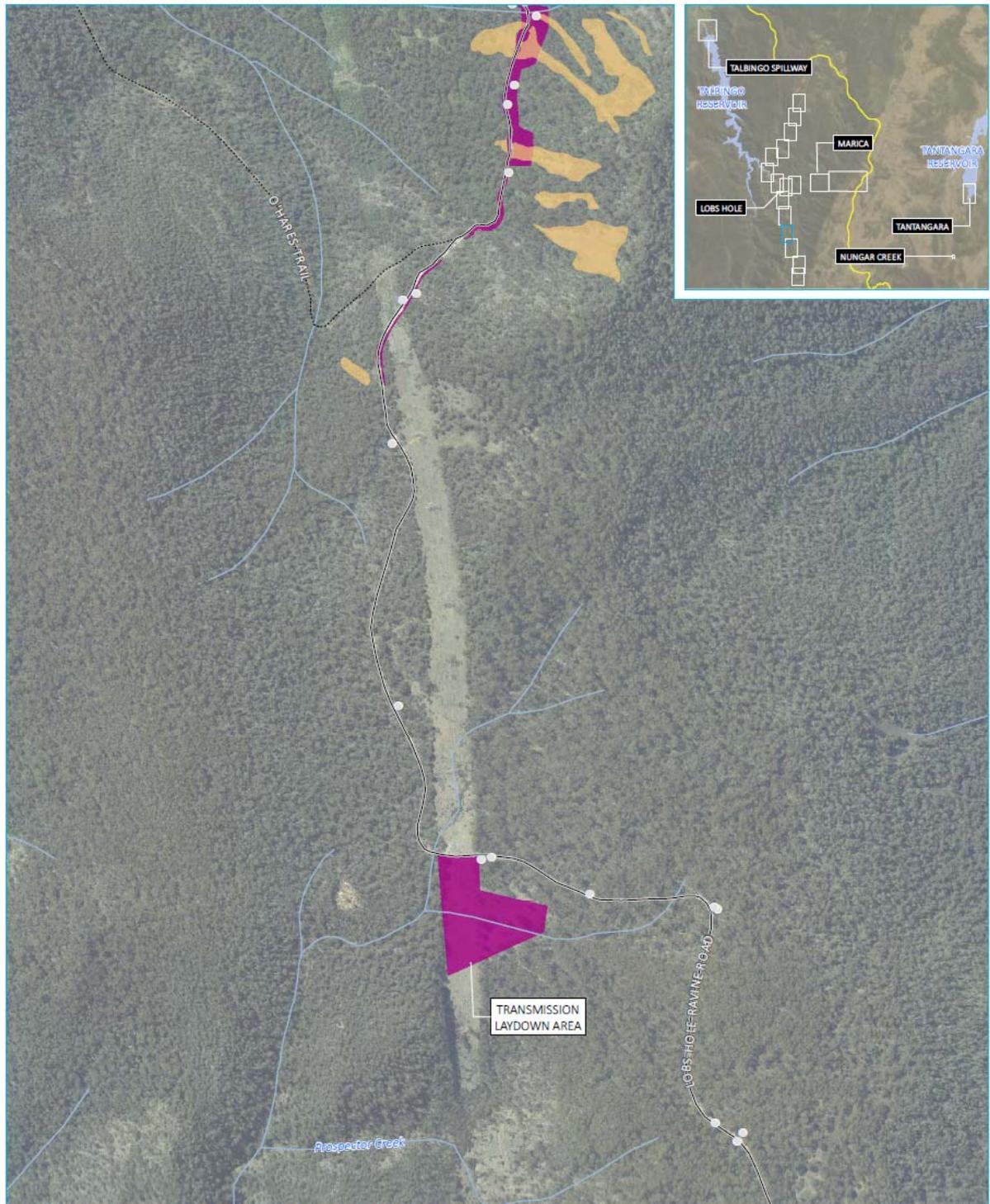
Exploratory Works project boundary
- Lobs Hole Ravine Road (Upper) 2

Snowy 2.0
Exploratory Works

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Figure 2-5: Project Boundary – Lobs Hole Ravine Road (Upper) 3



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Dangerous tree
 - Local road
 - Vehicular track
 - Watercourse/drainage line
 - Boulder stream
 - Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

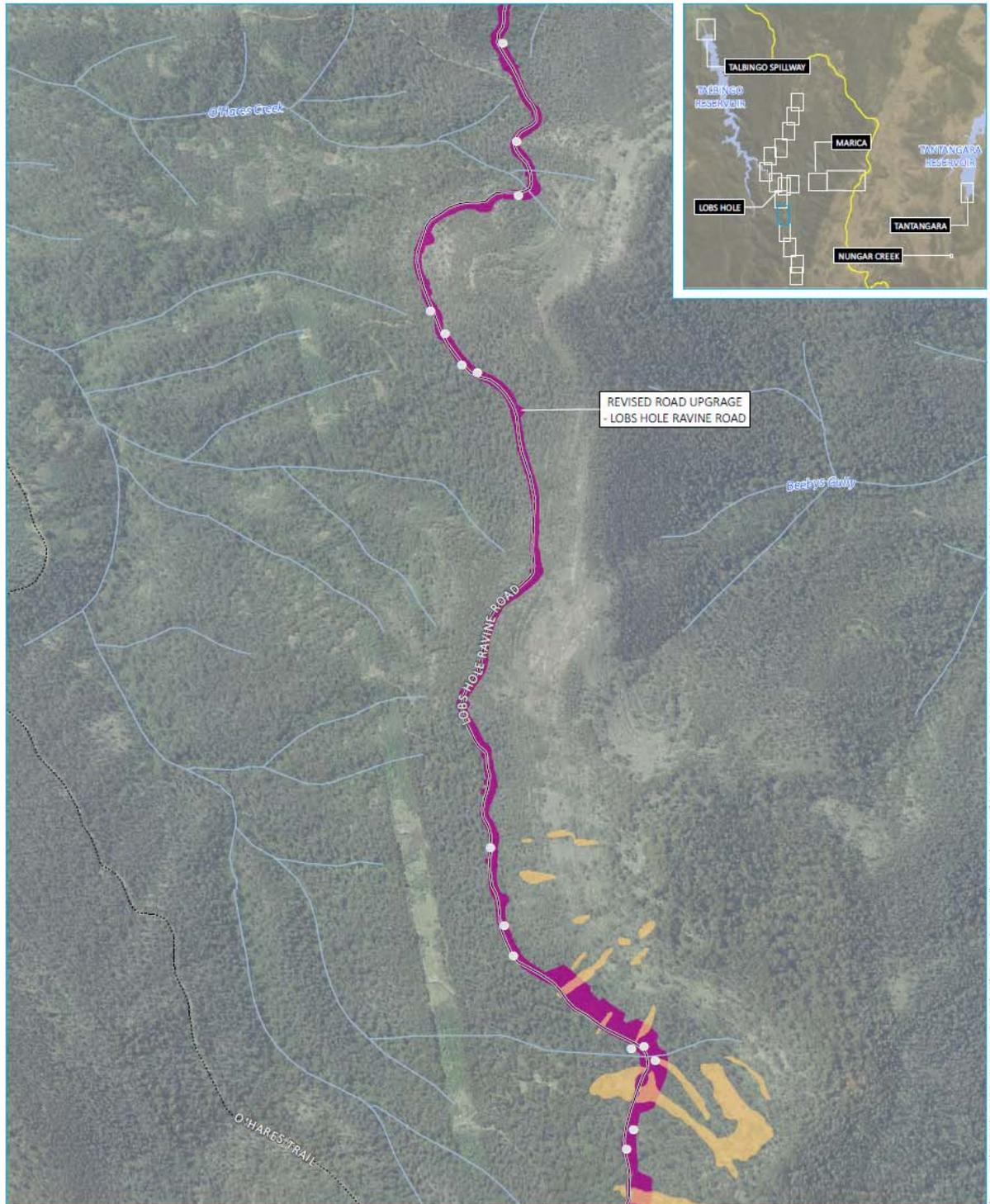
Exploratory Works project boundary
- Lobs Hole Ravine Road (Upper) 3

Snowy 2.0
Exploratory Works

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Figure 2-6: Project Boundary – Lobs Hole Ravine Road (Upper) 3



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

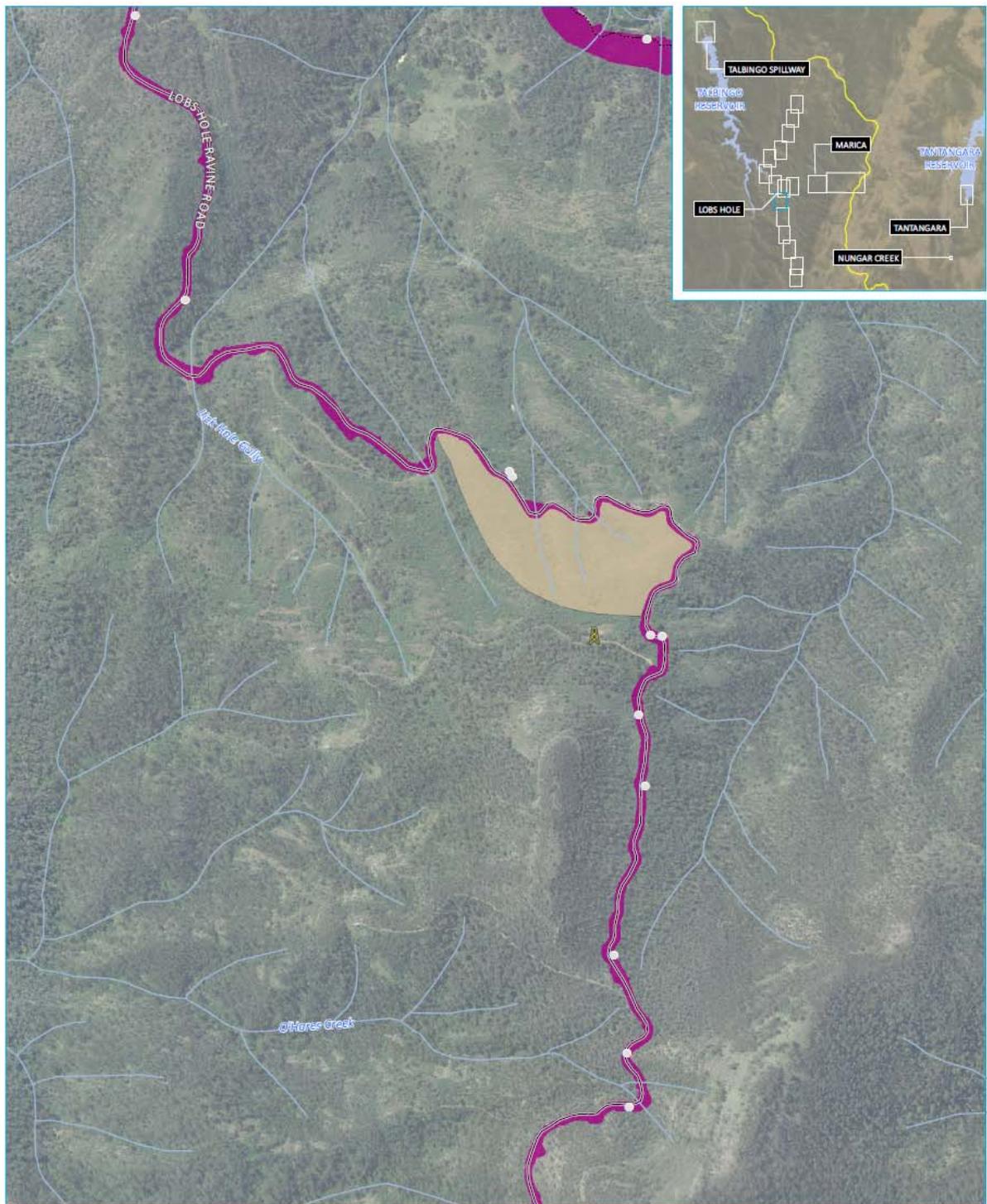
- KEY**
- Dangerous tree
 - Local road
 - Vehicular track
 - Watercourse/drainage line
 - Boulder stream
 - Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55
 Exploratory Works project boundary
 - Lobs Hole Ravine Road (Lower) 1

Snowy 2.0
 Exploratory Works
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Figure 2-7: Project Boundary – Lobs Hole Ravine Road (Lower) 1



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- ▲ Existing temporary communications
- Local road
- Vehicular track
- Watercourse/drainage line
- Fossil area
- █ Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

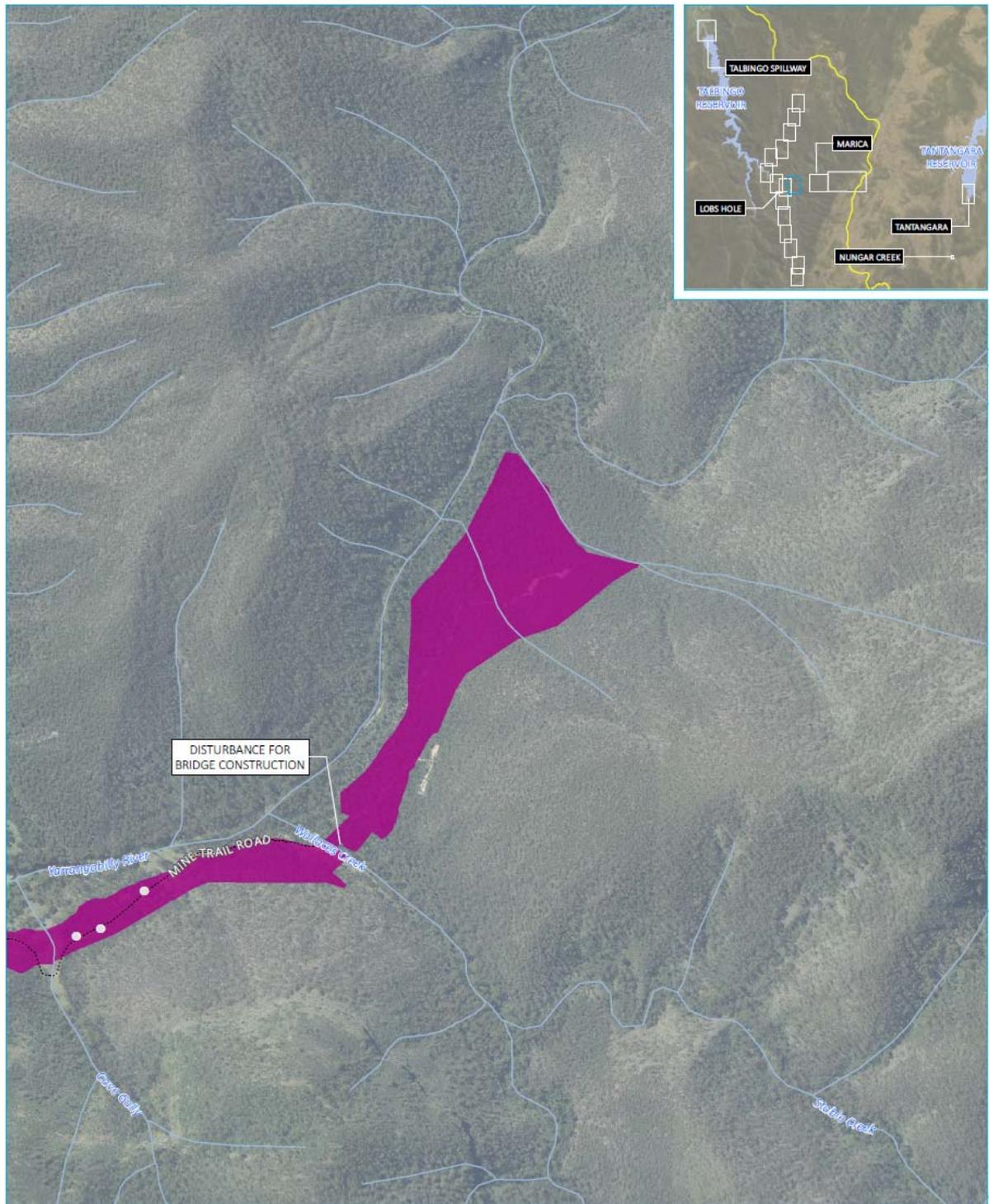
**Exploratory Works project boundary
- Lobs Hole Ravine Road (Lower) 2**

Snowy 2.0
Exploratory Works

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Figure 2-8: Project Boundary – Lobs Hole Ravine Road (Lower) 2



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- Vehicular track
- Watercourse/drainage line
- Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55



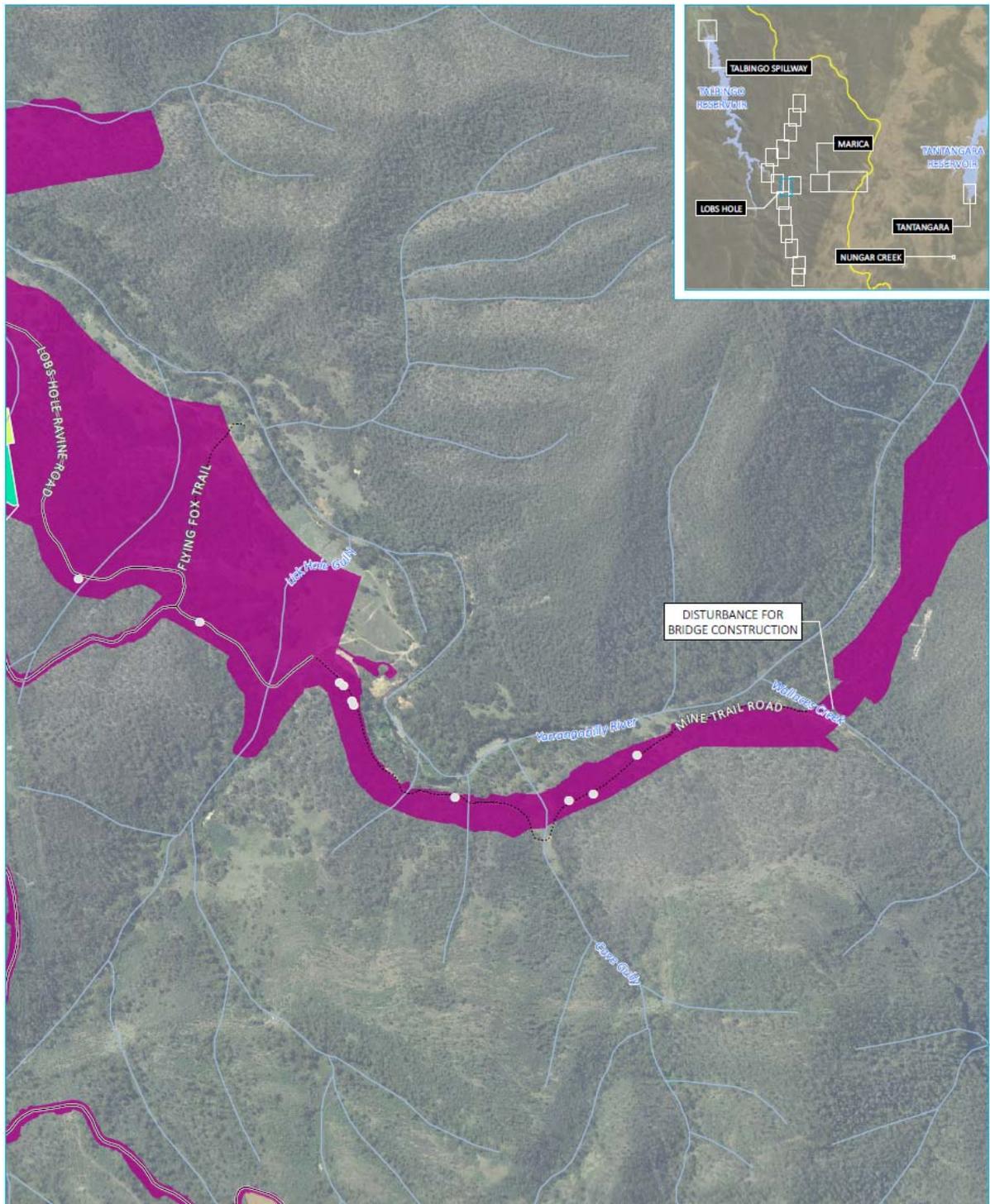
**Exploratory Works project boundary
- Mine Trail Road 1**

Snowy 2.0
Exploratory Works

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Figure 2-9: Project Boundary – Mine Trail Road 1



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- Local road
- Vehicular track
- Watercourse/drainage line
- Indicative laydown area
- Proposed substation
- Fossil area
- Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

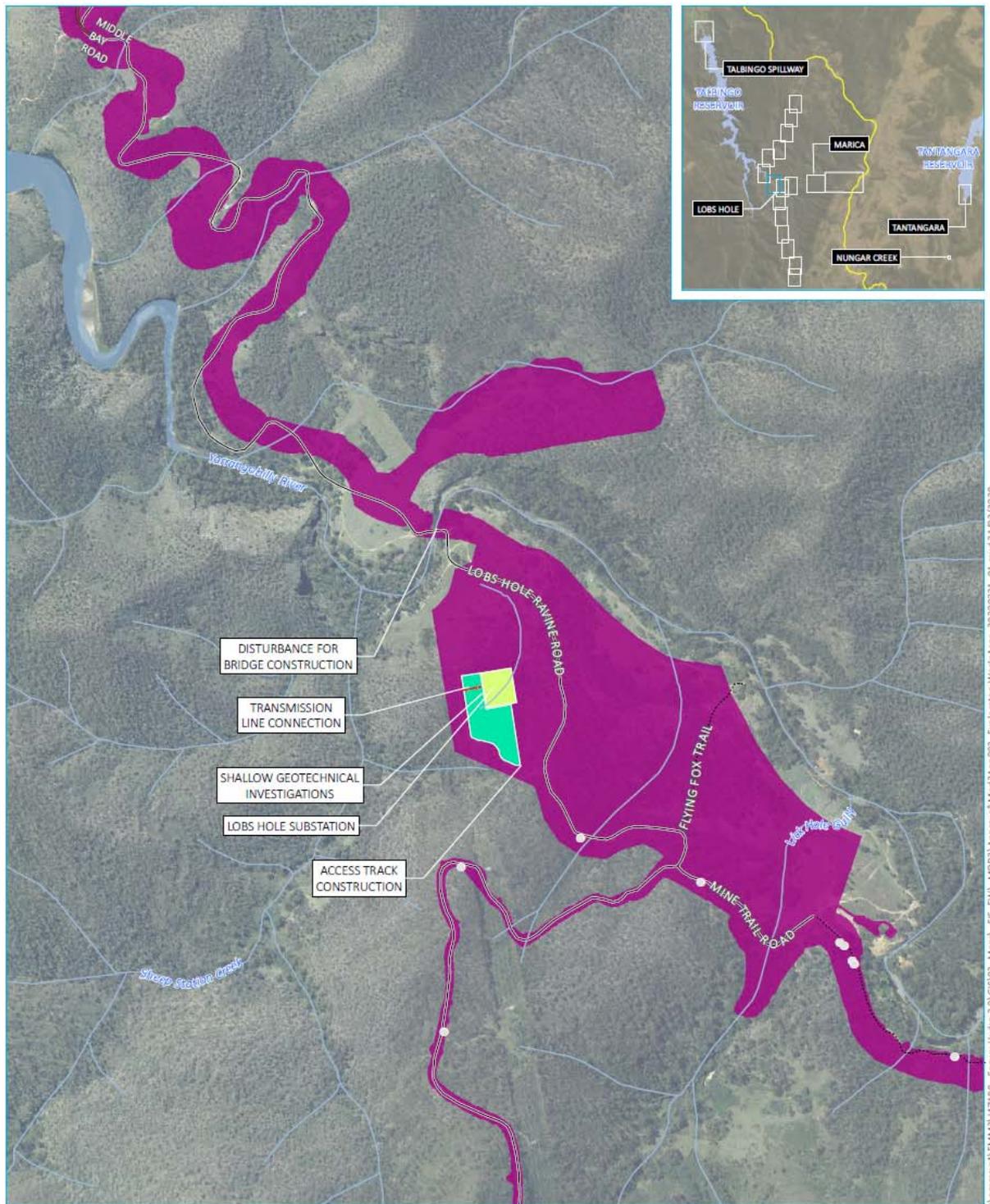
**Exploratory Works project boundary
- Mine Trail Road 2**

Snowy 2.0
Exploratory Works

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Figure 2-10: Project Boundary – Mine Trail Road 2



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Dangerous tree
- Approved EW access
- Transmission line connection
- Local road
- Vehicular track
- Watercourse/drainage line
- Indicative laydown area
- Proposed substation
- Exploratory Works disturbance footprint
- Waterbody

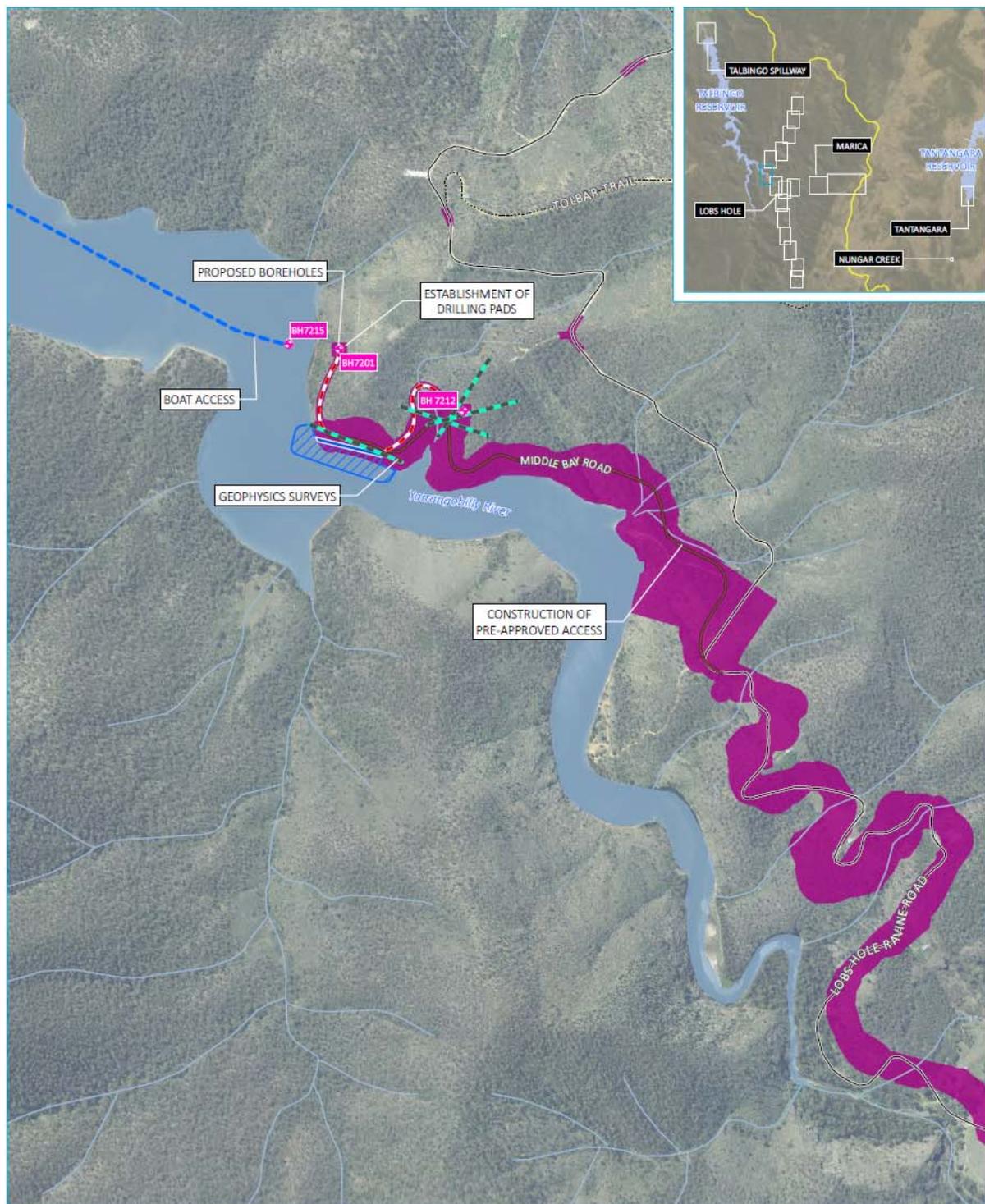
GDA 1994 MGA Zone 55
 Exploratory Works project boundary
 - Lobs Hole

Snowy 2.0
 Exploratory Works

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Figure 2-11: Project Boundary – Lobs Hole



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- ◆ Proposed borehole
 - Proposed geophysics
 - Proposed access track
 - Approved EW access
 - Boat access
 - Local road
 - Vehicular track
 - Watercourse/drainage line
 - ▭ Proposed barge ramp relocation
 - ▨ Proposed disturbance area - barge infrastructure
 - ▭ Exploratory Works disturbance footprint
 - ▭ Waterbody

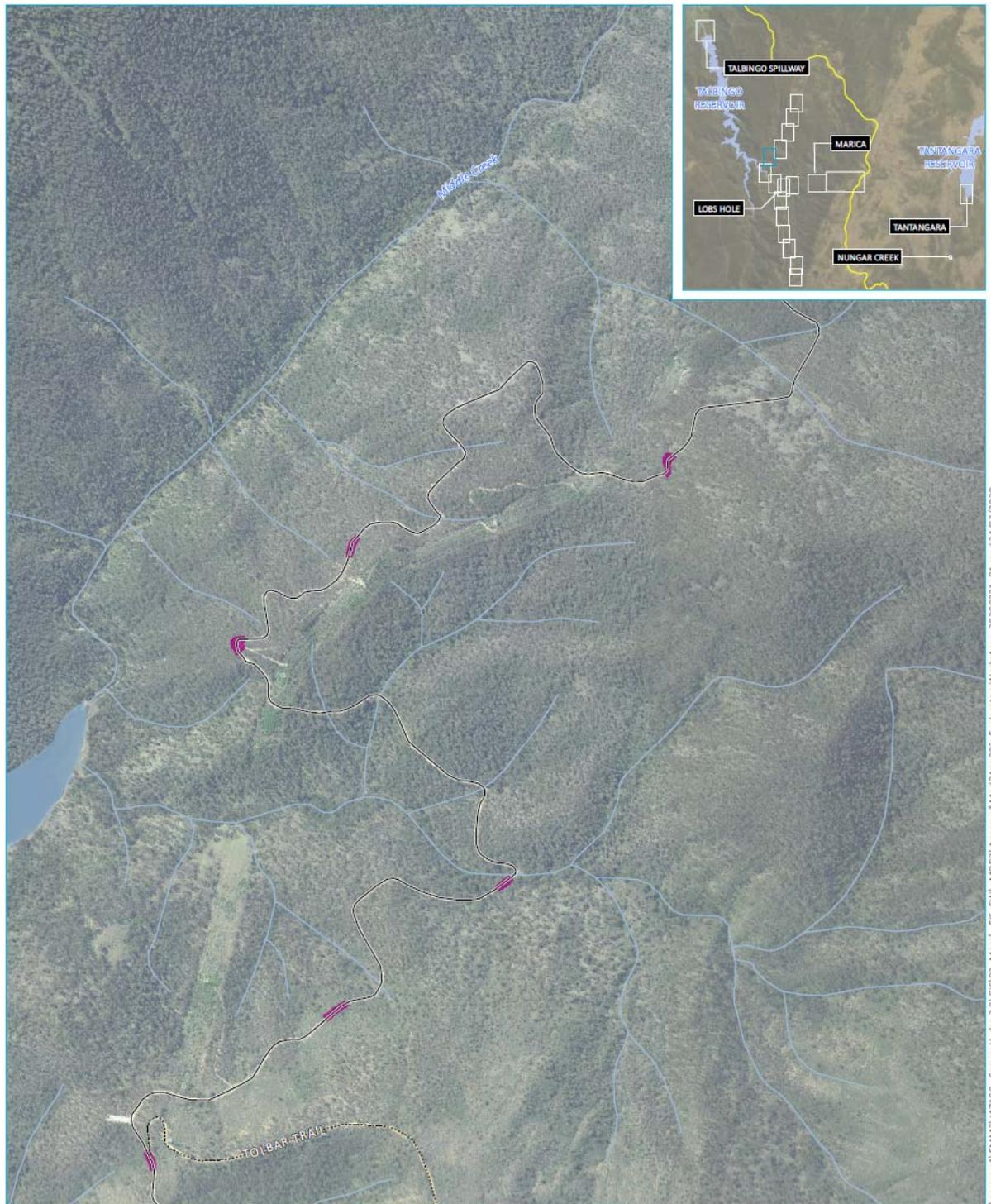
GDA 1994 MGA Zone 55
 Exploratory Works project boundary
 - Lobs Hole Ravine Road

Snowy 2.0
 Exploratory Works

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Figure 2-12: Project boundary – Lobs Hole Ravine Road



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Local road
- - - Vehicular track
- Watercourse/drainage line
- Exploratory Works disturbance footprint
- Waterbody

GDA 1994 MGA Zone 55

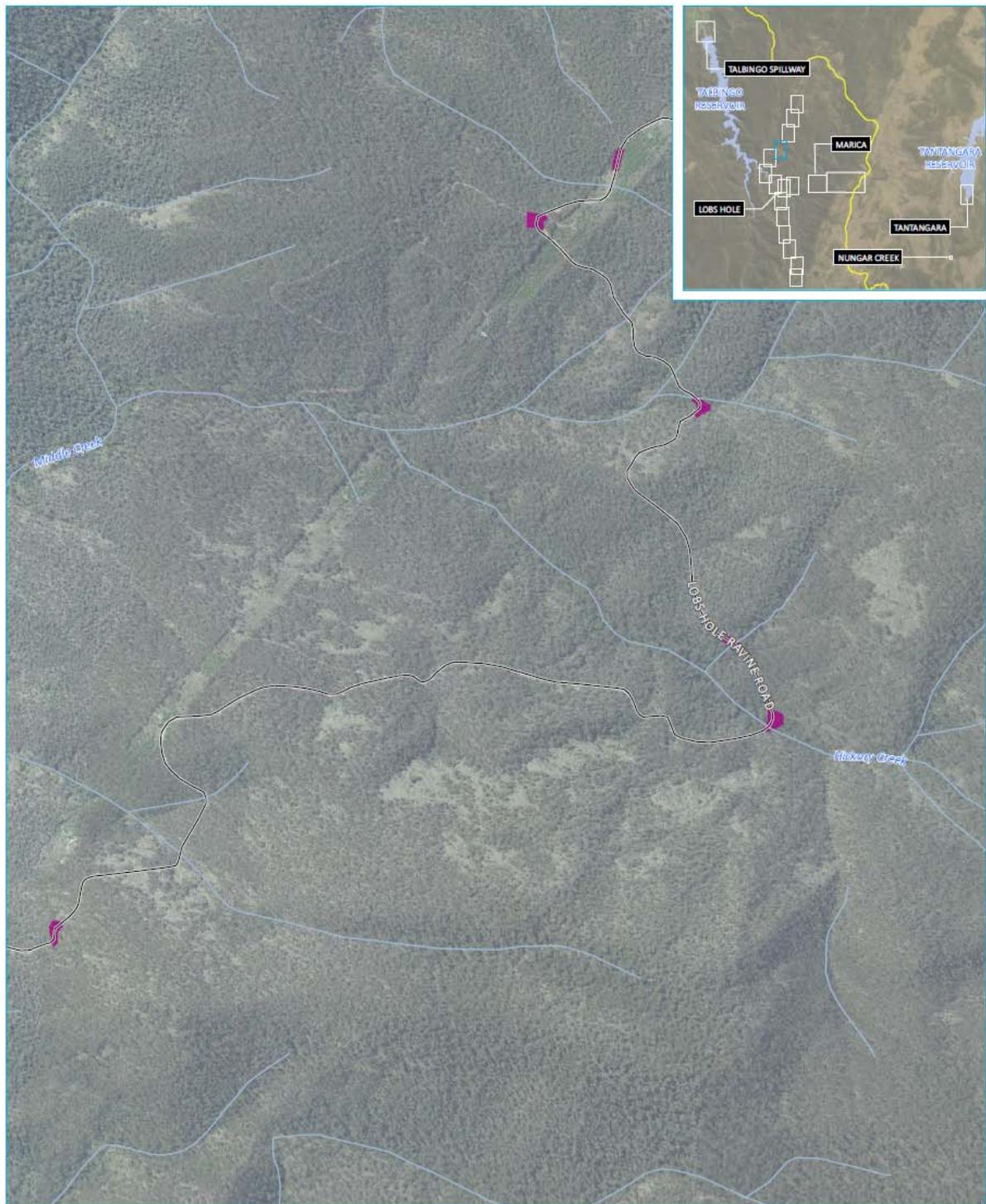
Exploratory Works project boundary
- Lobs Hole Ravine Road north (1)

Snowy 2.0
Exploratory Works

11



Figure 2-13: Project boundary – Lobs Hole Ravine Road north (1)



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Local road
 - Watercourse/drainage line
 - Exploratory Works disturbance footprint

GDA 1994 MGA, Zone 55

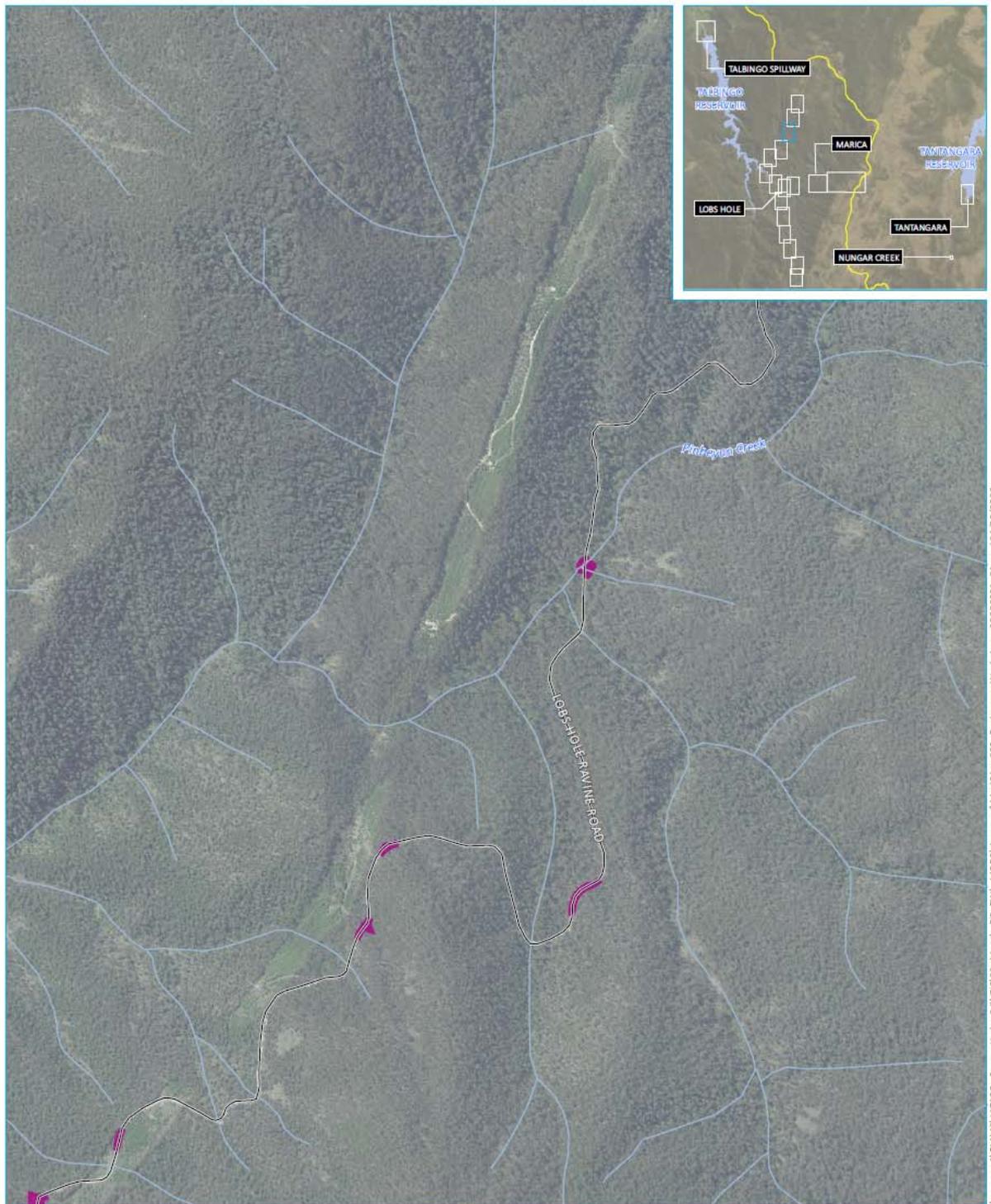
Exploratory Works project boundary
- Lobs Hole Ravine Road north (2)

Snowy 2.0
Exploratory Works

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Figure 2-14: Project boundary – Lobs Hole Ravine Road north (2)



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Local road
 - Watercourse/drainage line
 - █ Exploratory Works disturbance footprint

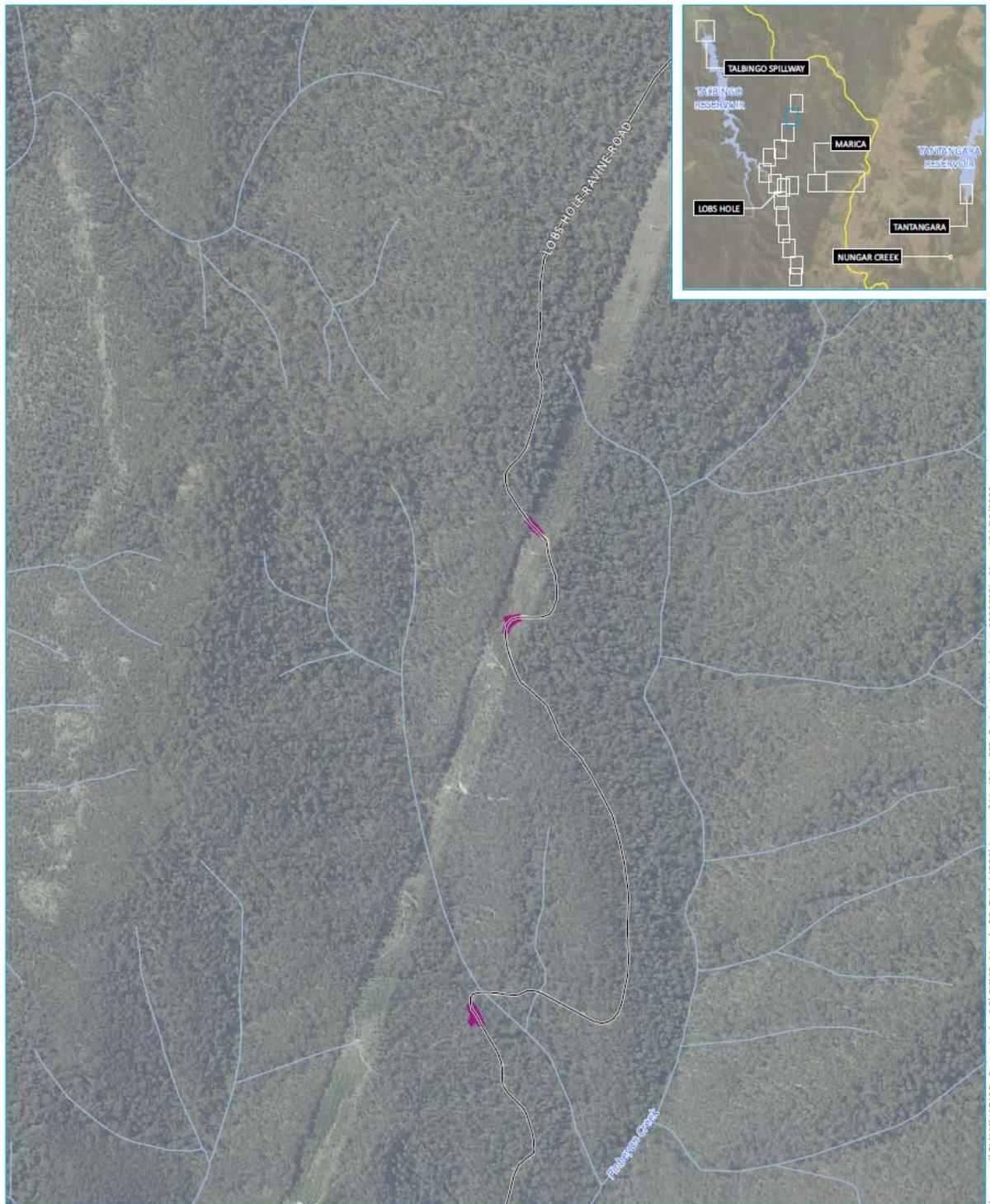
GDA 1994 MGA Zone 55
 Exploratory Works project boundary
 - Lobs Hole Ravine Road north (3)

Snowy 2.0
 Exploratory Works

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Figure 2-15: Project boundary – Lobs Hole Ravine Road north (3)



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Local road
- - - Vehicular track
- Watercourse/drainage line
- Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

Exploratory Works project boundary
- Lobs Hole Ravine Road north (4)

Snowy 2.0
Exploratory Works

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Figure 2-16: Project boundary – Lobs Hole Ravine Road north (4)



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Local road
 - Vehicular track
 - Watercourse/drainage line
 - █ Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

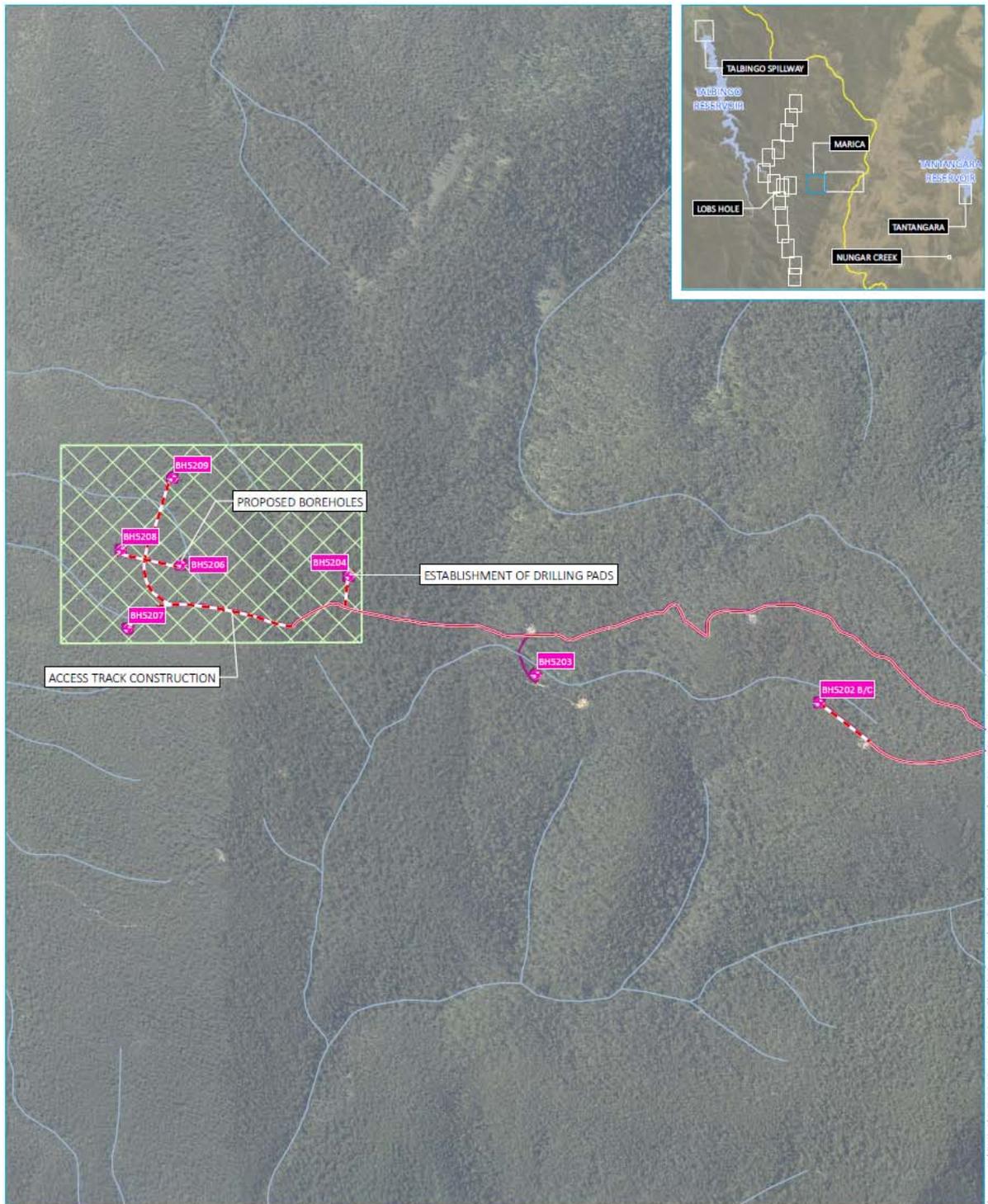
Exploratory Works project boundary
- Lobs Hole Ravine Road north (5)

Snowy 2.0
Exploratory Works

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Figure 2-17: Project boundary – Lobs Hole Ravine Road north (5)



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

-  Proposed borehole
-  Existing access track
-  Proposed access track
-  Watercourse/drainage line
-  Boreholes requiring on-site adjustment
-  Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

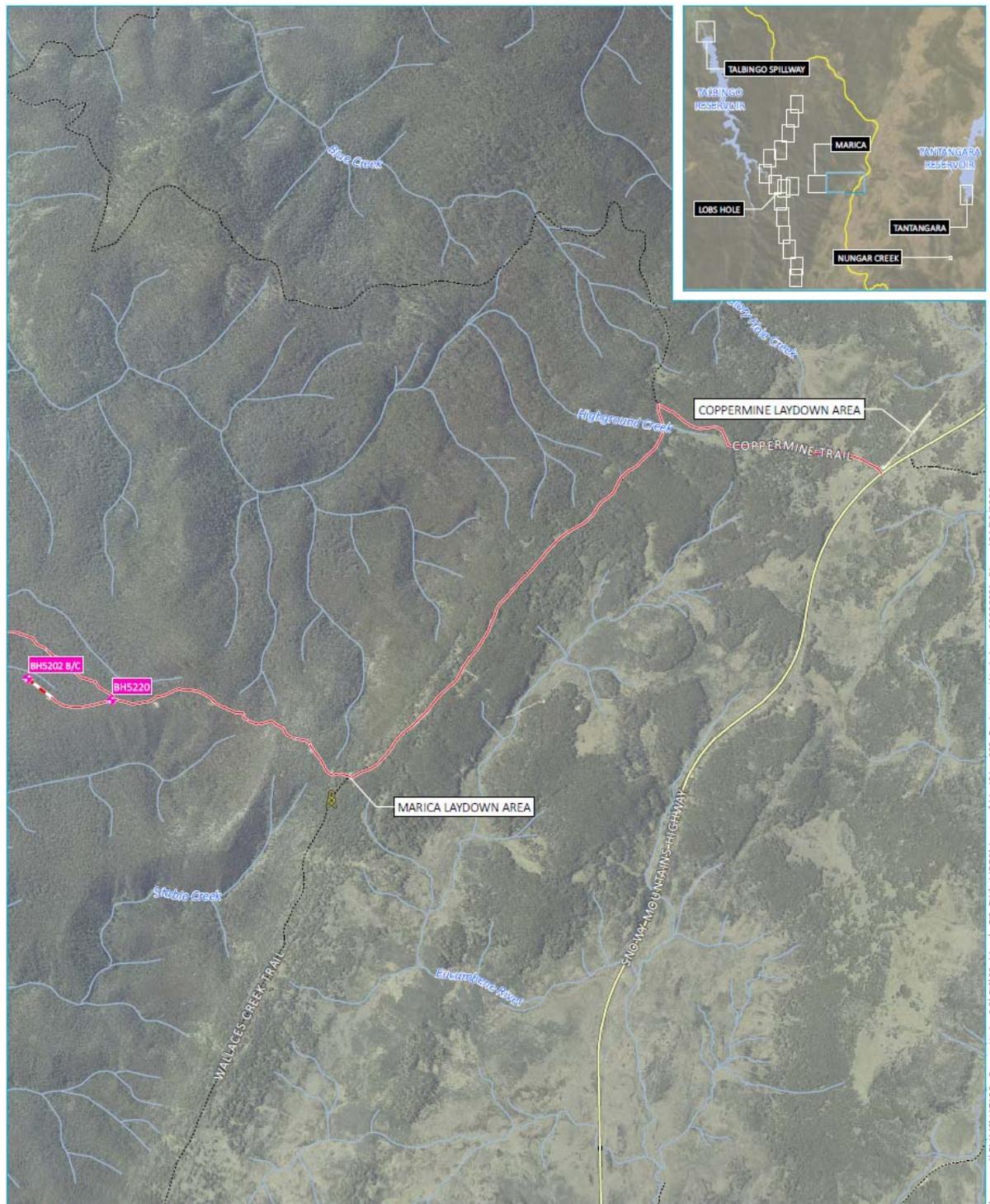
Exploratory Works project boundary
- Marica 1

Snowy 2.0
Exploratory Works

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Figure 2-18: Project boundary – Marica 1



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Proposed borehole
 - Existing temporary communications
 - Existing access track
 - Proposed access track
 - Main road
 - Vehicular track
 - Watercourse/drainage line
 - Exploratory Works disturbance footprint

GDA 1994 MGA Zone 55

Exploratory Works project boundary
- Marica 2

Snowy 2.0
Exploratory Works

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Figure 2-19: Project boundary – Marica 2



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

KEY

- Proposed borehole
- Main road
- Watercourse/drainage line
- Exploratory Works disturbance footprint
- Proposed work area

GDA 1994 MGA Zone 55



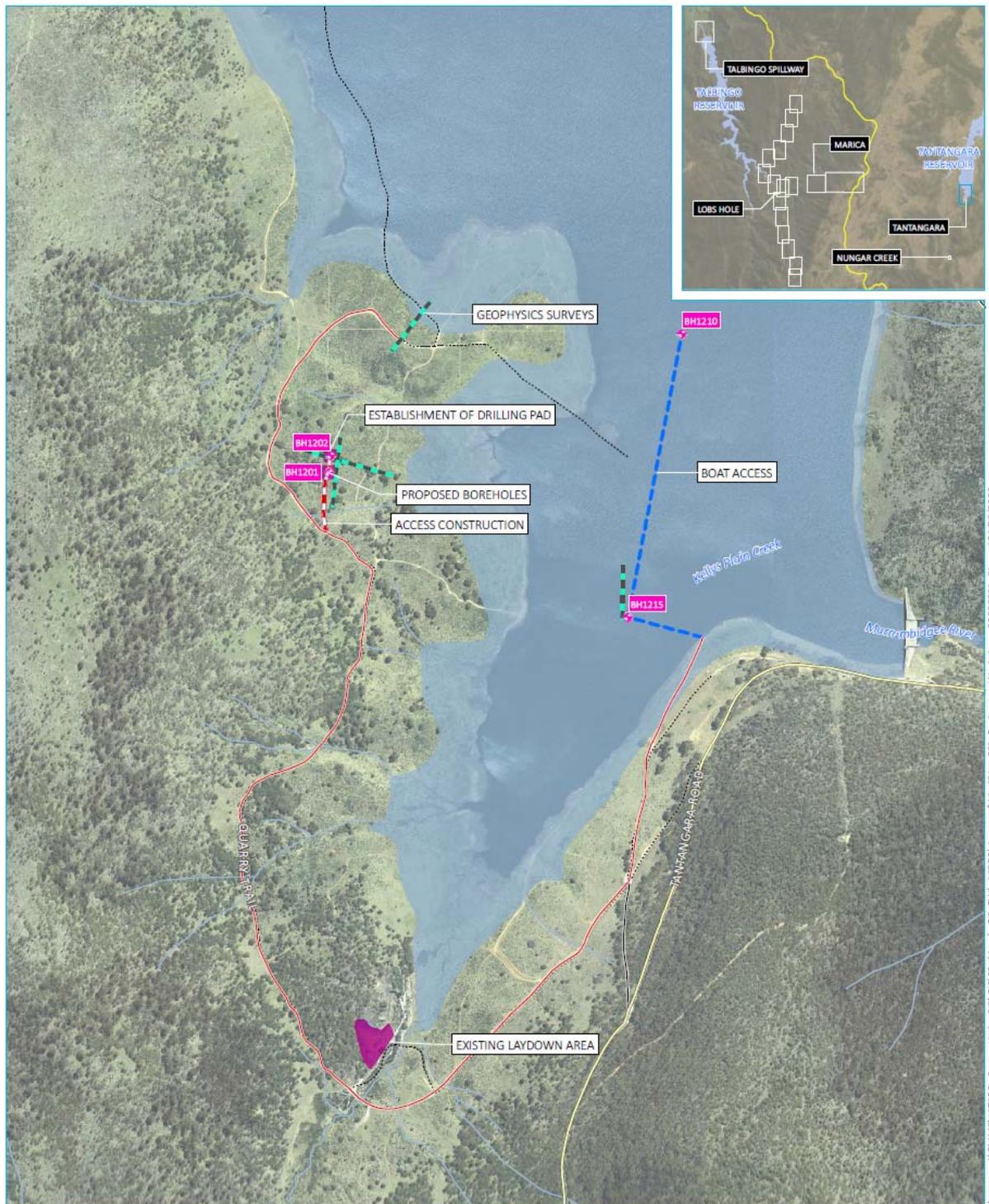
Exploratory Works project boundary
- Nungar Creek

Snowy 2.0
Exploratory Works

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Figure 2-20: Project boundary – Nungar Creek



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- ◆ Proposed borehole
 - Proposed geophysics
 - Existing access track
 - - - Proposed access track
 - Boat access
 - = Main road
 - Local road
 - - - Vehicular track
 - Watercourse/drainage line
 - Exploratory Works disturbance footprint
 - Waterbody

GDA 1994 MGA Zone 55

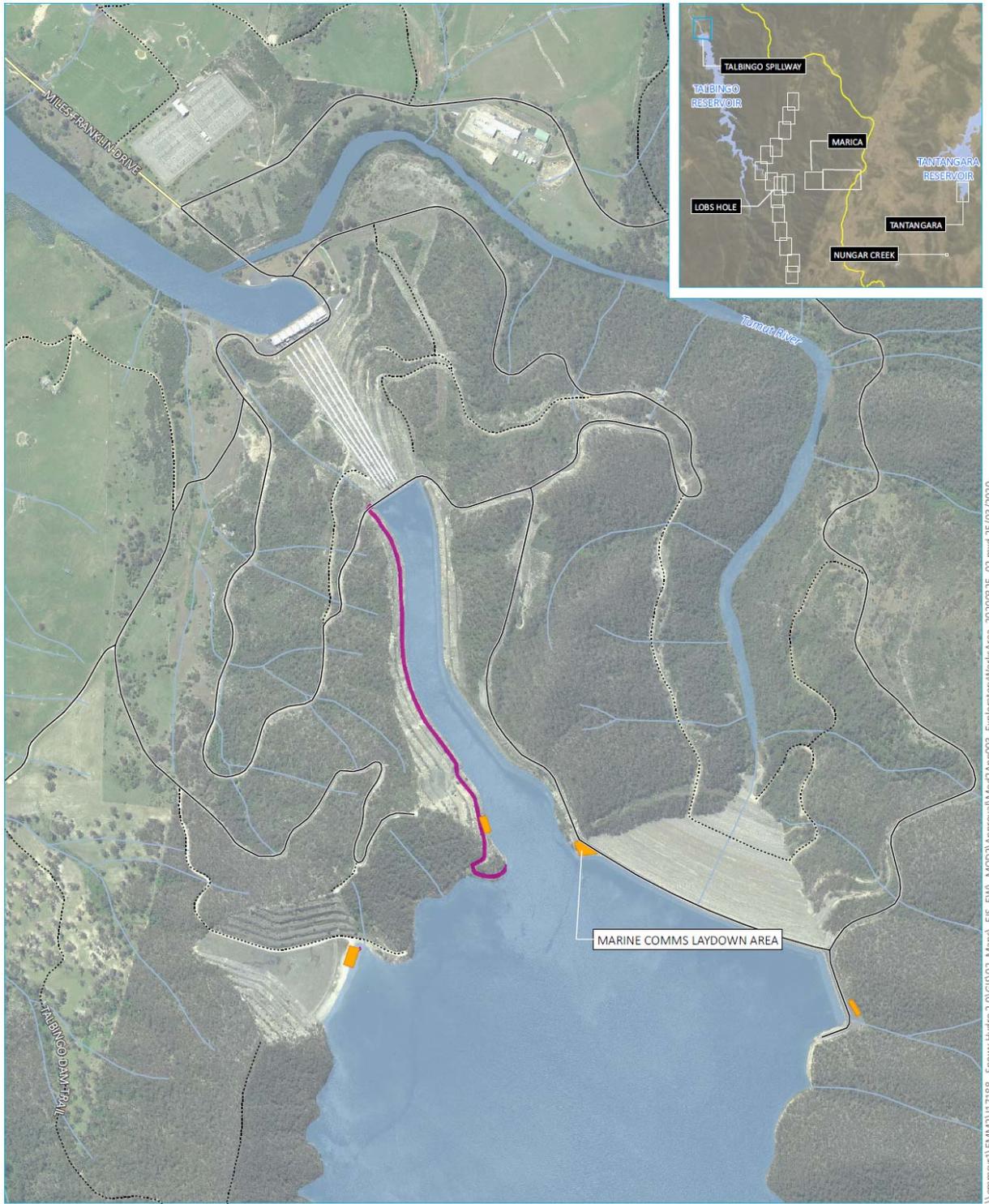
**Exploratory Works project boundary
- Tantangara Reservoir**

Snowy 2.0
Exploratory Works

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Figure 2-21: Project boundary – Tantangara Reservoir



Source: EMM (2019); Snowy Hydro (2019); SMEC (2019); DFSI (2017); GA (2015); LPMA (2011)

- KEY**
- Main road
 - Local road
 - Vehicular track
 - Watercourse/drainage line
 - Marine comms laydown (proposed)
 - Exploratory Works disturbance footprint
 - Waterbody

GDA 1994 MGA Zone 55

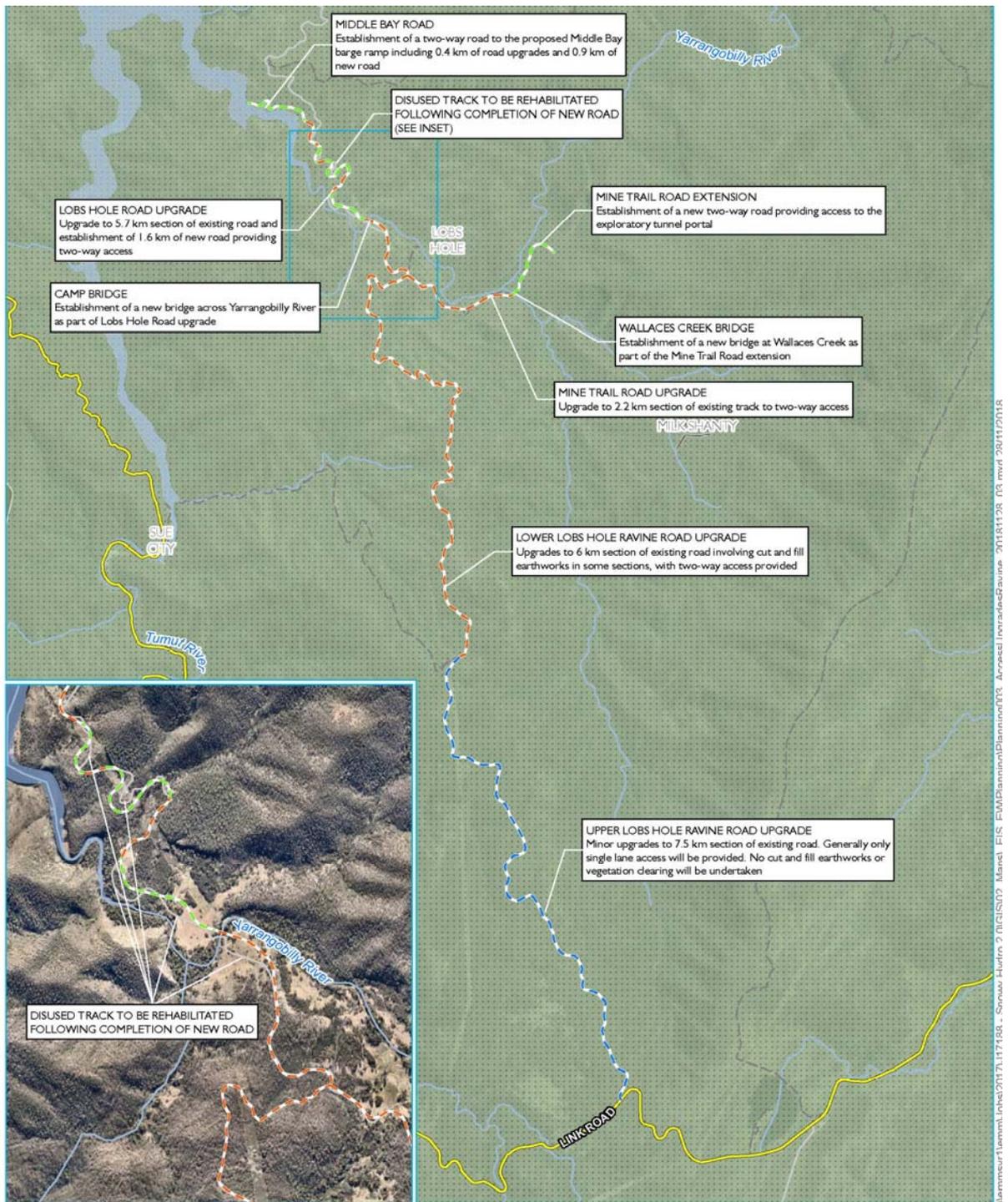
Exploratory Works project boundary
- Talbingo spillway

Snowy 2.0
Exploratory Works

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Figure 2-22: Project boundary – Talbingo spillway



Source: EMM (2018); Snowy Hydro (2018); SMEC (2018); DFSI (2017); GA (2015); LPMA (2011)

KEY

- - Access road upgrade - without widening
- - Access road upgrade - with widening
- - Access road extension
- - Main road
- - Local road
- - Vehicular track
- - Perennial watercourse
- - Scheme storage
- - Kosciuszko National Park
- - State forest

Road upgrades / new roads in the Ravine area

Snowy 2.0
Exploratory Works

Figure 3



Figure 2-23: Road Upgrades - Ravine

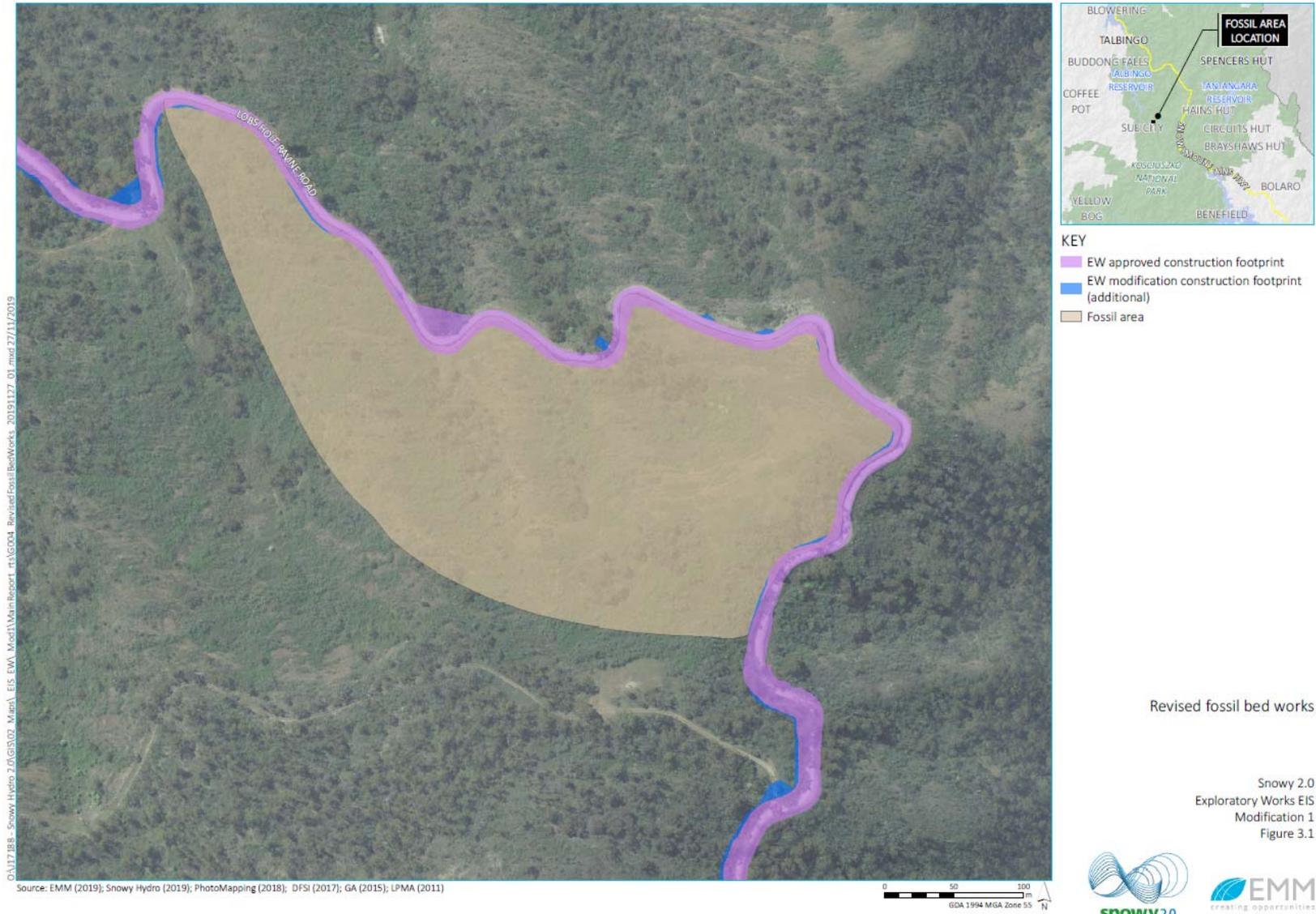
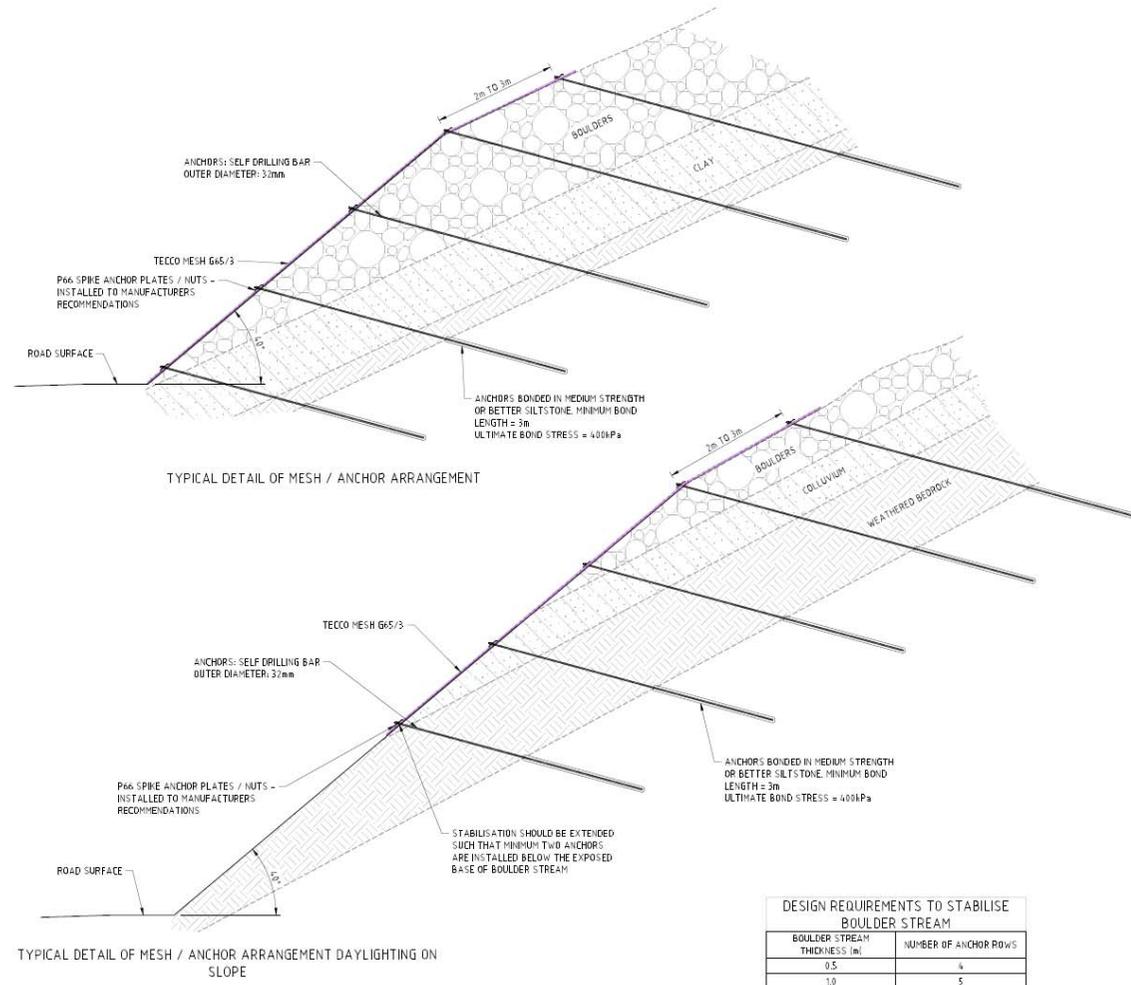


Figure 2-26: Road Upgrades Option 2 Layout Lower Lobs Hole Ravine Road



DESIGN REQUIREMENTS TO STABILISE BOULDER STREAM	
BOULDER STREAM THICKNESS (m)	NUMBER OF ANCHOR ROWS
0.5	4
1.0	5

NOT FOR CONSTRUCTION

**SNOWY 2.0
TYPICAL BOULDERFIELD SECTION**

**INFORMATION DOCUMENT
S2-191121-INF-BOULDERFIELD-001**



W:\INF\FILE LOCATIONS\NAME
W:\INF\PROJECTS\3001259\3001_000\040\86_040\53-19121-INF-BOULDERFIELD\02-19121-INF-BOULDERFIELD-001.dwg

Figure 2-27: Road Upgrades – Boulder Streams – Lower Lobs Hole Ravine Road – Cross Section

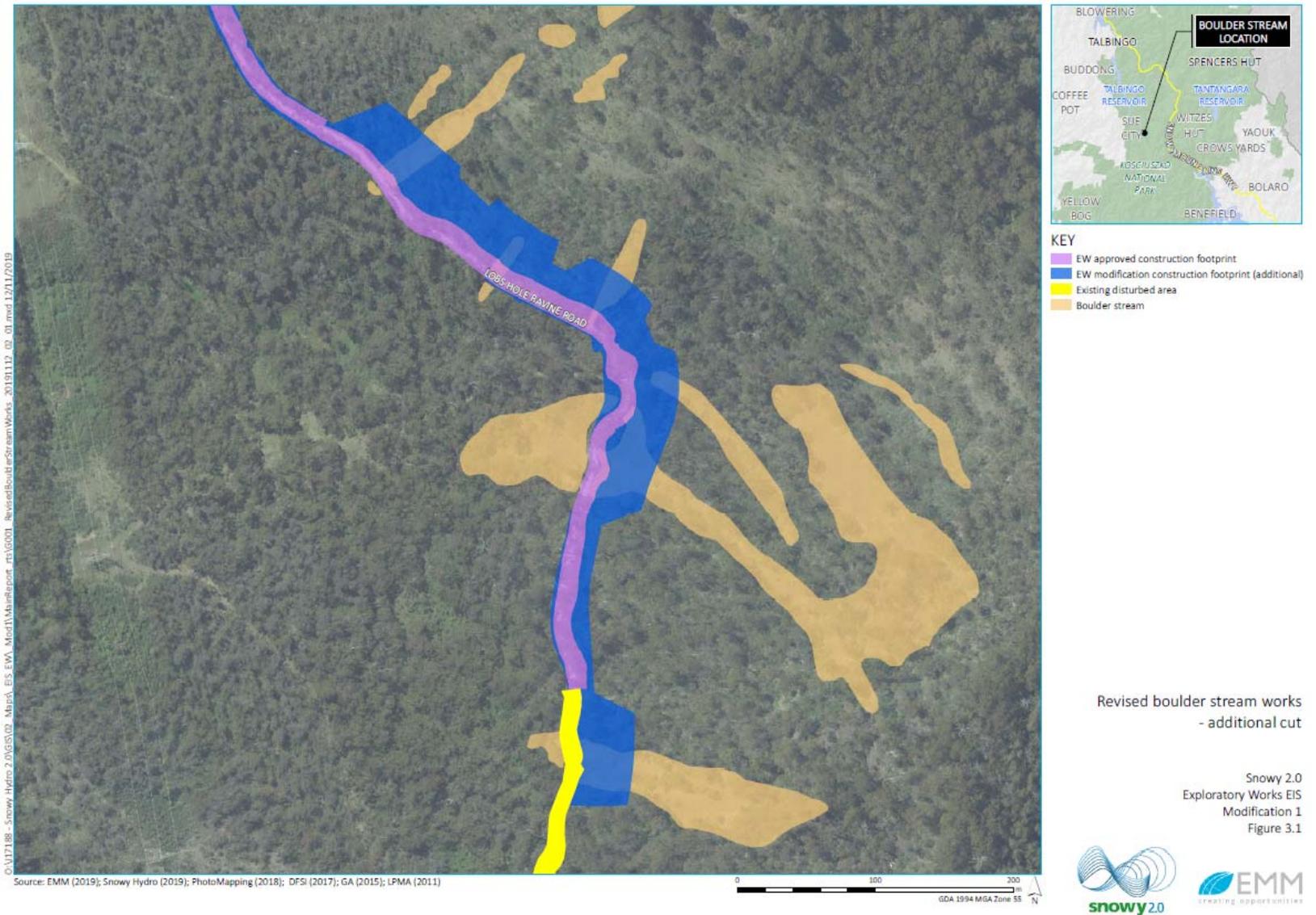


Figure 2-28: Road Upgrades – Boulder Streams – Lower Lobs Hole Ravine Road

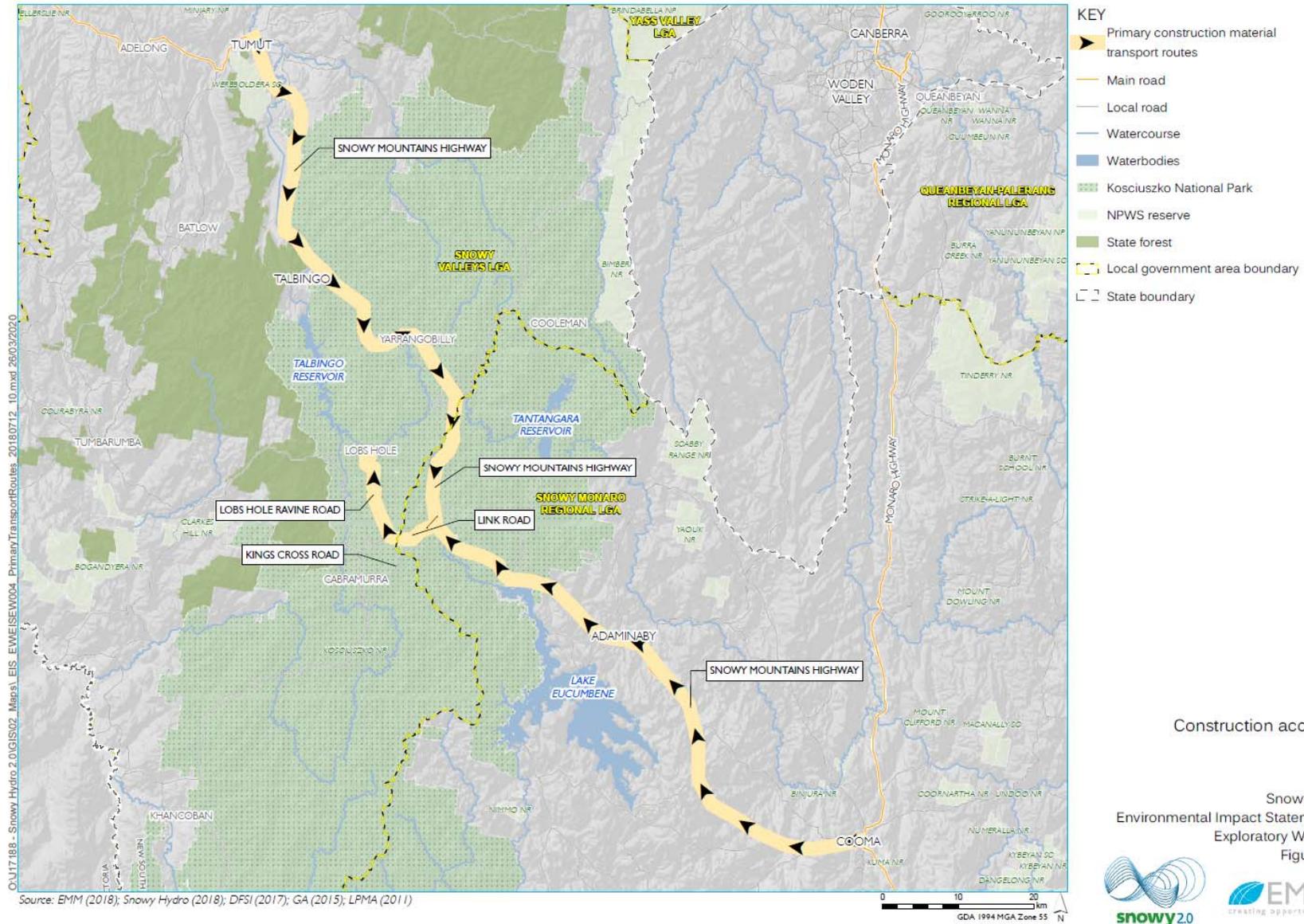
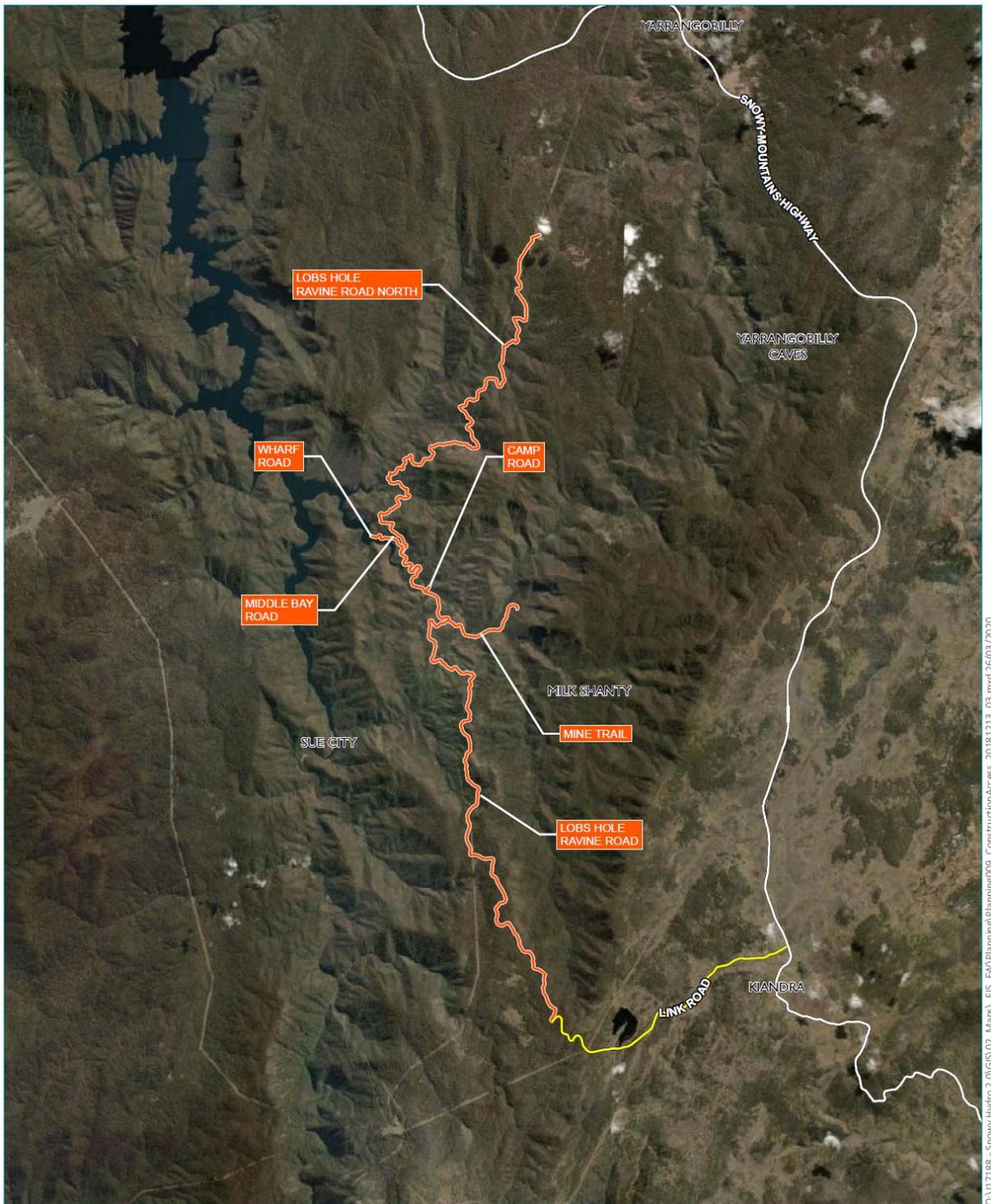


Figure 2-29: Construction material transport routes



Source: EMM (2018); Snowy Hydro (2018); SMEC (2018); DFSI (2017)

KEY

-  Snowy Mountains Highway
-  Non-RMS roads requiring dilapidation assessment and maintenance
- Construction access**
-  Closed for public access during project construction



Construction access

Snowy 2.0

Exploratory Works
Figure 2



Figure 2-30: Public Access Closures

21. In Appendix 3, delete figures 3-1, 3-3, 3-4, 3-5, 3-6 and 3-8, and replace with the following in numerical order:

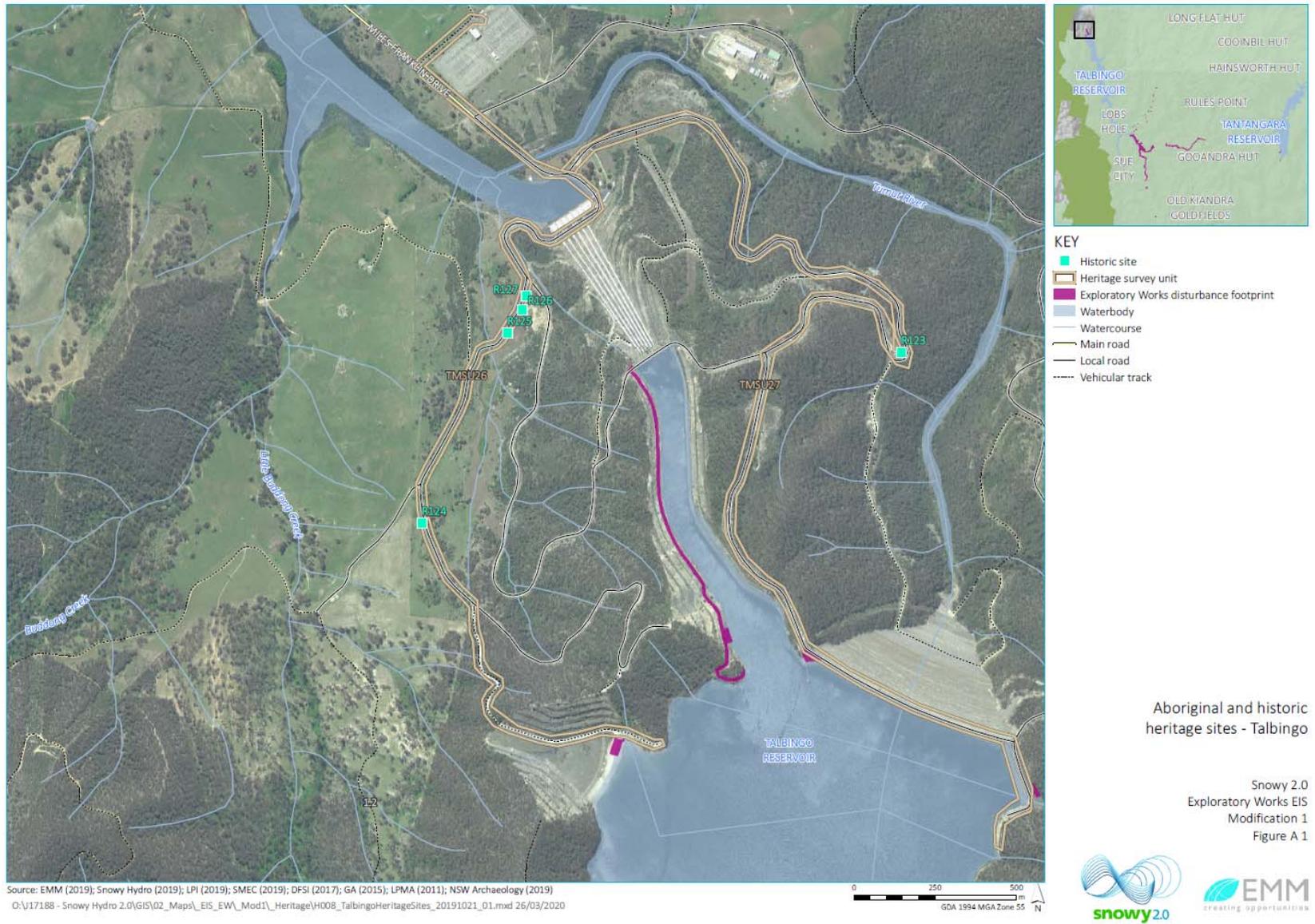


Figure 3-1: Aboriginal and historic heritage sites – Talbingo

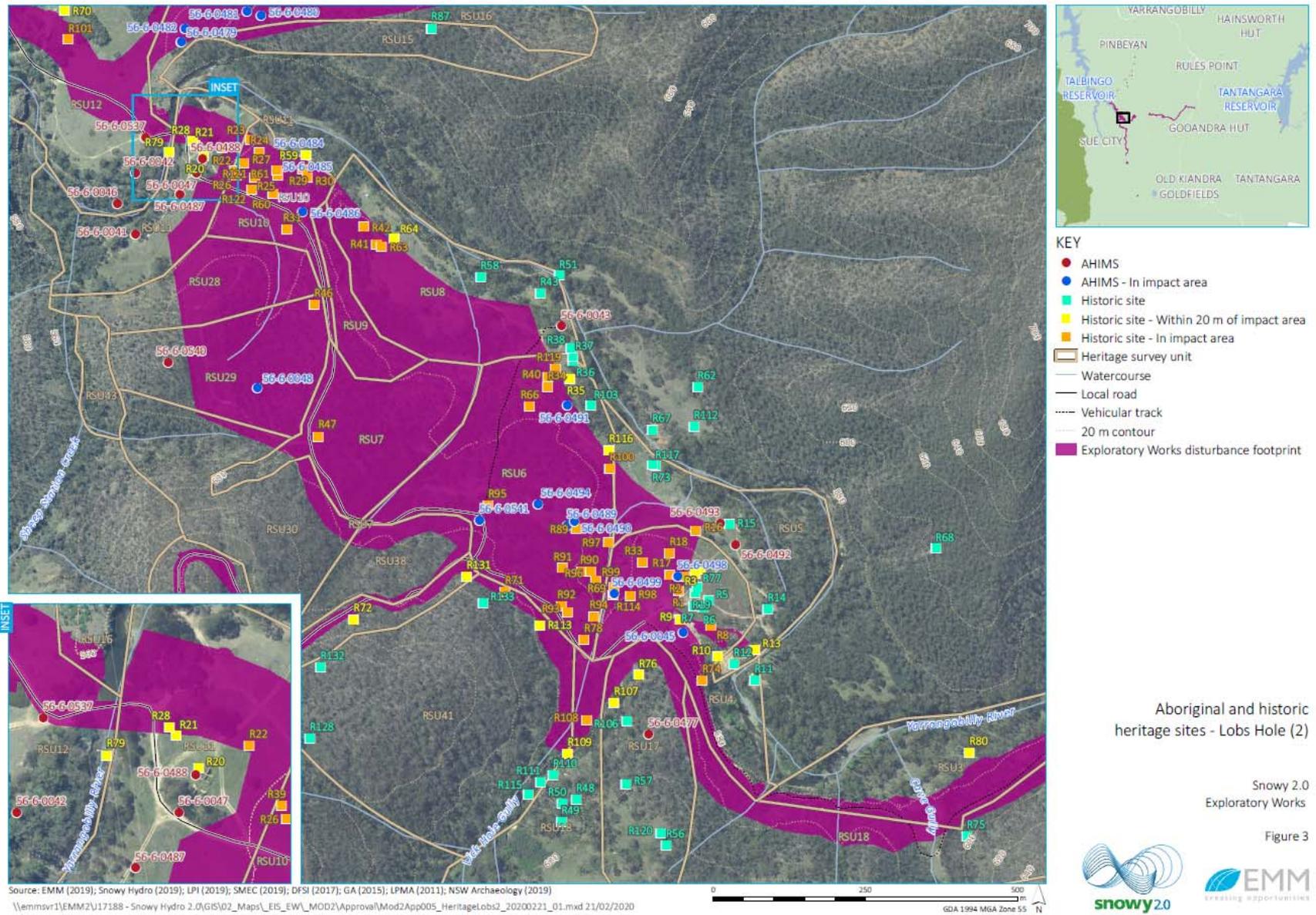


Figure 3-3: Aboriginal and historic heritage sites – Lobs Hole

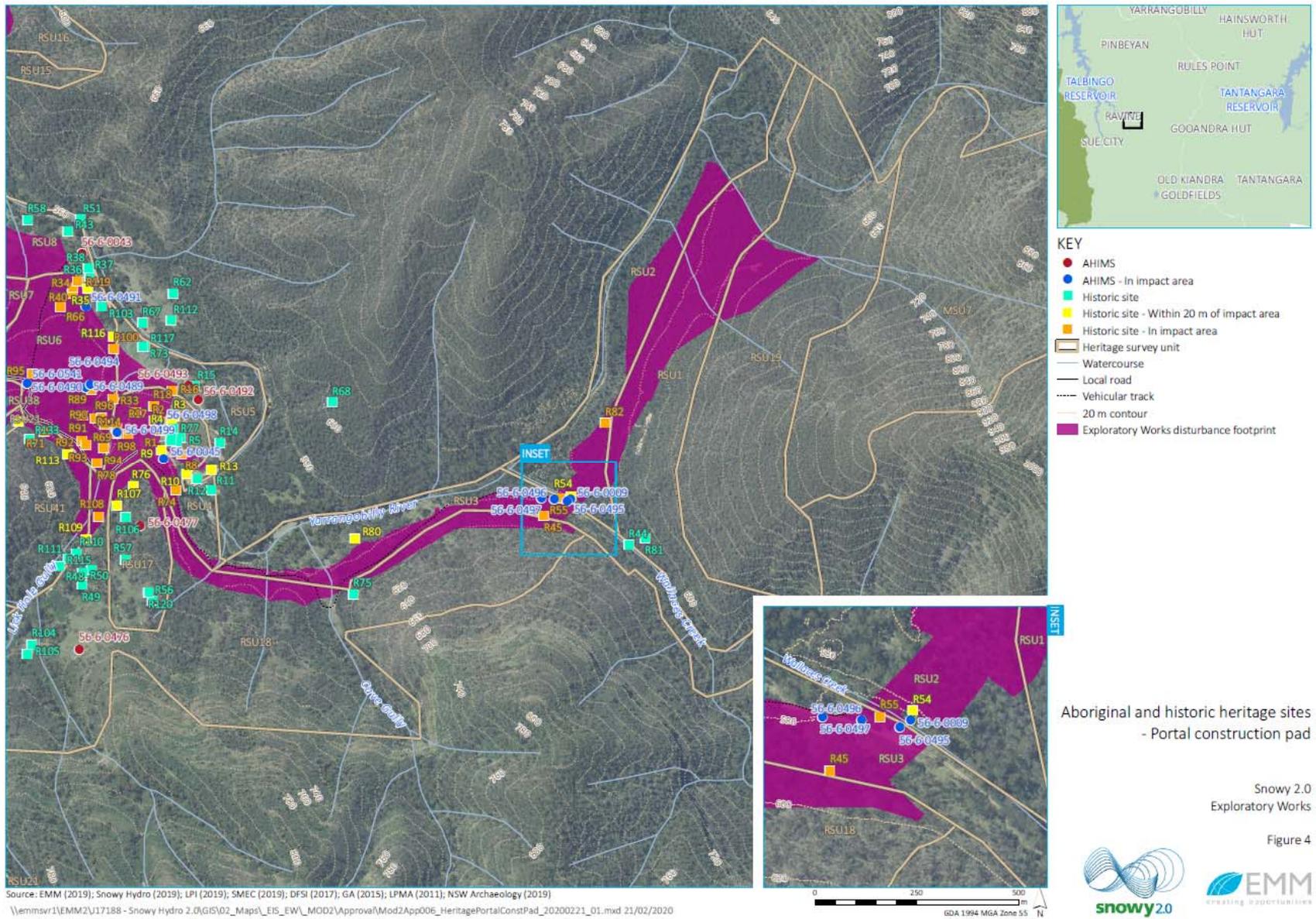


Figure 3-4: Aboriginal and historic heritage sites – Lobs Hole

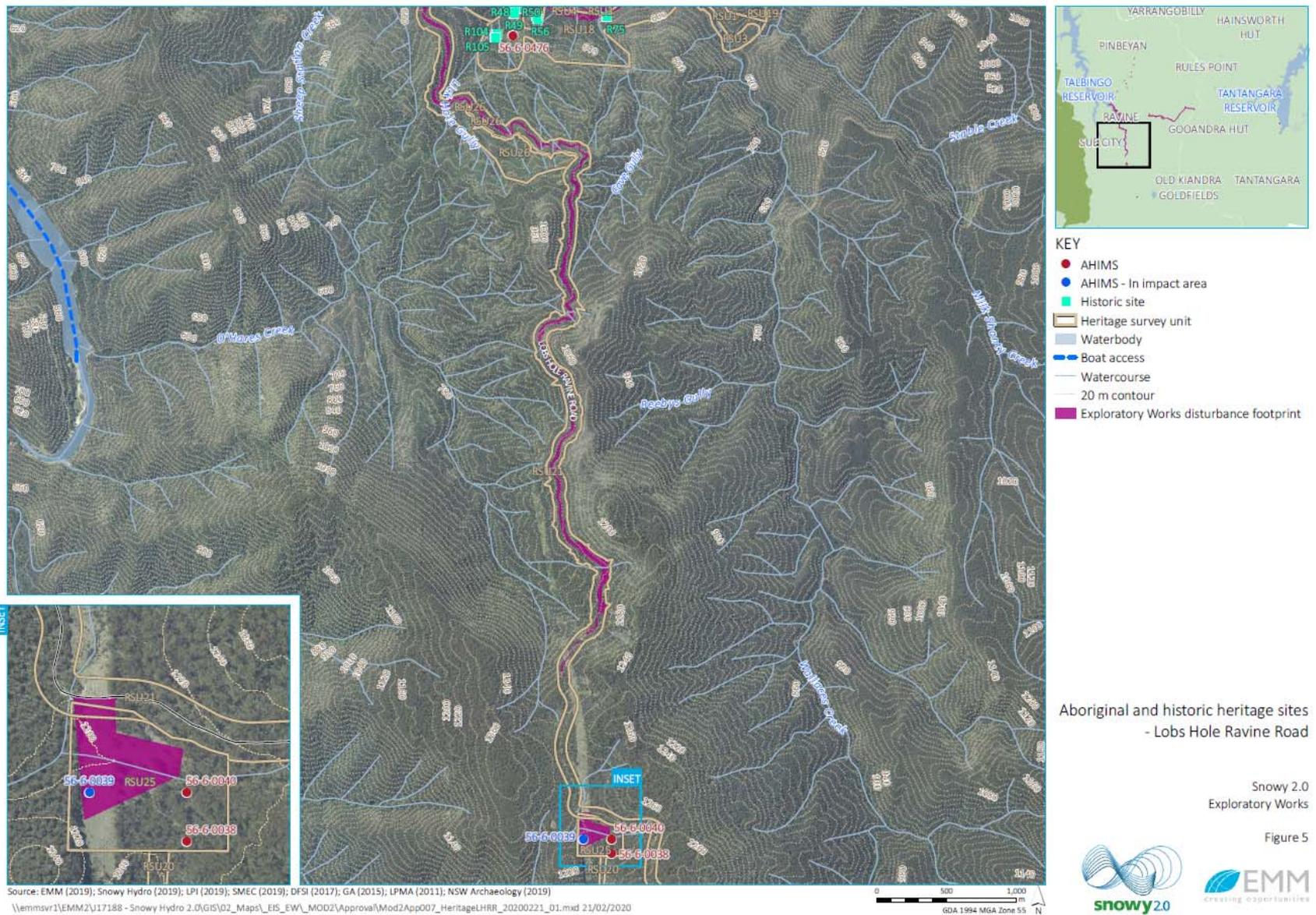


Figure 3-5: Aboriginal and historic heritage sites – Lobs Hole Ravine Road

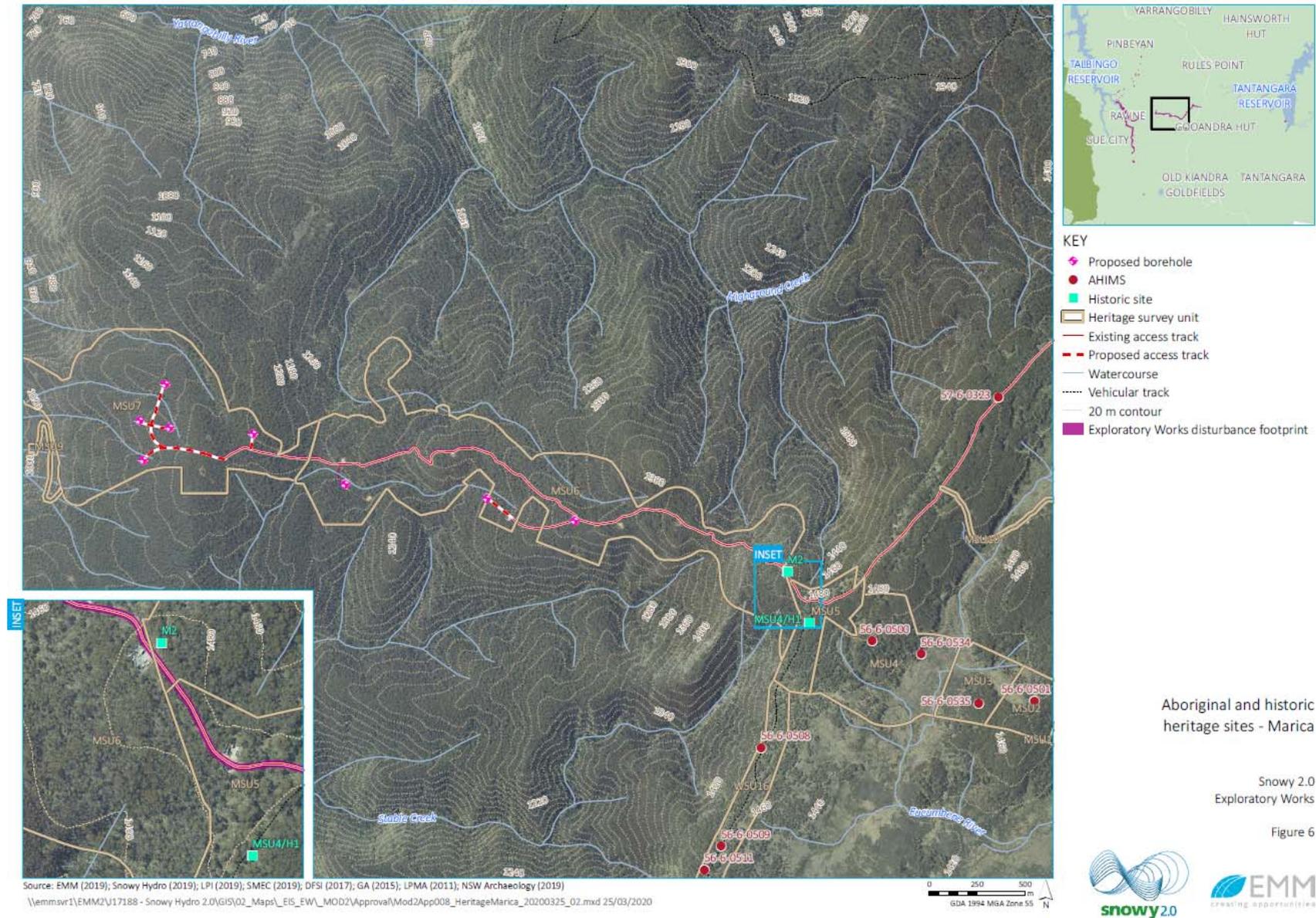


Figure 3-6: Aboriginal and historic heritage sites – Marica

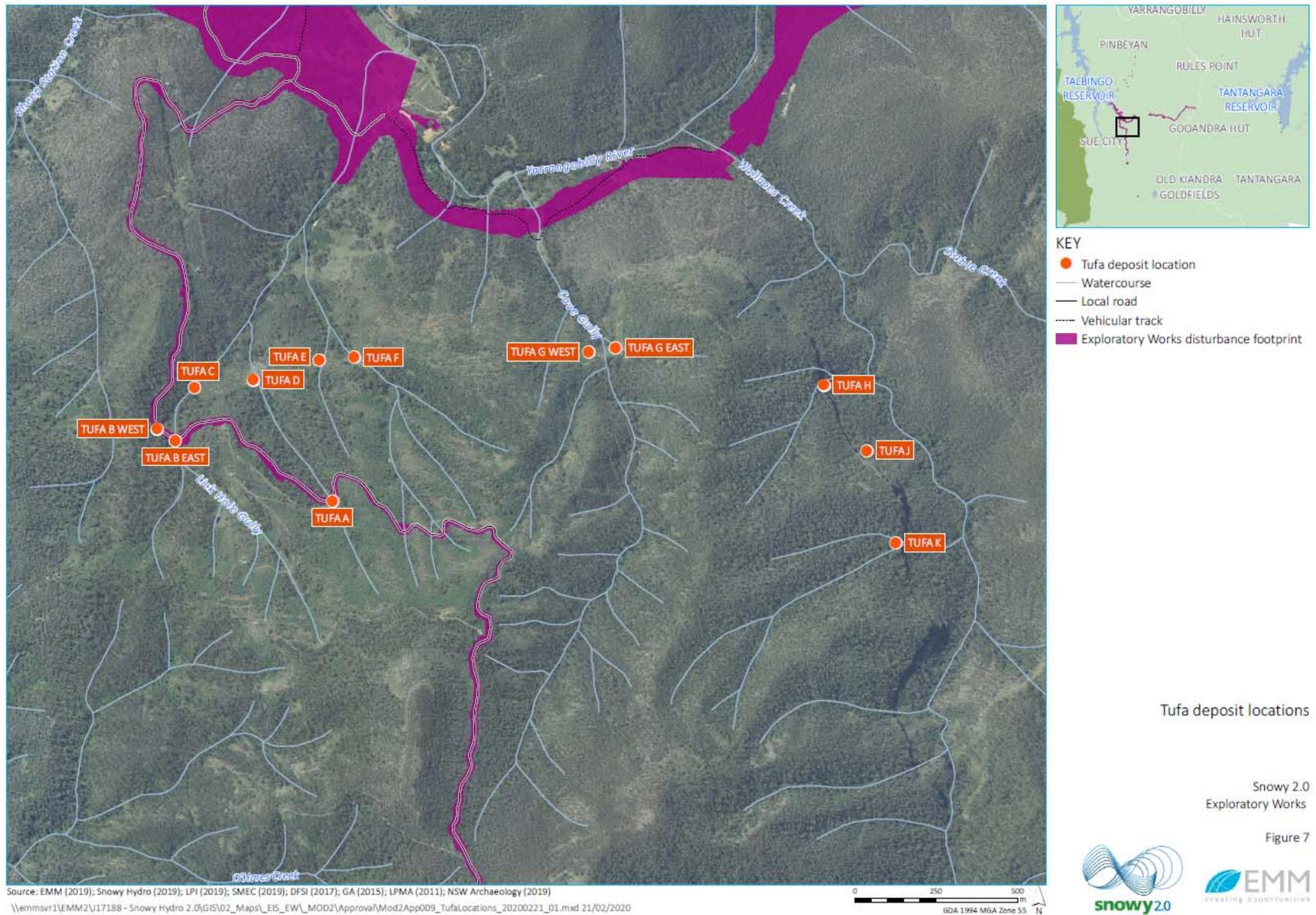


Figure 3-8: Tufa deposit locations

END OF MODIFICATION