

# Modification of Infrastructure Approval

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

As delegate of the Minister for Planning 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 2 DECEMBER

2019

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## SCHEDULE 1

### Infrastructure Approval:

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

### For the following:

Snowy 2.0 Exploratory Works

### Modification:

Substation and further geotechnical investigations

## SCHEDULE 2

1. In the TABLE OF CONTENTS in Schedule 1:

- (a) delete “**APPENDIX 3 – ABORIGINAL HERITAGE MAPS AND TABLES**” and replace with “**APPENDIX 3 – HERITAGE FIGURES, MAPS & TABLES**”;
- (b) delete “**APPENDIX 4 – HISTORIC & NATURAL HERITAGE FIGURES & TABLES**”;
- and
- (c) update all page numbers accordingly.

2. In the table of DEFINITIONS in Schedule 1, delete the definitions for ‘EIS’ and ‘OEH’, and insert the following in alphabetical order:

BCD            Biodiversity and Conservation Division

EIS            The Environmental Impact Statement titled *Environmental Impact Statement Exploratory Works for Snowy 2.0* dated July 2018, as modified by the:

- *Response to Submissions - Exploratory Works for Snowy 2.0* dated September 2018, the additional information titled *Exploratory Works for Snowy 2.0 – Amendment to Talbingo boat ramp and swimming area* dated 19 November 2018, and letter to the Department titled *Amendment to water supply* dated 21 December 2018; and
- *Modification Report for the Snowy 2.0 Exploratory Works* dated 6 June 2019, *Response to Submissions - Exploratory Works Modification* 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

3. Delete all references to ‘Department of Planning and Environment’ and replace with ‘Department of Planning, Industry and Environment’.

4. Delete all references to ‘OEH’ and replace with ‘BCD’.

5. Delete all references to ‘Appendix 4’ and replace with ‘Appendix 3’.

6. Delete all references to ‘Table 4-1’ and replace with ‘Table 3-4’.

7. Delete all references to ‘Table 4-2’ and replace with ‘Table 3-3’.

8. Following condition 5 of Schedule 3, insert the following:

5A. Within 2 months of the approval of Modification 1, unless the Planning Secretary agrees otherwise, the Proponent must pay the NPWS an additional \$2,639,697.

9. In condition 6 (b) of Schedule 3, following the word “*booroolongensis*);” in the fifth bullet point, insert the following:

- Eastern Pygmy-possum (*Cercatetus nanus*);

10. In condition 19 of Schedule 3, delete points (c) and (d) and replace with the following:

- (c) for the boulder streams disturbed by the Lobs Hole Ravine Road upgrade works:
  - undertake detailed mapping of the block stream extents and morphology; and
  - prepare a detailed archival record of the block streams,

- prior to disturbing the block streams;
- (d) ensure the development does not adversely affect the tufa deposits at Lick Hole Gully and Cave Gully shown in Appendix 3; and
- (e) carry out a detailed investigation of any unidentified karst features intercepted during the tunnel works.

11. In condition 20 (e) of Schedule 3, following the first bullet point, insert the following:

- undertake the field mapping and photographic recording of the block streams disturbed by the Lobs Hole Ravine Road upgrade works and publicly report on the findings of this research;

12. In condition 34 (c) of Schedule 3, following the word “camp;” in the third bullet point, insert the following:

- Lobs Hole substation;

13. Delete condition 37 of Schedule 3 and replace with the following:

37. The Proponent must implement the Wide Cut Design Option for any excavation required on the upside slope side into the boulder streams for upgrading Lobs Hole Ravine Road.

*Note: The layout of upgrade is shown in Appendix 2.*

14. Following condition 37 of Schedule 3, insert the following:

- 37A. Prior to carrying out the upgrades to Lobs Hole Ravine Road within the boulder streams, the Proponent must prepare detailed plans for the proposed upgrades in consultation with the NPWS, and to the satisfaction of the Secretary. These plans must:
- (a) avoid impacts on the downslope section of Block Stream B;
  - (b) minimise the extent of excavation into the upslope block streams;
  - (c) minimise moving or damaging blocks in areas beyond the excavation zone;
  - (d) ensure the remaining sections of the boulder streams are safe and stable, using stabilisation measures that would maintain the landscape values of the streams to the greatest extent practicable and maximise their visibility for future viewing;
  - (e) minimise the use of outside materials onto the block streams (such as soil or fill);
  - (f) include suitable drainage controls to ensure water flow through the upslope block streams are not impeded; and
  - (g) include a program to monitor the implementation of the plans; and if necessary, undertake corrective action to maintain the stability of the block streams.

The Proponent must implement the approved plans for these road upgrades.

15. In condition 44 of Schedule 3:

- (a) delete the word “or” at the end of point (a);
- (b) delete “.” at the end of point (b), and replace with “;”;
- (c) insert the following after point (b):
  - (c) Snowy Mountains Highway, Coppermine Trail and Wallaces Creek Trail; or
  - (d) Snowy Mountains Highway, Tantangara Road and Quarry Trail.

16. In condition 46 (b) of Schedule 3:

(a) in the first bullet point:

i. following the word “Road;” insert the following:

- road users on the Snowy Mountains Highway in proximity to the intersections with Link Road, Tantangara Road and Coppermine Trail during the borehole investigations at Tantangara and Marica;

ii. delete “the” after the words “users in”; and

iii. following the word “reservoir”, insert “and Tantangara Reservoir;”;

(b) in the third bullet point following the words “operation to”, delete “7 am to 6pm” and replace with “between sunrise and sunset”;

(c) following the third bullet point, insert the following:

- restrict vehicle speeds along Wallaces Creek Trail and access tracks in the Marica area to 20 km/h between sunset and sunrise; and

(d) in the ninth bullet point, following the words “than the”, insert “Coppermine Trail, Wallaces Creek Trail, Tantangara Road, Quarry Trail,”.

17. At the end of condition 46 of Schedule 3, insert the following:

*Note: Sunrise and sunset times are to be taken from the nearest Bureau of Meteorology centre*

18. In condition 5 of Schedule 4, delete “to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au) and [snowy2.0@environment.nsw.gov.au](mailto:snowy2.0@environment.nsw.gov.au)” and replace with “via the Major Projects portal”.

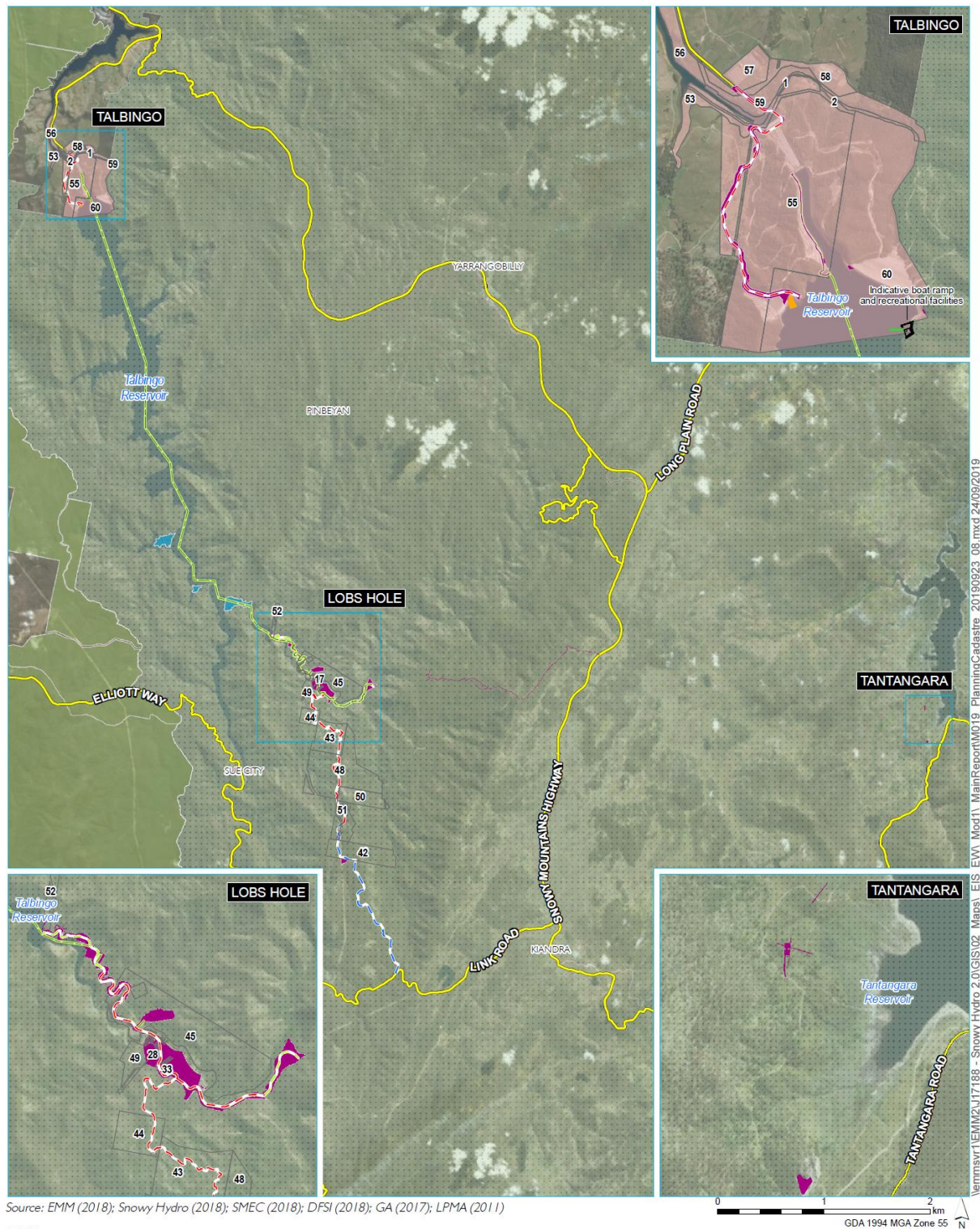
19. In condition 6 of Schedule 4, delete “to [compliance@planning.nsw.gov.au](mailto:compliance@planning.nsw.gov.au) and [snowy2.0@environment.nsw.gov.au](mailto:snowy2.0@environment.nsw.gov.au)” and replace with “via the Major Projects portal”.

20. Following the final row of the table in Appendix 1, insert the following:

	3		756723
	4	3	758870
	5	3	758870
	9	3	758870
	7	5	758870
	6	5	758870
	8	5	758870
	9	5	758870
	14	5	758870
	15	5	758870
	16	5	758870
	13	5	758870
	12	5	758870
	11	5	758870
	10	5	758870
	6	2	758870
	7	2	758870
	2		756723
	4		235380

21. In Appendix 1, delete the words “2, Figure 2-1” and replace with “1, Figures 1-1 and 1-2”.

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



**Figure 1-1: Schedule of land and land ownership**

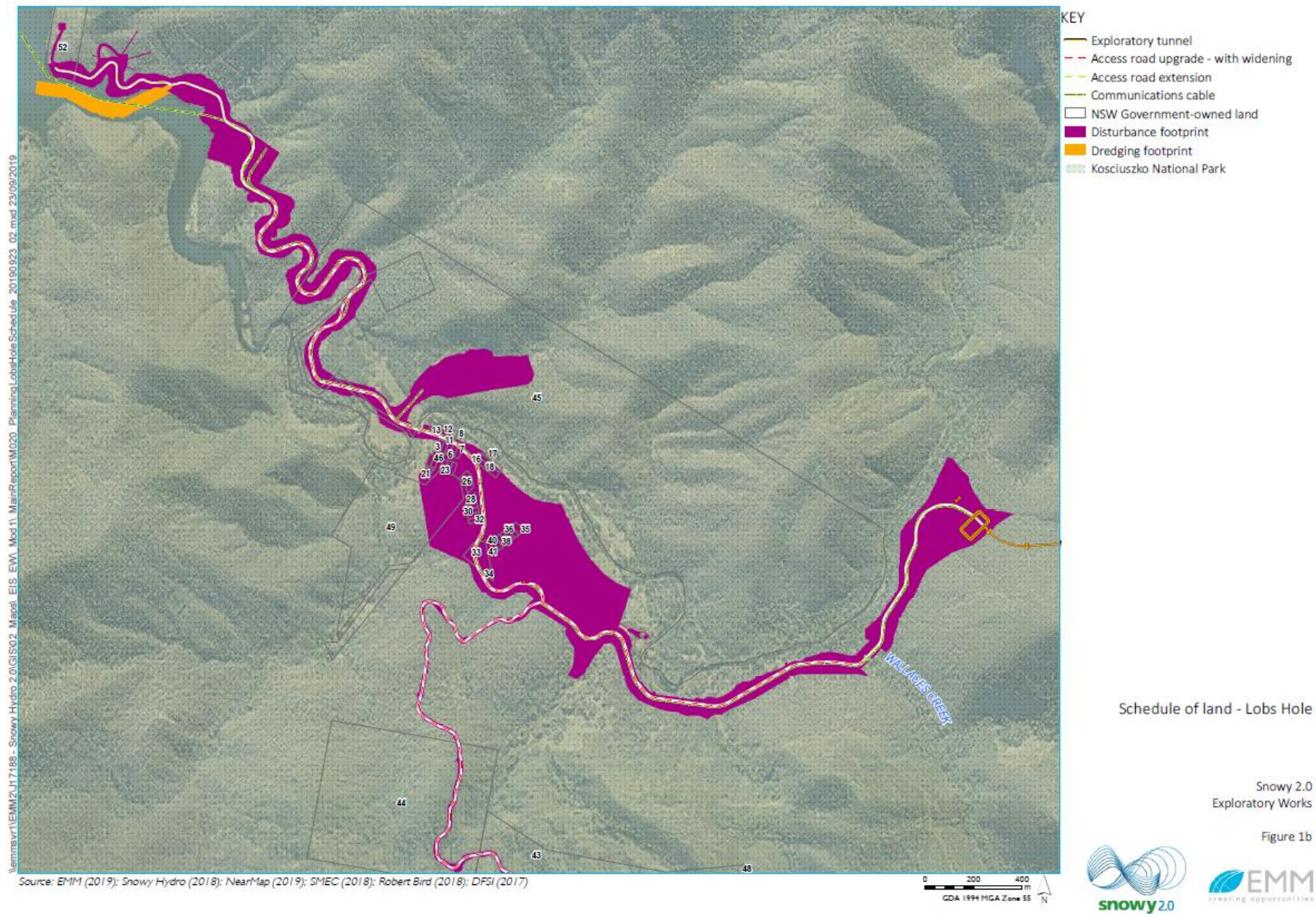
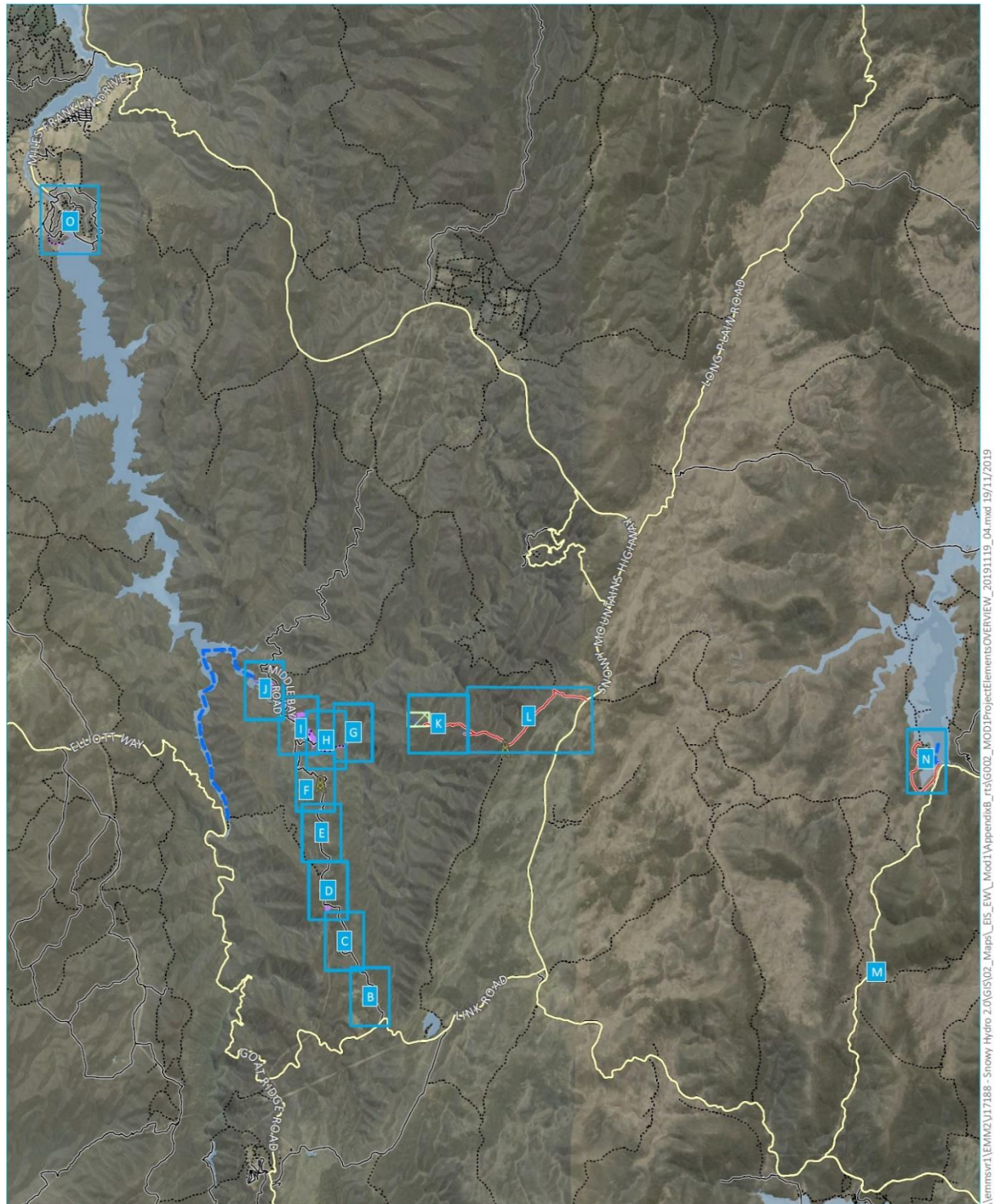


Figure 1-2: Schedule of land and land ownership – Lobs Hole

23. Delete Appendix 2 and replace with the following:

## APPENDIX 2 – SITE LAYOUT



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

### KEY

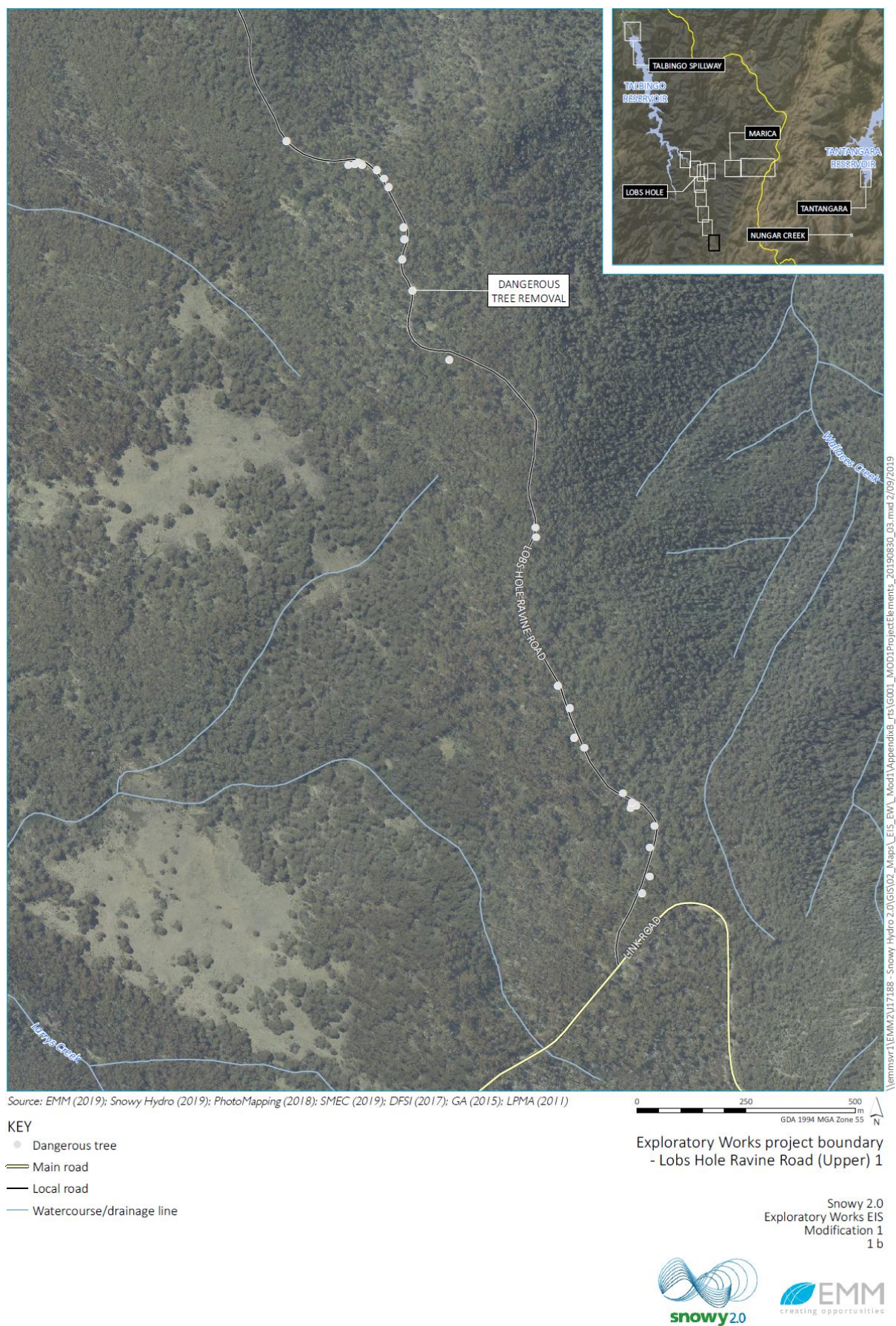
- Proposed temporary communications upgrade location
- Existing access track
- Boat access
- Main road
- Local road
- Vehicular track
- Map index
- EW approved construction footprint
- EW modification construction footprint (additional)
- Boreholes requiring on-site adjustment
- Waterbody

Exploratory Works project boundary  
- overview

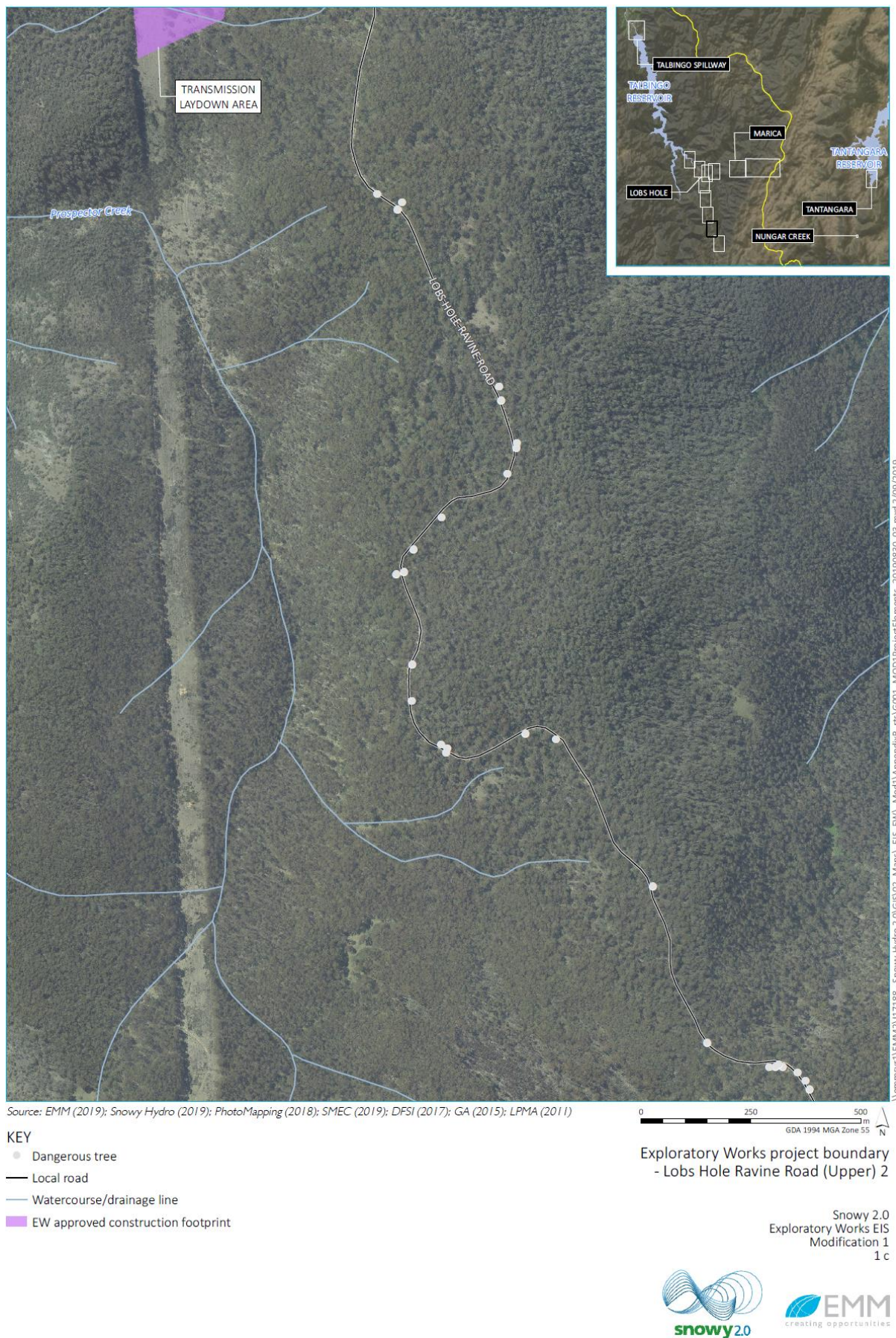
Snowy 2.0  
Exploratory Works EIS  
Modification 1  
1 a



**Figure 2-1: Project Boundary - Overview**



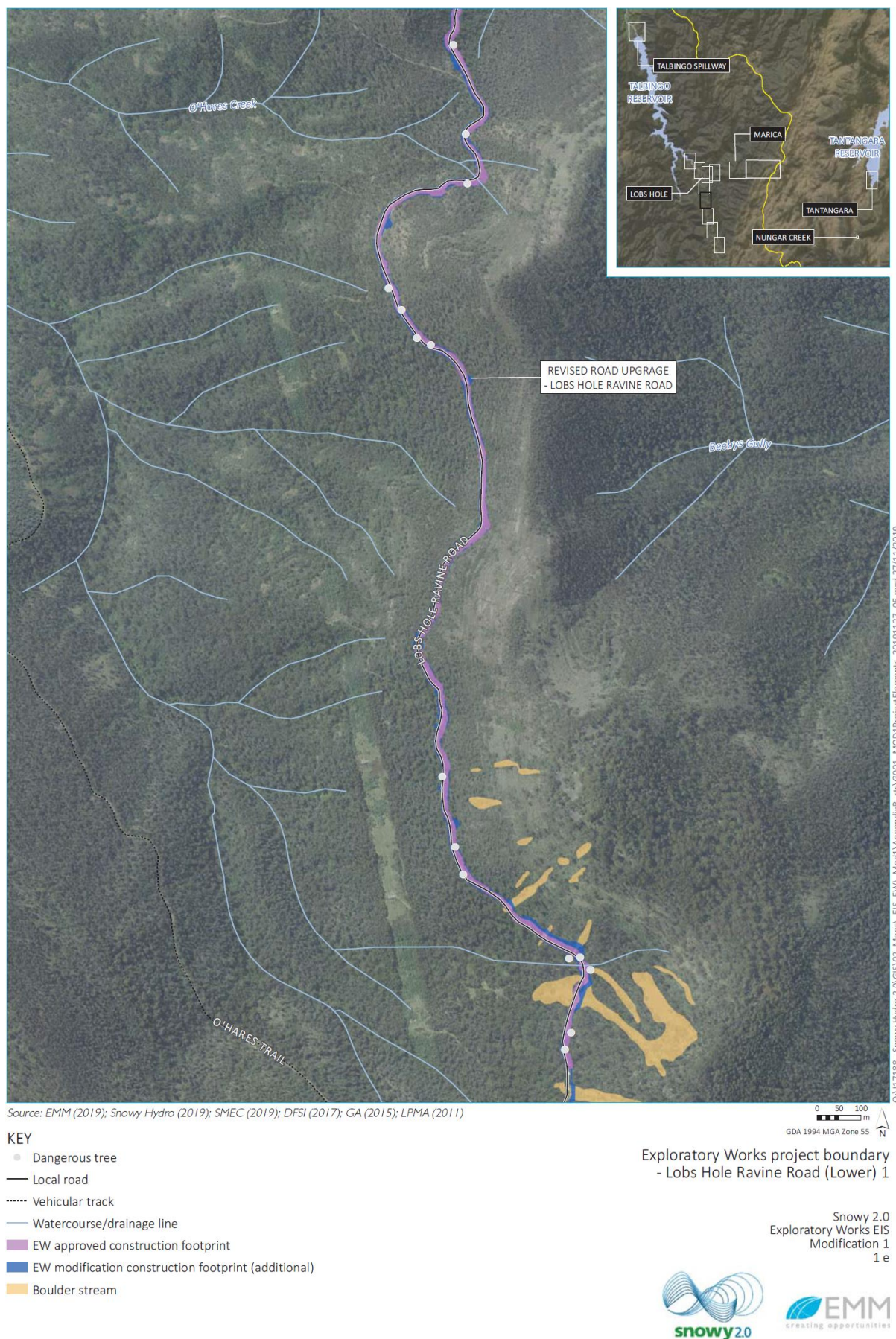
**Figure 2-2: Project Boundary – Lobs Hole Ravine Road (Upper) 1**



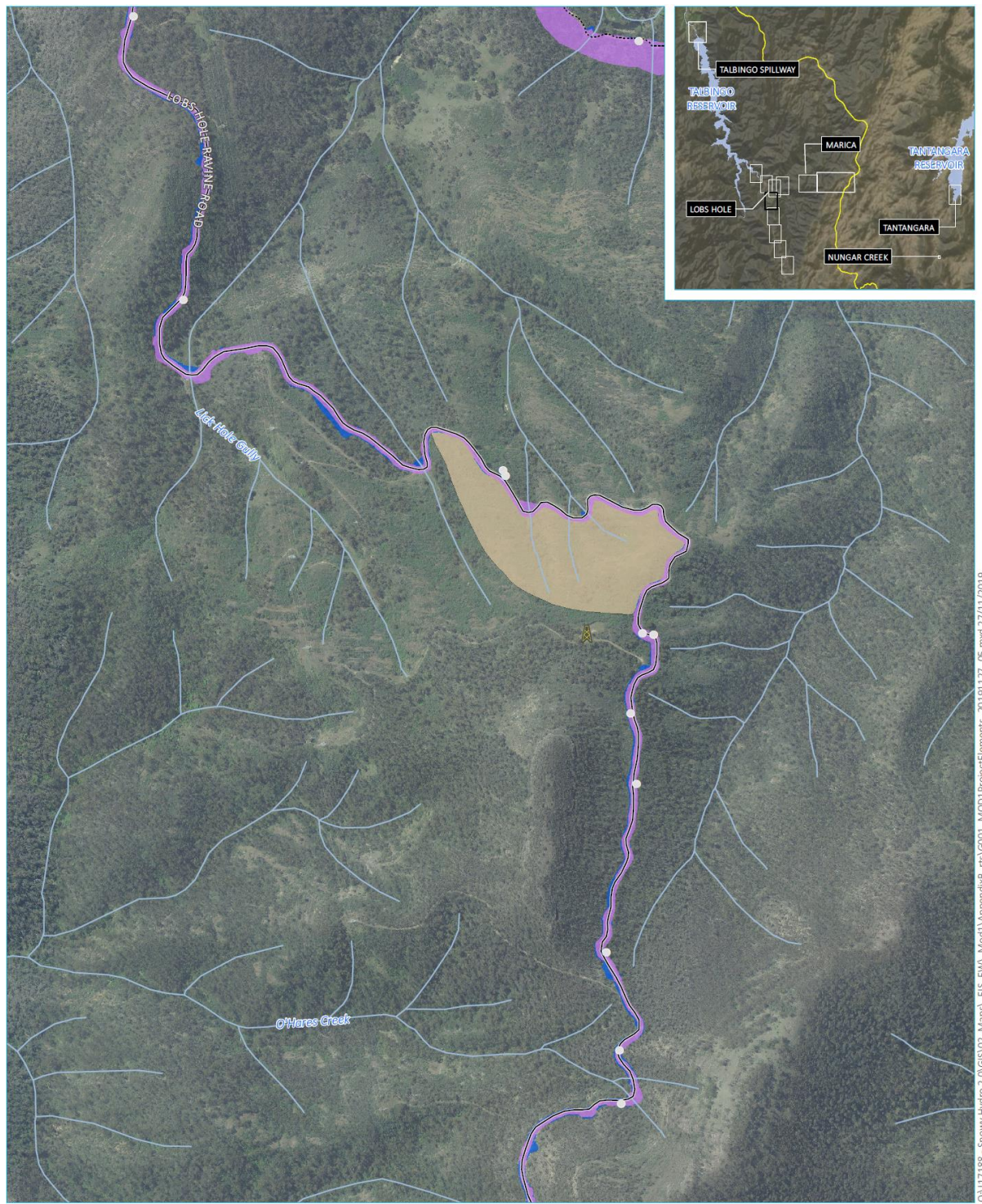
**Figure 2-3: Project Boundary – Lobs Hole Ravine Road (Upper) 2**



**Figure 2-4: Project Boundary – Lobs Hole Ravine Road (Upper) 3**



**Figure 2-5: 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
- EW approved construction footprint
- EW modification construction footprint (additional)
- Fossil area

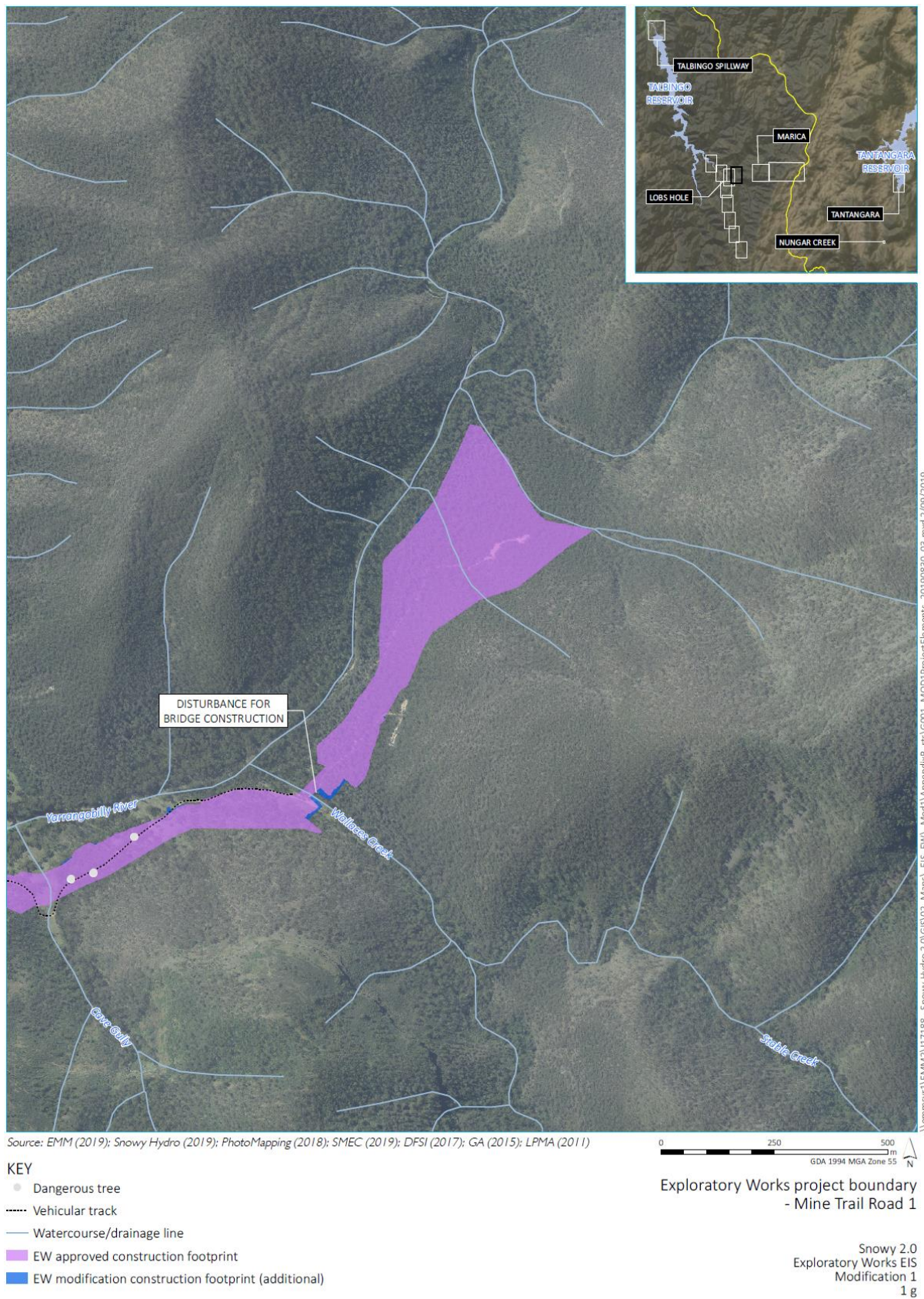
0 50 100  
m  
GDA 1994 MGA Zone 55

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

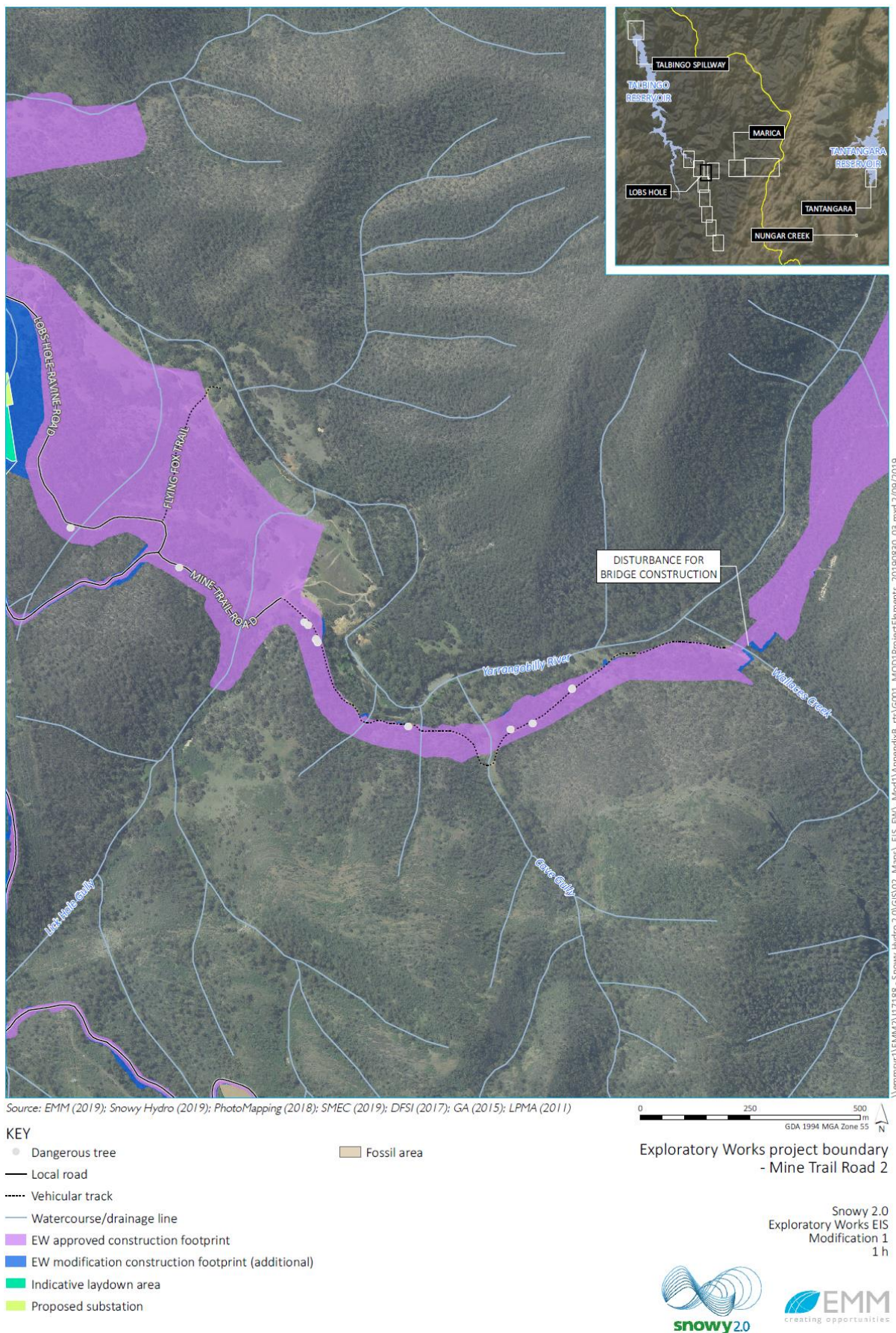
Snowy 2.0  
Exploratory Works EIS  
Modification 1  
1 f



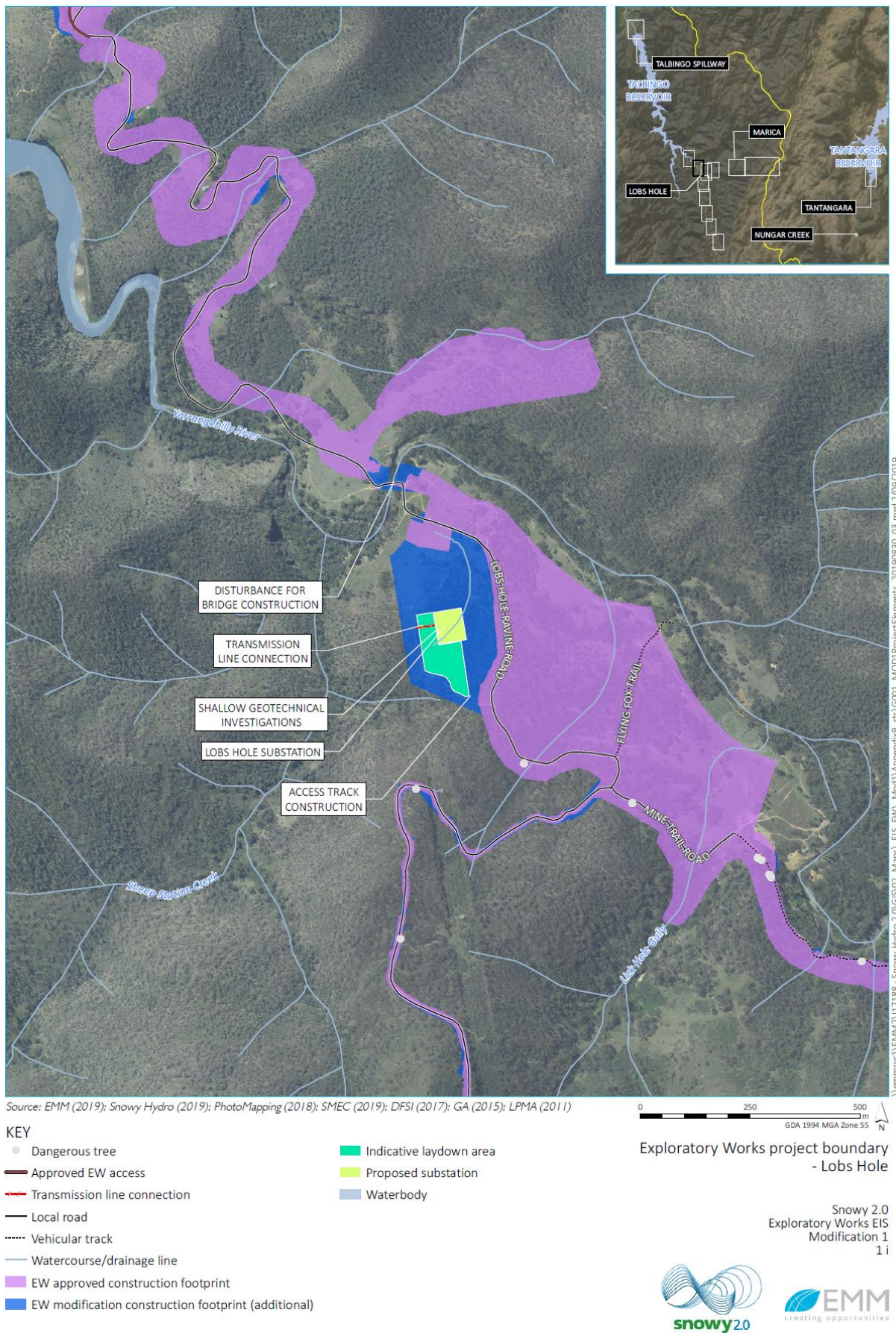
**Figure 2-6: Project Boundary – Lobs Hole Ravine Road (Lower) 2**



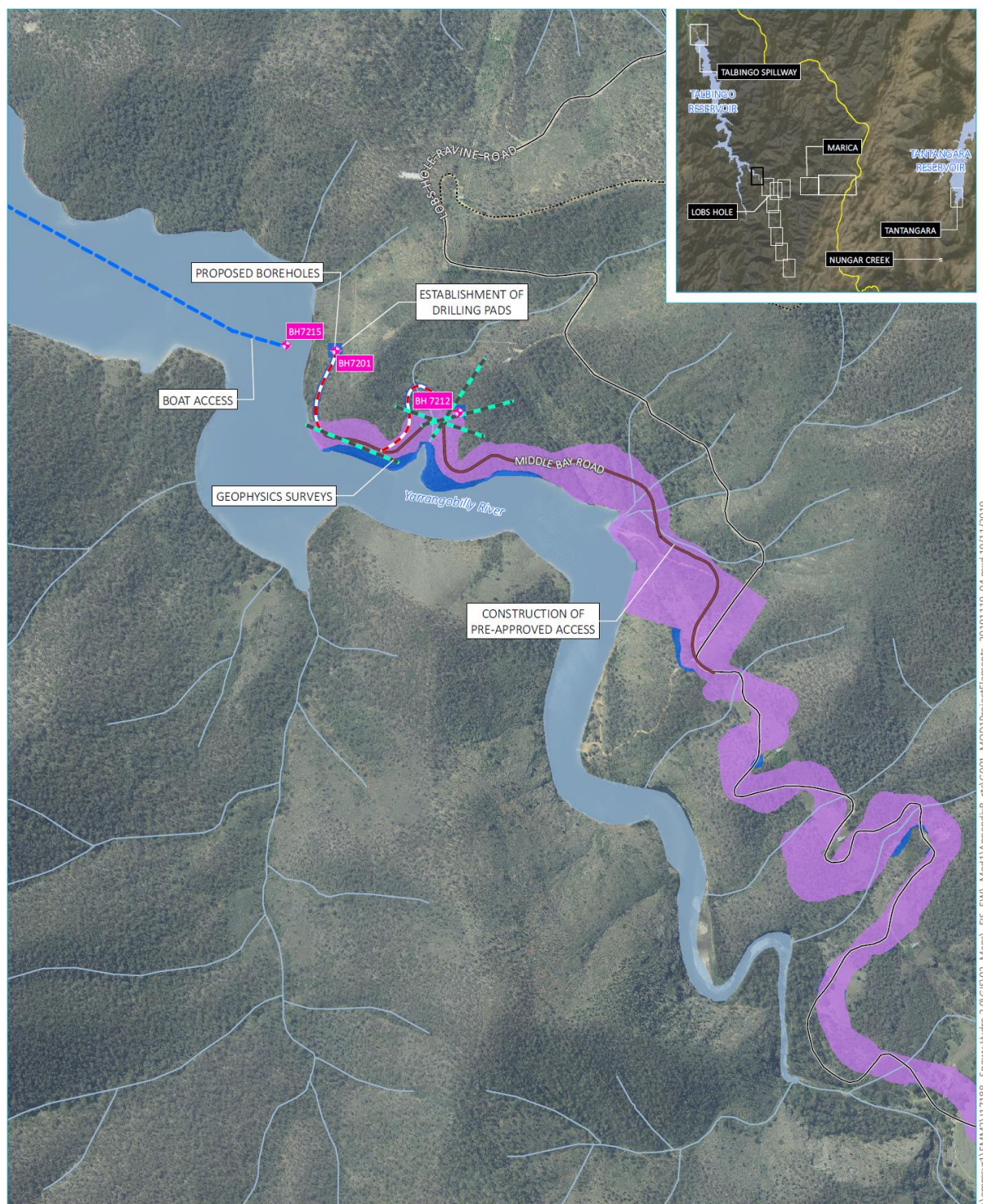
**Figure 2-7: Project Boundary – Mine Trail Road 1**



**Figure 2-8: Project Boundary – Mine Trail Road 2**



**Figure 2-9: Project Boundary – Lobs Hole**



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

#### KEY

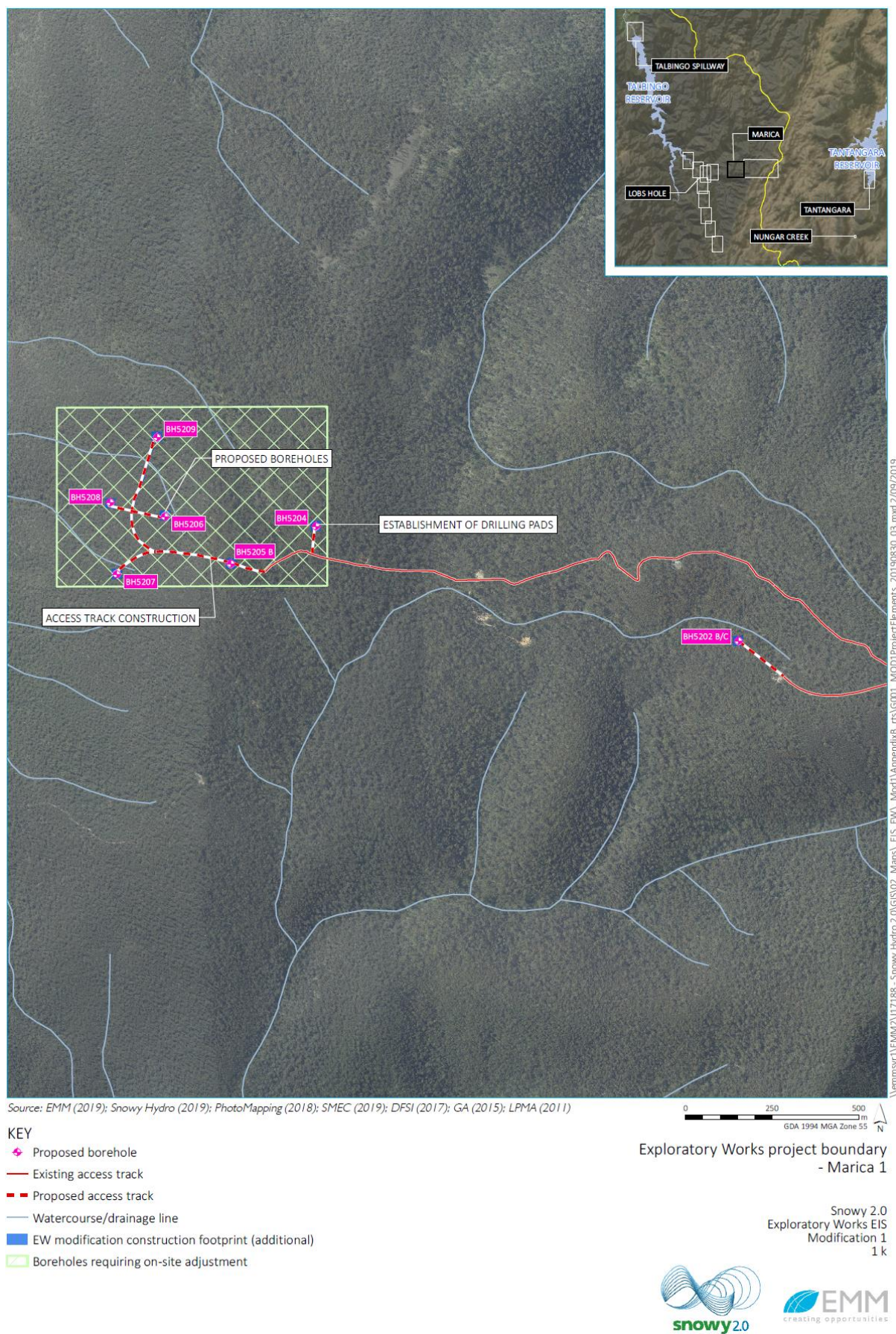
- |                           |   |
|---------------------------|---|
| Proposed borehole         | EW approved construction footprint                  |
| Proposed geophysics       | EW modification construction footprint (additional) |
| Proposed access track     | Waterbody   |
| Approved EW access        |   |
| Boat access               |   |
| Local road                |   |
| Vehicular track           |   |
| Watercourse/drainage line |   |

Exploratory Works project boundary  
- Lobs Hole Ravine Road

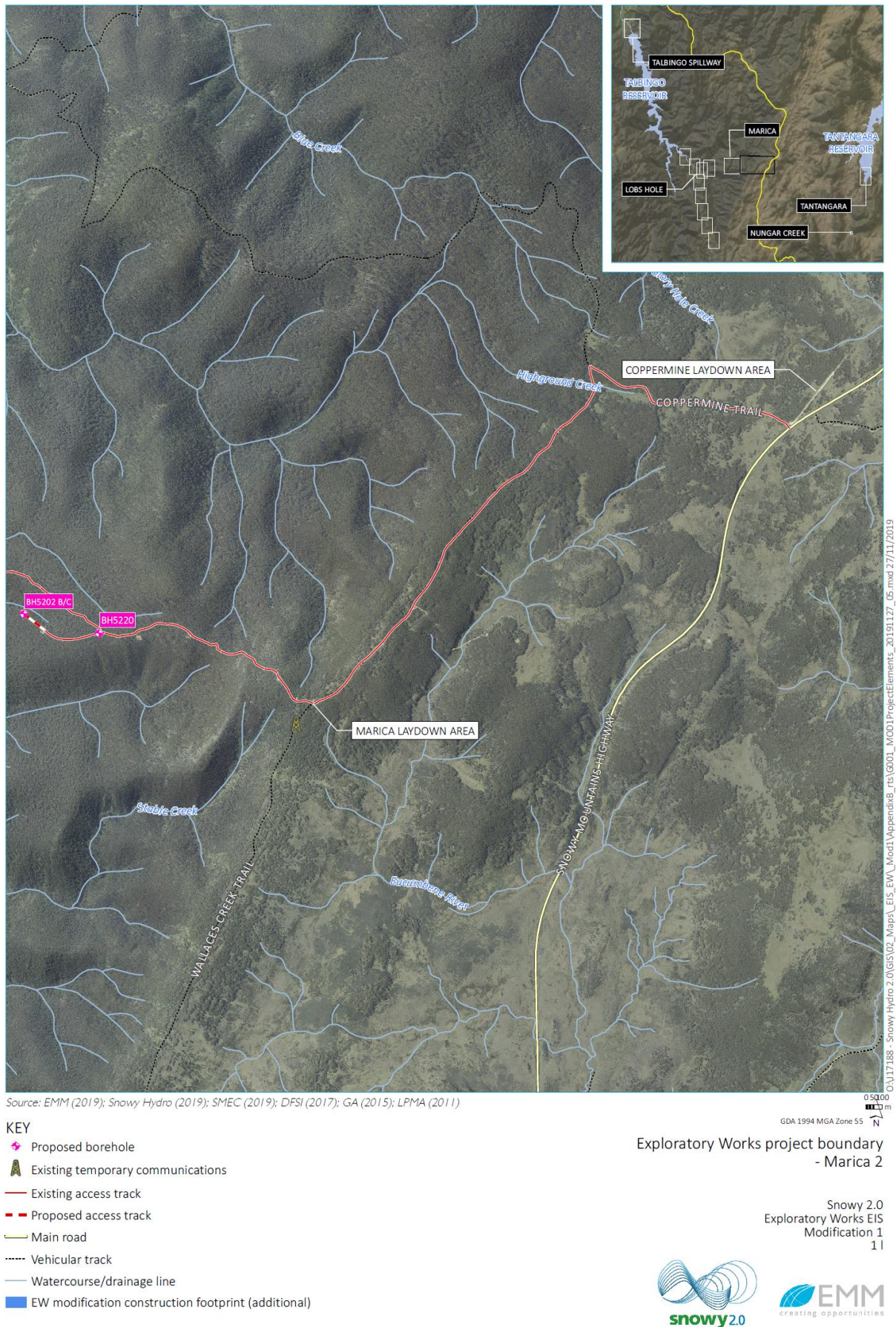
Snowy 2.0  
Exploratory Works EIS  
Modification 1  
1 j



**Figure 2-10: Project boundary – Lobs Hole Ravine Road**



**Figure 2-11: Project boundary – Marica 1**



**Figure 2-12: Project boundary – Marica 2**



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

#### KEY

- ✦ Proposed borehole
- Main road
- Watercourse/drainage line
- Proposed work area

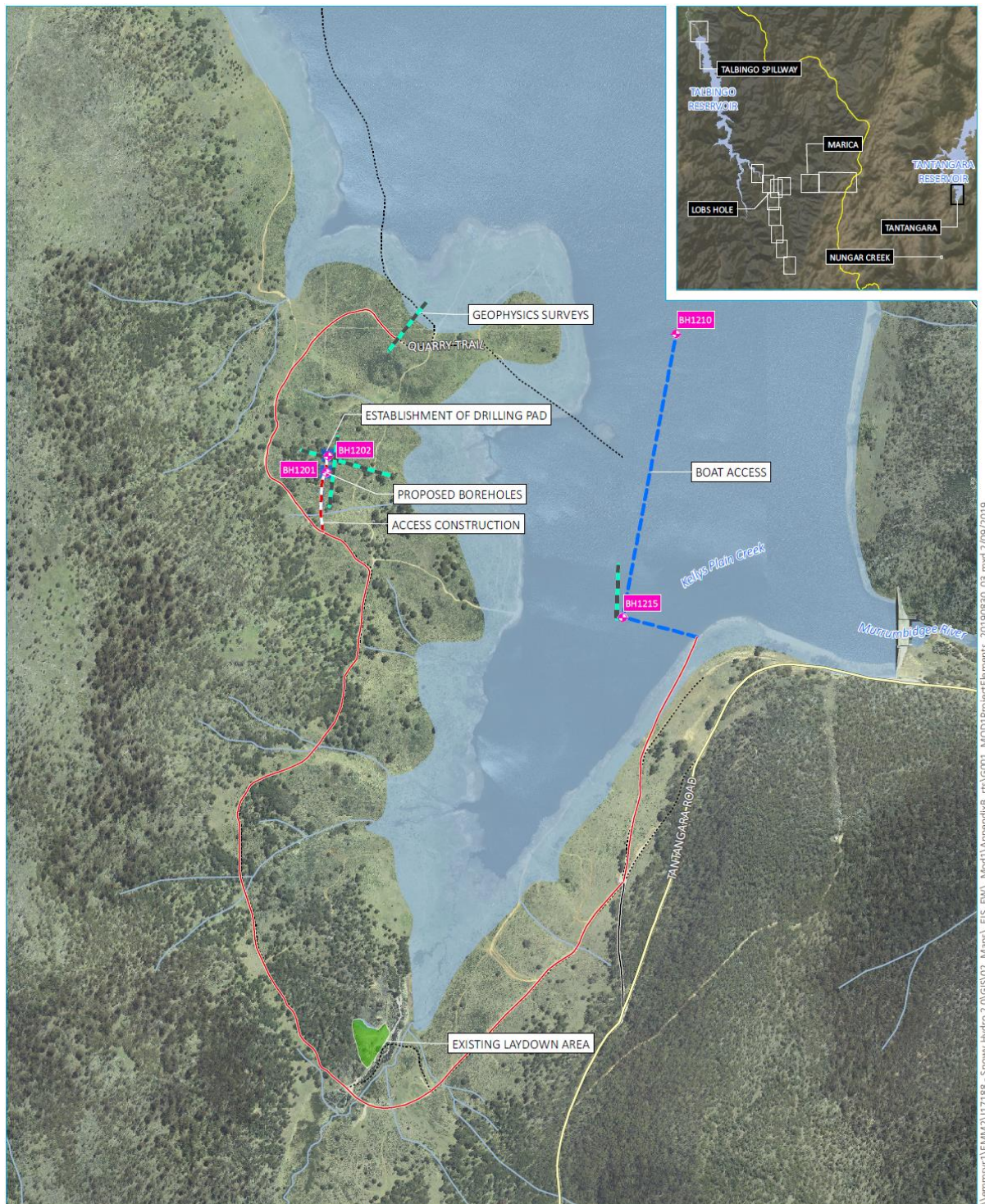
0 25 50  
m  
GDA 1994 MGA Zone 55  
N

Exploratory Works project boundary  
- Nungar Creek

Snowy 2.0  
Exploratory Works EIS  
Modification 1  
1 m



**Figure 2-13: Project boundary – Nungar Creek**



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

#### KEY

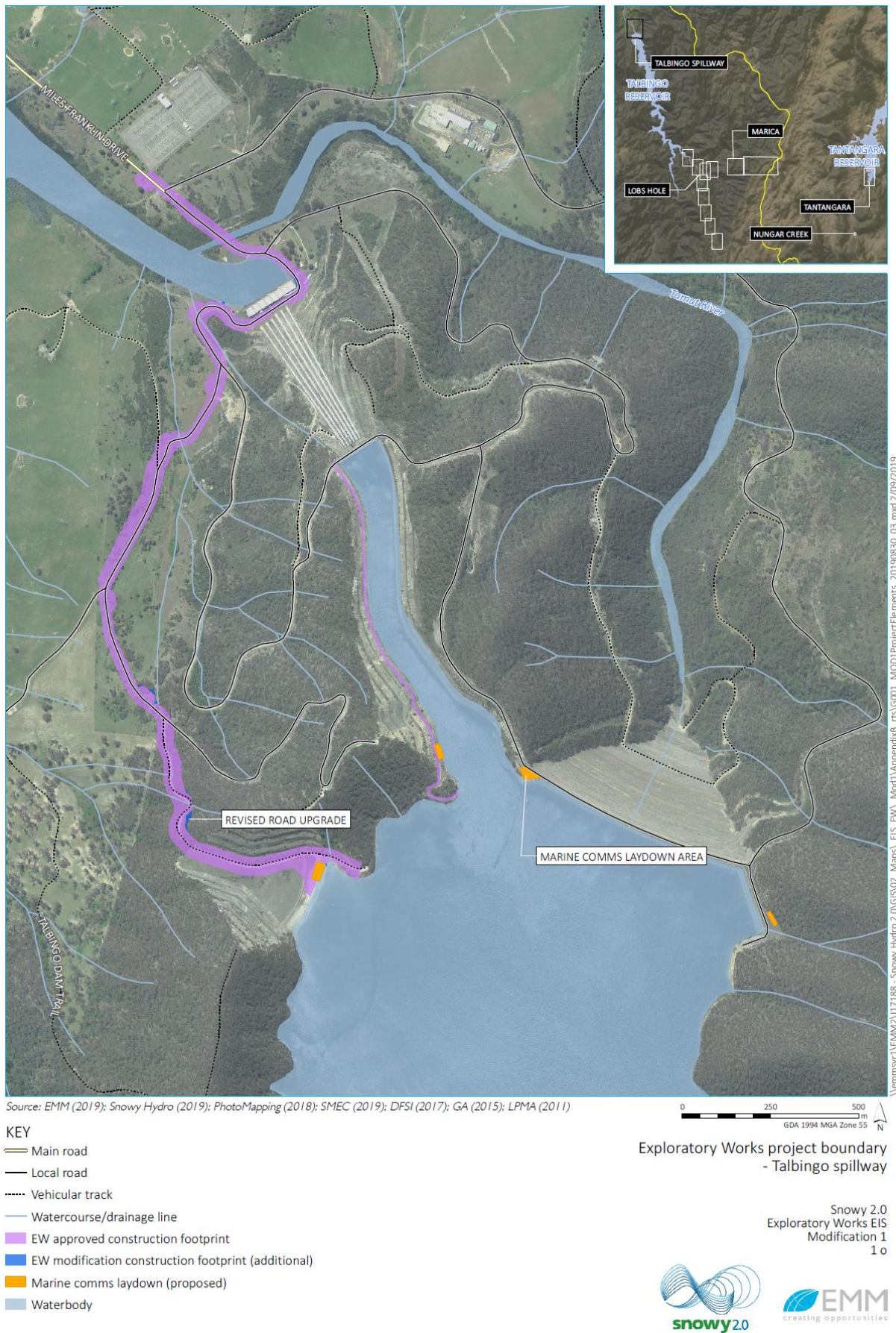
- ✦ Proposed borehole
- Proposed geophysics
- Existing access track
- - - Proposed access track
- Boat access
- Main road
- Local road
- - - Vehicular track
- Watercourse/drainage line
- EW modification construction footprint (additional)
- Existing laydown area
- Waterbody

Exploratory Works project boundary  
- Tantangara Reservoir

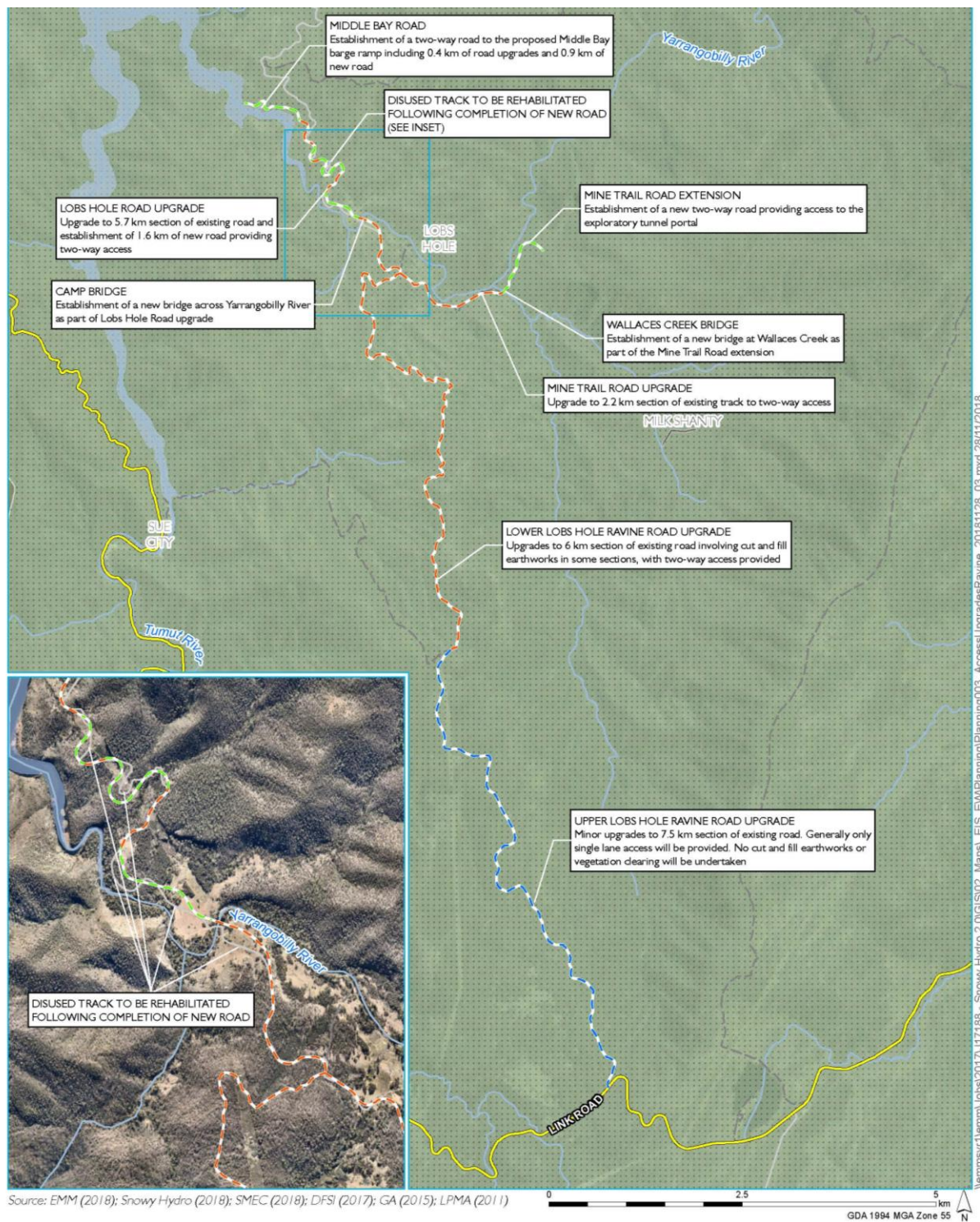
Snowy 2.0  
Exploratory Works EIS  
Modification 1  
1 n



**Figure 2-14: Project boundary – Tantangara Reservoir**



**Figure 2-15: 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

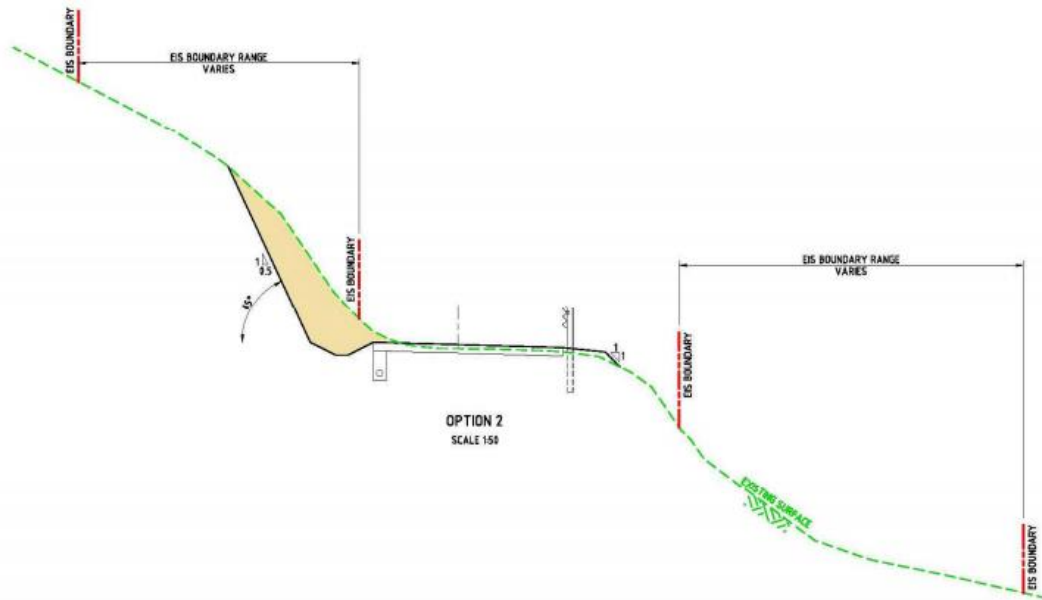
Snowy 2.0  
Exploratory Works

Figure 3



Figure 2-16: Road Upgrades - Ravine

OPTION 2



NOT FOR CONSTRUCTION

SCALE 1:10

VS\_SqlProjects\2010SRV140\_Cadd\CaddInfo\_DeepSt.WPMLRF-ENV\_PPACT152.WPMLRF-ENV-REG-PA1002.dwg

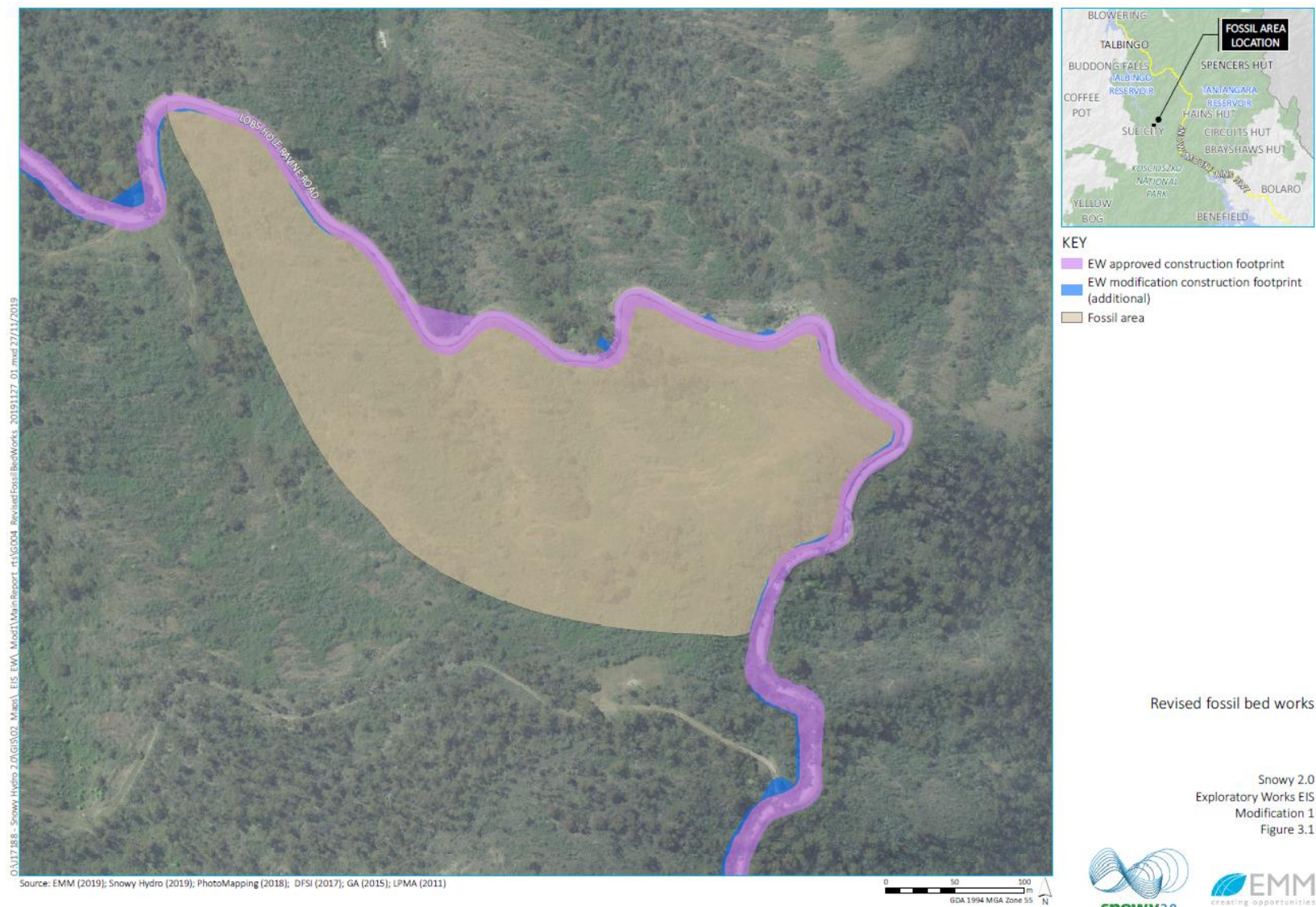
**SNOWY 2.0**  
**IMPACTS TO GEODIVERSITY - FOSSIL AREA**  
**TYPICAL CROSS SECTIONS - SHEET 03**

## INFORMATION DOCUMENT

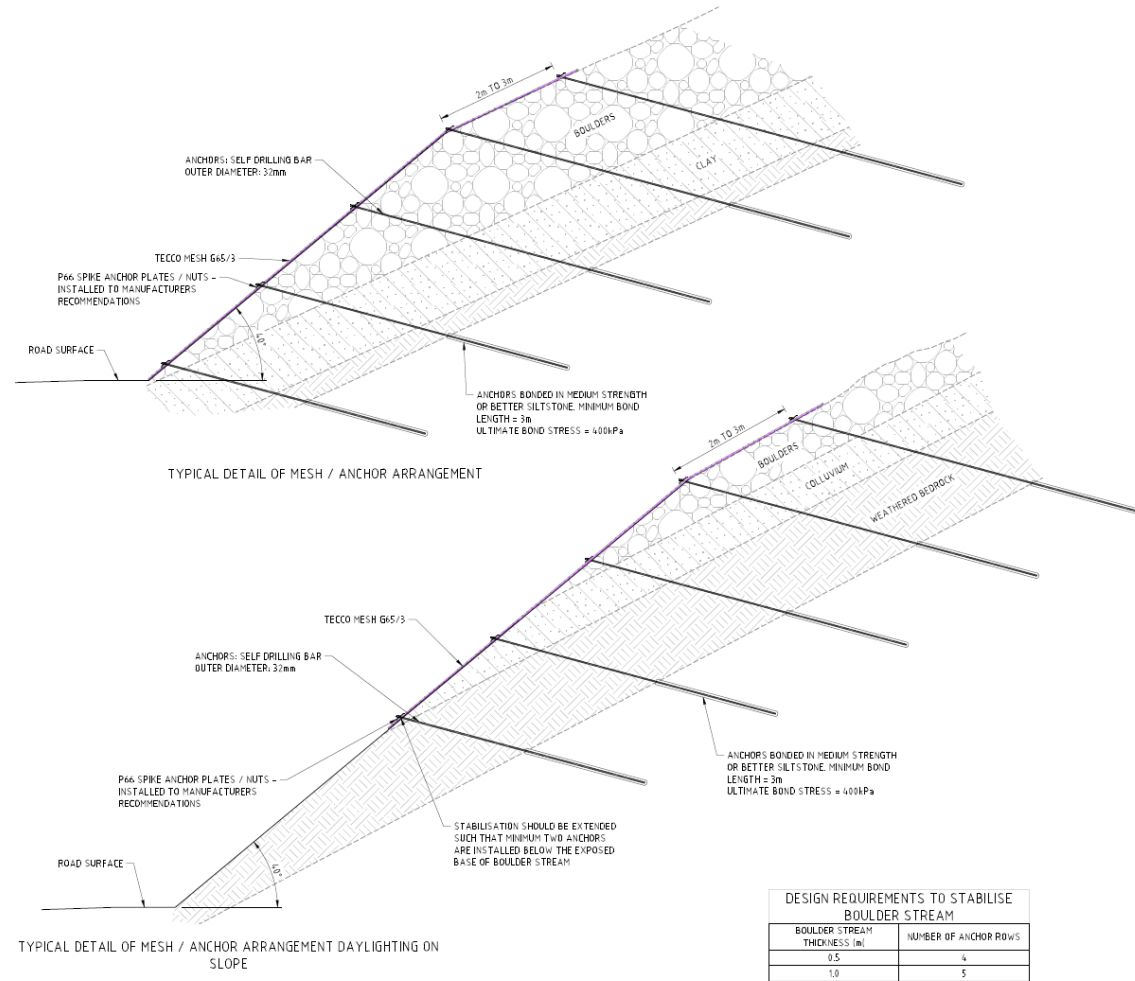
**S2-180918-INF-KG-RVD-FA203**



**2-17: Road Upgrades Option 2 Cross Section Lower Lobs Hole Ravine Road**



**Figure 2-18: Road Upgrades Option 2 Layout Lower Lobs Hole Ravine Road**



**NOT FOR CONSTRUCTION**

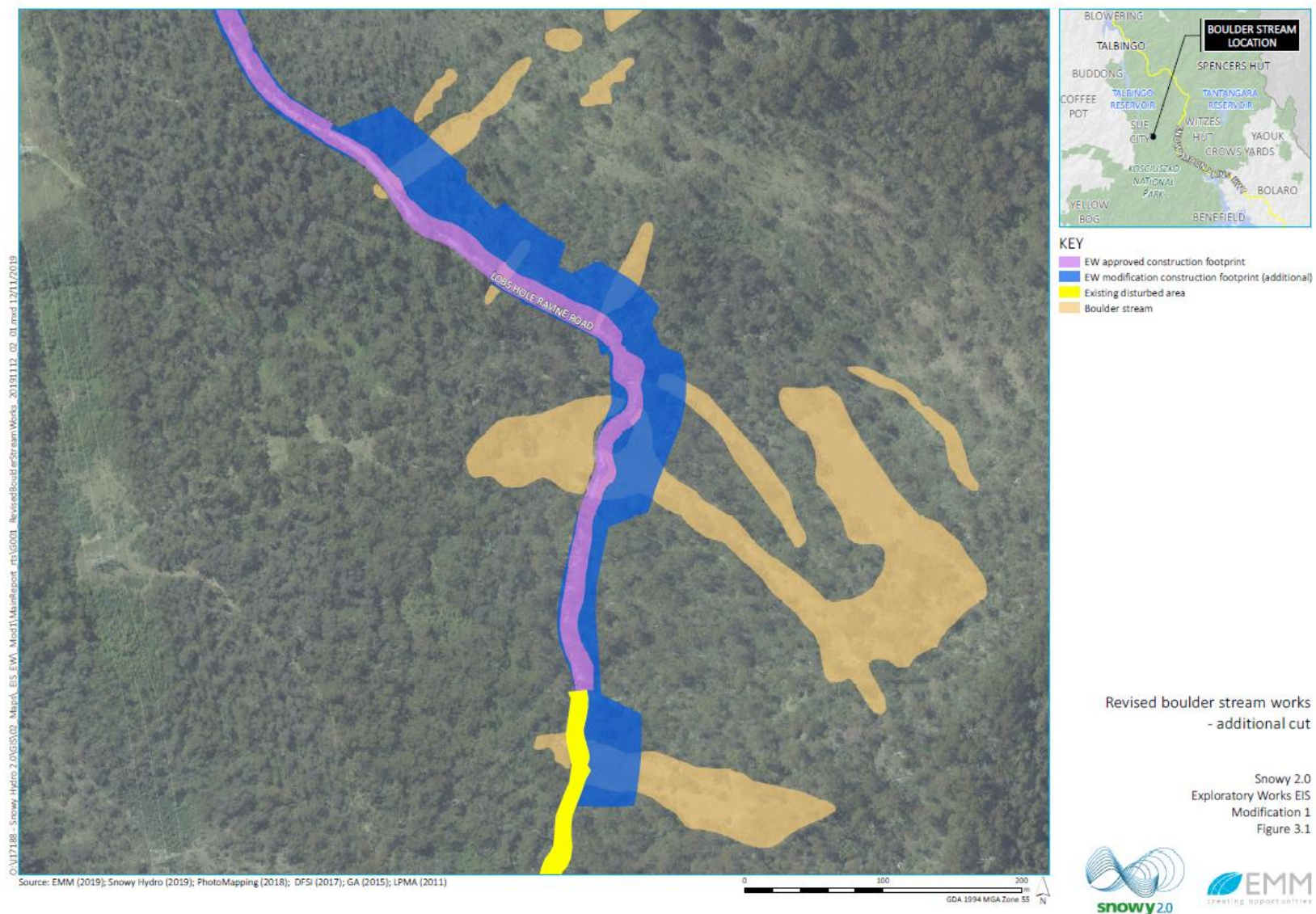
**SNOWY 2.0  
TYPICAL BOULDERFIELD SECTION**

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

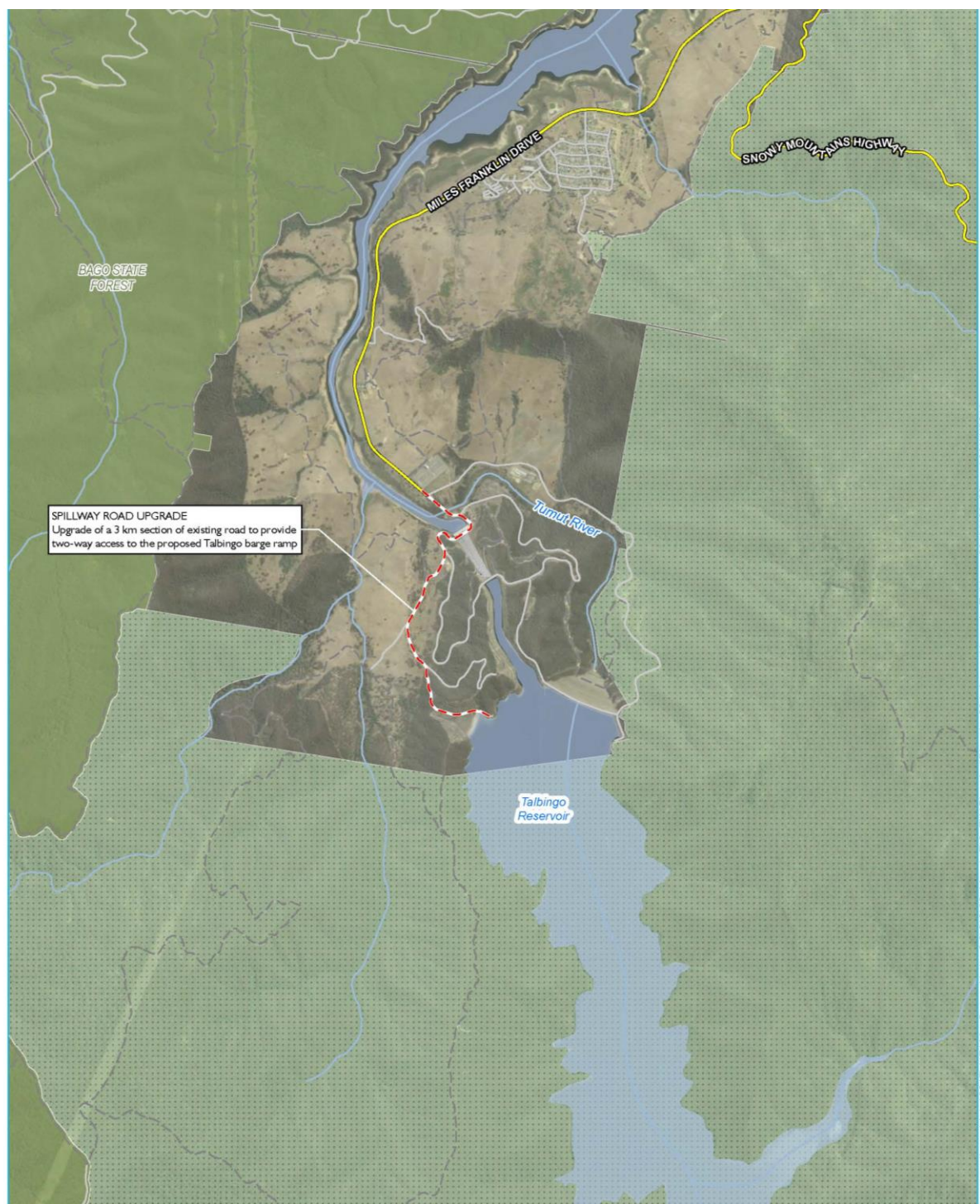


\\nsr-fs01\Projects\30115\4\30115\_000\CAD\Boulderfield\2019\2019-10-10\Boulderfield-001.dwg

**Figure 2-19: Road Upgrades – Boulder Streams – Lower Lobs Hole Ravine Road – Cross Section**



**Figure 2-20: Road Upgrades – Boulder Streams – Lower Lobs Hole Ravine Road**



#### KEY

- Access road upgrade - with widening
- Main road
- Local road
- Vehicular track
- Perennial watercourse
- Scheme storage
- Kosciuszko National Park
- State forest

#### Road upgrades / new roads in the Talbingo area

Snowy 2.0  
Exploratory Works

Figure 4



**Figure 2-21: Road Upgrades – Talbingo**



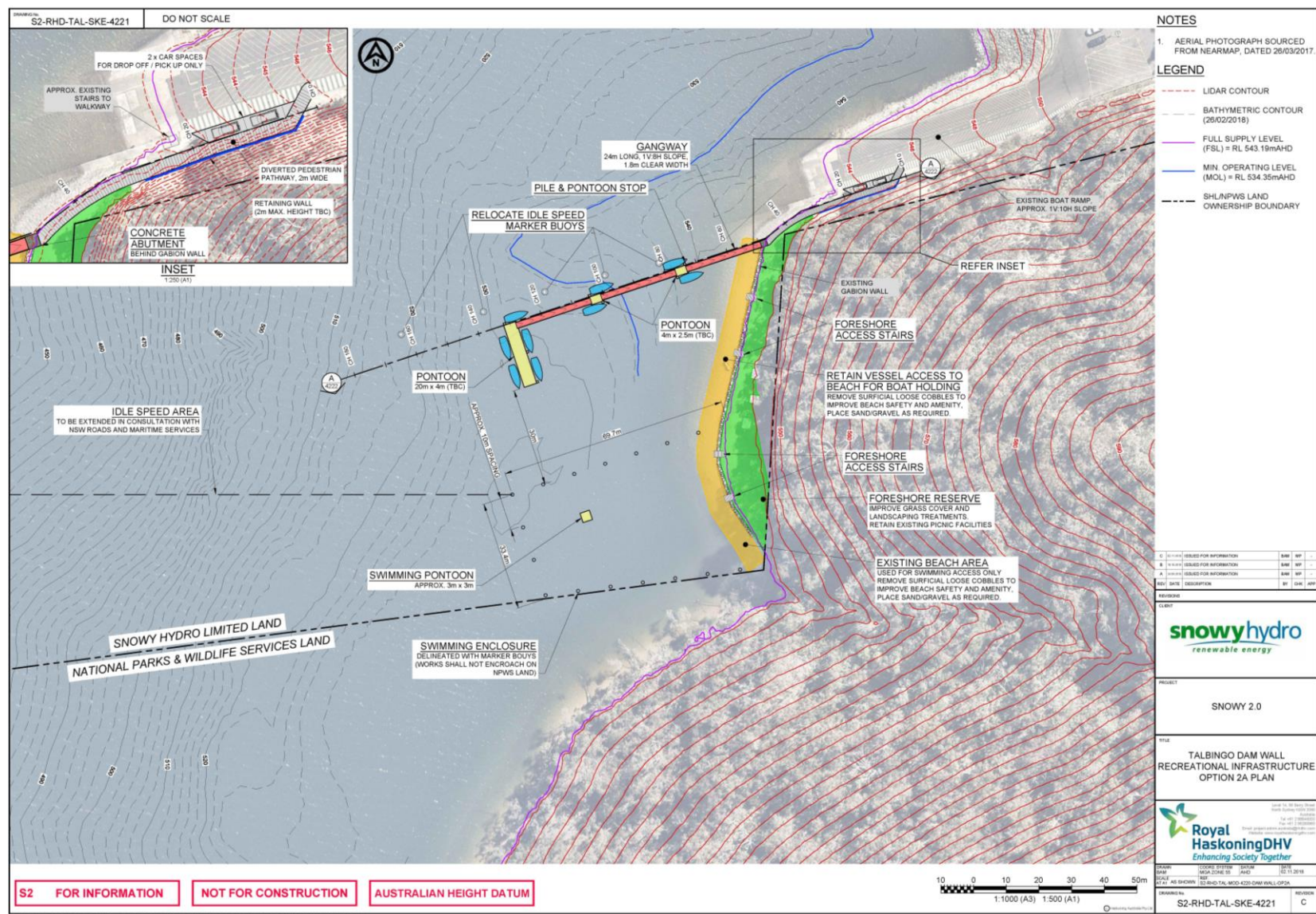
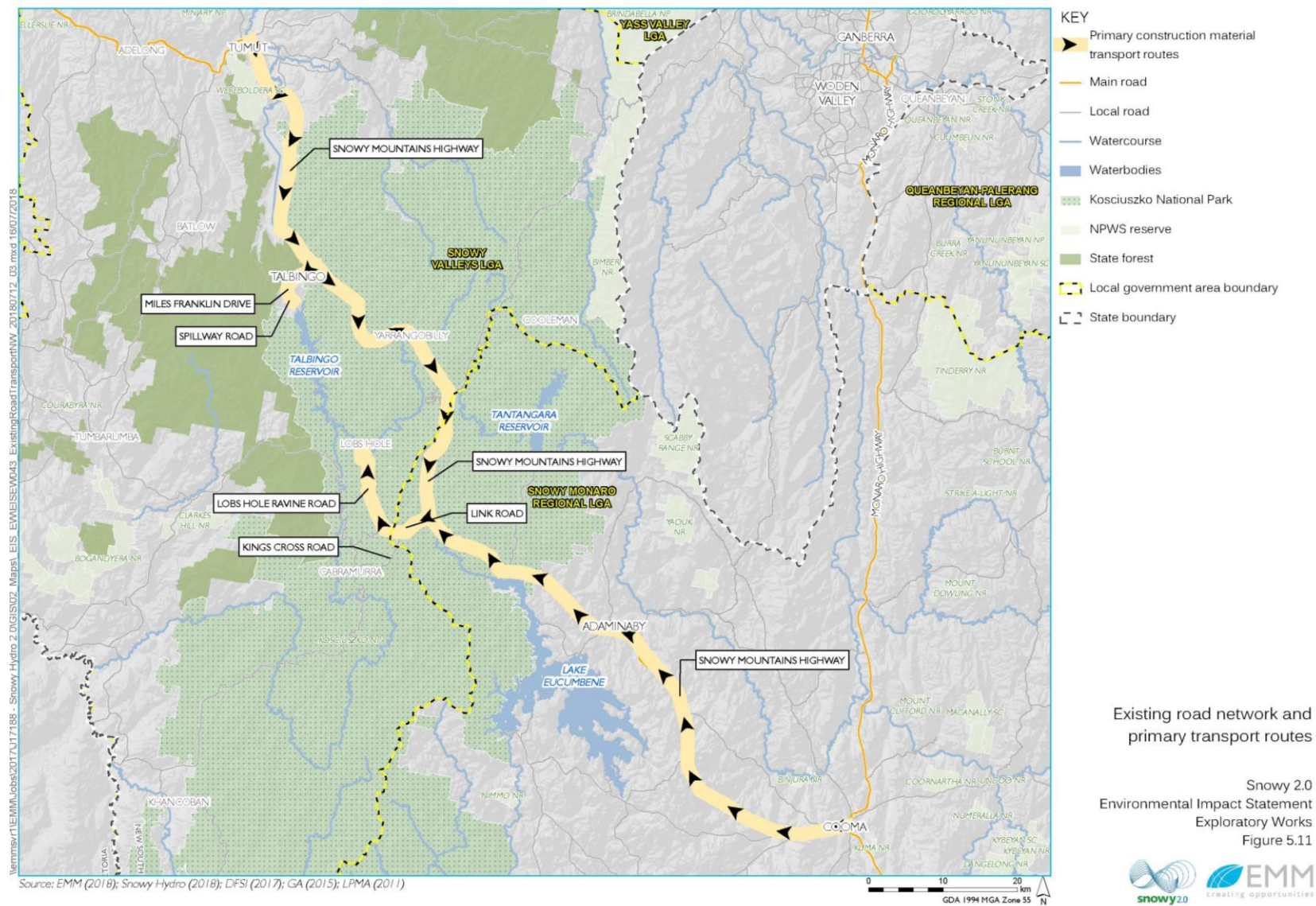
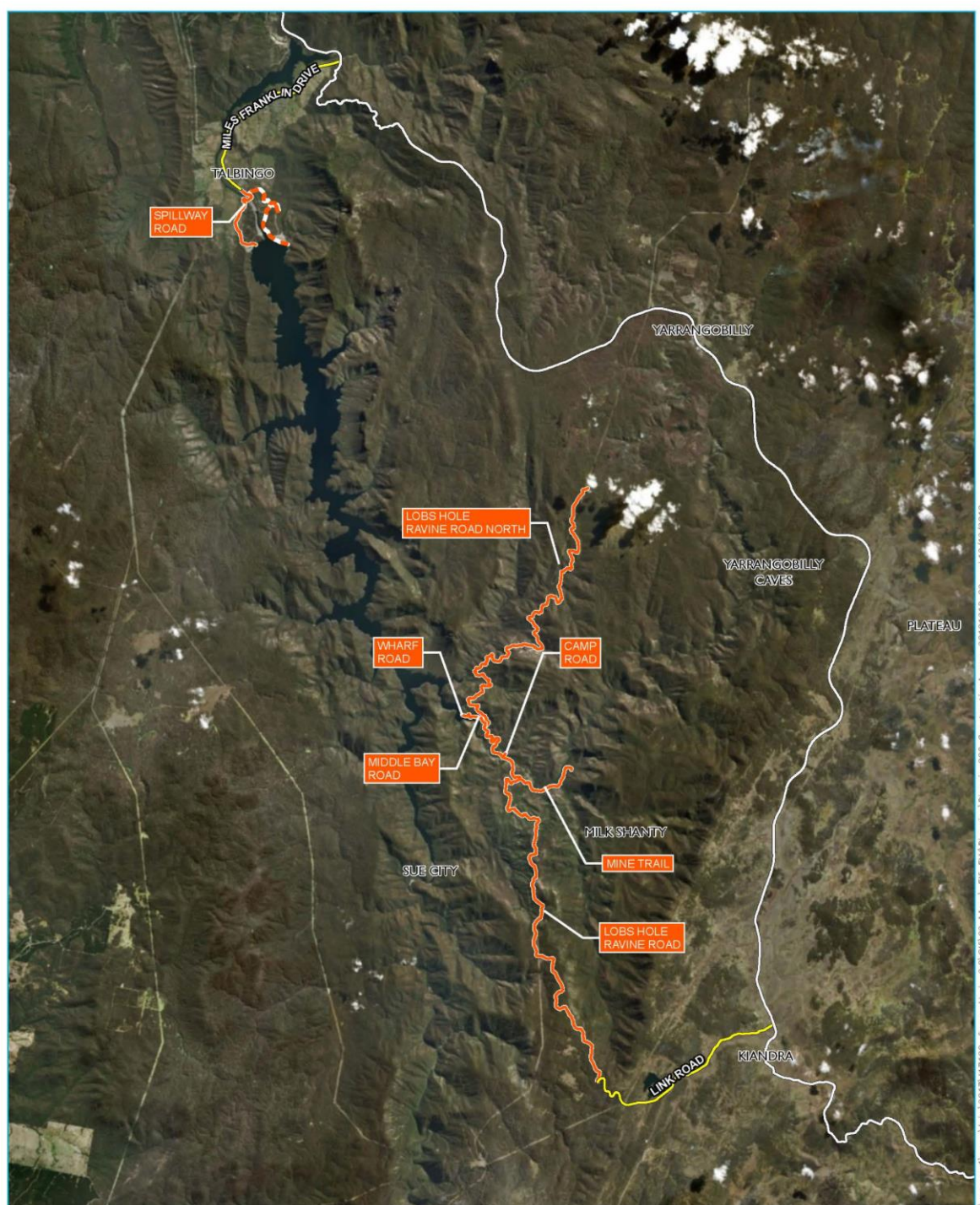


Figure 2-22b: Talbingo Recreational Area (Option 2B)





**Figure 2-23: 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
  - Local road
- Construction access**
- Closed for public access during project construction
  - SHL access for construction of recreational facilities

Construction access

Snowy 2.0

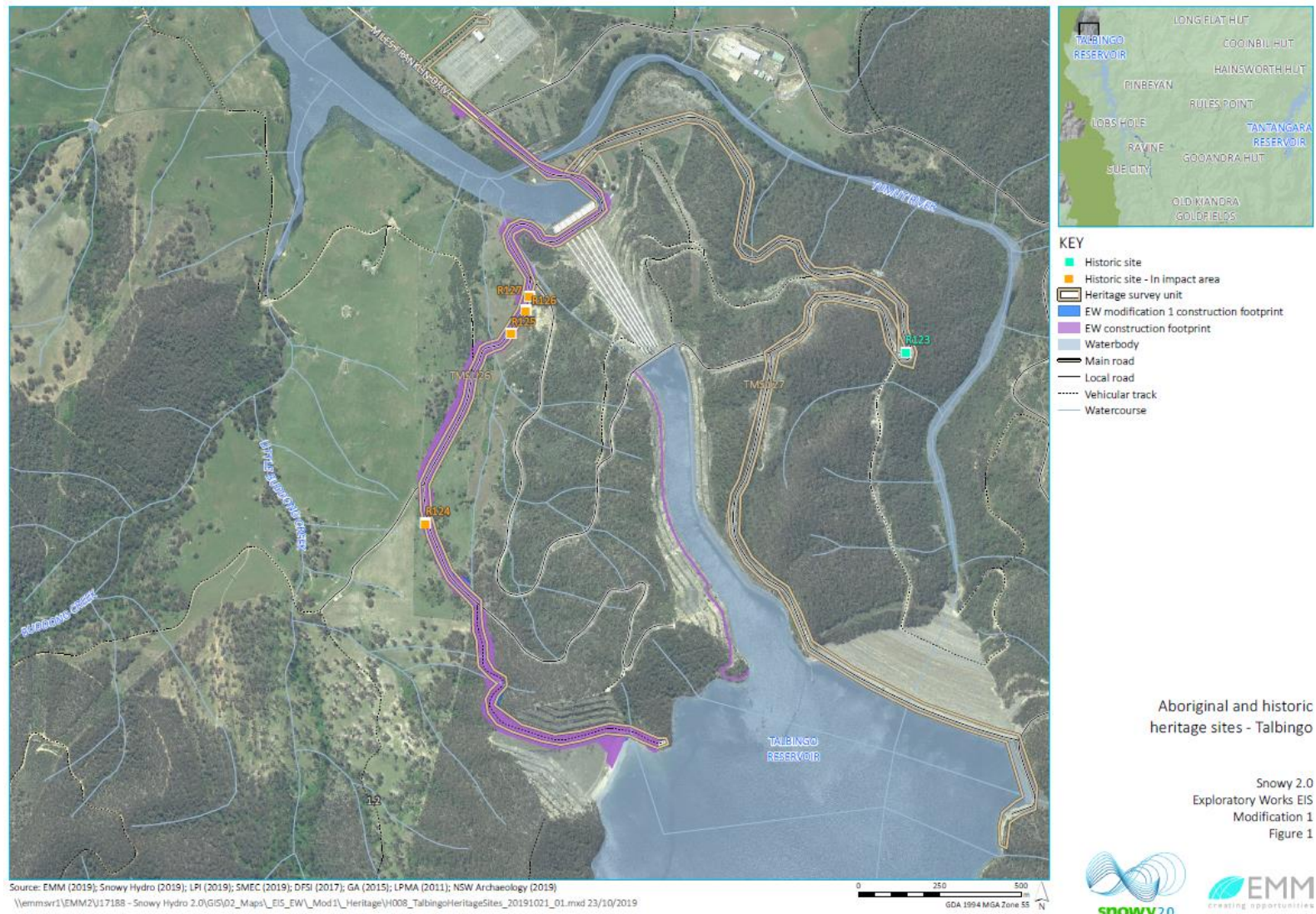
Exploratory Works  
Figure 2



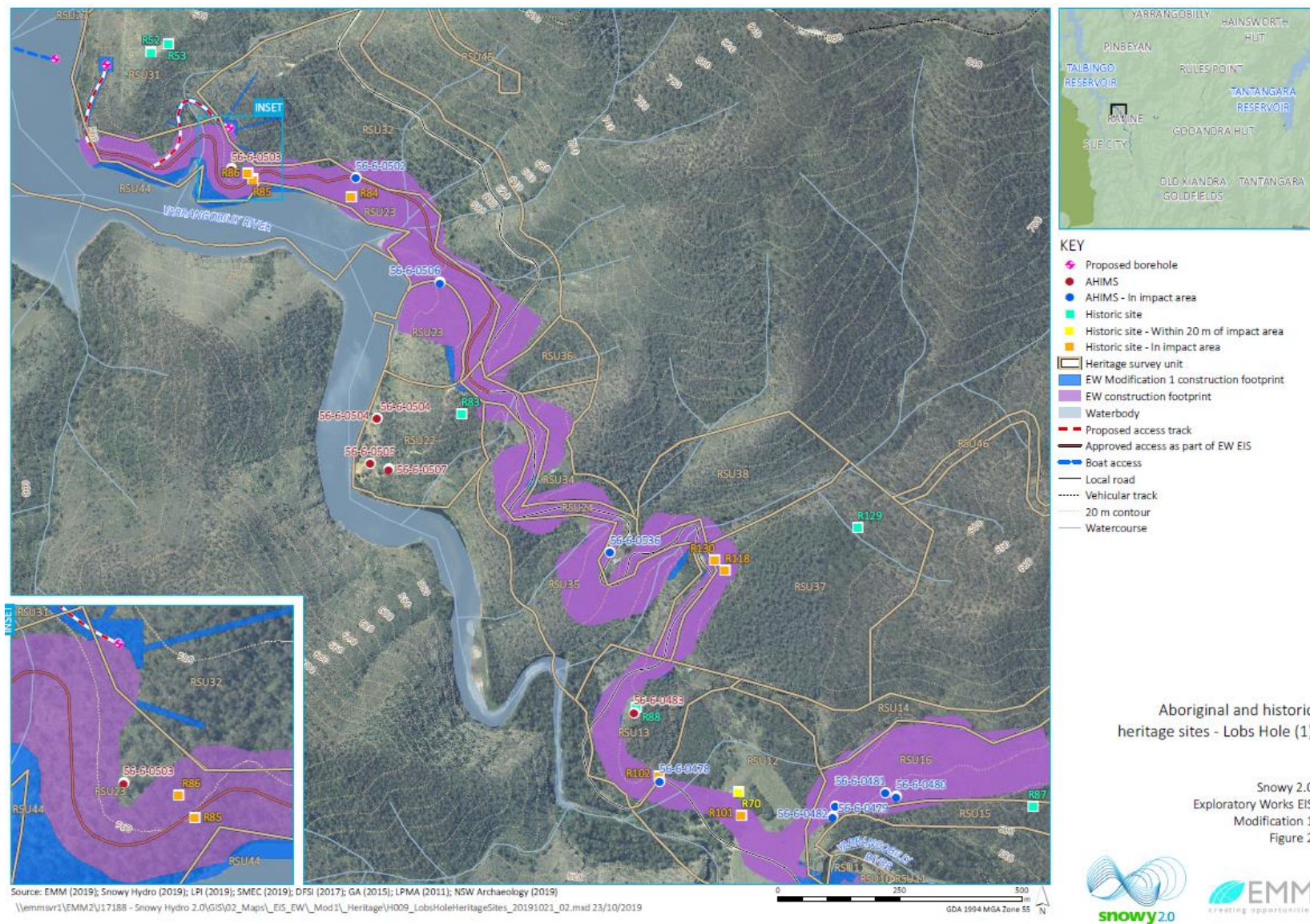
**Figure 2-24: Public Access Closures**

24. Delete Appendix 3 and replace with the following:

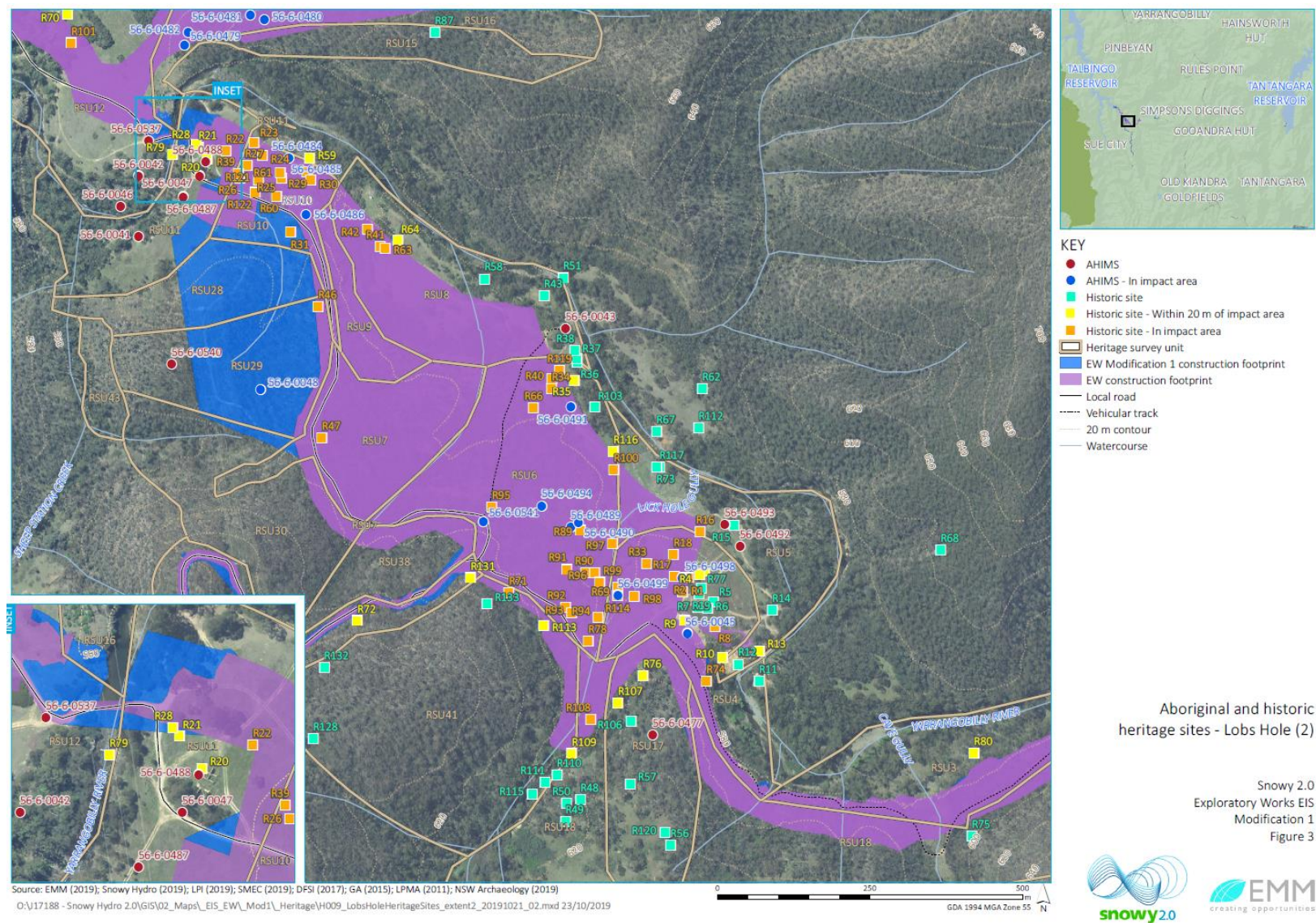
### APPENDIX 3 – HERITAGE FIGURES, MAPS & TABLES



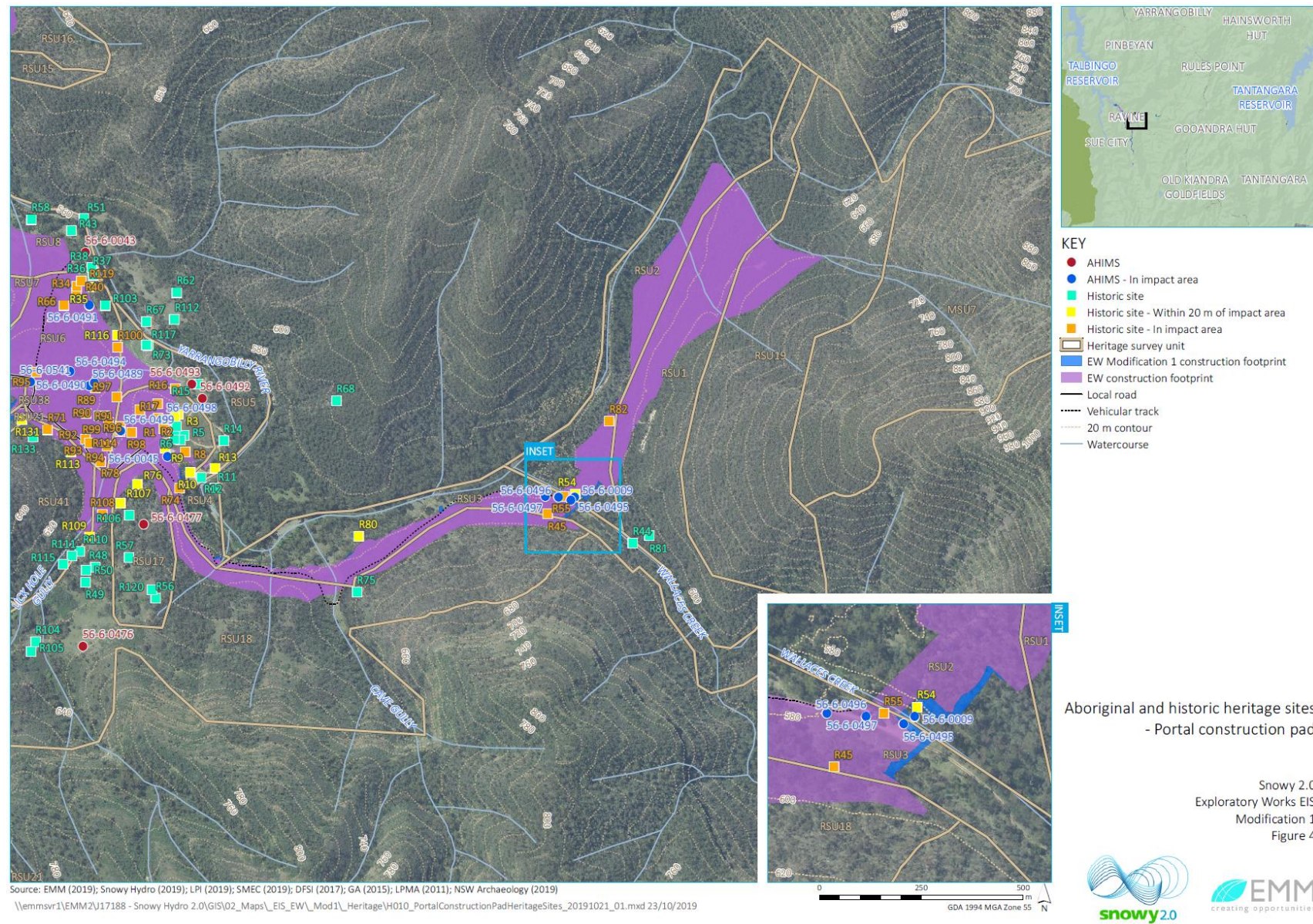
**Figure 3-1: Aboriginal and historic heritage sites – Talbingo**



**Figure 3-2: Aboriginal and historic heritage sites – Lobs Hole**



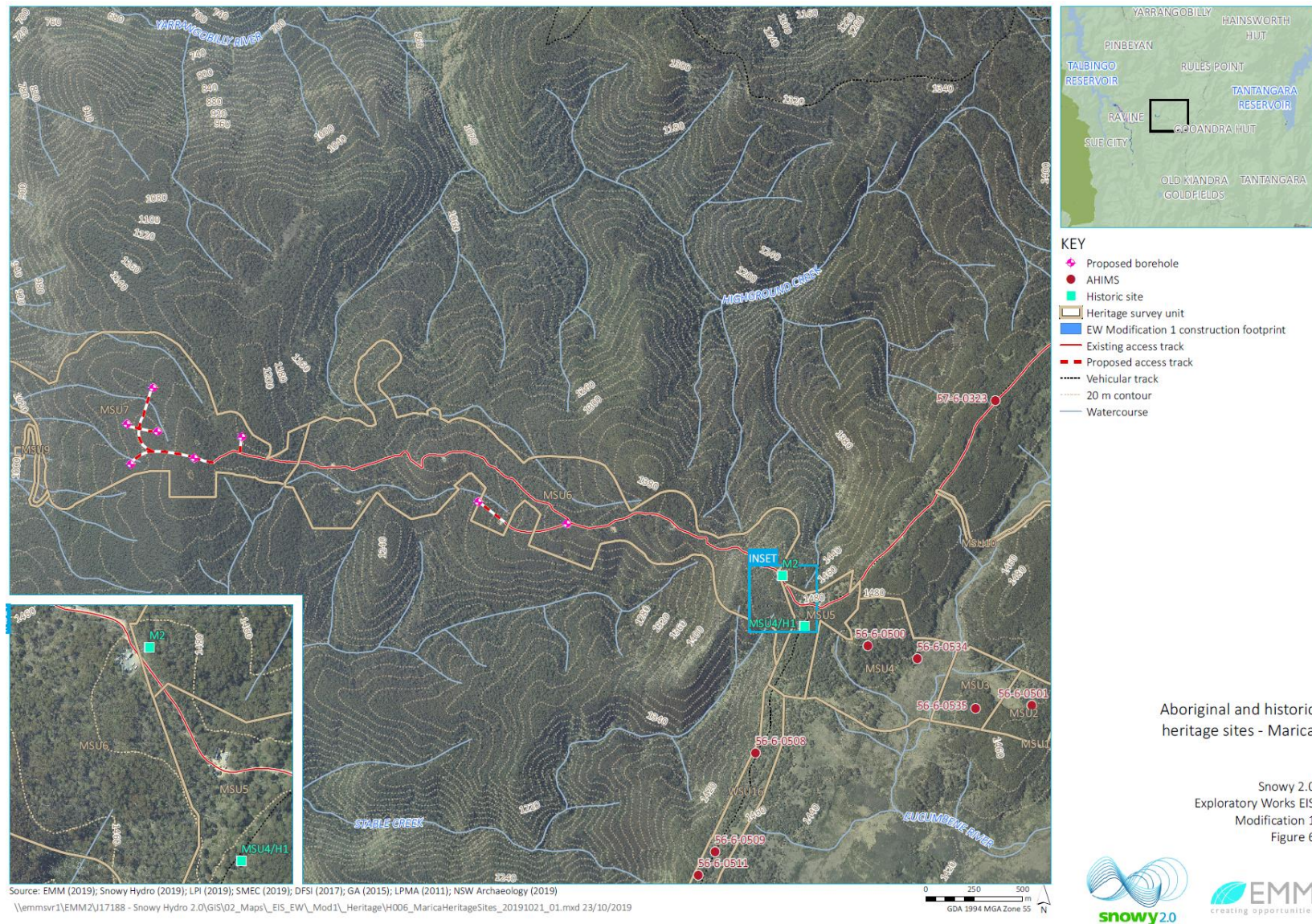
**Figure 3-3: Aboriginal and historic heritage sites – Lobs Hole**



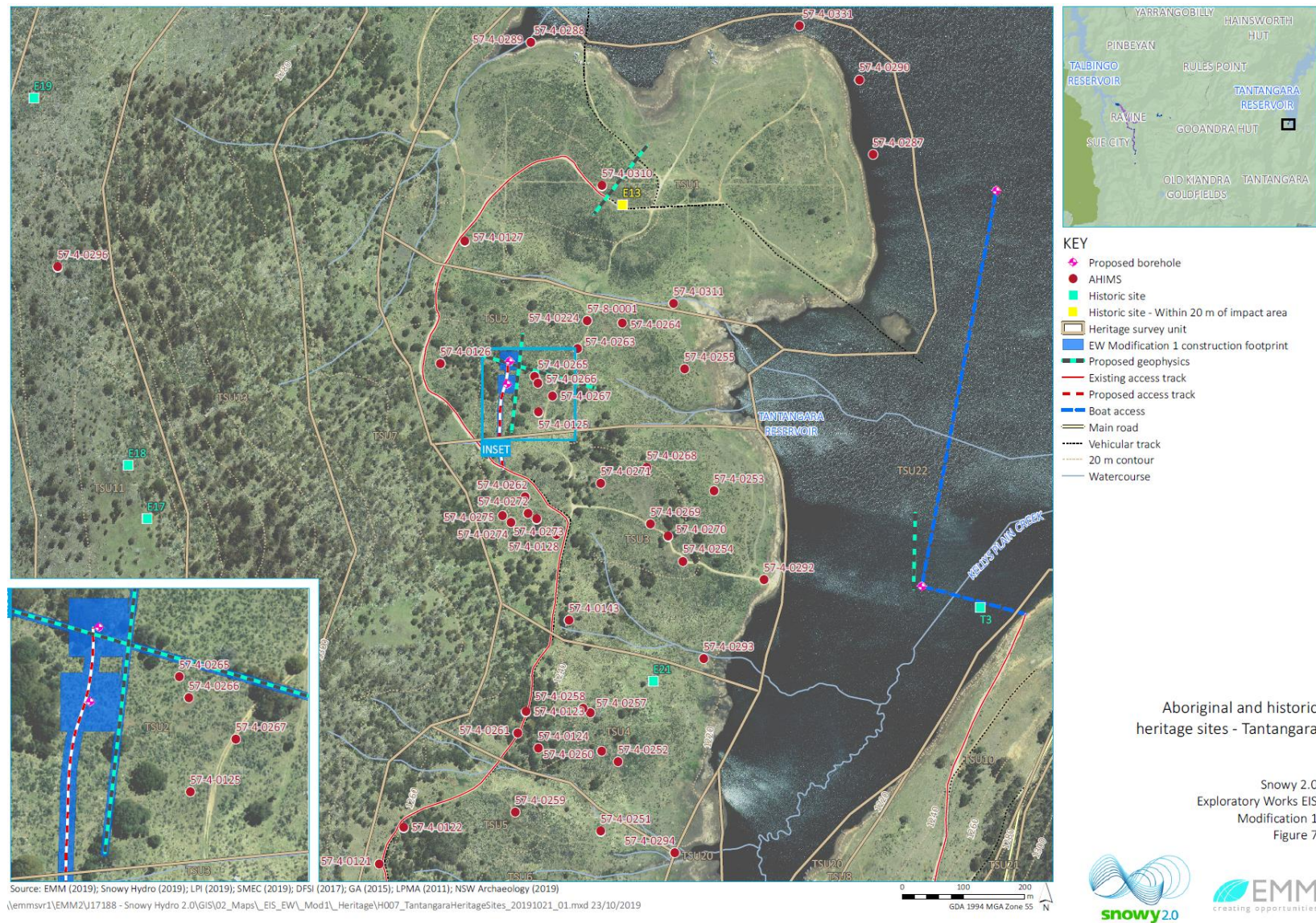
**Figure 3-4: Aboriginal and historic heritage sites – Lobs Hole**



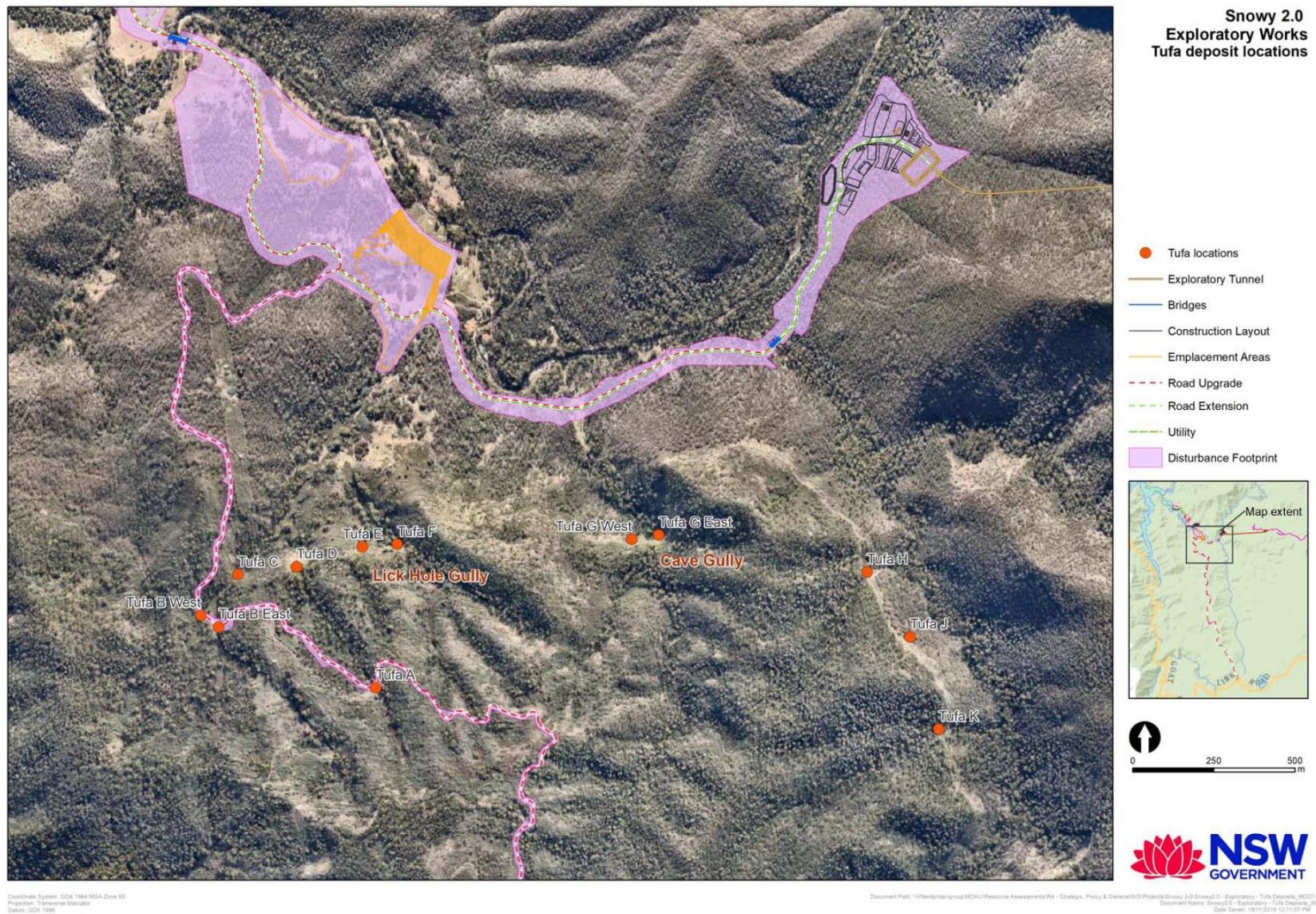
**Figure 3-5: Aboriginal and historic heritage sites – Lobs Hole Ravine Road**



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



**Figure 3-7: Aboriginal and historic heritage sites – Tantaranga**



**Figure 3-8: Tufa deposit locations**

**Table 3-1 – Aboriginal Sites in Area of Disturbance – Salvage**

ID	Aboriginal Objects	Area	Significance	Impact	Nature of Impact	Management and mitigation
SU2	-	Construction Pad Mine Trail Road	Potentially moderate local significance	Direct	Partial	Monitoring after vegetation clearance and salvage excavation
SU6	AHIMS 56-6-0494 (SU6/L1) AHIMS 56-6-0491 (SU6/L2) AHIMS 56-6-0489 (SU6/L3) AHIMS 56-6-0490 (SU6/L4) Test Transect 1 Test Transect 2	Excavated material stockpile	Moderate local significance	Direct	Partial	Monitoring after vegetation clearance and salvage excavation
SU7	Nil recorded	Excavated material stockpile	Potentially moderate local significance	Direct	Partial	Monitoring after vegetation clearance and salvage excavation
SU10	AHIMS 56-6-0484 (SU10/L1) AHIMS 56-6-0485 (SU10/L2) AHIMS 56-6-0486 (SU10/L3) Test Transect 1 Test Transect 2	Lobs Hole Ravine Road Upgrade	Moderate local significance	Direct	Partial	Salvage excavation
SU12	AHIMS 56-6-0537 (RSU12/L1) AHIMS 56-6-0042 AHIMS 56-6-0046 Test Transect 1 Test Transect 2 Test Transect 3 Test Transect 4 Test Transect 5 Test Transect 6	Lobs Hole Ravine Road Upgrade	Moderate local significance	Direct	Partial	Depending on the extent of impacts, salvage excavations may be appropriate

ID	Aboriginal Objects	Area	Significance	Impact	Nature of Impact	Management and mitigation
	Test Transect 7 Test Transect 8					
SU25	AHIMS 56-6-0038 AHIMS 56-6-0039 AHIMS 56-6-0040	Lobs Hole Ravine Road Upgrade Laydown	Low local significance	Direct	Partial	Salvage excavation

**Table 3-2 – Aboriginal Sites in Area of Disturbance – Unmitigated impact**

ID	Aboriginal Objects	Area	Significance	Impact	Nature of Impact	Management and mitigation
SU1 -	Nil recorded	Construction Pad Mine Trail Road Extension	-	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU3	AHIMS 56-6-0009 AHIMS 56-6-0495 (SU3/L1) AHIMS 56-6-0496 (SU3/L2) AHIMS 56-6-0497 (SU3/L3) Test Transect 1 Test Transect 2 Test Transect 3 Test Transect 4	Mine Trail Road Upgrade	Low/moderate local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU4	AHIMS 56-6-0045 AHIMS 56-6-0498 (SU4/L1) AHIMS 56-6-0499 (SU4/L2)	Mine Trail Road Upgrade Excavated material stockpile	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU5	AHIMS 56-6-0492 (SU5/L1) AHIMS 56-6-0493 (SU5/L2) Test Transect 1 Test Transect 2 Test Transect 3 Test Transect 4 Test Transect 5	Excavated material stockpile	Moderate local significance	Direct	Partial	Nil required; Impacts minimal
SU8	AHIMS 56-6-	Excavated material	Low local	Direct	Partial	Unmitigated impact:

ID	Aboriginal Objects	Area	Significance	Impact	Nature of Impact	Management and mitigation
	0043 Test Transect 1 Test Transect 2 Test Transect 3 Test Transect 4	stockpile	significance			Avoidance or salvage not required
SU9	Nil recorded	Excavated material stockpile	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU11	AHIMS 56-6-0041 AHIMS 56-6-0047 AHIMS 56-6-0487 (SU11/L1) AHIMS 56-6-0487 (SU11/L2) SU11/L3 Test Transect 1 Test Transect 2 Test Transect 3	Lobs Hole Ravine Road Upgrade	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU13	AHIMS 56-6-0483 (SU13/L1) AHIMS 56-6-0478 (SU13/L2)	Lower Lobs Hole Ravine Road Upgrade	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU15	Nil recorded	Accommodation camp	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU16	AHIMS 56-6-0479 (SU16/L1) AHIMS 56-6-0480 (SU16/L2) AHIMS 56-6-0481 (SU16/L3) AHIMS 56-6-0482 (SU16/L4)	Accommodation camp	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU18	AHIMS 56-6-0476 (SU18/L1)	Mine Trail Road Upgrade Rock emplacement Area	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU19	Nil recorded	Construction Pad	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU21	Nil recorded	Lobs Hole Ravine Road upgrade	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required

ID	Aboriginal Objects	Area	Significance	Impact	Nature of Impact	Management and mitigation
SU22	AHIMS 56-6-0507 (SU22/L1) AHIMS 56-6-0505 (SU22/L2) AHIMS 56-6-0504 (SU22/L3)	Lower Lobs Hole Ravine Road Upgrade	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU23	AHIMS 56-6-0506 (SU23/L1) AHIMS 56-6-0503 (SU23/L2) AHIMS 56-6-0502 (SU23/L3)	Middle Bay Wharf Access Wharf laydown	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU24	AHIMS 56-6-0536 (SU24/L1)	Lower Lobs Hole Ravine Road Upgrade	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required
SU26	Nil recorded	Talbingo access	Low local significance	Direct	Partial	Unmitigated impact: Avoidance or salvage not required

**Table 3-3 – Historic Heritage Items – Avoid impact**

ID	Item Name	Significance	Complex	Impact	Management measure
R9	Lobbs Hole Copper Mine Shafts	Local	Lobbs Hole Copper Mine	Potential direct impact (within 20 m)	Include in a no-go buffer Archival recording
R14	Site of reverberatory furnace	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording Implement measures to protect moveable heritage
R20	Washington Hotel	Local	Ravine Township	Potential direct impact (within 20 m)	Archival recording Ensure no inadvertent impacts Determine curtilage around the item Assess the significance of component parts Test excavation Salvage if warranted
R48	Excavation possible shed	Contributory	Yan Farm Infrastructure	No impact	Include in a no-go buffer Archival recording Implement measures to protect moveable heritage
R49	Circular stone wall	Contributory	Yan Farm Infrastructure	No impact	Include in a no-go buffer Archival recording Implement measures to protect moveable heritage
R50	Shed with bullock wagon frame	Contributory	Yan Farm Infrastructure	No impact	Include in a no-go buffer Archival recording Implement measures to protect moveable heritage
R56	Excavated ditch	Contributory	Struggle Street	No impact	Include in a no-go buffer Archival recording

					Implement measures to protect moveable heritage
R57	Old road alignment	Local	Struggle Street	No impact	Include in a no-go buffer Archival recording Implement measures to protect moveable heritage
R58	Large metal pipes	N/A	Lobs Hole historic landscape	No impact	Include in a no-go buffer Archival recording Implement measures to protect moveable heritage
R74	Metal water pipe	Contributory	Lobbs Hole Copper Mine	Potential direct impact (within 20 m)	Archival recording Ensure no inadvertent impacts
R79	Bridge remains	N/A	SMA	Potential direct impact (within 20 m)	Include in a no-go buffer Archival recording
R88	Artificial mound of stone	Contributory	Lobs Hole historic landscape	No impact	Archival recording Ensure no inadvertent impacts
R118	Ravine cemetery	Contributory	Ravine Township	Direct impact	Archival recording Test excavation Salvage if warranted

**Table 3-4 – Historic Heritage Items – Impact mitigation**

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b>
R1	1885 West Pinbeyan Station Homestead	Local	West Pinbeyan Station Homestead	Direct impact	Archival recording Test excavation, salvage if warranted
R2	Metal water pipe	Contributory	West Pinbeyan Station Homestead	Direct impact	Archival recording Test excavation, salvage if warranted Implement measures to protect moveable heritage
R3	Possible building structure	Contributory	West Pinbeyan Station Homestead	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R4	Rectilinear depression	Contributory	West Pinbeyan Station Homestead	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R5	Slag	N/A	Lobbs Hole Copper Mine	No impact	Archival recording
R6	Stone flagging	Contributory	West Pinbeyan Station Homestead	No impact	Archival recording
R7	Depression	N/A	Lobs Hole historic landscape	No impact	Archival recording
R8	Depression	N/A	Lobs Hole historic landscape	No impact	Archival recording
R10	Lobbs Hole Copper Mine	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R11	Mullock and metal ore bucket	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R12	Foundations for Pelton Wheel	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R13	Tramway cutting	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b>
R15	Stone channel	Contributory	Yan Farm Infrastructure	No impact	Archival recording
R16	Pile of rocks and drums	Contributory	West Pinbeyan Station Homestead	Direct impact	Archival recording Test excavation, salvage if warranted. Implement measures to protect moveable heritage
R17	Levelled area	Contributory	West Pinbeyan Station Homestead	Direct impact	Archival recording Test excavation, salvage if warranted
R18	Fallen fence	Contributory	Yan Farm Infrastructure	Direct impact	Archival recording Test excavation, salvage if warranted
R19	Levelled pad	Contributory	West Pinbeyan Station Homestead	No impact	Archival recording
R21	Depression and debris	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R22	Potential earthen feature	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R23	Excavation	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R24	Depression	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R25	Building platform	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R26	Mound	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R27	Depression with rock	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R28	Pisé ruin	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R29	Mound of stone and brick	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R30	Rectilinear earth feature	Contributory	Ravine Township	Direct impact	Archival recording Test excavation Salvage if warranted
R31	Water race	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R33	Excavation and bricks	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R34	Mound of stone	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R35	Rabbit proof fence	Contributory	Yan Farm Infrastructure	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R36	Hole	N/A	SMA	No impact	Archival recording
R37	Flying fox	N/A	SMA	No impact	Archival recording

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b>
R38	Yarrangobilly Stream Gauging Station 2	N/A	SMA	No impact	Archival recording
R39	Excavation	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R40	Cutting for building platform	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R41	Parallel stone alignment	Contributory	Ravine Township	Direct impact	Archival recording Test excavation Salvage if warranted
R42	Rosie Cook's place	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R43	Yan's farm - rabbit proof fence	Contributory	Yan Farm Infrastructure	No impact	Archival recording
R44	Stable Creek stream gauging station	N/A	SMA	No impact	Archival recording
R45	Lobbs Hole Copper Mine water race	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R46	Large excavation	N/A	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R47	Ravine Public School site	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R51	Adit in cliff Coronation mine	N/A	Lobbs Hole Copper Mine	No impact	Archival recording
R52	Survey mark	N/A	SMA	No impact	Archival recording
R53	Old road	N/A	Lobs Hole historic landscape	No impact	Archival recording
R54	Site of bridge	N/A	SMA	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R55	Brick hearth	N/A	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R59	Domestic metal glass	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R60	Police Station site	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R61	Well	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R62	Possible shaft	Unverified	Lobbs Hole Copper Mine	No impact	Archival recording
R63	Pile of Shale	Unverified	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R64	Water race	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts expected
R65	Thomas house	Contributory	Ravine Township	No impact	Archival recording
R66	House platform	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b> if warranted
R67	Lobbs Hole Central Mine	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R68	Shaft and mullock	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R69	Brick kiln	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted Implement measures to protect moveable heritage
R70	Concrete fire place	Contributory	Lobs Hole historic landscape	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R71	Butcher shop	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted. Implement measures to protect moveable heritage
R72	Stone furnace	N/A	Lobs Hole historic landscape	Potential direct impact (within 20 m)	Archival recording Test excavation, Salvage if warranted and impacts are expected
R73	Rabbit proof fence	Contributory	Yan Farm Infrastructure	No impact	Archival recording
R75	Mine shaft on ML 31	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R76	Scatter of tin, glass and brick	Contributory	Struggle Street	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R77	Site of meteorological station	N/A	SMA	No impact	Archival recording
R78	Pine tree	N/A	Lobs hole historic landscape	Direct Impact	Archival recording
R80	Elizabeth Frazer's orchard	Contributory	Struggle Street	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts expected
R81	Yarrangobilly River water race/road	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R82	Front seat of car ~ 1960s	N/A	Lobs Hole historic landscape	Direct impact	Archival recording
R83	Pile of sheet metal	N/A	Lobs Hole historic landscape	No impact	Archival recording
R84	Possible old road	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R85	Possible old road	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R86	Possible old road	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R87	Tree with scar and axe	Contributory	Lobs Hole historic landscape	No impact	Archival recording
R89	Artificial mound of stone	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b>
R90	Lobbs Hole Copper Mine - Lick Hole Gully Adit	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R91	Mine Shaft (? No. 4)	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R92	Building platforms	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R93	Fence	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R94	Road alignment	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R95	Road alignment	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R96	Open Cut in Lick Hole Gully	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R97	Exotic trees	Contributory	West Pinbeyan Station Homestead	Direct impact	Archival recording
R98	Excavated pit	Contributory	Lobbs Hole Copper Mine	Direct impact	Archival recording Test excavation, salvage if warranted
R99	Well	Contributory	Yan Farm Infrastructure	Direct impact	Archival recording Test excavation, salvage if warranted
R100	Single furrow plough	Contributory	Yan Farm Infrastructure	Direct impact	Archival recording Test excavation, salvage if warranted
R101	Possible building site	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R102	Stone culverts	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R103	Levelled platform	Contributory	Yan Farm Infrastructure	No impact	Archival recording
R104	Lick Hole Gully water race	Contributory	Yan Farm Infrastructure	No impact	Archival recording
R105	Ditch	Contributory	Lobs Hole historic landscape	No impact	Archival recording
R106	Old Road	Contributory	Struggle Street	No impact	Archival recording
R107	Building platform	Contributory	Struggle Street	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts expected
R108	Old road	Contributory	Struggle Street	Direct impact	Archival recording Test excavation, salvage if warranted
R109	House platform with wooden cross	Contributory	Struggle Street	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R110	Building platform	Contributory	Struggle Street	No impact	Archival recording Avoid impacts if possible
R111	Path to creek	Contributory	Struggle Street	No impact	Archival recording
R112	Possible shaft	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording

<b>ID</b>	<b>Item Name</b>	<b>Significance</b>	<b>Complex</b>	<b>Impact</b>	<b>Management measure</b>
R113	Shed platforms	Local	Yan Farm Infrastructure	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R114	Excavation	Contributory	Lobs Hole historic landscape	Direct impact	Archival recording Test excavation, salvage if warranted
R115	Stone lined channel	Contributory	Struggle Street	No impact	Archival recording
R116	House site	Contributory	Ravine Township	Potential direct impact (within 20 m)	Archival recording Test excavation, salvage if warranted and impacts are expected
R117	Possible shaft	Contributory	Lobbs Hole Copper Mine	No impact	Archival recording
R119	SH weather station	N/A	Snowy Hydro	Direct impact	Weather station in use but can be relocated
R120	Building platform	Contributory	Struggle Street	No impact	Archival recording
R121	Depression	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R122	Fireplace platform	Contributory	Ravine Township	Direct impact	Archival recording Test excavation, salvage if warranted
R123	Survey marker	N/A	SMA	No impact	Archival recording
R124	SMA laydown area	N/A	SMA	Direct impact	Archival recording
R125	SMA quarry	N/A	SMA	Direct impact	Archival recording
R126	SMA survey marker	N/A	SMA	Direct impact	Archival recording
R127	SMA survey marker	N/A	SMA	Direct impact	Archival recording
R128	First school at Lobs Hole	Contributory	Ravine Township	No impact	Archival recording

25. Delete Appendix 4.

## END OF MODIFICATION