

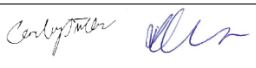
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Date: 9 December 2025

Project note

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Project	Response to TPC RFI for RemNWTD design change ECOVAR31
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Subject	Response to TPC RFI for RemNWTD design change

Revision history

Revision 1.1			
Revision description	ECOVAR31 deliverable to provide response to TPC RFI for the RemNWTD design change including replacing 25 towers with dual monopoles on the Sheffield to Burnie section of the alignment and increasing the height of two towers on the Heybridge Spurs.		
Prepared by	Rachael Wheeler and Carley Fuller		15 Dec 2025
Reviewed by	Raymond Brereton		15 Dec 2025
Approved by	Malcolm McCausland		15 Dec 2025
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Distributed to	Anna Gallagher	Tetra Tech Coffey	17 Dec 2025
	(name)	(organisation)	(date)

1. Introduction

Tasmanian Networks Pty Ltd (TasNetworks) proposes to develop new double-circuit 220 kilovolt (kV) overhead transmission lines (OHTLs) in North West Tasmania, upgrade the existing Palmerston, Sheffield and Burnie substations and construct a new switching station at Hampshire. This project is a component

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of the North West Transmission Developments (NWTd), and is known as the Remaining NWTd ('RemNWTd,' the Project). The OHTLs proposed as part of the Project include:

- Palmerston to Sheffield (PM-SH)
- Sheffield to Burnie (SH-BU)
- Heybridge Spur (East (HBSpurE)
- Heybridge Spur West (HBSpurW)
- Burnie to Hampshire Hills (BU-HH).

On 17 April 2025, TasNetworks submitted an application for a planning permit under the *Land Use Planning and Approvals Act 1993* (the LUPA Act). On 20 September 2025 the Tasmanian Planning Commission (TPC) placed the application for planning permit on public exhibition, pursuant to s.57(3) of the *Land Use and Planning Approvals Act 1993* (LUPAA).

2. Updated RemNWTd project description

On 17 October 2025, TasNetworks made a representation to the TPC, which is available on the TasNetworks website¹, which requests design changes. Should the TPC support the proposed changes, these will be incorporated into the permit that may be granted by the TPC in relation to RemNWTd.

In summary, the design changes detailed in the TasNetworks representation letter to the TPC are:

- the replacement of 25 steel lattice towers with dual monopoles (i.e. 50 poles) on the SH-BU section in constrained locations, which is necessary to minimise significant outages and their associated impacts. Specifically, this Project amendment will prevent the need of a single three-month outage and instead result in a series of 'day' outages, as the poles will enable the existing 220 kV OHTL to remain in situ during construction allowing it to be energised outside of construction hours.
- increasing the height of two towers (T3 and T4) on the HBSpurs section. The nominated maximum height of towers for the HBSpurs was originally 53 m, because HBSpurs is the only greenfield section of stage one of RemNWTd. TasNetworks proposes to increase the nominated maximum height of these two towers to 59 m such that the Cradle Coast Envirowaste Waste Depot ('the landfill') can be safely spanned by the transmission line. The increase of 6 m is required to accommodate a potential increase in height of the landfill surface if the waste depot operations are intensified.

The locations of these changes relative to the rest of the RemNWTd Project is shown in Figure 2.1.

¹ https://www.planning.tas.gov.au/_data/assets/pdf_file/0011/833537/Representation-16-TasNetworks-17-October-2025.pdf

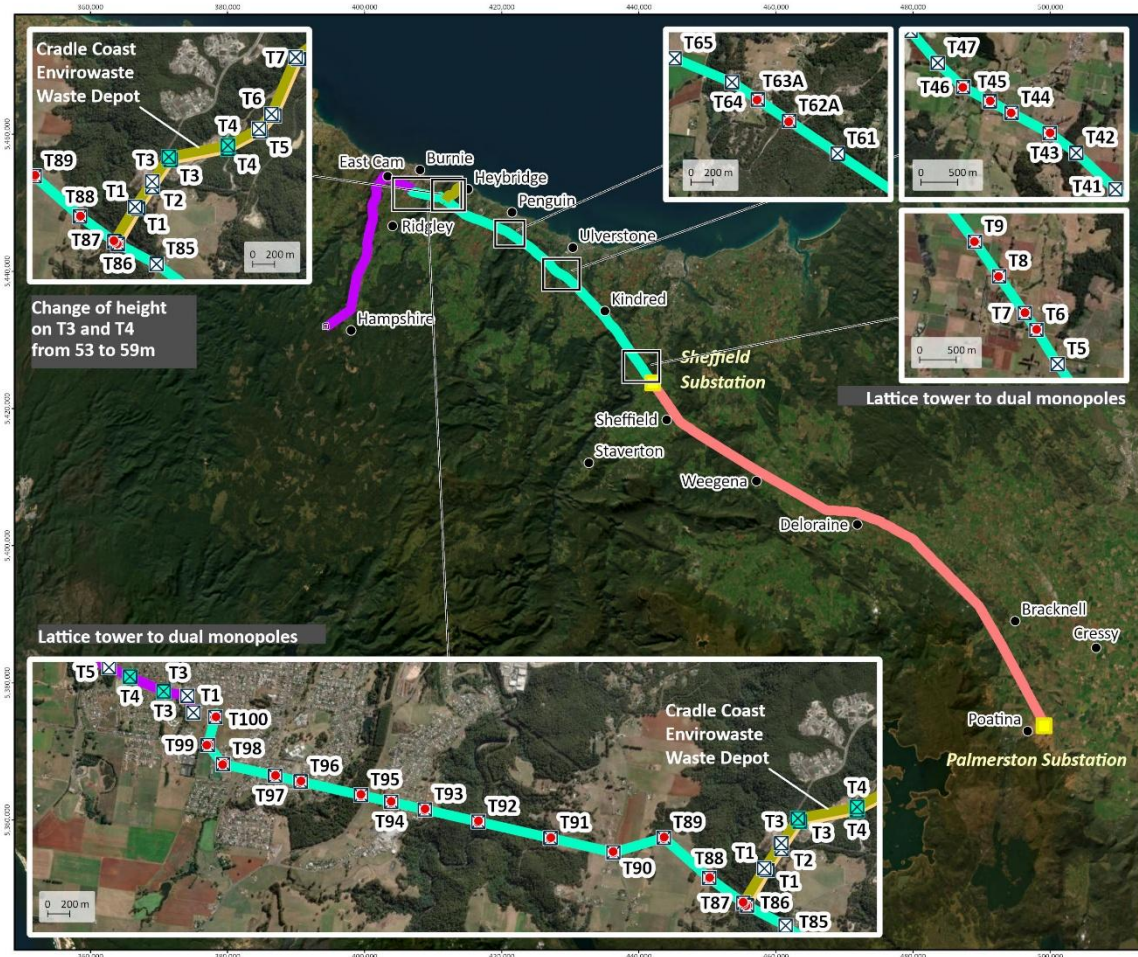
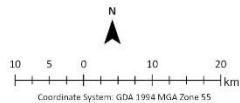
Remaining NWTD Proposed Transmission Routes Lattice Tower to Monopoles

Legend

- ⊠ Lattice tower
- ⊠ Lattice tower with increased height
- Proposed monopoles
- Town names
- Substations

Remaining NWTD

- Palmerston to Sheffield
- Sheffield to Burnie
- Burnie to Hampshire Hills
- Heybridge Spur East
- Heybridge Spur West



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Figure 2.1: Map of RemNWTD and proposed design changes

TasNetworks provided the following information on the design changes:

- for the dual monopole design, the minimum vertical distance between phases on the same pole is 6 m, and the minimum horizontal separation between the circuits is 13 m.
- each pole of the dual monopole structure will carry one 220 kV circuit and will have its own separate foundation.
- an area of approximately 30 m by 30 m will be required to construct each transmission dual monopole structure, and that this construction pad will be located within the 80 x 50 m tower workspace area assessed previously.
- there will be no changes to vegetation clearance requirements.
- the 8.5 m by 8.5 m is the total operational footprint area of the two poles combined, and it will be located within the 15 m by 15 m operational footprint proposed for the original towers.
- pole centre spacing between the poles will be approximately 13 m for Light Suspension and 16 m for Heavy Strain dual monopole structures.
- pole heights will change as shown in Table 2.1.

Table 2.1: Proposed changes to pole height increases in tower height are bold)

Structure	Permit Tower Height (m)	Pole Height (m)	Net Difference (Permit vs Poles)
538T6	49	47.2	- 1.8
538T7	47	43.2	- 3.8
538T8	58	55.2	- 2.8
538T9	57	58.7	+ 1.7
538T43	48	47.2	- 0.8
538T44	56	58.7	+ 2.7
538T45	33	43.2	+ 10.2
538T46	48	47.2	- 0.8
538T62a	38	43.2	+ 5.2
538T63a	38	47.2	+ 9.2
538T86	35	35.2	+ 0.2
538T87	35	35.2	+ 0.2
538T88	55	55.2	+ 0.2
538T89	55	58.7	+ 3.7
538T90	47	47.2	+ 0.2
538T91	52	58.7	+ 6.7
538T92	45	47.2	+ 2.2
538T93	46	43.2	- 2.8
538T94	43	37.2	- 5.8
538T95	58	55.2	- 2.8
538T96	37	37.2	+ 0.2
538T97	44	43.2	- 0.8
538T98	42	40.2	- 1.8
538T99	39	40.2	+ 1.2
538T100	37	45.2	+ 8.2

3. Updated RemNWD ecological impact assessment

In November 2025, Entura was engaged to assess any changes in impacts on threatened species, threatened vegetation communities, threatened ecological communities and any other Matters of National Environmental Significance (MNES) listed under the Tasmanian *Threatened Species Protection Act 1995* (TSP Act), the Tasmanian *Nature Conservation Act 2002* (NC Act), and/or the Commonwealth *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), and to propose revised recommended mitigation actions, if necessary.

Entura's team of ecologists are suitably qualified, particularly as this team was also engaged to undertake the ecological baseline characterisation and impact assessment for the original, preliminary design of the RemNWD and is familiar with the natural values present at the sites of the proposed design changes. The RemNWD ecological surveys were led by Entura's senior ecologist Raymond Brereton. He has over 3 decades of experience in the field of fauna and flora survey and environmental impact assessment. Mr Brereton served from 2011 to 2016 as the Chair of the Scientific Advisory Committee (threatened species) established under the Tasmanian *Threatened Species Protection Act 1995*, and he is currently Team Leader of the Environment and Planning team at Entura. Mr. Brereton is also a member of TASCAT (Tasmanian Civil and Administrative Tribunal). He is a biodiversity specialist for the Resource Planning Stream and the Forest Practices Stream. He was also the Senior Zoologist at the Forest Practices Board between July 2002 and March 2003 and worked as the Threatened Species Zoologist in the Department of Primary Industry, Water and Environment, Tasmania between December 1999 and June 2002. The surveys and assessments were supported by Entura's terrestrial ecologists Rachael Wheeler with 8 years' experience and Dr Carley Fuller with 6 years' experience and a doctorate from the University of Tasmania in the field of conservation ecology.

The most recent revision of Entura's original *Remaining North West Transmission Developments Ecology Baseline Characterisation and Impact Assessment* was issued to Tetra Tech Coffey on 28 July 2025. This Project note by the same authors aims to address the TPC request for "A written statement from a suitably qualified professional on the extent of any changes to impacts or mitigation actions resulting from the revised plans on Tasmanian listed species and communities and Matters of National Environmental Significance (MNES)." Specifically, this Project note seeks to:

- Assess any differences in ecological impacts anticipated for threatened raptors by:
 - Assessing the risk of threatened raptor collision and/or electrocution from increasing the maximum possible tower heights of T3 and T4 on the HBSpurs
 - Assessing the risk of threatened raptor collision and/or electrocution from the dual monopole design compared with the original tower design
 - Identifying Tasmanian eagle nests located between 500 m and 1 km of the dual monopole locations that may be impacted by a change of height of the dual monopoles compared with the towers in the previous design.
- Assess any changes in impacts to threatened fauna species from dust, noise, vibration and traffic (e.g. roadkill impacts) associated with the construction of the dual monopoles instead of towers.
- Assess change in permanent conversion of native vegetation to dual monopoles infrastructure, which require smaller construction and operational footprints compared to steel lattice tower infrastructure.

- Assess any change in possible electromagnetic field impacts to platypus in irrigation dams or watercourses that the OHTL will overfly, given the taller tower heights (noting that the platypus is not a Tasmanian listed threatened species or MNES).
- Provide map figures supporting the above assessments and demonstrating the change in the Project description.
- Assess if the mitigation measures proposed for the original tower design still adequately mitigate the impacts from the updated dual monopole design for threatened species, or whether changes to mitigation measures are required.

This updated impact assessment is based on the Entura ecologists' past experience with the survey area as well as desktop based assessment of databases, primarily the Tasmanian Natural Values Atlas (NVA). No additional fieldwork was undertaken for this updated assessment.

Further, it is noted that the proposed dual monopoles require deeper foundations than the previous tower design. Potential changes to anticipated hydrological impacts in areas of karst (if any) where the dual monopoles are proposed are not addressed by this Project note.

This updated assessment does not include updated line-of-sight viewshed analyses for Tasmanian eagle nests between 500 m and 1 km of the sections of the RemNWT D for which design changes are proposed. It also does not reassess the cumulative impacts on Tasmanian eagles from the RemNWT D project with other proposed developments considered in the RemNWT D ecology baseline characterisation and impact assessment report.

4. Threatened raptors

Collision and electrocution risk for threatened raptors

Dual monopole design

Three threatened raptor species were identified as potentially impacted by the RemNWT D Project (Entura, 2025):

- Tasmanian masked owl (*Tyto novaehollandiae castanops*): listed as endangered under the TSP Act and vulnerable under the EPBC Act
- Tasmanian wedge-tailed eagle (*Aquila audax fleayi*): listed as endangered under the TSP Act and EPBC Act
- White-bellied sea-eagle (*Haliaeetus leucogaster*): listed as vulnerable under the TSP Act and Marine under the EPBC Act

The twin conductors for the originally proposed steel lattice towers supporting 220 kV OHTL in the 25 constrained locations had a spacing of 520 mm, which was to be suspended from the tower by a large insulator. This arrangement of the conductors would result in the distance between the tower and the conductors being 3 m. This distance is greater than a full-grown adult Tasmanian eagle, which has a maximum wingspan of 2.3 m. Similarly, the risk of electrocution for the Tasmanian masked owl was considered low for the original tower design, given that the proposed arrangement of the conductors is greater than a full-grown adult masked owl, which has a wingspan of up to 128 cm.

The dual monopole design involves a vertical distance of 6 m between phases on the same pole, and a horizontal separation of 13 m between the circuits for Light Strain Poles (19 dual monopoles) and 16 m for Heavy Strain Poles (6 dual monopoles). The distance between the conductors is greater for the dual monopoles than that of the towers; therefore, the revised design with the dual monopoles poses an even lesser risk of electrocution for these threatened raptor species than the original tower design.

Generally, raptor collision with the OHTL is considered more likely than raptor electrocution incidents. The original tower design consists of separate phase and earthing, also known as optical ground wires (OPGW), conductors. The separate earthing wire is required to protect the power line from lightning strikes, as well as provide fibre optic communications for OHTL protection, supervisory control and data acquisition (SCADA) and other telecommunications services. Earth wires are typically positioned at the top of the tower, increasing the risk of collision with birds that fly over the conductors. As for the steel lattice towers, the dual monopole design also has an OPGW; thus, the risk of raptor collision is considered similar in both the original (tower) and revised (dual monopole) design.

The SH-BU section of the RemNWTD alignment follows the existing easement for the single circuit 220 kV OHTL. These existing power lines are already present in the landscape, and raptors will be at no greater risk of collision in these areas if these lines are replaced by the Project's OHTLs, for either the tower or dual monopole designs.

Increased tower height on HBSpurs

The assessment of the original design identified that there may be an elevated risk of raptor collision with the HBSpurs section of the RemNWTD OHTL, given there is no current OHTL infrastructure in the landscape of that section (Entura, 2025).

The closest recorded Tasmanian eagle nest (foreign ID #2573) to towers T3 and T4 on the HBSpurs is more than 800 m to the southeast, which was last recorded in May 2025. This wedge-tailed eagle nest was identified as being within 1 km line-of-sight of the towers T5 and T6 on the HBSpurs excluding extant vegetation (Forest Practices Authority, 2024), therefore the impact to this eagle nest remains unchanged from the previous tower design.

The proposed increase in height of towers T3 and T4 may represent an increased risk of collision for raptors compared to the previously proposed, lower tower heights. Increasing the tower heights of T3 and T4 may pose a marginally higher risk of collision for Tasmanian eagles, if an eagle were to traverse the gully within which the waste depot is located. However, it is unlikely that the elevated risk of collision from these two towers will change the overall impact of the Project on Tasmanian eagles.

There is no published data on the flying heights of Tasmanian masked owls for foraging or for site movements to indicate what the level of risk of collision might be with the OHTL (for the original or revised design). Thus, the increased tower heights for towers T3 and T4 may pose a marginally increased risk of collision for masked owls, however, is unlikely to change the overall impact of the Project on the species.

Since Entura completed the initial ecology baseline characterisation and impact assessment for the RemNWTD, a grey goshawk (*Tachyspiza novaehollandiae*) nest has been recorded on Chasm Creek (#3532), approximately 1.5 km from the span of the transmission line between towers T3 and T4. This

nest is too far away from the sections of RemNWTD for which the design changes are proposed to be affected by them.

5. Shorter construction period for dual monopoles

Construction activities can negatively impact Tasmanian devils (*Sarcophilus harrisii*), spotted-tailed quolls (*Dasyurus maculatus maculatus*) or eastern quolls (*Dasyurus viverrinus*) during the breeding season through destruction or disturbance of den sites (Environment Strategic Business Unit, 2023).

The construction period for dual monopoles is considerably shorter than that for towers, as poles can be transported to site largely pre-assembled and then can be immediately erected. Towers, however, require on-site assembly before being erected. Each tower can take up to a week to construct, whereas once the foundations are complete, a pole can be erected in a matter of hours. Therefore, the construction timeframe is reduced which will likely result in a corresponding localised reduction in potential noise, dust and traffic impacts on breeding fauna species including Tasmanian devils, spotted-tailed quolls and eastern quolls. However, the overall impact to these species from the Project remains materially unchanged.

The Tasmanian wedge-tailed eagle and white-bellied sea-eagle are sensitive to disturbance (including noise and construction activity within line-of-sight) at or around nest sites during the breeding season and they may desert a breeding attempt because of activities near a nest site (Environment Protection Authority, 2023). Significant impacts to these species largely relate to the disturbance of nest sites and breeding activity if the Project construction activity is within 500 m or 1 km line-of-sight of a nest site during the breeding season from July to January in most years. The breeding season can extend beyond 31 January in extended breeding season years (Environment Protection Authority, 2023).

There were two Tasmanian wedge-tailed eagle nests identified within 500 m and four nests within 1 km line-of-sight (excluding extant vegetation screening) of the RemNWTD towers for the SH-BU section (Entura, 2025). There was one Tasmanian wedge-tailed eagle nest within 1 km line-of-sight of the HBSpurs (Entura, 2025). There were also two white-bellied sea-eagle nests identified within 500 m of the RemNWTD towers for the SH-BU section, and no nests between 500 m and 1 km for the SH-BU section nor HBSpurs section (Entura, 2025).

Of these, there are three Tasmanian wedge-tailed eagle nests within 1 km of the proposed dual monopoles (Figure 5.1), including:

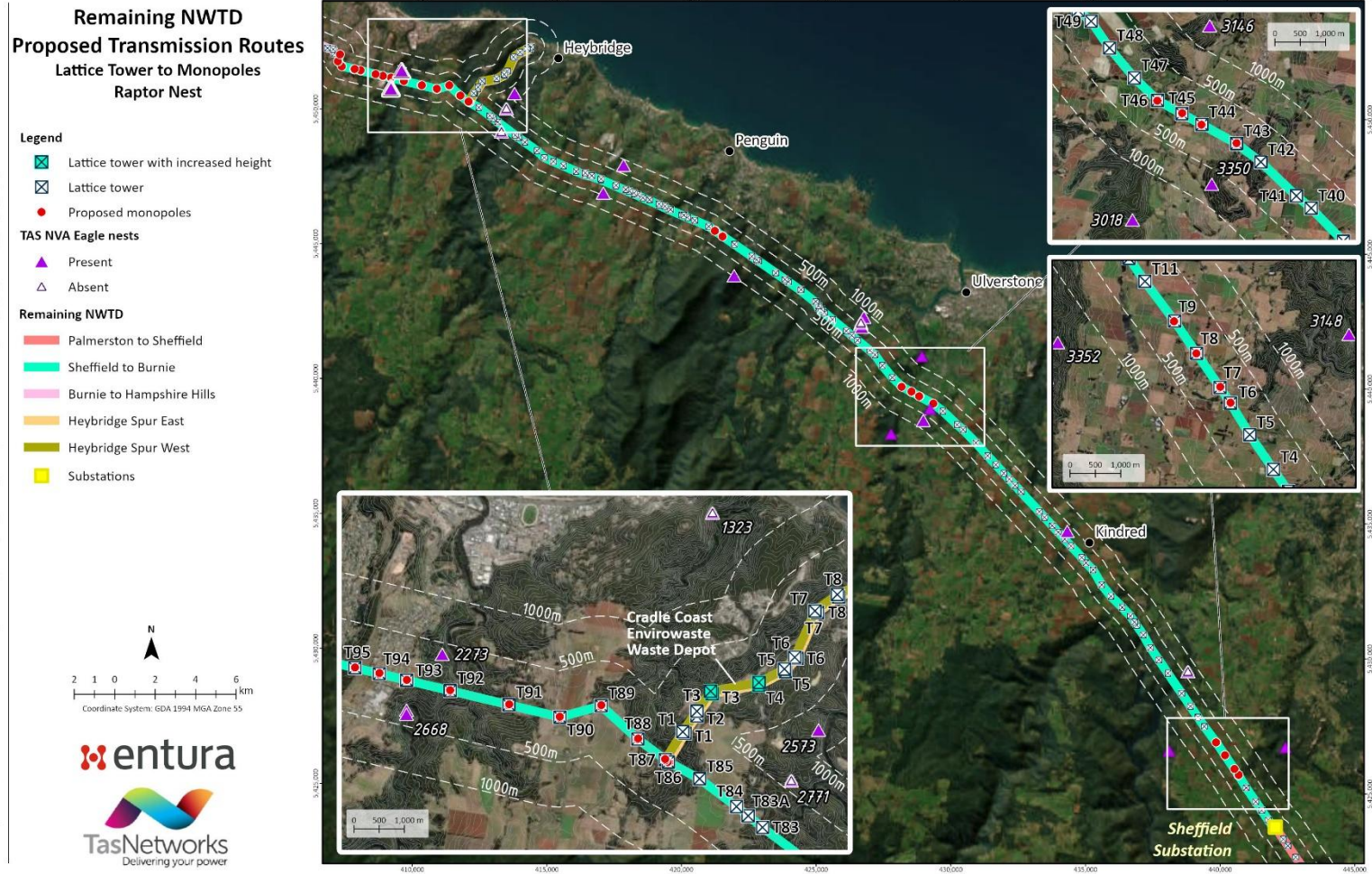
- Nest #2273² last recorded in October 2024 and is located within 1 km from dual monopoles T91A and T91B; T94A and T94B; and T95A and T95B. Note this nest is also within 500 m of dual monopoles T92A and T92B; and T93A and T93B thus may still be impacted by the RemNWTD project.
- Nest #2668 last recorded in October 2024 and is located within 1 km of T92A and T92B; T94A and T94B; and T95A and T95B. Note this nest is also within 500 m of dual monopoles T93A and T93B thus may still be impacted by the RemNWTD project.

² This nest was attributed to the white-bellied sea-eagle during aerial nest searches undertaken in March 2025 (Forest Practices Authority, 2024).

- Nest #3350 last recorded in March 2024 and is located within 1 km of T43A and T43B, and T44A and T44B.

The poles will have varying heights (33 m to 60 m) that differ from the heights proposed for the previous tower design (Table 2.1). The proposed pole heights for T43A and T43B are 0.8 m shorter than the previous tower design, and for T44A and T44B are 2.7 m higher than the previous tower design. Nest #3350 was identified as being within 1 km line-of-sight excluding extant vegetation for the originally proposed towers T43 and T44. The topography in the area suggests this nest is unlikely to fall out of line-of-sight from the shorter T43A and T43B poles (Figure 5.1), however viewshed analyses have not been undertaken on this nest (refer section 3). Nonetheless, the nest was within 1 km line-of-sight from the tower T44, thus the increase in pole height for the replacement dual monopoles will not change the potential impact on this nest. However, the impact to Tasmanian eagles from the changes in pole heights relative to the previous tower design remains unchanged.

The maintenance requirements and lifespans of the dual monopoles are considered similar to those required by the steel lattice towers; thus, there will be no additional impact from operation activities on Tasmanian eagles.



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 Source: Routes from Coffey. Data from NVA (NRET) accessed 22/07/2024. Placenames from DPIWVE List Topographic Basemap Service. Imagery from ESRI Online. Date: 15/12/2025 2:30 PM Prepared by: Agung Wahyudi

Figure 5.1: Tasmanian eagle nests within 1 km of the SH-BU and HBSpurs sections of the RemNWTD Project

5.1 Roadkill

Poles can be transported to site largely pre-assembled and then can be immediately erected, thus reducing the traffic required to site to construct the dual monopoles in the 25 locations on the SH-BU section of the RemNWD alignment. This may represent a locally lower risk of roadkill to threatened fauna species such as the Tasmanian devil, spotted-tailed quoll and eastern quoll, which are at increased risk of vehicle mortality due to their carnivorous scavenging behaviours which attract them to carrion on roads. However, the reduced traffic required for the construction of the 50 dual monopoles in place of the originally proposed 25 towers is unlikely to materially reduce the impact to these species from roadkill for the whole RemNWD Project (i.e. the construction of the remaining 341 towers).

6. Permanent conversion of native vegetation to infrastructure

The area of disturbance nominated by TasNetworks has not changed, and as such, there will be no change in the maximum area of clearance of native vegetation for construction of the RemNWD. However, there will be a reduction in the area of native vegetation that will be permanently converted to transmission infrastructure.

The default steel lattice tower base dimensions are 15 m x 15 m (operational footprint), with a required construction pad of 80 m by 50 m. For dual monopoles, the construction pad area is reduced to 30 m x 30 m and the poles have an operational footprint of 8.5 m x 8.5 m for the two poles combined. Refer Appendix A for the indicative construction and operational footprints for the dual monopoles.

Two of the 25 towers (towers T86 and T87) proposed to be replaced by dual monopoles fall within *Eucalyptus obliqua* dry forest at the tee-off for the HBSpurs (Figure A.11 and Figure A.12); thus, the area of permanent native vegetation clearance required for the operational footprint of the four poles in the revised design will be less than that required for the two towers in the preliminary design (0.3 ha as compared with 0.4 ha). The remainder of the proposed dual monopoles are situated in modified vegetation communities including agricultural land or permanent easement.

However, the vegetation clearance surrounding the construction footprint will remain unchanged (i.e. clearance to ground level for the OHTL easement and associated access tracks). Therefore, the impact of the easement clearing will be similar to that identified in the original RemNWD ecological impact assessment (Entura, 2025). This clearing will still result in the loss of *Eucalyptus obliqua* dry forest and woodland that may be potentially suitable foraging habitat and/or habitat that contains denning features (e.g. hollow logs, wombat burrows) for the EPBC Act listed threatened fauna species the spotted-tailed quoll, eastern quoll, and the Tasmanian devil.

The smaller operational footprint in this context represents a small reduction in the permanent clearance of potentially suitable foraging habitat for these three fauna species; however, any denning features (e.g. hollow logs, rock outcrops, empty wombat burrows) are likely to be destroyed during construction if they occur within the nominated area of disturbance. Conversion of native vegetation to easement does not constitute the permanent loss of foraging habitat, as these species use anthropogenic features such as easements as preferred movement corridors (Andersen et al., 2017). In

conclusion, the impact on habitat clearance from installation of dual monopoles instead of the originally proposed 25 towers for the SH-BU section of the RemNWT D on the Tasmanian devil, spotted-tailed quoll and eastern quoll remains materially unchanged.

No threatened flora species have been recorded in this area of native vegetation (on the NVA nor during ecological field surveys to date) where the four dual monopoles are to replace towers T86 and T87; therefore, the impact on threatened flora species from the revised Project design remains unchanged.

Further, there have been no NVA records of EPBC Act or TSP Act listed threatened flora or fauna species added to the database since the initial ecology baseline characterisation and impact assessment report within 100 m of the proposed dual monopoles.

7. Platypus

Species of special conservation significance include those with restricted distributions, are highly sensitive and vulnerable to threats and/or primitive species that are considered evolutionary relics that do not qualify for listing under the TSP Act or EPBC Act. A species of conservation significance identified that may occur in the survey area includes the platypus (*Ornithorhynchus anatinus*), which is a species that is protected throughout Australia. In Tasmania, it is protected under the *Nature Conservation (Wildlife) Regulations 2021* and the NC Act. It is not listed as a threatened species under the TSP Act or EPBC Act. They are widespread and common in Tasmania; however, their current and future conservation status is not easily assessed given their abundance is not readily measured across the State.

The platypus requires stable, vegetated earth banks adjacent waterbodies for construction of both resting and nesting burrows. The area of disturbance nominated for the RemNWT D Project intersects 390 CFEV river segments in spans proposed for vegetation clearance, of which 300 segments may contain suitable aquatic and riparian habitat for platypus based on the CFEV database assessment (Entura, 2025). The magnitude of impacts from construction of the RemNWT D on the platypus is expected to be minor as the impact from clearance of native riparian vegetation will be localised and the changes to the condition of watercourses where riparian vegetation clearance is required is temporary.

The construction footprint for the dual monopoles SH-BU T91A and T91B intersects an Emu River tributary, however aerial imagery suggests the riparian vegetation has already been cleared where the tributary intersects the proposed construction footprint for the dual monopoles (and the preceding towers in the original design). Therefore, despite the construction and operational footprints being smaller for dual monopoles than the previous tower design, the extent of clearance of riparian vegetation that may impact habitat quality for the platypus remains unchanged. However, the duration of the construction period for the 50 dual monopole structures will be shorter than for the previously proposed 25 steel lattice towers therefore the duration of potential disturbance on the platypus from the dual monopole construction in proximity to waterways will be shorter. Moreover, the magnitude of impacts from the construction of the dual monopoles instead of the previous steel lattice tower design remains unchanged from minor.

Platypuses can detect electromagnetic fields (EMFs) through electroreceptors in their bills. They use these to pick up electrical signals produced by the muscle contractions of their prey, such as shrimp and

yabbies, allowing them to hunt effectively in murky or dark waters. Platypuses may be able to detect EMFs from power lines, which may affect their behaviour, e.g. they may avoid areas in rivers and dams that are under or close to power lines. It has been calculated that the platypus can detect stimuli that generate field strengths (i.e. electric potential, or voltage) as low as 20 μV per centimetre (Manger and Pettigrew, 1996), which is equivalent to 2×10^{-5} V per centimetre or 2×10^{-8} kV per centimetre or 2×10^{-6} kV per metre.

It is possible that, due to the OHTLs' orientation above the waterways, the associated EMF may not impact the species' hunting behaviour and success, given that the electroreceptive system of the platypus is likely most sensitive below (e.g. in the river and creek bed substrate) and adjacent to) the bill (e.g. on the water's surface). The species tends to scan waterways by swinging its head backwards and forwards in a roughly sinusoidal fashion while swimming (Pettigrew, 1999) and may not detect EMF sources located above the bill.

However, the precautionary principle suggests that it should be assumed that if the Project will introduce new EMF within 100 m of platypus-suitable waterways traversed by easement, the EMF experienced by resident platypuses may be elevated to a degree that could interfere with their electroreception and thus hunting success. The *Remaining North West Transmission Developments EMF, Audible Noise and Radio Frequency Interference Assessment* by Jacobs (2025), determined that the typical operations' cumulative EMF of the proposed new 220 kV OHTLs and the adjacent, existing 110 kV OHTLs, may be up to 2.7 kV per metre (Figure 7.1).

Remaining North West Transmission Developments EMF, Audible Noise, and Radio Frequency Interference Assessment

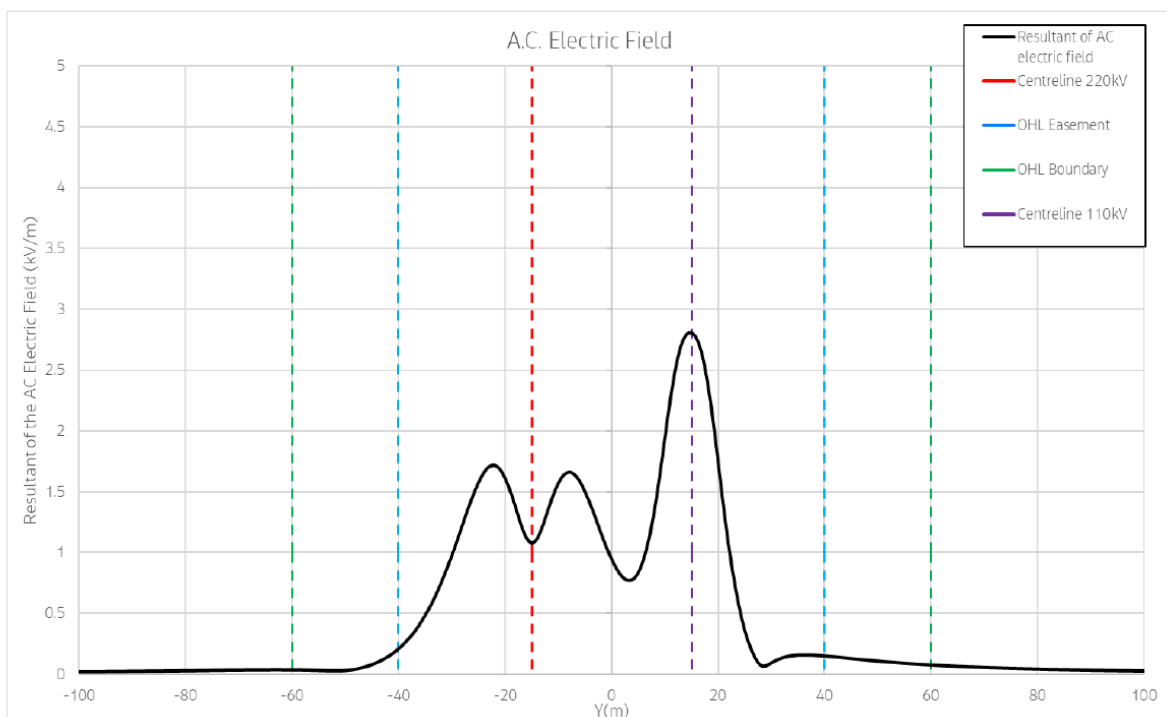


Figure 7.1: Cumulative electric field (kV/m) from the new 220 kV transmission line 13.3 m from the ground and the existing 110 kV line 6.7 m from the ground, during typical operation. Source: Jacobs, 2025

The strength of the EMF is proportional to the amount of electrical current passing through the power line and decreases as distance increases. Specifically, the strength of the EMF waves radiating from a transmission line is inversely proportional to the square of the distance of the receptor (e.g. a platypus) from the source. Because of this property, the EMF exposure that a platypus would receive from a power line would decrease where tower heights are raised and would increase where tower heights are lowered (refer Table 2.1).

The increased height of towers T3 and T4 on the HBSpurs section will not change the impact assessment for the platypus, as there is no suitable waterway habitat beneath the OHTL alignment (i.e. within the waste depot).

8. Summary

Overall, impacts to all listed threatened species, listed threatened vegetation communities, and MNES from the RemNWTd project (i.e. including the construction of the remaining 341 steel lattice towers) remains unchanged from the original impact assessment.

There are 25 towers proposed to be replaced by 50 dual monopoles on constrained locations of the SH-BU section of the RemNWTd alignment. Despite dual monopoles having smaller construction and operational footprints than the original steel lattice tower design, only four poles (replacing two towers) fall within native vegetation that may comprise potentially suitable foraging habitat and/or habitat that contains denning features for the EPBC Act listed threatened fauna species Tasmanian devil, eastern quoll and spotted-tailed quoll. The impact from the Project on native vegetation clearance of potentially suitable habitat for threatened fauna species remains materially unchanged.

The risk of electrocution of raptors with the dual monopole design is less than that of the steel lattice tower design (which was a low risk). The risk of threatened raptor collision with the OHTL (i.e. OPGWs) may be marginally increased on the HBSpurs due to the increase in tower heights of T3 and T4. However, the overall impact to threatened raptor species from the Project remains materially unchanged.

As poles can largely be pre-assembled prior to transportation to site, the revised design will likely result in a reduced construction timeframe and a localised reduction in potential noise, dust and traffic impacts. This may benefit breeding fauna species including Tasmanian devils, spotted-tailed quolls and eastern quolls, if they are present, and may also marginally reduce the risk of roadkill in these areas of the SH-BU section. The reduced duration of disturbance may also benefit the non-listed species of conservation significance, the platypus, where construction of the dual monopoles occurs in proximity to waterways. However, the overall impact to these species from the Project remains materially unchanged.

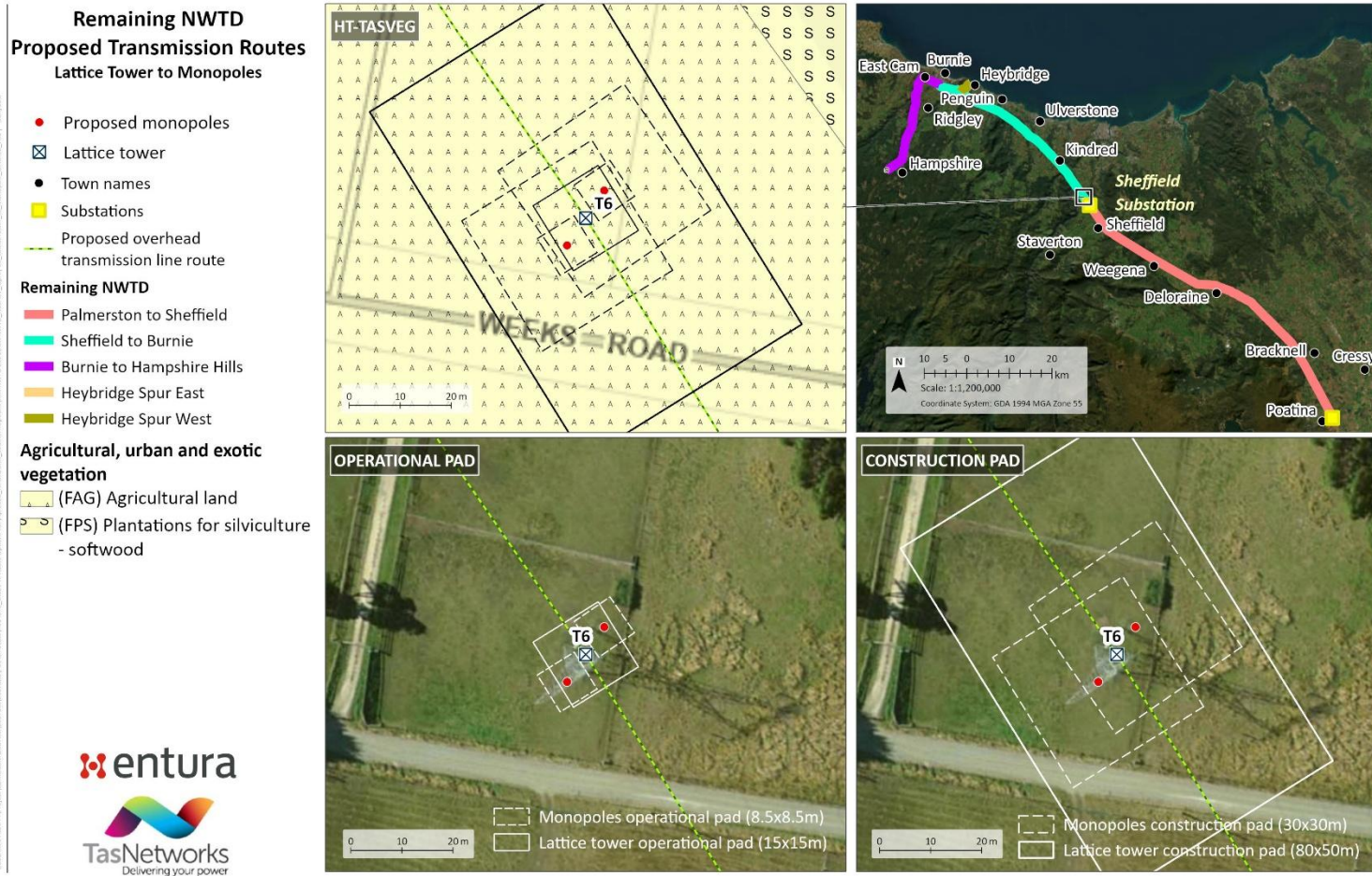
One Tasmanian eagle nest (#3350) is located between 500 m and 1 km of the proposed dual monopoles T43A and T43B, and T44A and T44B. The change in height of the poles relative to the previously proposed towers is unlikely to change the line-of-sight for this nest. Therefore, the impact to the number Tasmanian eagle nests potentially impacted by the Project remains unchanged.

Impacts to platypus are not expected to be materially different from the impacts anticipated for the original design.

References

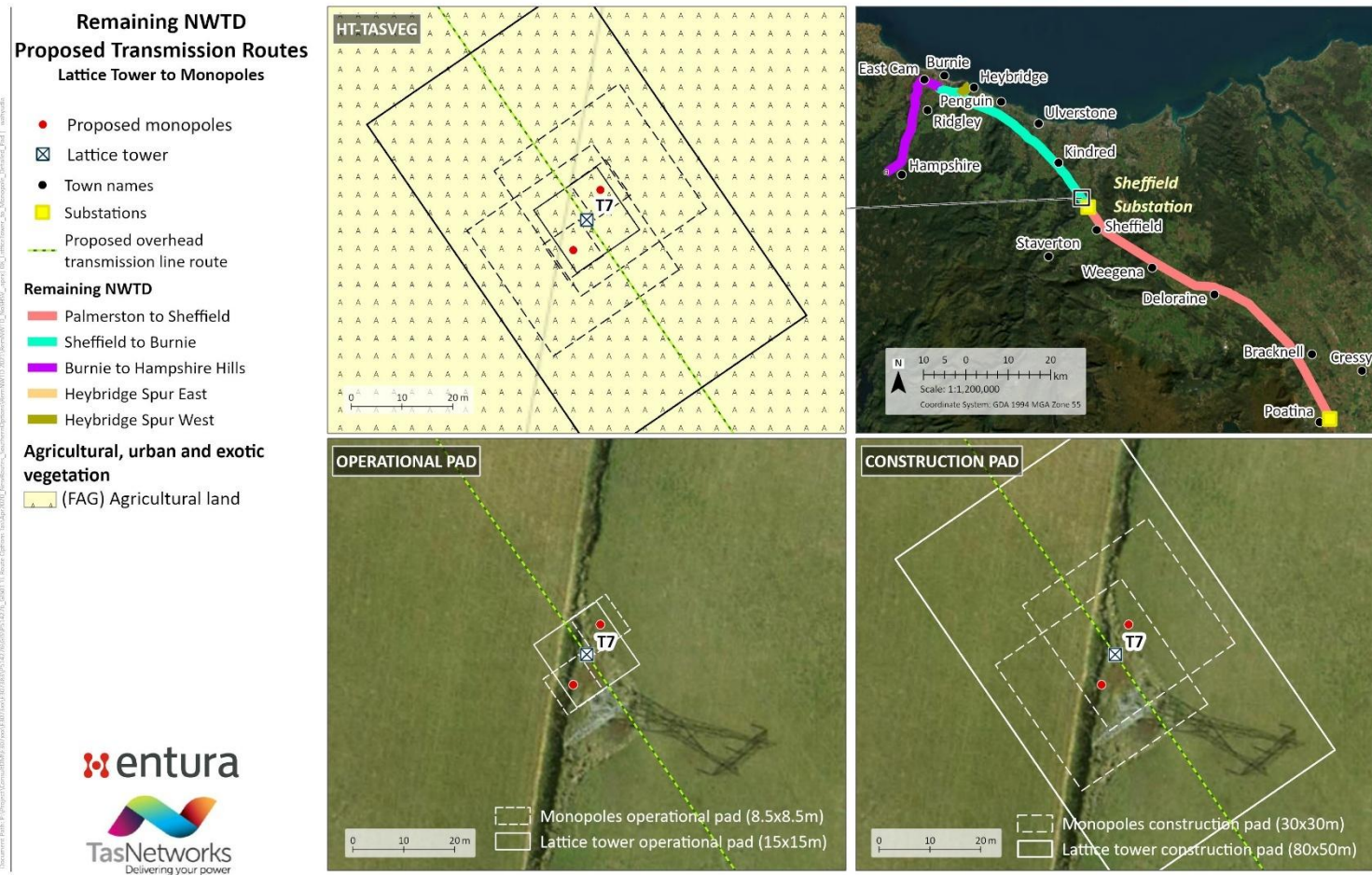
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A Dual monopole locations



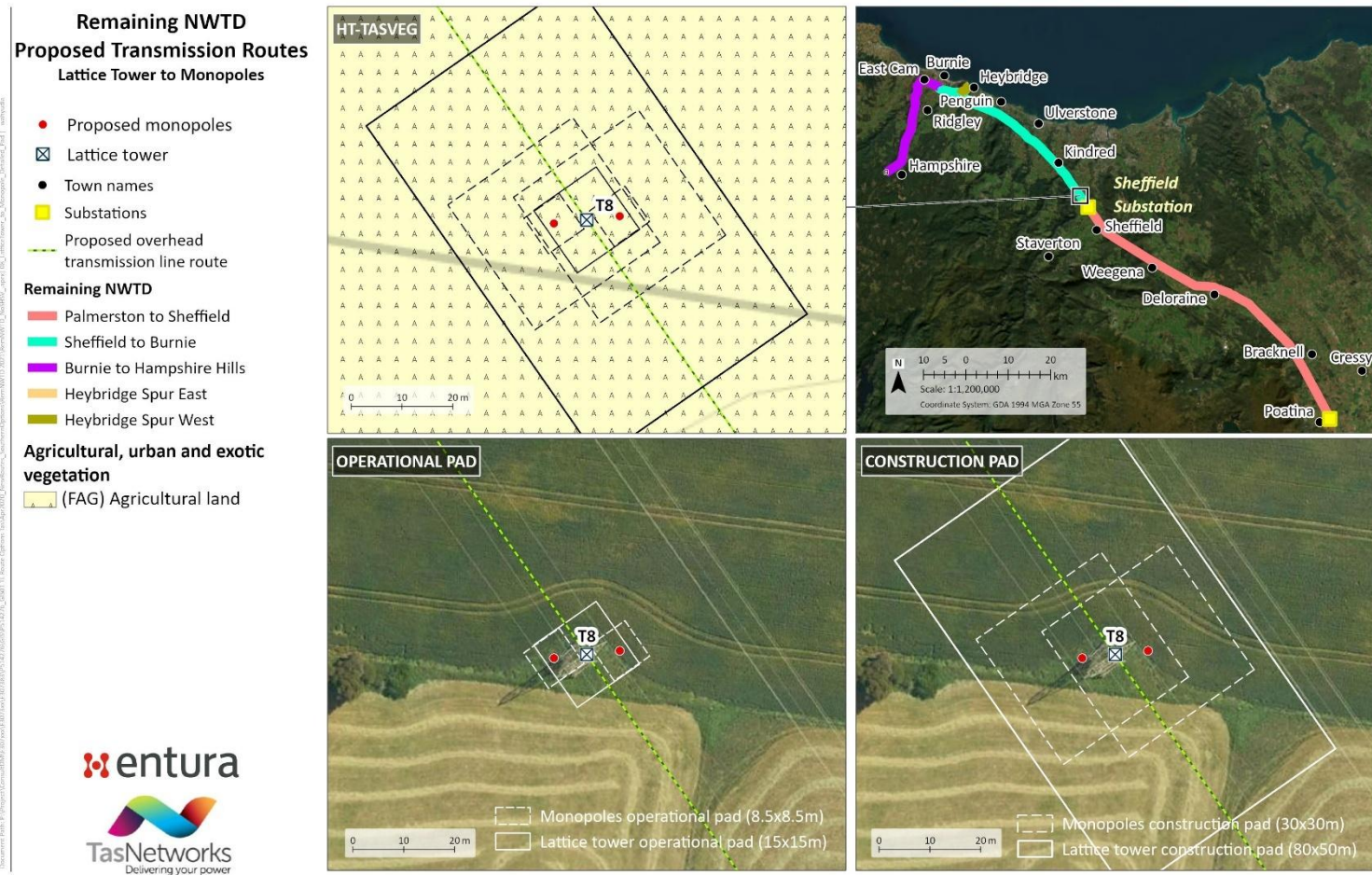
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Figure A.1: Proposed dual monopoles to replace SH-BU T6 located in agricultural land



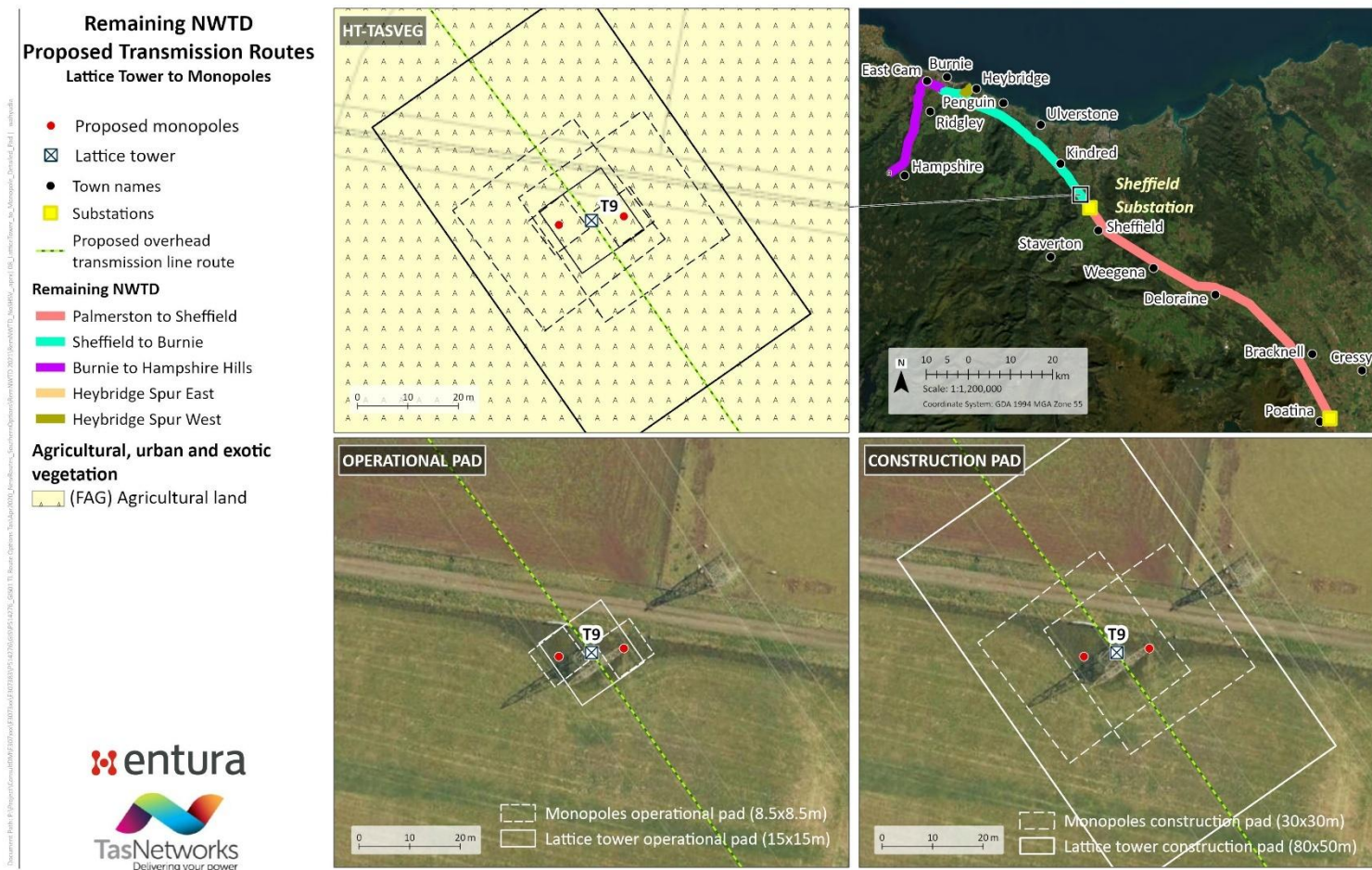
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Figure A.2: Proposed dual monopoles to replace SH-BU T7 located in agricultural land



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Figure A.3: Proposed dual monopoles to replace SH-BU T8 located in agricultural land

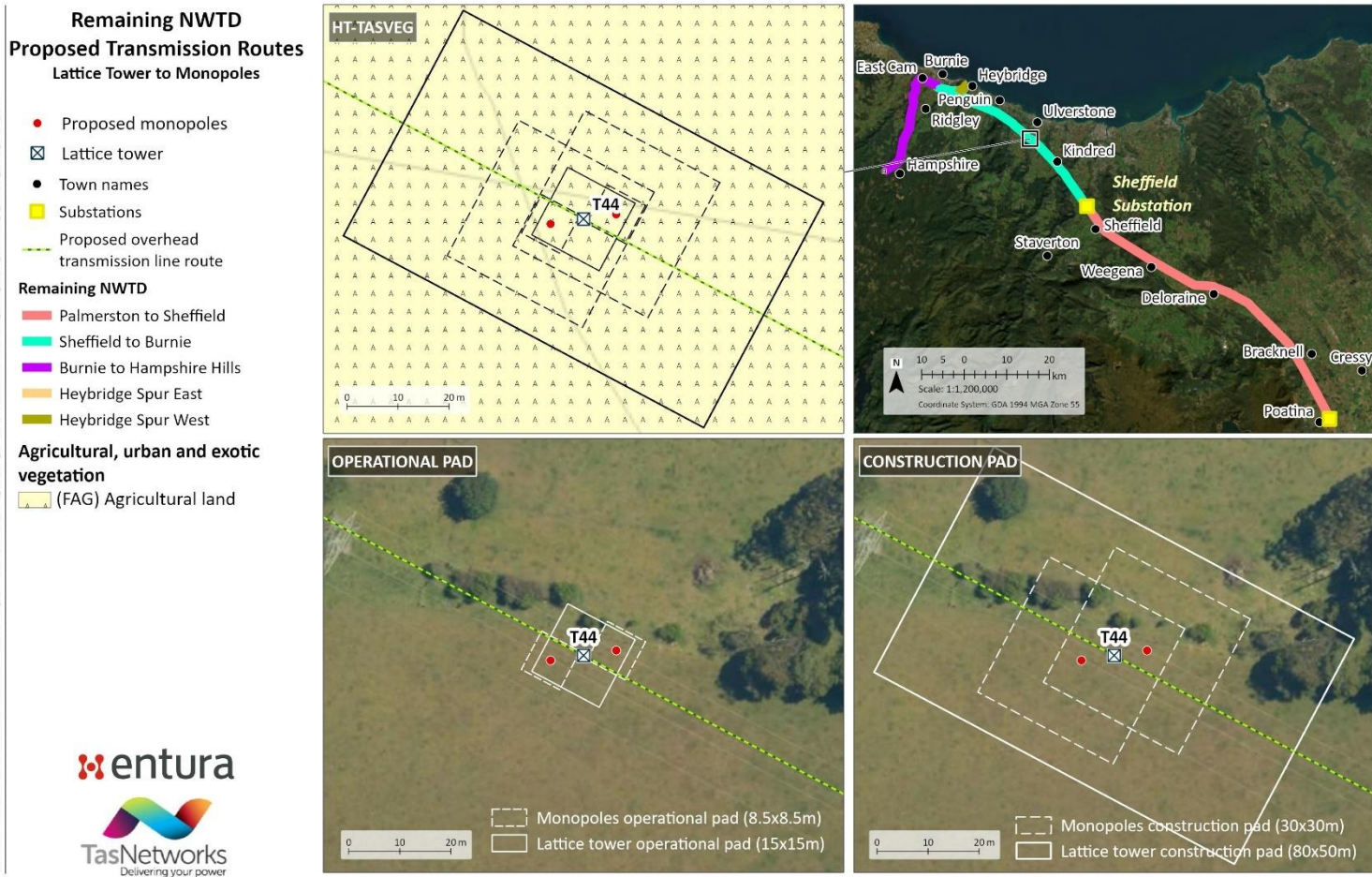


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Figure A.4: Proposed dual monopoles to replace SH-BU T9 located in agricultural land



Figure A.5: Proposed dual monopoles to replace SH-BU T43 located in agricultural land



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Figure A.6: Proposed dual monopoles to replace SH-BU T44 located in agricultural land



Figure A.7: Proposed dual monopoles to replace SH-BU T45 located in agricultural land

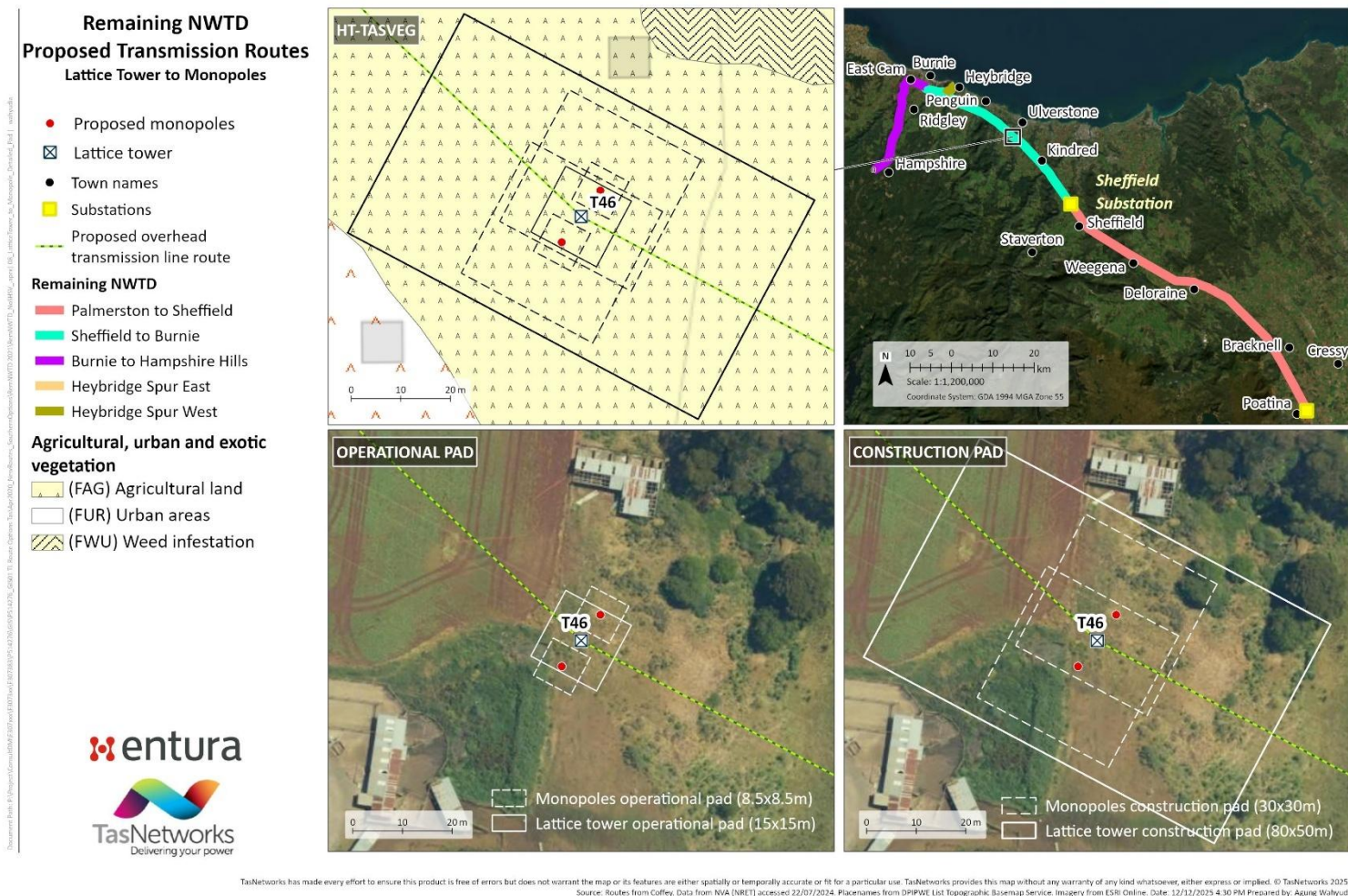
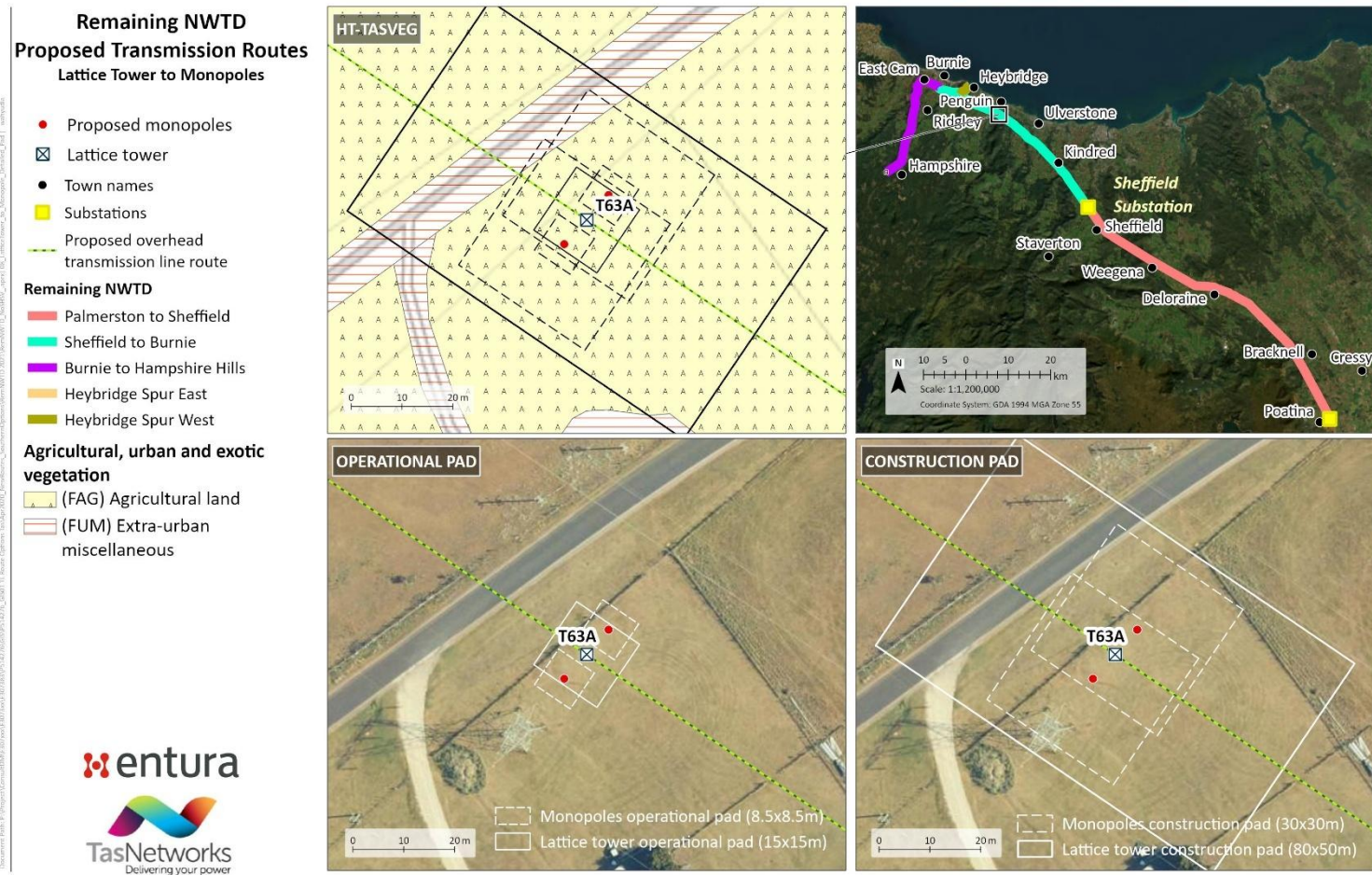


Figure A.8: Proposed dual monopoles to replace SH-BU T46 located in agricultural land



Figure A.9: Proposed dual monopoles to replace SH-BU T62A located in permanent easement



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Figure A.10: Proposed dual monopoles to replace SH-BU T63A located in agricultural land

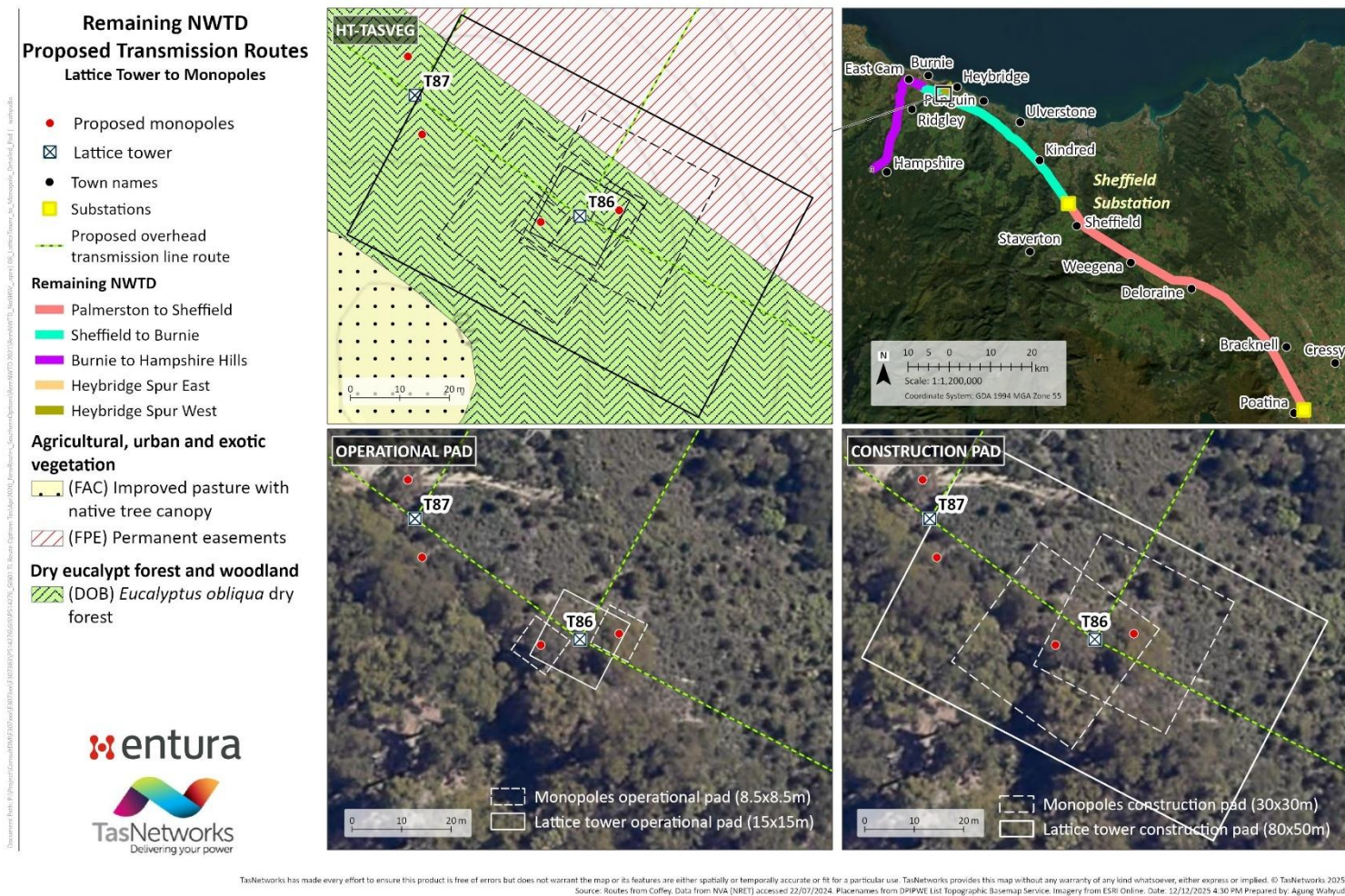


Figure A.11: Proposed dual monopoles to replace SH-BU T86 at the HBSpurs tee-off located in native vegetation *Eucalyptus obliqua* dry forest



Figure A.12: Proposed dual monopoles to replace SH-BU T87 at the HBSpurs tee-off located in native vegetation *Eucalyptus obliqua* dry forest

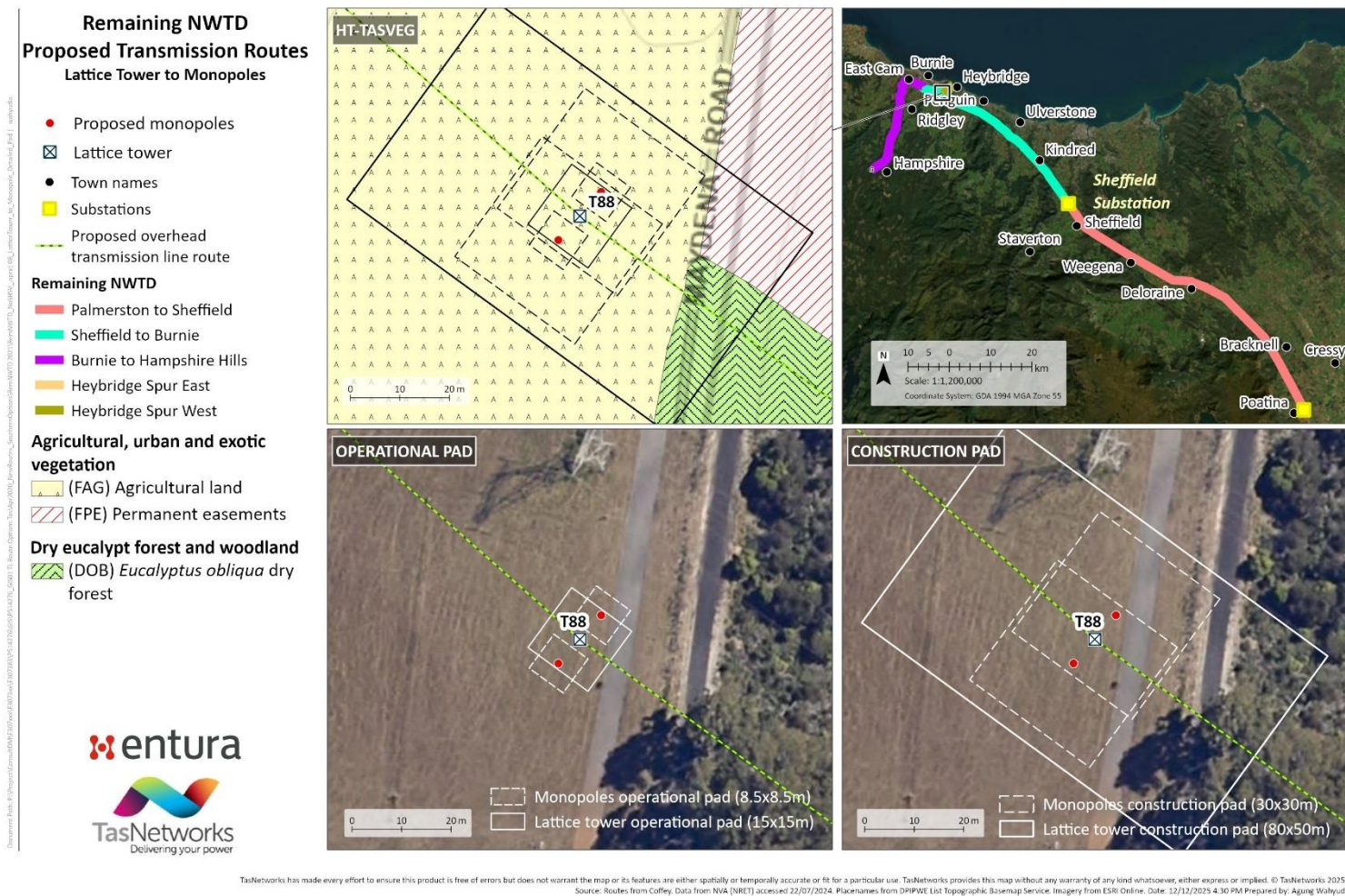


Figure A.13: Proposed dual monopoles to replace SH-BU T88 located in agricultural land



Figure A.14: Proposed dual monopoles to replace SH-BU T89 located in agricultural land

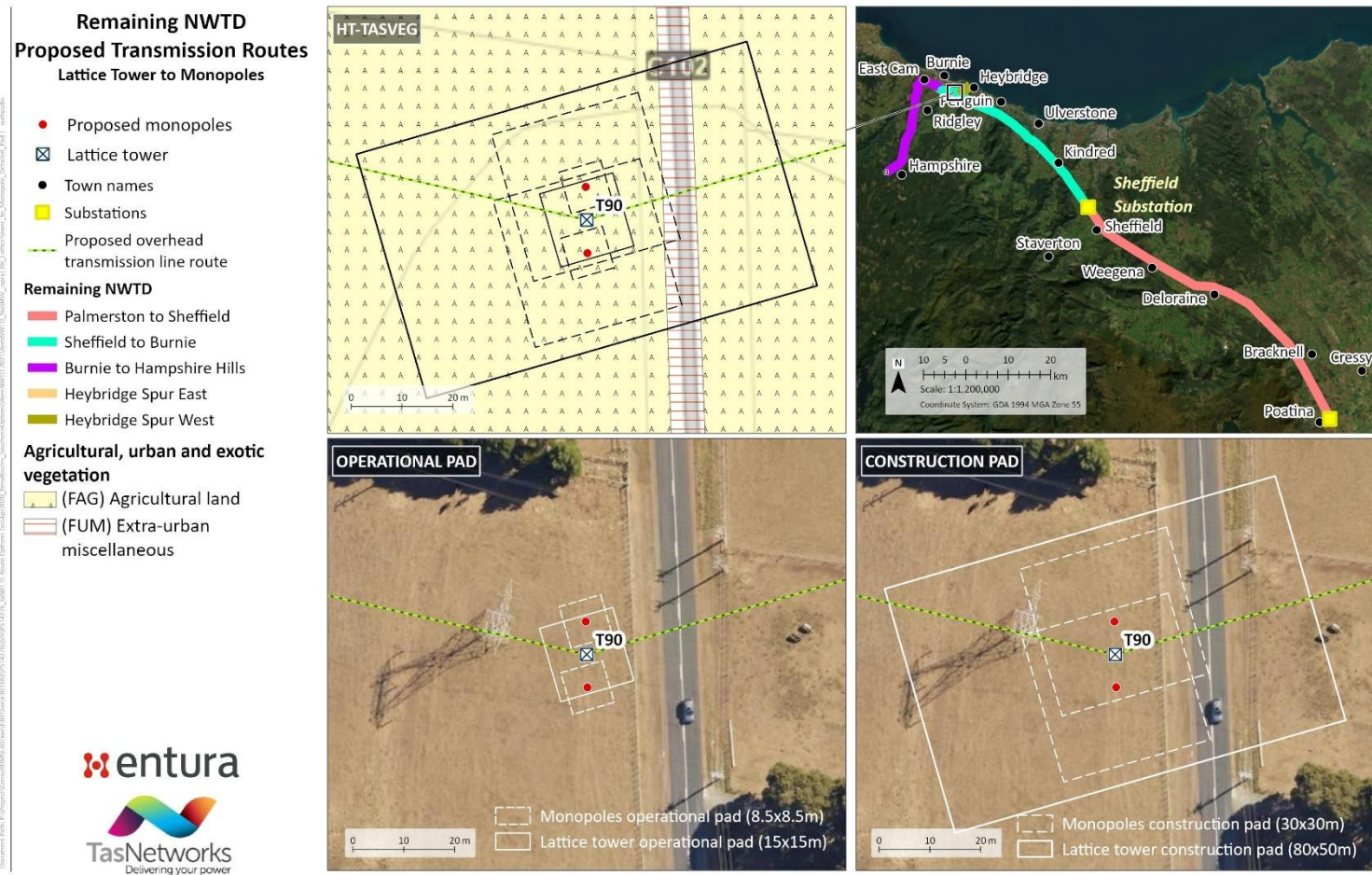


Figure A.15: Proposed dual monopoles to replace SH-BU T90 located in agricultural land

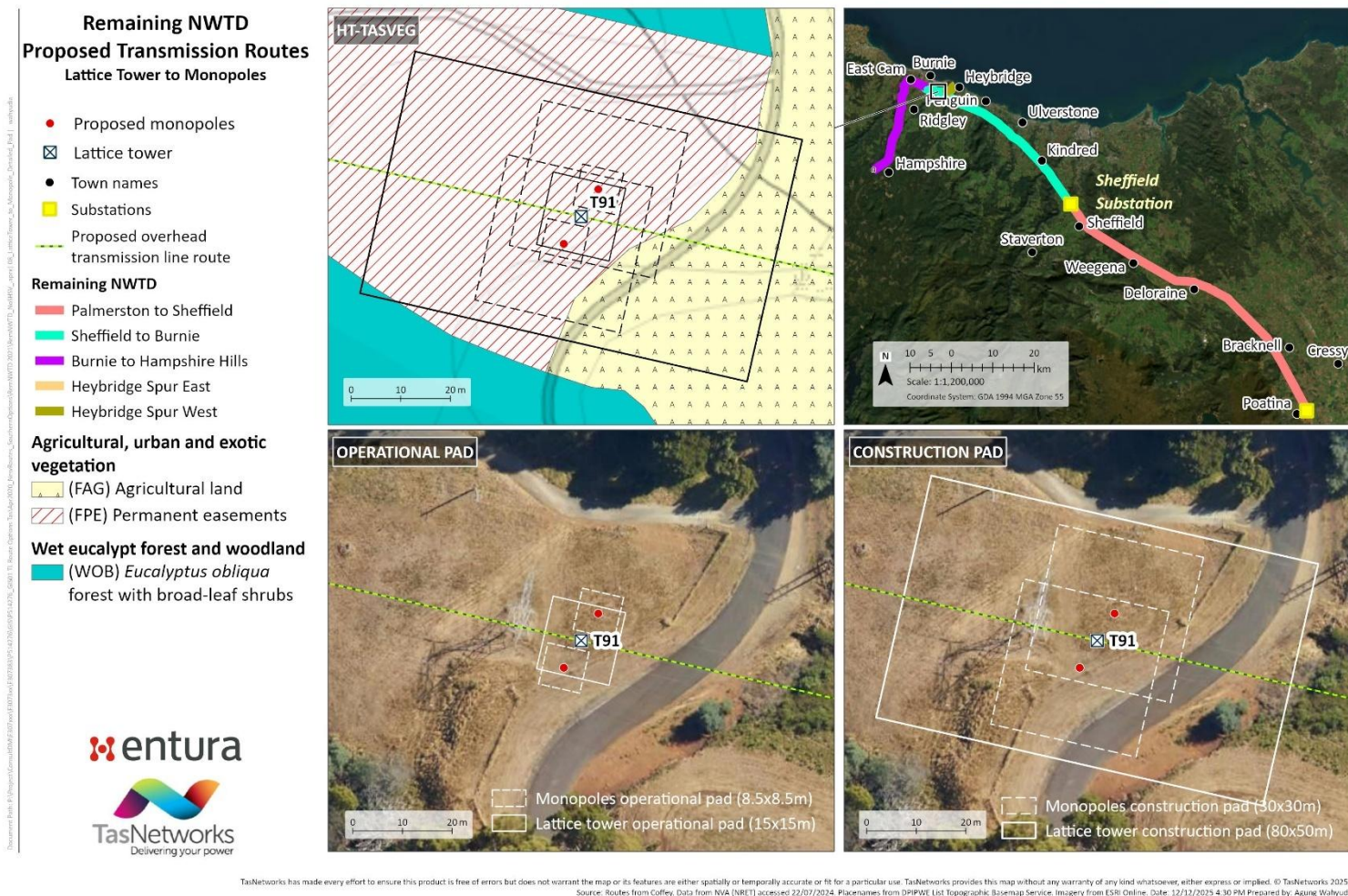


Figure A.16: Proposed dual monopoles to replace SH-BU T91 located in permanent easement



Figure A.17: Proposed dual monopoles to replace SH-BU T92 located in permanent easement

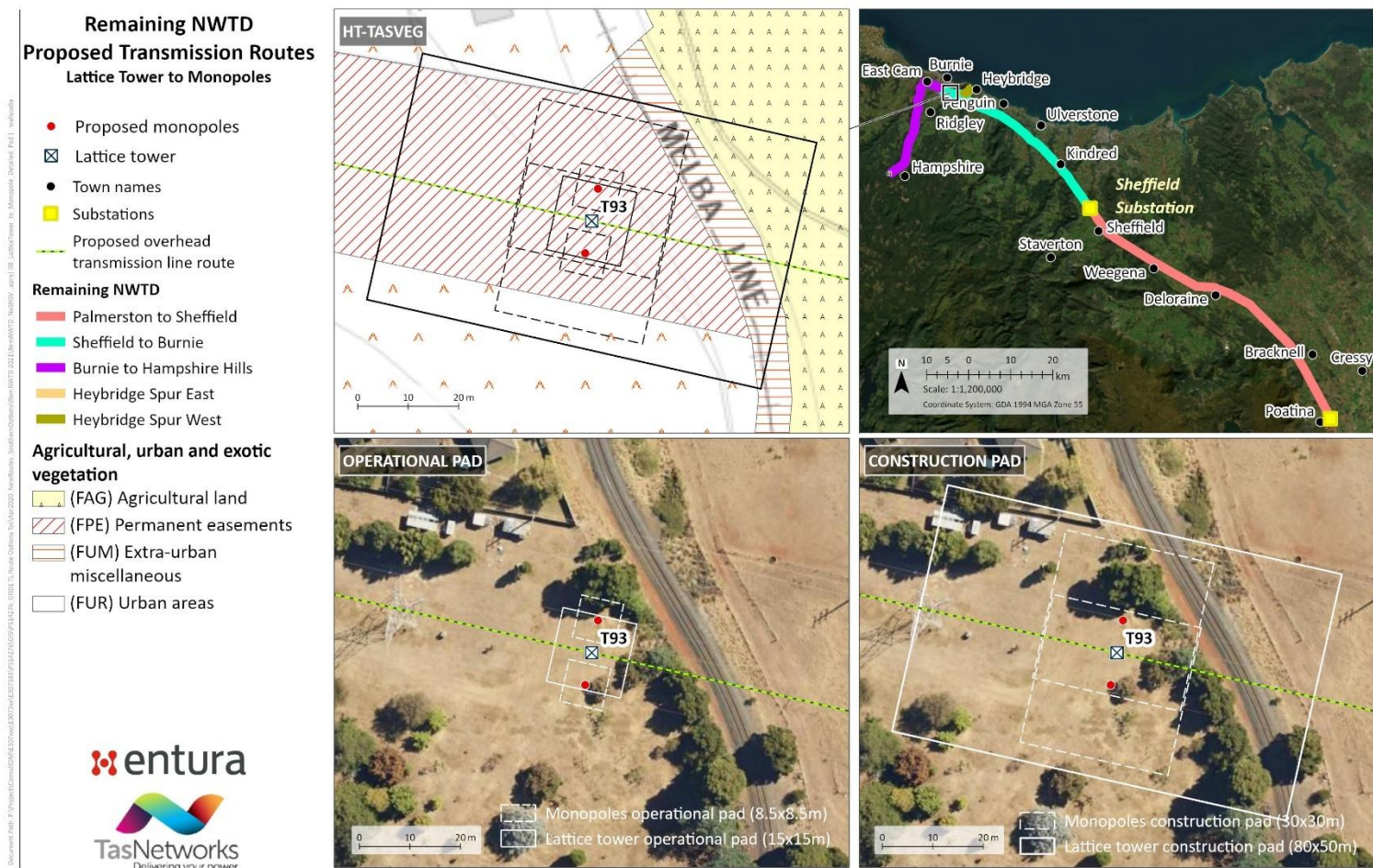
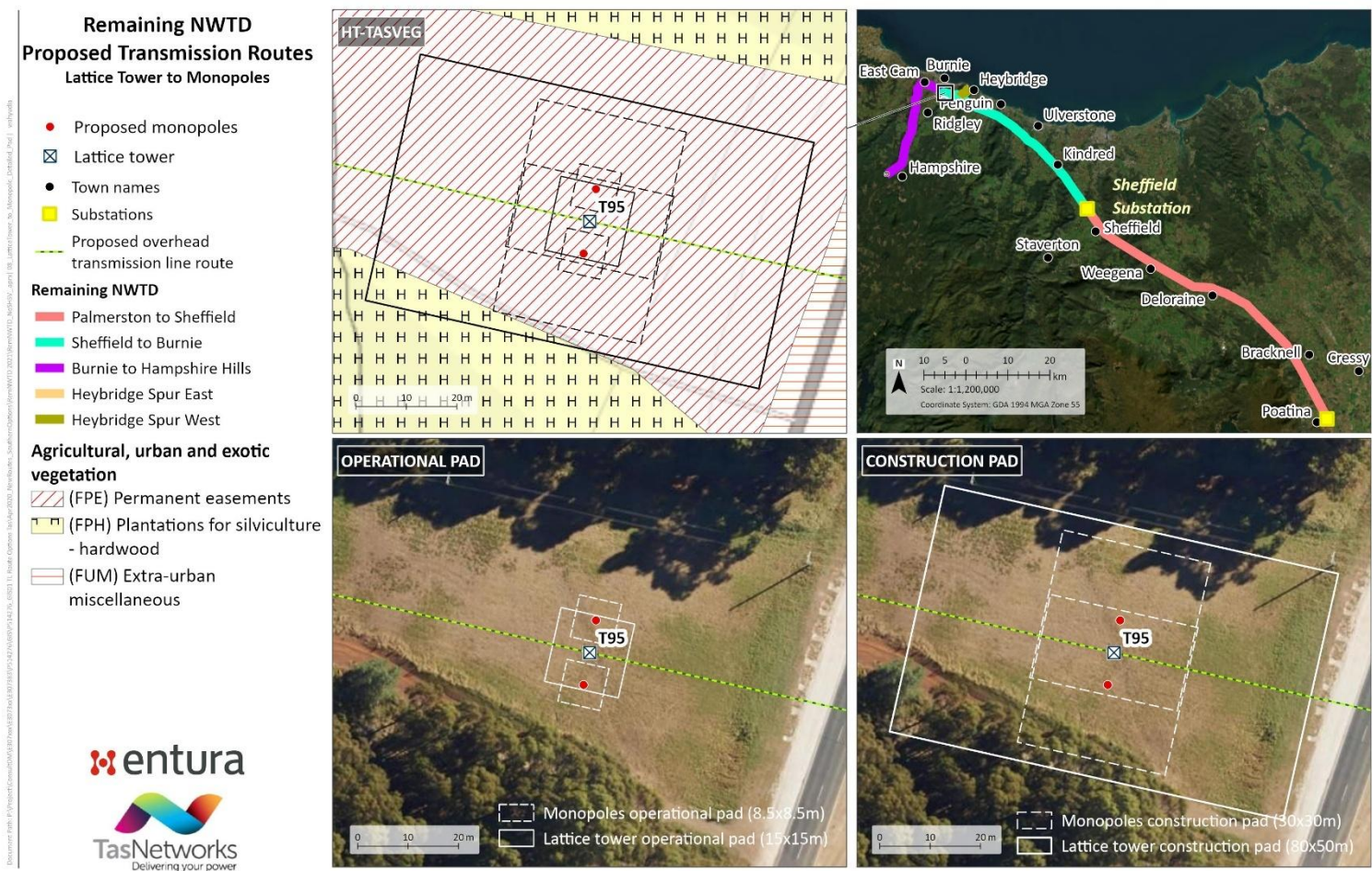


Figure A.18: Proposed dual monopoles to replace SH-BU T93 located in permanent easement



Figure A.19: Proposed dual monopoles to replace SH-BU T94 located in extra-urban miscellaneous modified vegetation (in Havenview)



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Figure A.20: Proposed dual monopoles to replace SH-BU T95 located in permanent easement

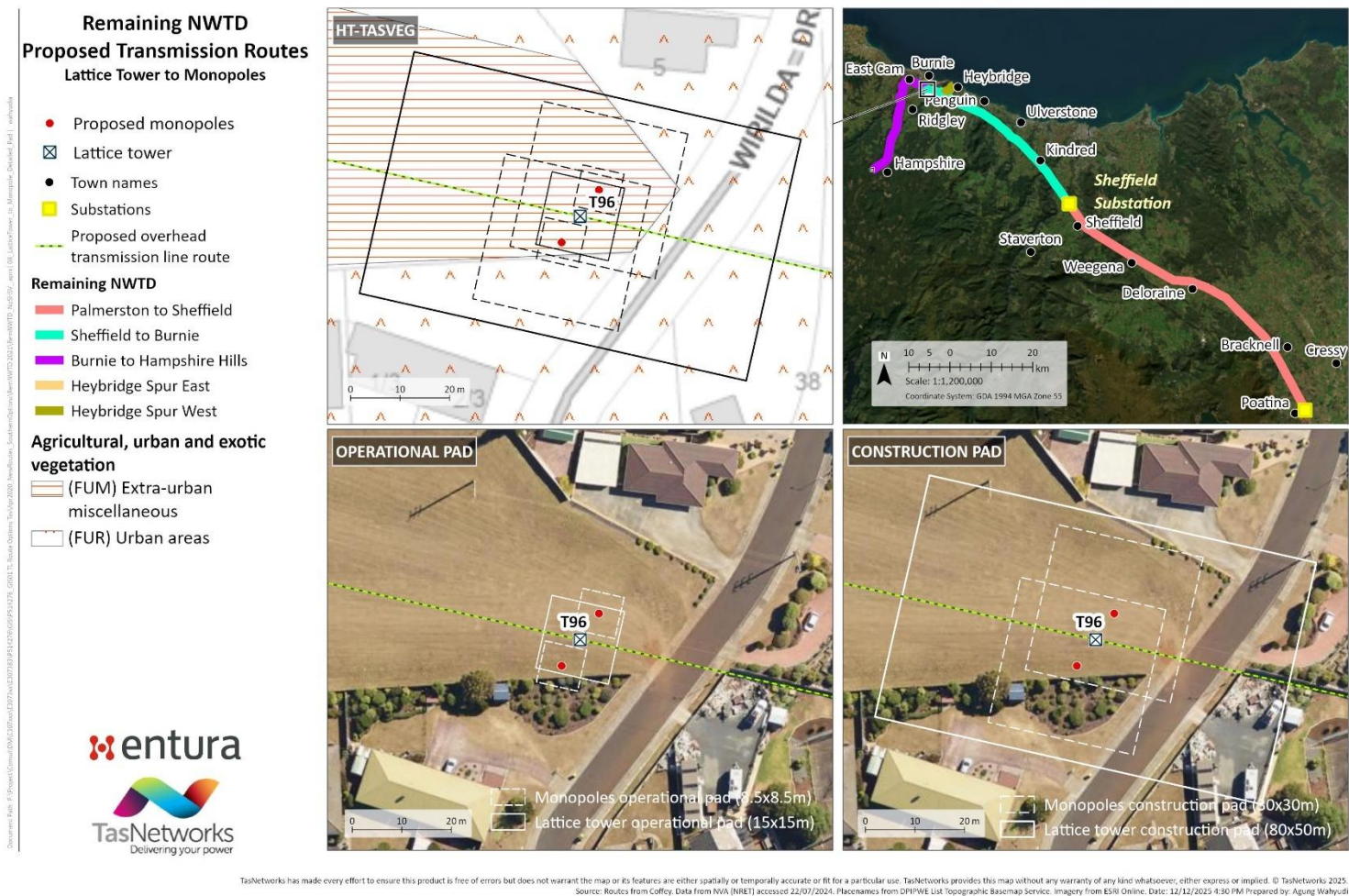


Figure A.21: Proposed dual monopoles to replace SH-BU T96 located in extra-urban miscellaneous modified vegetation (in Romaine)

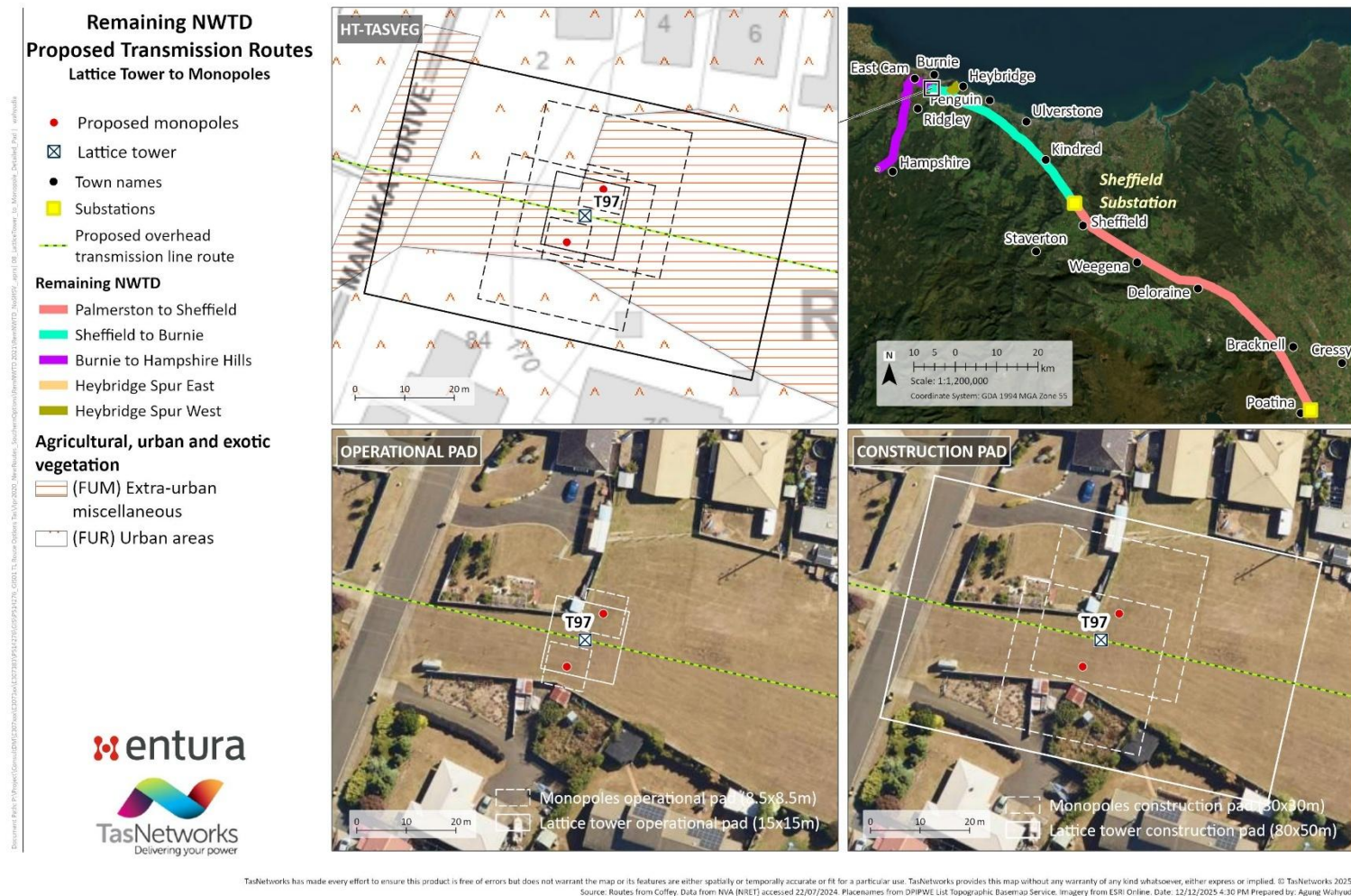
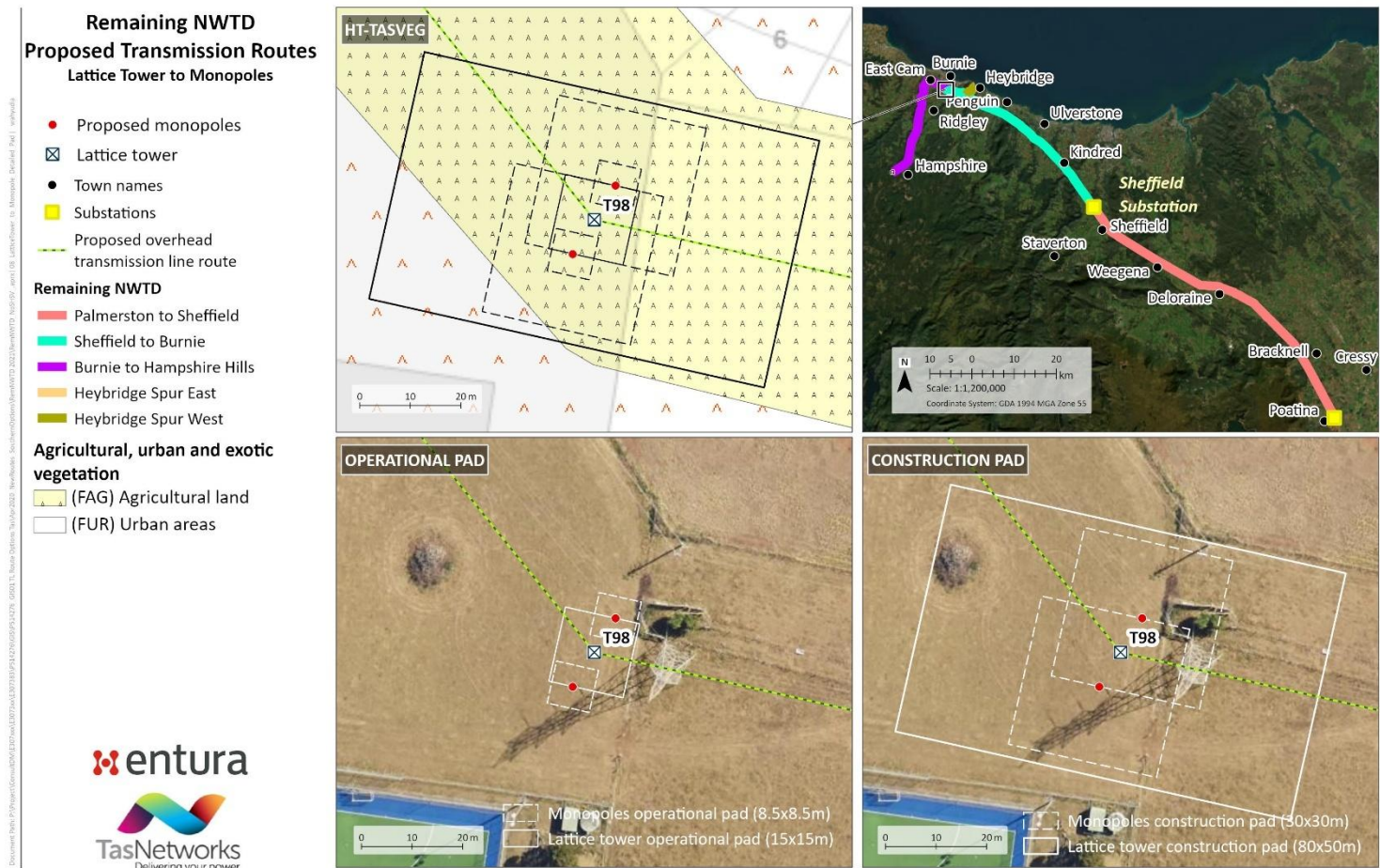


Figure A.22: Proposed dual monopoles to replace SH-BU T97 located in extra-urban miscellaneous modified vegetation (in Havenview)



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Figure A.23: Proposed dual monopoles to replace SH-BU T98 located in agricultural land

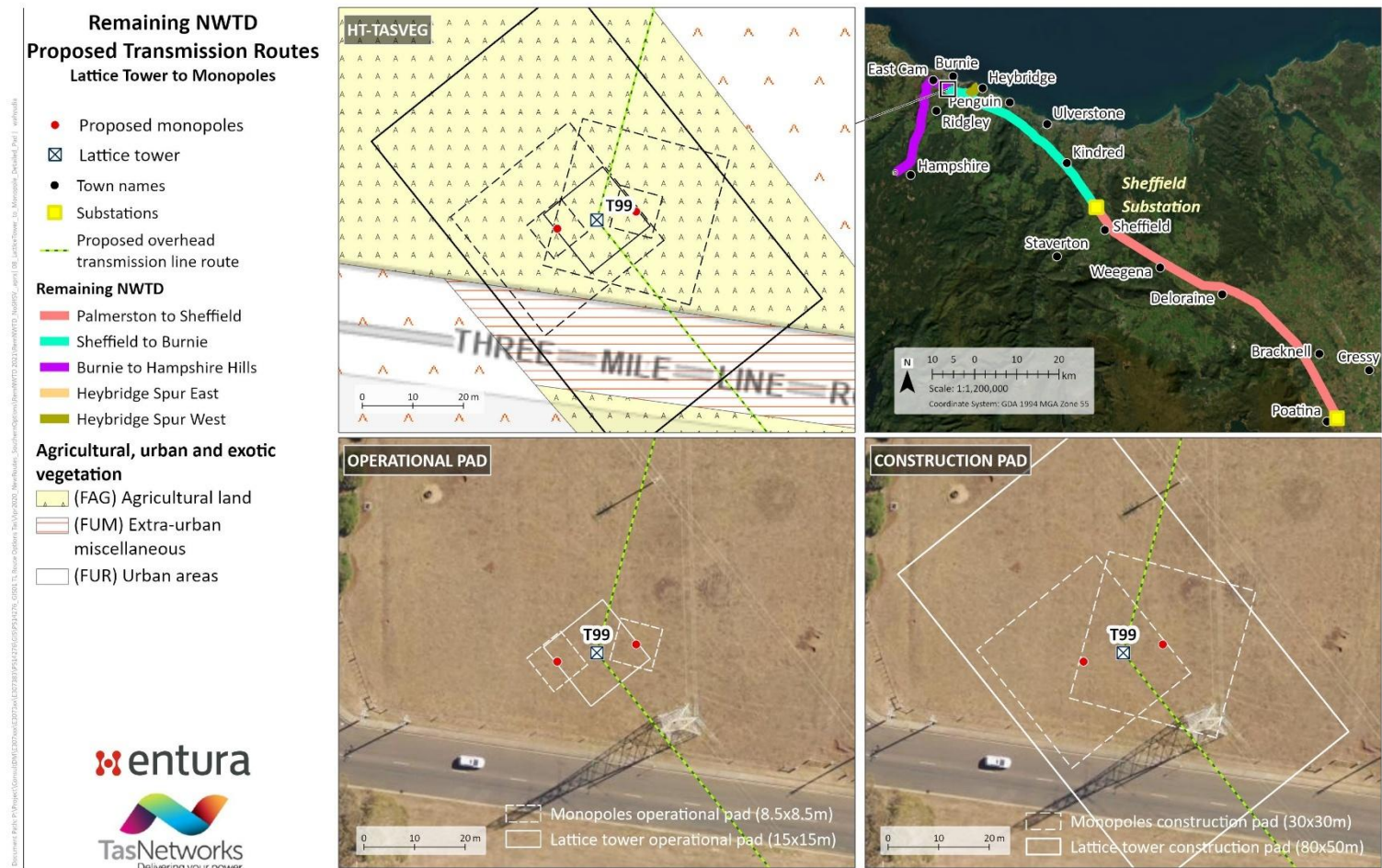


Figure A.24: Proposed dual monopoles to replace SH-BU T99 located in agricultural land

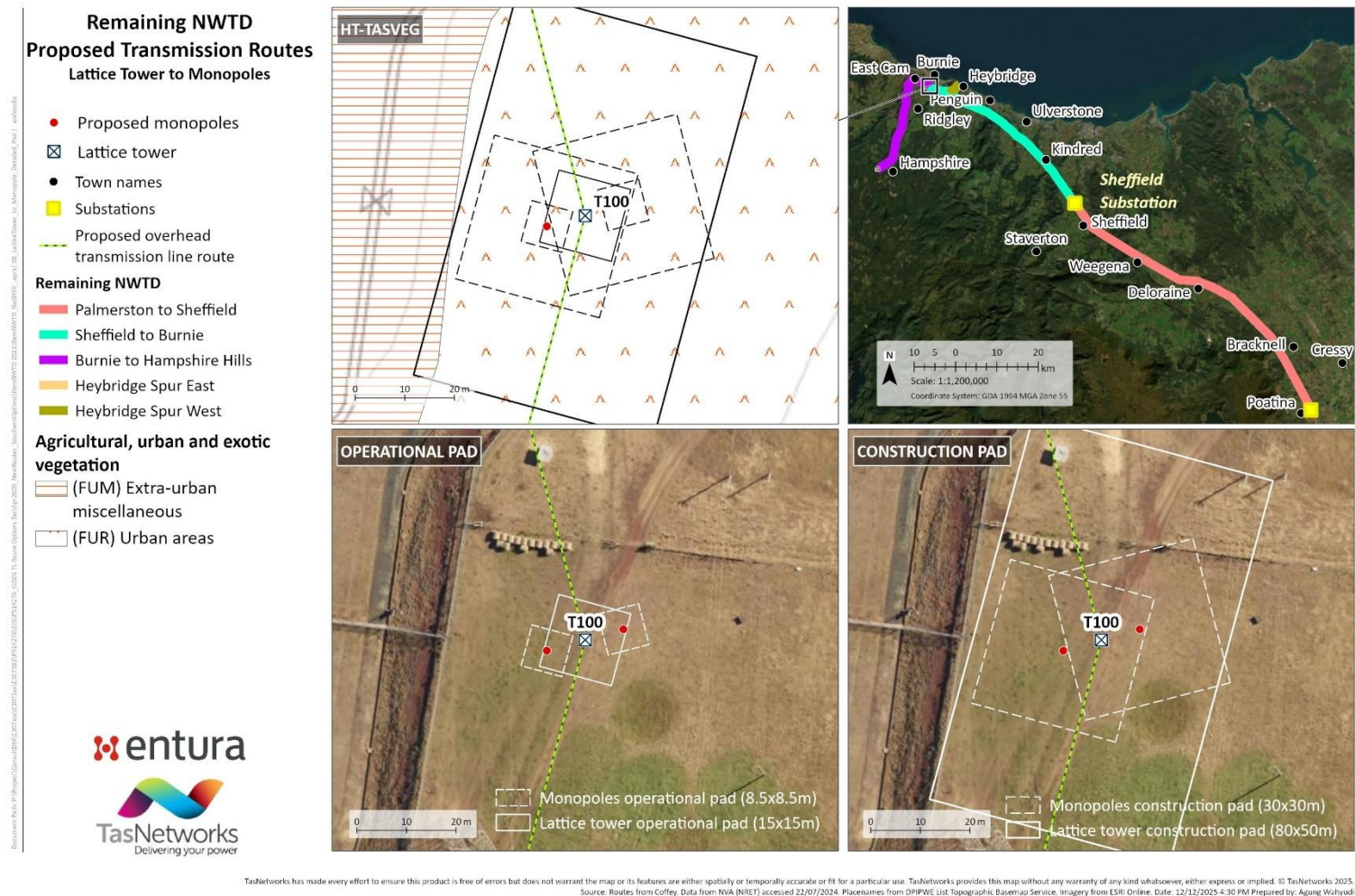


Figure A.25: Proposed dual monopoles to replace SH-BU T100 located in an urban area (in Acton)