

Ref: BN17/1046, DOC17/188817
IOAP-QS-LTR-0005_0

20 April 2017

Ms Felicity Greenway
Director
Industry and Infrastructure Policy
Department of Planning and Environment
GPO Box 39
Sydney NSW 2001

Review of the State Environmental Planning Policy Infrastructure 2007

Dear Ms Greenway,



The NSW Telco Authority is seeking to provide input on the current review of the *State Environmental Planning Policy Infrastructure 2007* (ISEPP).

The NSW Telco Authority is delivering an enhanced, shared radio communications network to improve day-to-day and emergency communications for a wide range of NSW Government agencies, including public safety, law enforcement and essential services. The program of works to establish an enhanced Government Radio Network (GRN) is being undertaken through the Critical Communications Enhancement Program (CCEP) which involves development activities to be compliant with the ISEPP.

Requested action

The NSW Telco Authority requests two amendments to the ISEPP to enable a more efficient process to deliver and maintain the enhanced GRN. In summary, the objective of the two amendments is to permit the following development activities be defined as 'exempt development' within the ISEPP:

- Minor upgrades to existing radiocommunications facilities by a public authority for the purposes of emergency services.
- Decommissioning of NSW Government agency radiocommunications facilities by a public authority.

The key rationale for this submission is the two development activities involve:

- Minimal environmental impact, and
- Are being carried out for the purposes of emergency services by a public authority.

The proposed wording for the two amendments is as follows:

Clause 116(3)

Insert after clause 116(2)

The replacement or addition of equipment to an existing telecommunications facilities (including existing radio facilities) by or on behalf of a public authority for the purposes of emergency services is exempt on any land if it is:

- (a) not located in an environmentally sensitive area within the meaning of *State Environmental Planning Policy (Exempt and Complying Development Codes) 2008*
- (b) complies with clause 20 of this Policy

- (c) complies with the human exposure levels set out in the *Radiocommunications (Electromagnetic Radiation – Human Exposure) Standard 2014*

Schedule 3A

Insert a new development purpose and standard after Development Purpose No. 8:

Development Purpose

Decommissioning of a telecommunications facility by a public authority

Development standard

The decommissioning of a telecommunications facility (including radio facilities) by or on behalf of a public authority on any land provided it is restored to a condition that is similar or improved to its condition before the telecommunications facility was constructed, and landscaped as appropriate.

Key rationale

1. The purpose of the amendments is consistent with the objectives and intentions of the ISEPP Amendment, to make it easier and faster **to deliver and maintain frontline social infrastructure**.

The NSW Telco Authority is delivering the enhanced GRN on behalf of frontline government agencies, as distinct, from the carriers and other telecommunications companies operating for commercial purposes. The proposed amendments are specifically limited to the provision of critical radio communications infrastructure for the purposes of emergency services. The amendments would result in a more cost efficient delivery of social infrastructure without compromising on environmental impacts.

2. The proposed amendments are consistent with the intended objectives of the ISEPP Amendment, to identify certain works, where **environmental impact is potentially minimal**, as exempt development, to improve turnaround times for maintenance and **minor upgrades**.

The wording proposed in the amendment (clause 116(3)) restricts the exempt development to minor upgrades such as 'co-locations' which are considered to have a potentially minimal environmental impact at an existing facility.

A typical co-location for the NSW Telco Authority includes one radio antenna (indicative dimensions range from 3 to 6 metres in length), between one to three transmission dishes (indicative dimensions range from 300 mm to 1800 mm diameter) and a new equipment shelter (if an existing emergency services equipment shelter is not suitable, indicative dimensions range from 8 to 15 square metres). Refer to Attachment A for an illustration of a typical government radiocommunications facility and associated equipment required for a co-location.

Currently, the ISEPP recognises co-locations as exempt development if they meet the narrow criteria prescribed in Schedule 3A of the ISEPP (which is consistent with the 'low impact facilities' criteria). This criteria does not support the co-location proposals in practice, for the purposes of emergency services.

As an example, a proposed co-location including an equipment shelter must be of an area less than 7.5m² to be exempt development (Schedule 3A, Development Purpose No. 10.3(b)). The NSW Telco Authority's proposed co-locations in bushfire prone areas require a fire resistant equipment shelter of 15m² to provide a higher degree of surety of service in emergency situations than that normally provided by the commercial networks.

Another example of how the co-location proposals for the purposes of emergency services only marginally fall outside the exempt development criteria in Schedule 3A of the ISEPP, is the requirement for an antenna to be outrigged at no more than 500mm from the support mount. When this distance was established, it did not take into account the requirements at lower frequencies (as used by the emergency services). This outrig distance is not feasible for mission critical communications networks used by emergency services without substantially impacting coverage as GRN antennas need to be mounted at least 2m from the side of a structure to provide the required service.

The initial phase of the CCEP has involved a pilot project in the north west of NSW. The environmental impact of the co-locations proposed by the NSW Telco Authority in the CCEP pilot region were assessed and the potential environmental risk and impact of these proposals was found to be negligible. It is anticipated that an assessment of minimal or negligible environmental impact would be representative of proposed co-locations for the remaining state-wide program. Refer to Attachment B for a copy of the determined Minor Works Review of Environmental Factors for two proposed co-locations located at Mt Boppy and Come by Chance.

Where proposed co-locations or minor upgrades are located on land defined as 'environmentally sensitive areas' such as National parks, the proposed amendment takes into consideration the environmentally sensitive areas and these proposals would not be exempt, as detailed in the clause 116(3)(a).

The environmental risk and potential impact of decommissioning of radio communications facilities by a public authority is considered to be an improvement to the area by removing telecommunications infrastructure including towers, antennas and shelters, if the location is restored to a condition that is similar or improved, and landscaped appropriately. As such, a new Development Purpose and Standard is recommended to enable a more efficient delivery of the decommissioning of government agency sites. Similarly, the exemption would not apply to environmentally sensitive areas. (As part of the CCEP, the rationalisation of government agency sites is expected to reduce the number of facilities from 2,400 existing facilities to approximately 750 facilities. The decommissioning of sites is required to realise the benefits of the program).

3. The NSW Telco Authority's proposed co-locations are distinguishable from carrier co-locations for the following key reasons:
 - a. **Density:** The density of sites required for emergency services is far lower than required by the carriers. This is due to the lower frequency band used by the GRN (which provides superior coverage over the frequencies used by the carriers) as well as the type of service provided (the GRN provides predominantly a voice service whereas the carriers are focused on high speed data).
 - b. **Proliferation of locations and proximity to community:** To accommodate increasing capacity demand from mobile broadband, the carriers are increasingly deploying more sites and lower height sites into urban and suburban areas. This is creating community concern. The GRN, in contrast, requires a much lower number of sites and will be located (in general) on established radio sites, many being in locations physically separated from urban areas.
 - c. **Visual impact:** The GRN, by the nature of the antennas and technology used, provide a much lower visual impact than the carrier networks (refer to Figure 2 in Attachment A). Where the carriers require up to nine ever-larger 'panel' type antennas to broadcast across many different frequency bands, the GRN generally use a slim-line dipole antenna on a single frequency band. As shown by the photos in Attachment A, these provide a far lower visual impact.

Supporting documentation

To support the NSW Telco Authority's submission, the following documents are attached:

- i. Attachment A: Five figures illustrating the typical GRN equipment required for a co-location, and the potential to reduce overall visual impact and proliferation of radiocommunications equipment and towers through the GRN.
- ii. Attachment B: Two examples of the determined Minor Works Review of Environmental Factors which assesses the environmental impact for co-location proposals within the pilot project.
- iii. Attachment C: An overview and further detail on the purpose of the NSW Telco Authority, GRN and CCEP.

Conclusion

The NSW Telco Authority requests the two amendments identified in this letter be included in the amendment to the ISEPP which are consistent with the Department of Planning and Environment's objectives to improve the delivery of critical social infrastructure, and to support the appropriate level of environmental assessment in balance with the environmental risk.

We would be pleased to discuss any of the above with you. If you have any questions, please contact Jourdan di Leo on 02 9372 8858.

We look forward to hearing from you.

Yours sincerely



Kate Foy
Managing Director
NSW Telco Authority

19 April 2017

please don't hesitate
to call me directly on
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Telco
Authority

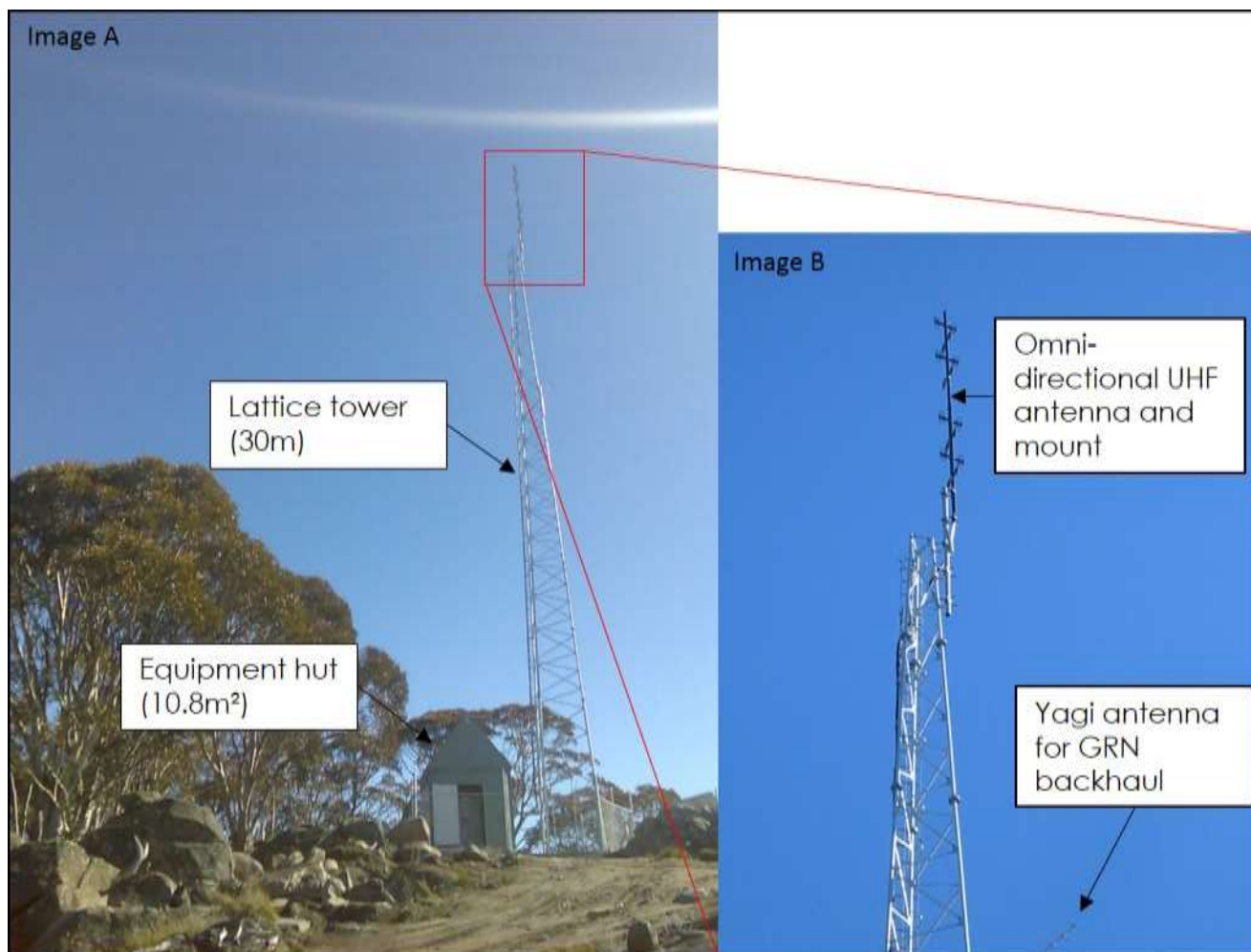
Attachment A

Government Radio Network (GRN) Site Imagery

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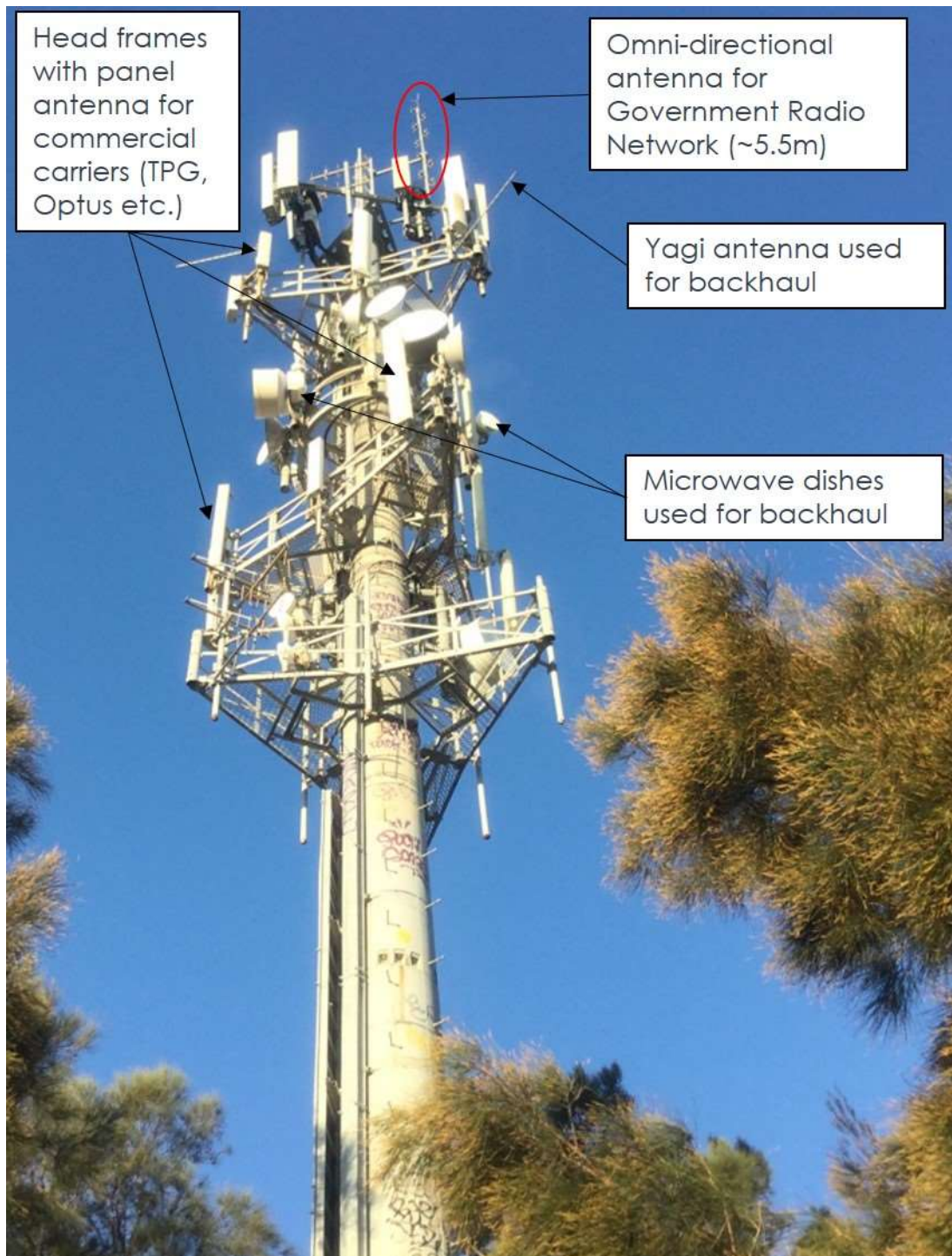
1 Figure 1. Illustration of a typical GRN radiocommunications site



Notes:

- i. Image A shows a typical Government radiocommunications site owned by the NSW Telco Authority (located at Mt Clear), including a tower, antenna and an equipment shelter. The dimensions of the equipment shelters vary depending on the location. This shelter has a gabled roof for an ice shield although many shelters have a flat-style roof.
- ii. Image B shows the dimensions and scale of an indicative GRN antenna. At existing telecommunications facilities, where a co-location would be proposed, the requirement for backhaul varies depending on the site location and usage. At this site a yagi antenna is used, however other options include a microwave dish(es) or no antenna (where underground fibre cable is available).

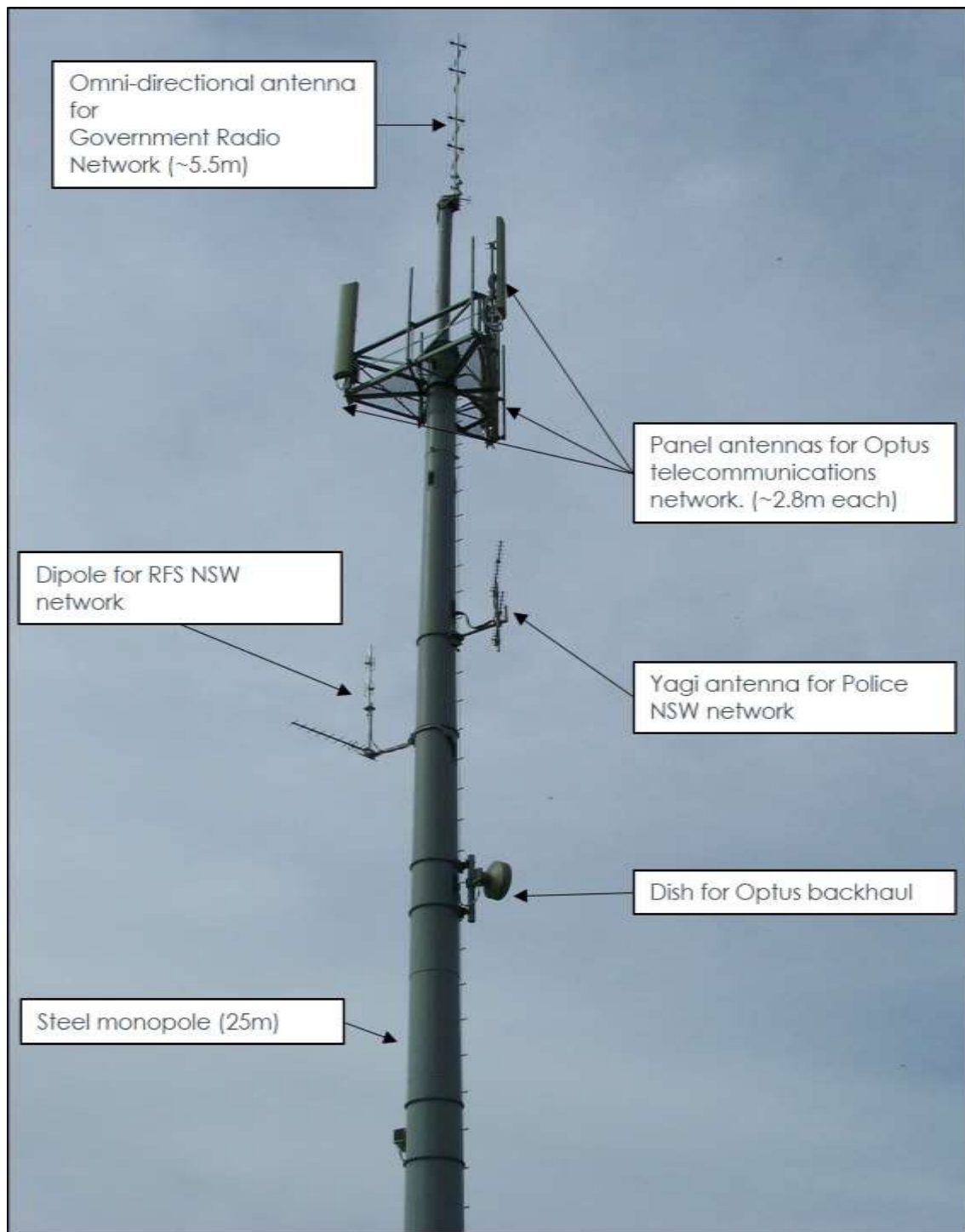
2 Figure 2. Illustration of GRN co-location equipment in comparison to commercial carriers



Notes

- i. The photo shows a typical GRN co-location and the scale of GRN equipment (a single antenna) in comparison to the commercial carriers' equipment (headframes and panels) on a tower. Note, both commercial and Government Radio Network require backhaul (yagi, dishes or fibre cable).

3 Figure 3. Illustration of potential to rationalise multiple Government agencies' equipment



Notes

- i. The photo shows an example of an existing tower with multiple Government agencies' equipment. As part of the CCEP, once the enhanced GRN is completed, the NSW Police and Rural Fire Service would migrate to the GRN and their equipment at this tower would be decommissioned.

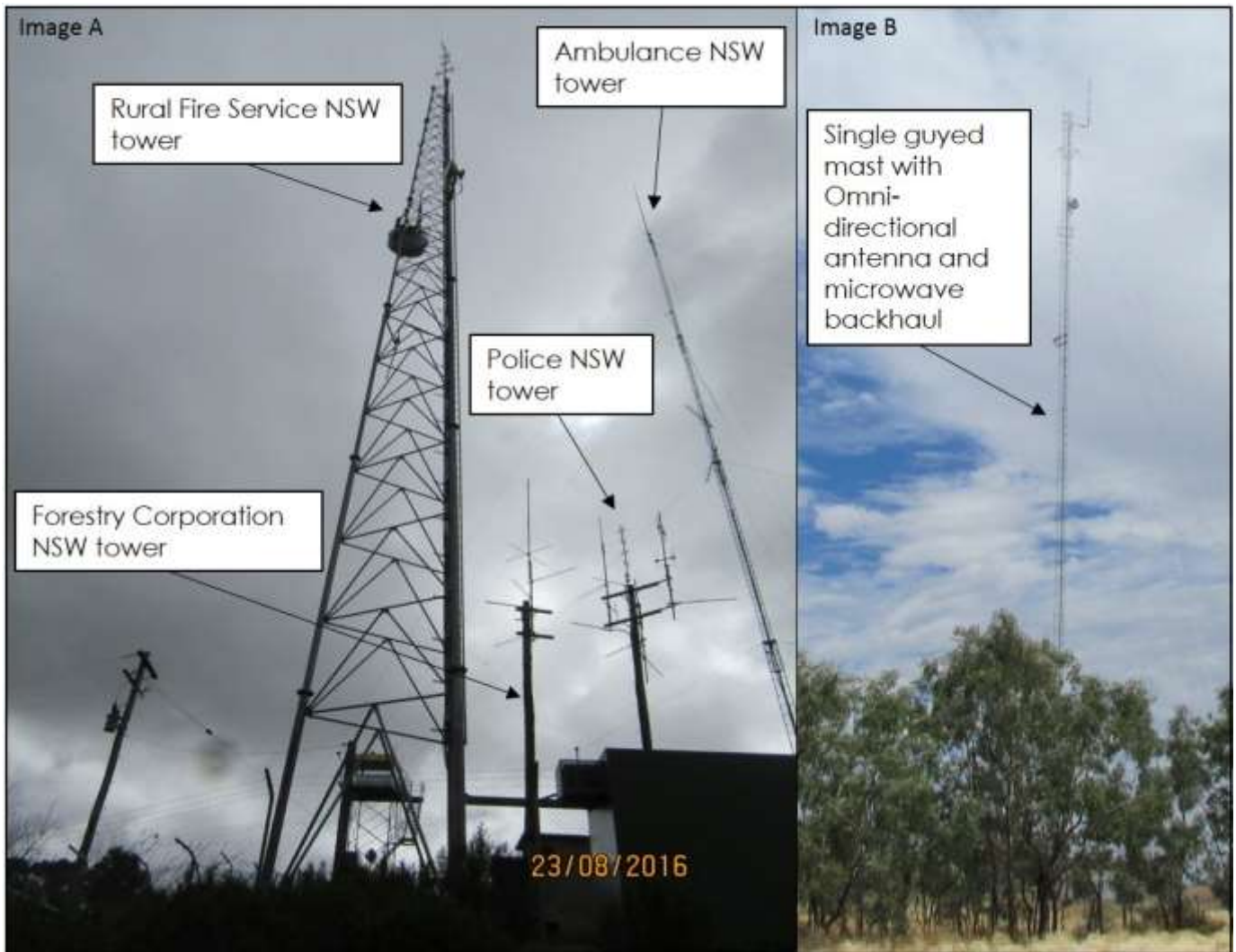
4 **Figure 4. Illustration of a GRN co-location in an urban area**



Notes

- i. The aerial photo shows a tower owned by Crown Castle adjacent to a Rural Fire Service tower. In this circumstance the co-location is proposed on the Crown Castle tower as the RFS tower is not structurally adequate, and it would be decommissioned following the completion of the enhanced GRN.

5 **Figure 5. Illustration of the potential to rationalise multiple agency towers**



Notes

- i. Image A illustrates the duplication of Government agency towers and the potential to consolidate sites through the CCEP to the enhanced GRN.
- ii. Image B illustrates a new GRN site installed as part of the pilot program and a comparison of the potential visual impact of the GRN at some existing telecommunications sites in NSW.

201613 Come by Chance
5809 Come by Chance Road, Come by Chance, NSW,
2832
Lot 1, DP 534151
Minor Works Review of Environmental Factors

Document No. | 2

18 August 2016

Document history and status

REF Revision History			
Version	Date	Nature of Revision	Issued by
1	29 July 2016	Draft MWREF issued to NSW TA	Joel Rodski
2	18 August 2016	Final MWREF	Joel Rodski

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Declaration and sign-off

The purpose of this Minor Works Review of Environmental Factors (MWREF) is to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of the installation of antennas onto the existing 90m high telecommunications steel guyed mast and ancillary equipment to be installed within the existing Essential Energy equipment shelter (the proposal) at 5809 Come by Chance Road, Come by Chance, NSW, 2832. The proposal is located in the Walgett Shire Council Local Government Area (LGA).

State Environmental Planning Policy (Infrastructure) 2007 (NSW) allows the proposal to be carried out without development consent. Accordingly the environmental assessment and determination of the proposal has been undertaken in accordance with Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). Under Part 5 of the EP&A Act, NSW Telco Authority is both the proponent and a determining authority for the proposal. NSW Telco has prepared this MWREF in accordance with clause 228 of the *Environmental Planning and Assessment Regulation 2000* (NSW).

This MWREF has assessed the proposal and found that the environmental impacts would be negligible. Mitigation measures identified in Section 6 of this MWREF would be implemented to manage any potential environmental risks associated with the proposal.

The assessment concludes that the proposal is not likely to have a significant impact on the environment and accordingly, an Environmental Impact Statement (EIS) is not required for the proposal. The proposal is not likely to significantly impact a matter of national environmental significance or the environment of Commonwealth land and a referral to the Australian Government Department of the Environment is therefore not required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

If the scope of work or work methods described in this MWREF change significantly following the awarding of the work contract, additional Environmental Impact Assessment (EIA) must be undertaken.

Prepared by

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Date: 5 August 2016

Reviewed by

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Date: 5 August 2016

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IPMO

Date: 23 August 2016

Signature:



Endorsed by:

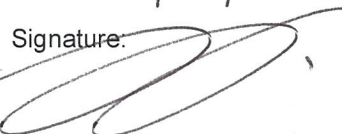
James McRobert

Program Director

IPMO

Date: 23/8/16

Signature:



Approved by:

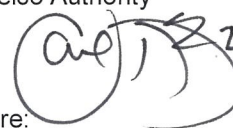
Name: CATHERINE Foy

Title: MANAGING DIRECTOR

NSW Telco Authority

Date: 24.8.16

Signature:



1. Introduction

The potential environmental impacts of the proposal have been assessed in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). In accordance with the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP), the proposal does not require development consent from Walgett Shire Council (the Council) and the impacts have been assessed under Part 5 of the EP&A Act. For this proposal, NSW TA is both a public authority proponent (section 4 of the EP&A Act) and the determining authority (section 110 of the EP&A Act).

The purpose of this MWREF is to describe the proposal, to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal, to detail mitigation measures to be implemented and to determine whether the proposal can proceed.

In accordance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), the MWREF has considered the requirements of the guideline *Is an EIS required?* (DUAP 1999) and the factors listed in clause 228(2) of the EP&A Regulation (refer to Section 5.1).

2. Proposal details

2.1 Description of the proposal

The proposal would be located at the existing telecommunications facility at 5809 Come by Chance Road, Come by Chance, NSW, 2832 (Lot 1, DP 534151). The 'subject property' comprises several land parcels (total area of 57.1 hectares) surrounding the eastern side of the small settlement of Come by Chance, between the Baradine Creek to the north-east and Come by Chance Road to the south-west. 'The site' is located on the easternmost lot which has a narrow frontage to Come by Chance Road to the south and borders the Baradine Creek to the north-east. The site contains the existing Essential Energy 90m high telecommunications steel guyed mast and compound area, which contains an equipment shelter and ancillary equipment. The site has existing road and power provision. The works would be contained within the existing site footprint.

The proposal would comprise the following features:

- Installation of a 1.8m diameter parabolic dish antenna attached to the existing steel guyed mast at a height of 36m.
- Installation of a 2.4m diameter parabolic dish antenna attached to the existing steel guyed mast at a height of 59m.
- Installation of a 2.4m diameter parabolic dish antenna attached to the existing steel guyed mast at a height of 51m.
- Installation of a binary array outriggered 2,400mm on a support mount attached to the existing steel guyed mast at a height of 75m.
- Installation of feeder cables along the existing overhead cable route.

The following sequence of construction works would be carried out for the proposal:

- Inspect site access road and conduct maintenance if required to ensure construction vehicles can access the site
- Establish the construction works area and fence off of no go areas as required.
- Install feeder cables on the existing existing overhead cable route.
- Install support mount and antennas on the existing lattice tower using either a crane or works platform during installation.
- Install ancillary equipment within the existing equipment shelter.
- Demobilise and clean site.

During construction, a works area would be required and would be contained entirely within the existing telecommunications site area. The construction area would include provision for:

- Crane and elevated works platforms as required.
- Site shed and amenities.
- Vehicle parking.
- Equipment and plant set down area.
- Materials unloading and storage, which may include lattice tower components and telecommunications facility equipment.

Noise and vibration emissions associated with the proposed facility are expected to be limited to the construction phase outlined above. Noise generated during the construction phase is anticipated to be of short duration and accord with the standards outlined in the Interim Construction Noise Guideline (DECC, 2009).

Once operational, the facility is designed to function on a continuously unstaffed basis and would typically only require maintenance works once a year, for approximately one day per year.

2.2 Proposal location and surrounds

The proposal would be located at the existing Essential Energy tower at 5809 Come by Chance Road, Come by Chance, NSW, 2832, south-east of the small settlement of Come by Chance, in the south-east of the Walgett Shire Council. The site is located within an 18.5 hectare irregularly shaped lot bordering the western side of the Baradine Creek and Come by Chance Road to the south. The property is privately owned and leased to Essential Energy for use as a mobile phone base station.

The site has direct road access to Come by Chance Road, opposite the intersection with Haines Hut Road. The site is located in a remote, rural setting and the nearest sensitive receiver is a homestead approximately 100m east of the site, as shown in Figure 3. The settlement of Come by Chance is approximately 450m north-west of the site. The surrounding land is flat and cleared farmland, with vegetation along the Baradine Creek. The creek borders the eastern side of the subject property and is 133m from the site at its closes point.

The site itself is a previously disturbed environment containing an existing telecommunications tower and ancillary infrastructure. Although there is some existing vegetation surrounding the site, the proposal would be sited within the previously disturbed compound area and not result in any vegetation clearance.

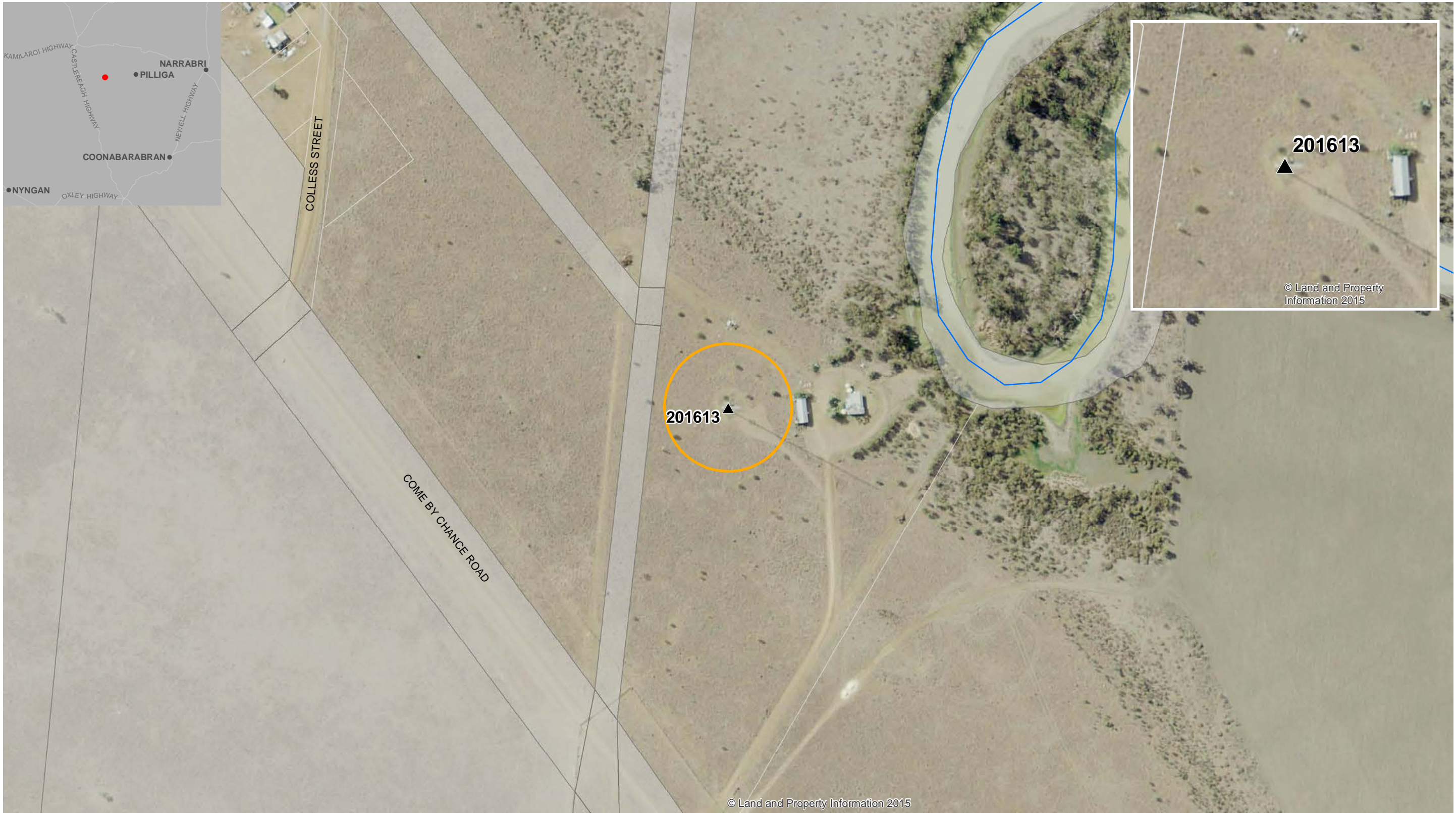
The site's coordinates are -30.369077 (latitude), 148.489127 (longitude). These coordinates have been used for the purpose of carrying out database searches e.g. AHIMS, EPBC Protected Matters.

The photos below show the existing site area. Figure 3 (overleaf) is a location map of the site.



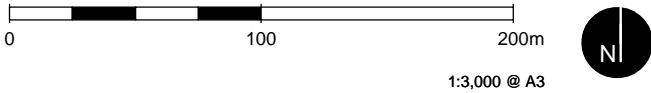
Figure 1 (above left). Existing Essential Energy telecommunications tower at Come by Chance.

Figure 2 (above right). Existing telecommunications compound at Come by Chance.



Legend

- ▲ PSP site
- Crown land
- ▭ PSP Site 50m buffer
- Watercourse



ACMA Id - 201613 Comm Site Come by Chance via PILLIGA

Data sources
Jacobs 2015
RMS 2015
LPI 2016
DPE 2016

2.3 Construction details

2.3.1 Timeframe, duration and hours of work

Construction would commence in the second half of 2016 and is anticipated to take approximately 2 weeks to complete. This timing is subject to confirmation during the detailed design phase of the project.

Construction of the activity would occur within the following work hours:

- Monday to Friday: 7AM to 6PM.
- Saturday: 8AM to 1PM.

No works would be carried out on Sundays or on public holidays.

2.3.2 Plant and equipment

Construction equipment and plant that would likely be used during the construction phase of the project may include but not limited to:

- Trucks to deliver equipment.
- Crane to install equipment.
- Miscellaneous construction equipment including, welding plant, air compressor, power tools.

2.3.3 Access and traffic

- The existing site access would be used for the proposal and there would be no changes to existing access or traffic conditions.
- The facility would be unmanned and typically only visited for maintenance once per year.

2.4 Need and objectives of the proposal

NSW Telco Authority is responsible for the overall coordination of radio telecommunication services for the NSW Government. The Critical Communications Enhancement Program (CCEP) improves the quality and efficiency of the operational radio and paging networks that our frontline and emergency workers use. The new shared radio communications network would provide better coverage and reliability for more than 70 NSW Government agencies.

Over the last 20 years, many agencies have built their own networks. This means duplication of infrastructure, capacity, coverage and costs.

Under the CCEP, the same or better coverage would be provided, while eliminating the need for multiple organisations to occupy the same site. This reduces the doubling up of charges for electricity and site rental. Frontline staff will have access to increased capacity for both day-to-day and emergency operations. They would also be able to communicate more effectively with other agencies and across state borders.

Bringing NSW's network in line with other states and territories across Australia would also provide a platform for adopting the next generation of technology, which would allow public safety agencies to continue to improve their service delivery to communities across the state. More effective communications would enable faster and more flexible responses to emergencies.

The Pilot Project is an initial rollout of 27 sites being conducted in the north-west region of NSW, prior to the state-wide CCEP rollout. The Come by Chance site is one of 27 sites that are a part of the Pilot Project.

3. Statutory and planning framework

3.1 Statutory framework

Table 3.1 : REF pathway analysis and legislative requirements

Legislative requirements / aspects	Comments
Infrastructure SEPP designation	ISEPP aims to facilitate the effective delivery of infrastructure across the state, including radio and telecommunications facilities. Clause 114(1) of the ISEPP permits development for the purposes of telecommunications facilities (including radio facilities) to be carried out by a public authority without consent on any land.
ISEPP consultation requirements (clause 13-16) (refer to Section 3.2.1).	Refer Section 3.2.1.
Land use zoning and tenure	The proposal is located within land zoned RU1 Primary Production Zone. The land is currently used for telecommunications. The land is privately owned and leased by Essential Energy.
Other applicable Environmental Planning Instruments (EPIs)	Walgett LEP 2013.
Is the proposal a category identified as State significant development or State significant infrastructure under <i>State Environmental Planning Policy (State and Regional Development) 2011</i> or is the work likely to have a significant impact on the environment and require an Environmental Impact Statement?	The proposal does not fall into any of the categories identified in the <i>State Environmental Planning Policy (State and Regional Development) 2011</i> . The works to be carried out are considered minor and temporary in nature, and would be confined to previously disturbed areas. Mitigation measures would be implemented to ensure environmental impacts are minimised
Is the work likely to have a significant impact on a Matter of National Environmental Significance as defined under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)?	No. A protected matters search under the <i>Environment Protection Biodiversity Conservation Act 1999</i> (Cth) was carried out on 26 July 2016. It found that the proposal would not impact on the following matters of national environmental significance: <ul style="list-style-type: none"> • World heritage properties • National heritage places • Wetlands of international importance • Great Barrier Reef Marine Park • Commonwealth marine areas The likelihood of disturbing actual or potential habitats associated with threatened species is considered to be low as the proposal would be constructed in a disturbed area. The proposal is unlikely to have a significant impact on any matters of national environmental significance.
Does the work involve an action on Commonwealth land that is likely to have a significant impact on the environment, or an action outside Commonwealth land that may significantly impact the environment on Commonwealth land?	No.
Is the land subject to a Native Title claim or the <i>Native Title Act 1993</i> ?	No.
Does the proposal comply with the Australian	Yes, the development would produce electromagnetic

Legislative requirements / aspects	Comments
Radiation Protection and Nuclear Safety Agency (ARPANSA) Radio Frequency Standard? Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz 2002 (Radiation Protection Standard).	radiation – and a compliance report prepared in accordance with the Australian Radiation Protection Nuclear Safety Agency (ARPANSA) Radiation Protection Standard shows the predicted levels of electromagnetic energy surrounding the development comply with the safety limits imposed by the Australian Commonwealth and Media Authority and the Electromagnetic Radiation Standard (refer to Appendix C).
Does the proposal require an approval, permit or licence under any other environmental legislation?	No other licences, approvals or permits are required under any other environmental legislation.

3.2 Stakeholder and agency consultation

3.2.1 ISEPP consultation

The ISEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. This is detailed below:

Is consultation with council required under clauses 13-15 of the ISEPP?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the works likely to generate traffic to an extent that will strain the existing road system in a local government area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is there a local heritage item (that is not also a state heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the item/area are more than minor or inconsequential?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is consultation with other agencies required under clause 16 of the ISEPP?		
Is the proposal adjacent to a national park, nature reserve or other area reserved under the <i>National Parks and Wildlife Act 1974</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal adjacent to a declared aquatic reserve under the <i>Fisheries Management Act 1994</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal adjacent to a declared marine park under the <i>Marine Parks Act 1997</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal in the Sydney Harbour Foreshore Area as defined by the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Do the proposal involve the installation of a fixed or floating structure in or over navigable waters?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3.2.2 Consultation with other agencies

Is consultation with other agencies required?		
Is the proposal located within Crown land or would there be an impact to Crown land that is adjacent to a proposal.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal located within land administered as a 'Special Area' by Water NSW? If yes, consultation with Water NSW would be required.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal located within Sydney Drinking Water Catchment? If yes, a Neutral or Beneficial Effect on Water Quality (NorBE) is required to be completed.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

4. Environmental assessment

4.1 Overview of applicable environmental factors

An overview of potential environmental impacts of the proposal requiring environmental impact assessment within this MWREF are identified in Table 4.1. Where impacts are identified these are addressed in further detail in Section 4.2.

Table 4.1: Applicable Environmental Factors

Environmental factors checklist	Comments	Detailed discussion in REF?	Environmental factors checklist
Soils and landforms		Yes	<input type="checkbox"/>
<p><i>Would the proposal require any excavation or ground disturbance?</i></p> <p>Or</p> <p><i>Is the proposal likely to disturb contaminated land or contaminated material? (If required, check the NSW EPA Contaminated Lands Database for registered sites and sites notified to the EPA.</i></p> <p>NSW EPA Contaminated Lands Database</p>		No	<input checked="" type="checkbox"/>
Water quality and hydrology		Yes	<input type="checkbox"/>
<p><i>Would the proposal potentially impact a waterway (natural or constructed) or groundwater?</i></p> <p>Or</p> <p><i>Would the proposal potentially impact an area administered by Water NSW (formerly Sydney Catchment Authority (SCA))?</i></p> <p>Protected Areas administered by Water NSW</p> <p>Or</p> <p><i>Is the proposal located within or immediately adjacent to the area covered by State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011?</i></p> <p>Sydney Drinking Water Catchment Area</p>	The proposal is located within 133m of the Baradine Creek. Due to the minor nature of the work there would be no impact on the creek.	No	<input checked="" type="checkbox"/>
Noise and vibration		Yes	<input type="checkbox"/>
<i>Would the proposal generate noise and/or vibration that may impact on nearby properties?</i>	The proposal is located approximately 100m from the nearest sensitive receiver. Due to the minor nature of the works and the distance of 100m, there would be minor noise and negligible vibration impact at the nearest sensitive receiver.	No	<input checked="" type="checkbox"/>
Air quality		Yes	<input type="checkbox"/>
<i>Would the proposal cause offensive odour, dust or air pollution?</i>		No	<input checked="" type="checkbox"/>

Environmental factors checklist	Comments	Detailed discussion in REF?	Environmental factors checklist
Traffic and access		Yes	<input type="checkbox"/>
<i>Would the proposal impact traffic, require partial or full lane closure or require a new access track to be formed or impact existing access to private property?</i>		No	<input checked="" type="checkbox"/>
Biodiversity		Yes	<input type="checkbox"/>
<i>Would the proposal impact native vegetation, native fauna or habitat? (Note this MWREF is not the appropriate form of assessment if the land affected is located in an area of environmental significance that, under a law of the Commonwealth, or a State is protected from significant environmental disturbance.) (Database checks included but are not limited to: Protected Matters Search Tool NSW Wildlife Atlas</i>	The works would occur within the previously disturbed compound area. There would be no vegetation clearance required for construction, and no anticipated impact on biodiversity.	No	<input checked="" type="checkbox"/>
Aboriginal heritage		Yes	<input type="checkbox"/>
<i>Are there any registered Aboriginal heritage objects or declared Aboriginal places within 200 metres of the proposal (including associated activities)? (refer to Appendix B). Link to AHIMS</i>		No	<input checked="" type="checkbox"/>
Non Aboriginal heritage		Yes	<input type="checkbox"/>
<i>Would the proposal impact on any local heritage items (Note this MWREF is not the appropriate form of assessment if National or State heritage items are affected) Link to heritage registers: World, National and Commonwealth Heritage Significance State Heritage Register s170 Registers</i>		No	<input checked="" type="checkbox"/>
Waste management		Yes	<input type="checkbox"/>
<i>Is the proposal likely to generate hazardous waste or require disposal of hazardous building materials (HBM) (e.g. lead, asbestos, PCB or other substance designated as hazardous)</i>		No	<input checked="" type="checkbox"/>
Visual and social impacts		Yes	<input type="checkbox"/>
<i>Is the proposal likely to change the land use or visual character of the environment? (E.g. installation of above-ground structures, construction of new access roads, temporary works compounds)?</i>		No	<input checked="" type="checkbox"/>
<i>Is the proposal likely to impact on sensitive receivers (i.e. local residences/business/schools/hospitals)?</i>		Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>

5. Consideration of State and Commonwealth environmental factors

5.1 Environmental Planning and Assessment Regulation 2000 checklist

In addition to the requirements of the guideline Is an EIS required?, the following factors listed in clause 228 of the *Environmental Planning and Assessment Regulation 2000* have also been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 111 and 112 of the EP&A Act.

Environmental Factor		
a) Any environmental impact on a community?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
b) Any transformation of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
c) Any environmental impact on the ecosystems of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present generations?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
f) Any impact on habitat of any protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
h) Any long-term effects on the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
i) Any degradation of the quality of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
j) Any risk to the safety of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
k) Any reduction in the range of beneficial uses of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
l) Any pollution of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
m) Any environmental problems associated with the disposal of waste?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
n) Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
o) Any cumulative environmental effect with other existing or likely future activities?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

5.2 Commonwealth matters of national environmental significance

Under the environmental assessment provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the following matters of national environmental significance are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Sustainability, Environment, Water, Population and Communities. (A Protected Matters Search under the EPBC Act is provided in Appendix B).

Factor	Impact
a) Any impact on a World Heritage property?	None
b) Any impact on a National Heritage place?	None
c) Any impact on a wetland of international importance?	<p>Three wetlands of international importance are located 800-1,100km downstream of the proposal: (Banrock station wetland complex 800-900km downstream; Riverland 800-900km downstream; and The Coorong, and Lakes Alexandrina and Albert wetland 1,000-1,100km downstream).</p> <p>Given the large distance between the site and the wetlands in South Australia, and the minor nature of the work, the risk of the works impacting on the wetlands is considered negligible.</p>
d) Any impact on a listed threatened species or communities?	None
e) Any impacts on listed migratory species?	None
f) Any impact on a Commonwealth marine area?	None
Additionally, any impact (direct or indirect) on Commonwealth land?	None

6. Summary of safeguards and environmental management measures

This section provides a summary of the generic environmental safeguards and management measures identified in Section 4 of this MWREF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation.

Table 6.1: Summary of site-specific safeguards for the proposal

General	<ol style="list-style-type: none"> 1. All licence, approval and notification requirements identified in this REF are to be documented in the Construction Environmental Management Plan (CEMP). 2. Prior to commencement, all project staff and contractors will be inducted in the CEMP, including the environmental sensitivities of the work site and relevant safeguards. 3. The Project Manager (Delivery Management) will be notified immediately of any complaints relating to management of environmental issues. 4. In the event of any environmental incident that can harm the environment, the Delivery Contractor must notify the Environment Protection Authority (EPA) and any relevant authorities as defined in section 148(8) of the POEO Act.
Site/Fencing	<ol style="list-style-type: none"> 5. Building materials and equipment must be stored wholly within the work site unless an approval to store them elsewhere is held.
Soil and landforms	<ol style="list-style-type: none"> 6. All works will be carried out in accordance with Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom 2006) (the Blue Book) and Managing Urban Stormwater: Soils and Construction (Volumes 2A, 2C and 2D).
Waterways and water quality	<ol style="list-style-type: none"> 7. A functioning 'spill kit' will be kept on site at all times to clean-up accidental chemical/fuel spills. The 'spill kit' will be stored in an appropriate location that is quickly and easily accessible from all areas of the work site. Any spills will be contained and material collected and disposed of at an EPA licensed facility.
Noise and vibration	<ol style="list-style-type: none"> 8. Work must be carried out only between 7AM and 6PM, Monday to Friday, 8AM to 1PM Saturday, 9. Work must not be carried out on a Sunday or public holiday, 10. Works would be conducted in accordance with the DECC's 2009 Interim Construction Noise Guideline. 11. Contractors would be informed of noise mitigation measures during the general site induction and/or toolbox talks.
Air quality	<ol style="list-style-type: none"> 12. All work areas and stockpiles will be monitored for dust generation, particularly during hot, dry or windy weather. 13. In the event of excessive dust generation, implement appropriate dust suppression measures (e.g. watering, covering exposed areas/stockpiles with tarpaulins or geotextile fabric, appropriate seeding). Modify or cease work in adverse weather conditions if needed. 14. All work vehicles/machinery will be maintained in good working order and in accordance with relevant standards.
Traffic and access	<ol style="list-style-type: none"> 15. Access to the work sites will be via existing access routes only unless approved as part of the REF process.
Aboriginal and Non-Aboriginal Heritage	<ol style="list-style-type: none"> 16. If any Aboriginal object or non-Aboriginal heritage item is found, all excavation or disturbance will cease in the area and the NSW TA Project Manager must be notified immediately.
Biodiversity	<ol style="list-style-type: none"> 17. A CEMP would include the following: <ul style="list-style-type: none"> • No go zones around sensitive areas and boundaries of the work area. • Locations of parking, lay-down and storage areas for materials, plant and stockpiles.

	<ul style="list-style-type: none"> • Location and full extent of any lopping, trimming, clearing or other vegetation disturbance required for the works. <p>18.If any threatened or native species (flora or fauna) are discovered during the works, all work will stop immediately and the Environmental Representative (Delivery Management) will be notified. Work will only recommence once the impact on the species has been assessed and appropriate control measures have been implemented.</p>
Waste	<p>19.All wastes are required to be classified in accordance to the <i>Waste Classification Guidelines (EPA, 2014)</i> and transported to a licensed facility.</p> <p>20.All hazardous or contaminated wastes on site (if identified) would be removed and disposed in accordance with the state and national regulations and guidelines and best practice for the removal of these materials. Hazardous materials will only be removed by suitably qualified, licensed and experienced contractors.</p> <p>21.The work site must be left clear of waste and debris at the completion of works and restored, as far as possible, to the original condition.</p>
Visual and social	<p>22.Contractors to maintain the site in a tidy appearance and treat community enquiries regarding the works appropriately and in accordance with NSW TA's policy.</p> <p>23.If any accidental damage to property occurs as a result of work activities, either within or outside the boundaries of the work site, the Project Manager (Delivery Management) will be notified and damage to property incurred by the works must be repaired in consultation with the affected property owner.</p> <p>24.External light fittings and fixtures will be selected and installed in a manner which ensures that lighting is directed downwards and does not adversely affect residents, fauna or other adjacent land uses including roadways.</p> <p>25.The Project Manager (Delivery Management) will be notified immediately of any complaints received and will respond as soon as possible.</p> <p>26.All services in the vicinity of the works will be located in the field and pegged-out and noted in the work plans prior to excavation works - "Dial 1100 Before You Dig".</p>

7. Conclusion and justification

This MWREF assesses the potential impacts of the proposal. On the basis of the information outlined in this document and by adopting the measures identified in Section 6 of this assessment, it is considered that the proposal is not likely to affect the environment. Accordingly an environmental impact statement under Part 5.1 of the EP&A Act is not required.

8. References

EPA (2014) 'Waste Classification Guidelines, Part 1-4" NSW Government.

DECC (2009) Interim Construction Noise Guideline

DECCW (2010) 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW', NSW Department of Environment, Climate Change and Water.

Department of Urban Affairs and Planning (DUAP) 1999.

Landcom (2004) 'Managing Urban Stormwater – Soils and Construction' 4th Edition. NSW Government, (Blue Book) DECCW (2010)

National Native Title Tribunal (2016) Register of Native Title Claims. Retrieved 26 July 2016, from <http://www.nntt.gov.au/searchRegApps/NativeTitleRegisters/Pages/Search-Register-of-Native-Title-Claims.aspx>

NSW Government (2016). Spatial Information Exchange. Retrieved 26 July 2016, from <https://maps.six.nsw.gov.au/>

NSW Government (2016) Office of Environment & Heritage. Retrieved 26 July 2016, from <http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx>

NSW Government (2016) Planning & Environment, Planning Portal. Retrieved 26 July 2016, from <https://www.planningportal.nsw.gov.au/find-a-property>

NSW Government (2016) Environment Protection Authority, Contaminated Land. Retrieved 26 July 2016, from <http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx>


9. Terms and acronyms used in the REF

Term / Acronym	Definition
AHD	Australian height datum
AHIMS	Australian Heritage Information Management System
ASS	Acid Sulfate Soils
CEMP	Construction environmental management plan
dB(A)	Decibels using the 'A' weighted scale, measured according to the frequency of the human ear
DBYD	Dial before you dig
DEC	NSW Department of Environment and Conservation (now OEH)
DECC	NSW Department of Environment and Climate Change (now OEH)
DECCW	NSW Department of Environment and Climate Change and Water (now OEH)
DoE	Department of the Environment
DPE	Department of Planning and Environment (previously DPI)
EEC	Endangered ecological community
EIA	Environmental impact assessment
EIS	Environmental impact statement
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
ESCP	Erosion and Sediment Control Plan
Ecologically sustainable development.	Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
GRN	Government Radio Network
Heritage Act	Heritage Act 1977 (NSW)
ICNG	Interim Construction Noise Guideline (July 2009)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LGA	Local Government Area
MNES	Matters of national environmental significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.
Noxious Weeds Act	Noxious Weeds Act 1993 (NSW)
NOCC	National Operations Control Centre
NO ₂	Nitrogen dioxide
NPW Act	National Parks and Wildlife Act 1974 (NSW)
NSW	New South Wales
OEH	Office of Environment and Heritage
PMST	Protected matters search tool (EPBC Act)
REF	Review of Environmental Factors
RNP	Road Noise Policy

Term / Acronym	Definition
Roads and Maritime	Roads and Maritime Services
ROL	Road Occupancy Licence
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
TSC Act	Threatened Species Conservation Act 1995 (NSW)


Appendix A. Concept design

	1	2	3	4	5	6
A	DATE OF ISSUE		26.01.16	14.02.16	02.08.16	
	DRAWING PACKAGE VERSION		1	2	3	
B	DRAWINGS					
	201613-A00	COVER SHEET AND DRAWING ISSUE INDEX	A	B	B	
	201613-A01	SITE SPECIFICATIONS AND LOCALITY DETAILS	A	B	B	
	201613-A02	OVERALL SITE PLAN	A	B	B	
	201613-A03	DETAIL LAYOUT PLAN	A	B	C	
	201613-A04	SITE ELEVATION	A	B	C	
	201613-A05	ANTENNA LAYOUT PLAN	A	B	C	
C						
D						
E	REFERENCE DOCUMENTS					
F	COMPANY		REPRESENTATIVE		COPIES	
	NSWTA	XXXX XXXXXXXXXX	1	1	1	
	NSWTA	XXXX XXXXXXXXXX	1	1	1	
	NSWTA	XXXX XXXXXXXXXX	1	1	1	



Telco
Authority

201613
COME BY CHANCE
COMMUNICATION SITE
5809 COME BY CHANCE ROAD
COME BY CHANCE, NSW, 2832



Level 1, 29 Christie Street, St. Leonards NSW 2065
T +61 2 9478 9999 | F +61 2 9478 9900 | www.servicestream.com.au

Drawing Status:
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Drawing No.
201613-A00

123456

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A3 Original Size
0mm50mm100mm

A



SITE LOCALITY MAP
NOT TO SCALE

SITE 201613

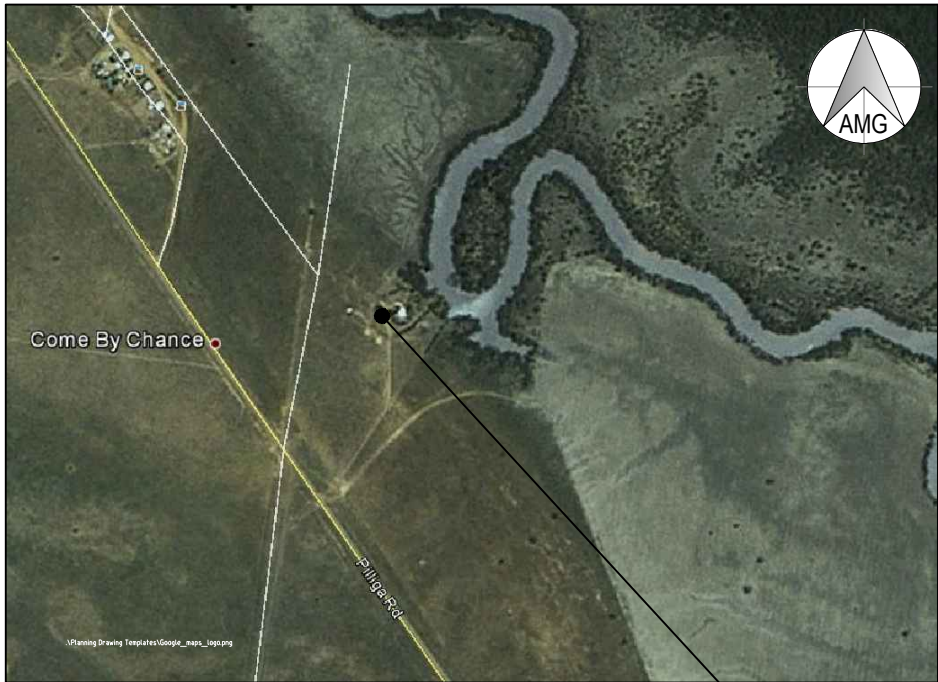
B

C

D

E

F



SITE LOCALITY MAP
NOT TO SCALE

CO-ORDINATES (WGS84)
-30.369077
148.489127
AT CENTRE OF MAST

SITE ADDRESS

COMMUNICATION SITE
5809 COME BY CHANCE ROAD
COME BY CHANCE, NSW, 2832

SITE LAND DETAILS

REGION: NSW
PARISH: WALGETT
LOT: 1
DP / PLAN: DP534151

CO-LOCATION WITH ESSENTIAL ENERGY

NO AS-BUILTS HAVE BEEN PROVIDED.
ALL EXISTING EQUIPMENT, HEIGHTS
AND DIMENSIONS ARE INDICATIVE
ONLY.

DISCLAIMER

LOT BOUNDARIES ARE APPROXIMATE. FOR
CONFIRMED BOUNDARY LOCATIONS, A
CERTIFIED SURVEYOR IS REQUIRED TO
SURVEY THE AREA.

SITE INFORMATION

1. GENERAL
THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT NSW
TELCO AUTHORITY CONSTRUCTION STANDARDS, AUSTRALIAN
STANDARDS AND SPECIFICATIONS
2. SITE ACCESS
FROM WALGETT PROCEED DOWN THE PILLIGA RD FOR 59.2km
UNTIL THE VILLAGE OF COME BY CHANCE IS REACHED. THEN
FOLLOW THE DIRT ROAD UNTIL THE ENTRANCE TO THE SITE IS
REACHED. IT WILL BE ON YOUR LEFT. THE TOWER IS VISABLE
FROM COME BY CHANCE VILLAGE.
3. EQUIPMENT SHELTER / FIT-OUT ROOM
EXISTING ESSENTIAL ENERGY PURPOSE BUILT CONCRETE
HUT (HUT-2, 2000x2145x2200mm)
4. STRUCTURE
EXISTING 90m ESSENTIAL ENERGY GUYED MAST (TWR-3)
5. ANTENNA ACCESS
ANTENNA ACCESS TO BE CONFIRMED
6. EXISTING SERVICES
THE CONTRACTOR SHALL IDENTIFY AND CONFIRM THE
LOCATION OF ALL RELEVANT EXISTING SERVICES AS
REQUIRED PRIOR TO THE COMMENCEMENT OF WORKS.
7. SIGNAGE
SIGNAGE TO BE PROVIDED AS PER CURRENT NSW TELCO
AUTHORITY SPECIFICATIONS, AND AS NOTED ON DRAWINGS.
8. EXISTING SITE HAZARDS
THE FOLLOWING HAZARDS ARE PRESENT ON SITE:
 - WORKING AT HEIGHTS
 - ELECTRICAL CABLING TRIP HAZARDS
 - OVERGROWN VEGETATION
 - BARADINE CREEK LOCATED APPROX. 170m AWAY
9. ELECTRICAL SUPPLY
EXISTING INCOMING POWER SUPPLY FROM TRANSFORMER
POLE (POWER POLE NUMBER 089885/SUB320016) LOCATED
APPROX. 60m FROM TOWER
10. EXISTING LANDSCAPE
ALL EXISTING SURFACE AND FEATURES TO BE FULLY
REINSTATED TO THEIR ORIGINAL CONDITION TO THE
SATISFACTION OF THE ENGINEER ON COMPLETION OF THE
WORKS.

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F



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201613

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COME BY CHANCE, NSW, 2832

Design Contractor:

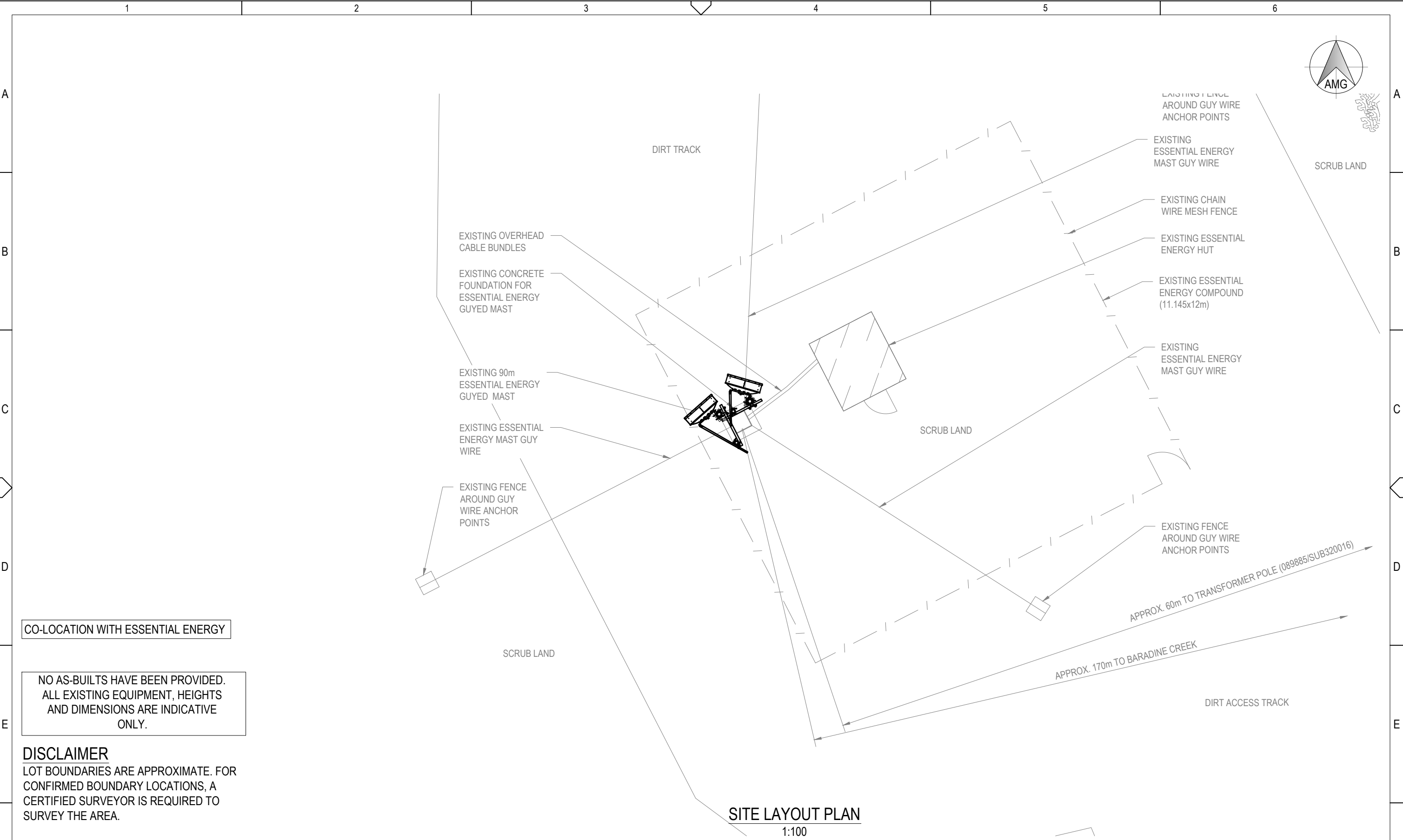
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Drawing Title:
SITE SPECIFICATIONS AND LOCALITY DETAILS

Drawing Status:
PRELIMINARY

Drawing No.
201613-A01

Revision
B



CO-LOCATION WITH ESSENTIAL ENERGY

NO AS-BUILTS HAVE BEEN PROVIDED.
ALL EXISTING EQUIPMENT, HEIGHTS
AND DIMENSIONS ARE INDICATIVE
ONLY.

DISCLAIMER
LOT BOUNDARIES ARE APPROXIMATE. FOR
CONFIRMED BOUNDARY LOCATIONS, A
CERTIFIED SURVEYOR IS REQUIRED TO
SURVEY THE AREA.



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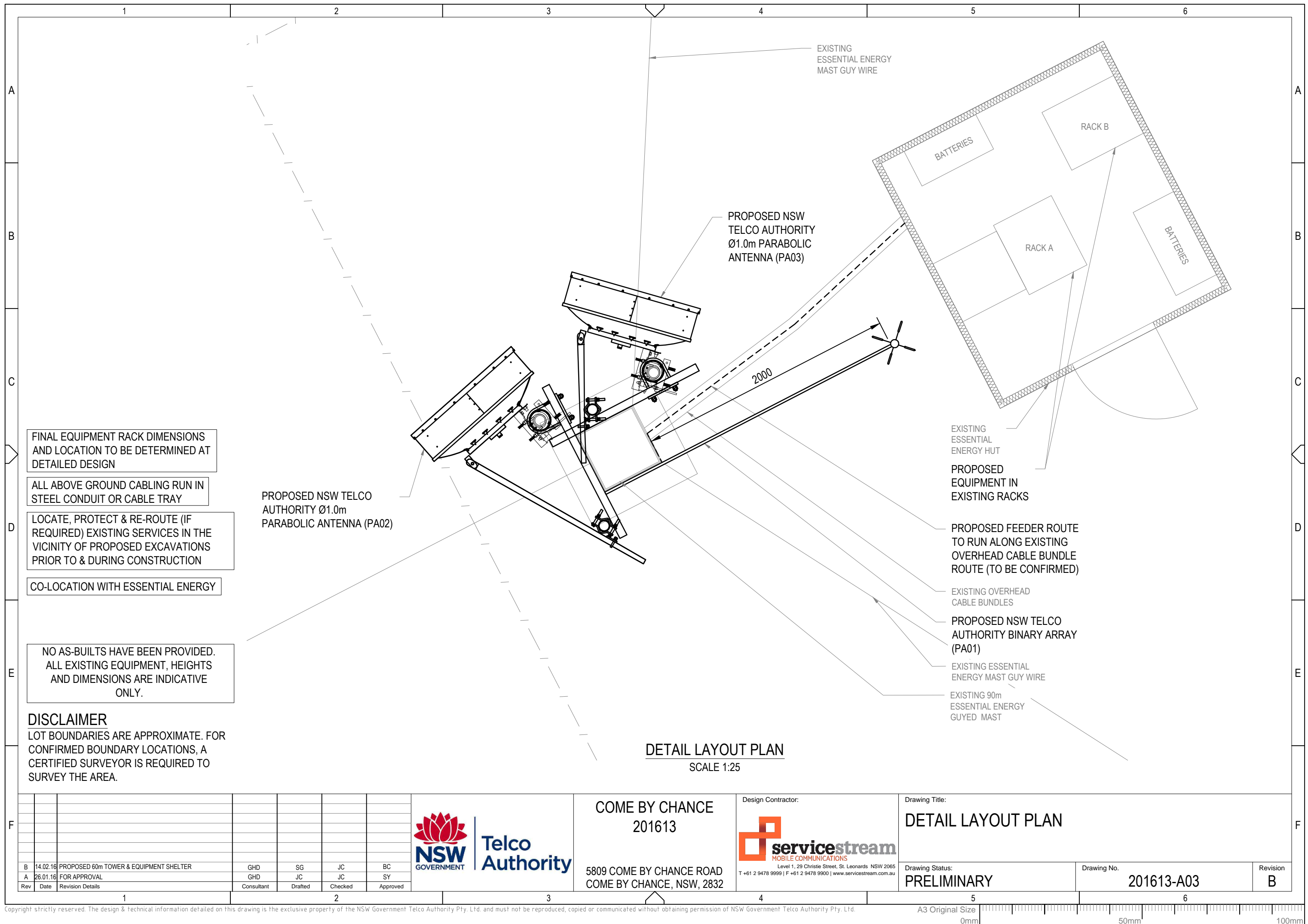
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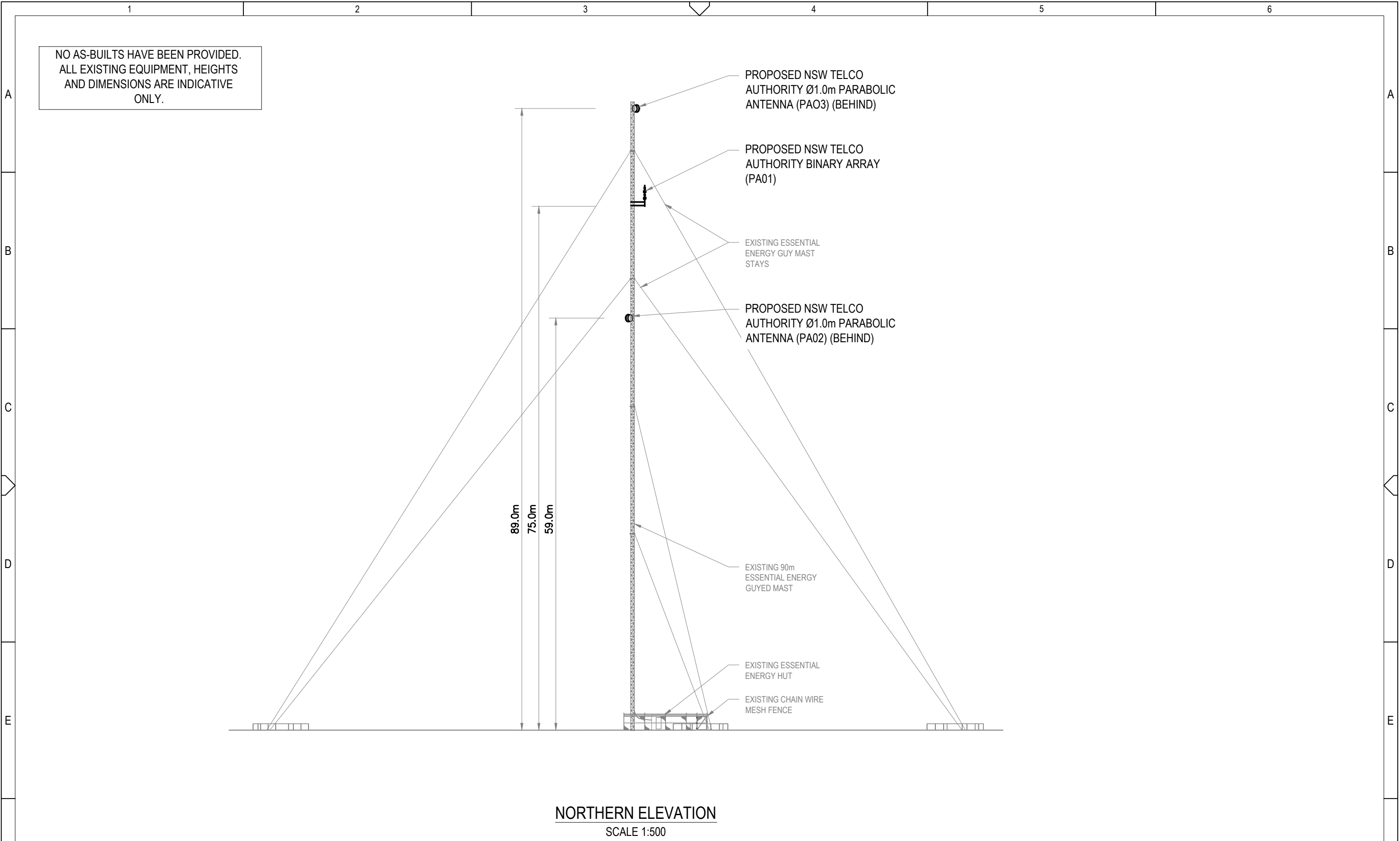
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PRELIMINARY

Drawing No.
201613-A02

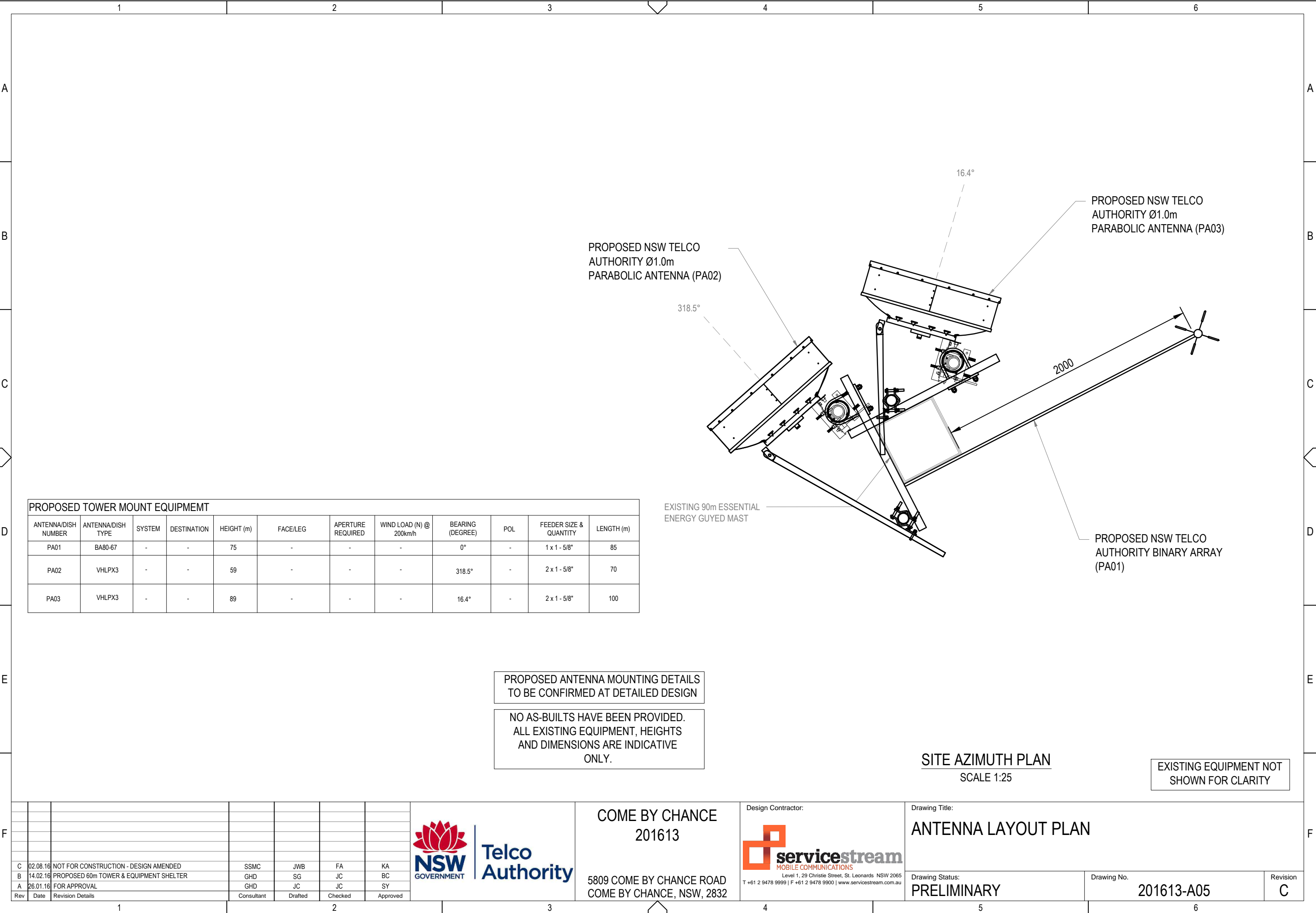
Revision
C

Rev	Date	Revision Details	Consultant	Drafted	Checked	Approved
C	02.08.16	NOT FOR CONSTRUCTION - DESIGN AMENDED	SSMC	JWB	FA	KA
B	14.02.16	PROPOSED 60m TOWER & EQUIPMENT SHELTER	GHD	SG	JC	BC
A	26.01.16	FOR APPROVAL	GHD	SG	JC	SY





F									 	COME BY CHANCE 201613 5809 COME BY CHANCE ROAD COME BY CHANCE, NSW, 2832	 Level 1, 29 Christie Street, St. Leonards NSW 2065 T +61 2 9478 9999 F +61 2 9478 9900 www.servicestream.com.au	Design Contractor:			Drawing Title: SITE ELEVATION			F	
	C	02.08.16	NOT FOR CONSTRUCTION - DESIGN AMENDED	SSMC	JWB	FA	KA												
	B	14.02.16	PROPOSED 60m TOWER & EQUIPMENT SHELTER	GHD	SG	JC	BC												
	A	26.01.16	FOR APPROVAL	GHD	JC	JC	SY												
	Rev	Date	Revision Details	Consultant	Drafted	Checked	Approved												
															</				



Appendix B. Relevant database searches

- EPBC Act Protected Matters Search.
- Aboriginal Heritage Information Management System (AHIMS) database search.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 26/07/16 15:11:05

[Summary](#)

[Details](#)

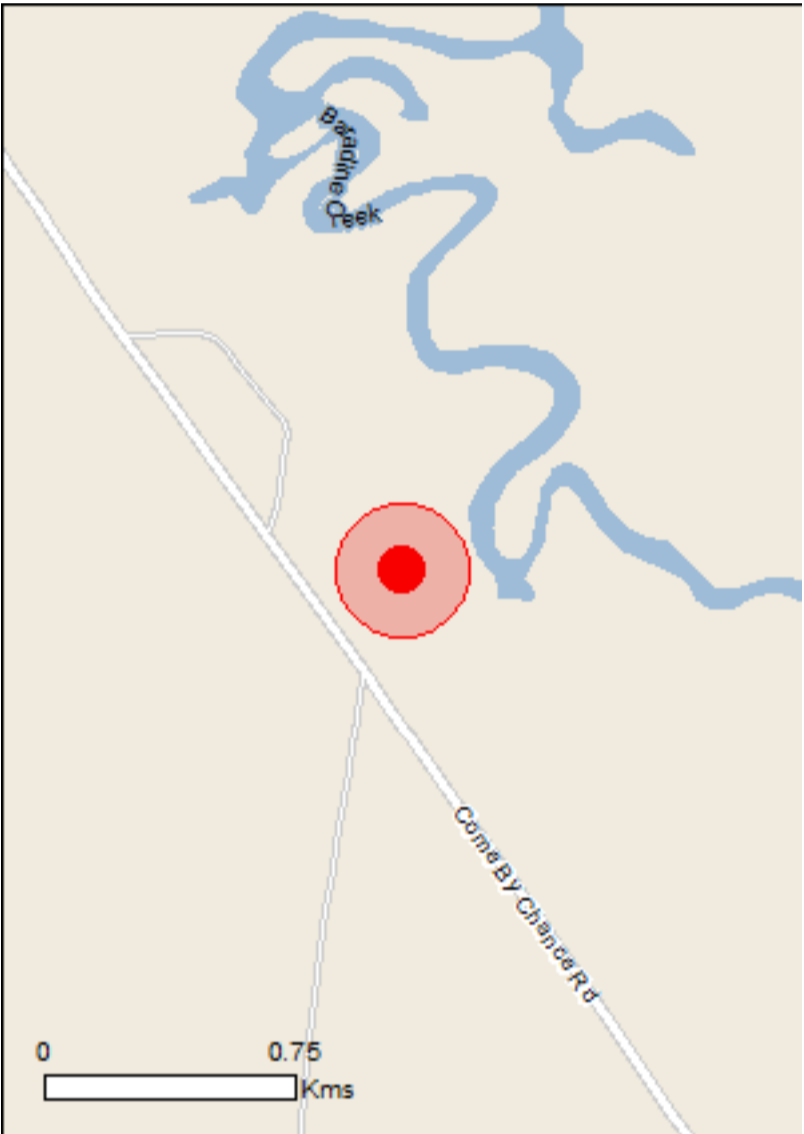
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

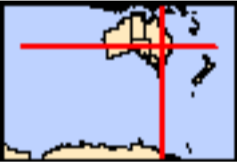
[Acknowledgements](#)



This map may contain data which are ©Commonwealth of Australia (Geoscience Australia), ©PSMA 2010

[Coordinates](#)

[Buffer: 0.2Km](#)



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	3
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	3
Listed Threatened Species:	9
Listed Migratory Species:	4

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	None
Commonwealth Heritage Places:	None
Listed Marine Species:	9
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	16
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)		[Resource Information]
Name	Proximity	
Banrock station wetland complex	800 - 900km upstream	
Riverland	800 - 900km upstream	
The coorong, and lakes alexandrina and albert wetland	1000 - 1100km	

Listed Threatened Ecological Communities	[Resource Information]
--	--------------------------

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Coolibah - Black Box Woodlands of the Darling Riverine Plains and the Brigalow Belt South Bioregions	Endangered	Community may occur within area
Natural grasslands on basalt and fine-textured alluvial plains of northern New South Wales and southern Queensland	Critically Endangered	Community may occur within area
Weeping Myall Woodlands	Endangered	Community may occur within area

Listed Threatened Species	[Resource Information]
---------------------------	--------------------------

Name	Status	Type of Presence
Birds		
Botaurus poiciloptilus Australasian Bittern [1001]	Endangered	Species or species habitat known to occur within area
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat likely to occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area
Fish		
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area
Mammals		
Chalinolobus dwyeri Large-eared Pied Bat, Large Pied Bat [183]	Vulnerable	Species or species habitat may occur within area
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat may occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area
Plants		

Name	Status	Type of Presence
Swainsona murrayana Slender Darling-pea, Slender Swainson, Murray Swainson-pea [6765]	Vulnerable	Species or species habitat likely to occur within area

Reptiles		
Anomalopus mackayi Five-clawed Worm-skink, Long-legged Worm-skink [25934]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species	[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.	

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area

Migratory Terrestrial Species		
Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area

Migratory Wetlands Species		
Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species	[Resource Information]
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.	

Name	Threatened	Type of Presence
Birds		
Apus pacificus Fork-tailed Swift [678]		Species or species habitat likely to occur within area

Ardea alba Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
--	--	--

Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
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Gallinago hardwickii Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
--	--	--

Haliaeetus leucogaster White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
---	--	--

Merops ornatus Rainbow Bee-eater [670]		Species or species habitat may occur within area
---	--	--

Motacilla flava Yellow Wagtail [644]		Species or species habitat may occur within area
---	--	--

Name	Threatened	Type of Presence
Myiagra cyanoleuca Satin Flycatcher [612]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato) Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

Extra Information

Invasive Species

[[Resource Information](#)]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Columba livia Rock Pigeon, Rock Dove, Domestic Pigeon [803]		Species or species habitat likely to occur within area
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Frogs		
Rhinella marina Cane Toad [83218]		Species or species habitat likely to occur within area
Mammals		
Bos taurus Domestic Cattle [16]		Species or species habitat likely to occur within area
Canis lupus familiaris Domestic Dog [82654]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Lepus capensis Brown Hare [127]		Species or species habitat likely to occur within area
Mus musculus House Mouse [120]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species

Name	Status	Type of Presence
Sus scrofa Pig [6]		habitat likely to occur within area Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area
Plants		
Opuntia spp. Prickly Pears [82753]		Species or species habitat likely to occur within area
Rubus fruticosus aggregate Blackberry, European Blackberry [68406]		Species or species habitat likely to occur within area
Salix spp. except S.babylonica, S.x calodendron & S.x reichardtii Willows except Weeping Willow, Pussy Willow and Sterile Pussy Willow [68497]		Species or species habitat likely to occur within area
Tamarix aphylla Athel Pine, Athel Tree, Tamarisk, Athel Tamarisk, Athel Tamarix, Desert Tamarisk, Flowering Cypress, Salt Cedar [16018]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-30.36908 148.48913

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Parks and Wildlife Commission NT, Northern Territory Government](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

Xan Goetzee-Barral

Date: 26 July 2016

357 Collins St
Melbourne Victoria 3004

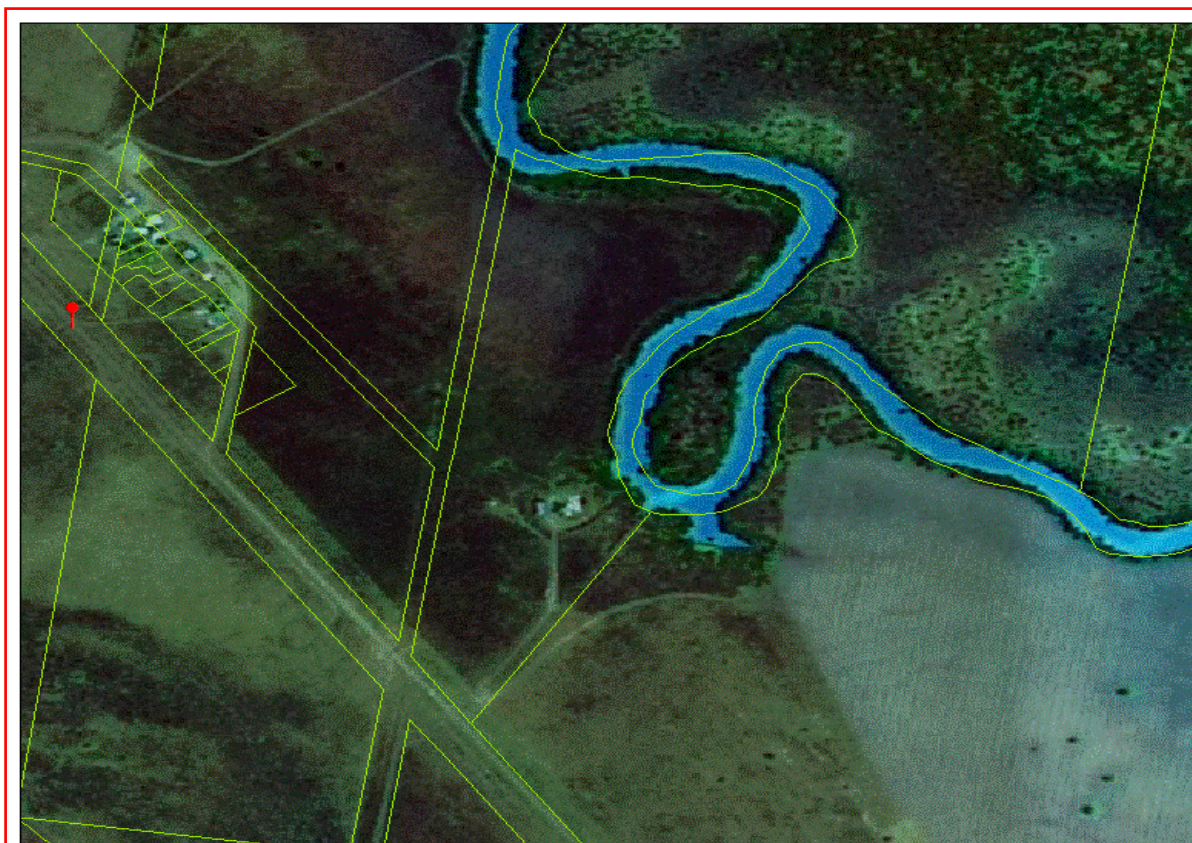
Attention: Xan Goetzee-Barral

Email: xan.goetzeebarral@servicestream.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 1, DP:DP534151 with a Buffer of 200 meters, conducted by Xan Goetzee-Barral on 26 July 2016.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Appendix C. Environmental EME report

Environmental EME Report

Lot 1, DP 534151 5809 Come By Chance Road, Come By Chance, NSW, 2832

This report provides a summary of Calculated RF EME Levels around the wireless base station

Date 26/7/2016

RFNSA Site No.

Introduction

The purpose of this report is to provide calculations of EME levels from the existing facilities at the site and any proposed additional facilities.

This report provides a summary of levels of radiofrequency (RF) electromagnetic energy (EME) around the wireless base station at Lot 1, DP 534151 5809 Come By Chance Road, Come By Chance, NSW, 2832. These levels have been calculated by Radhaz Consulting using methodology developed by the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA).

The maximum EME level calculated for the proposed systems at this site is 0.0056% of the public exposure limit.

The ARPANSA Standard

ARPANSA, an Australian Government agency in the Health and Ageing portfolio, has established a Radiation Protection Standard specifying limits for general public exposure to RF transmissions at frequencies used by wireless base stations. The Australian Communications and Media Authority (ACMA) mandates the exposure limits of the ARPANSA Standard.

How the EME is calculated in this report

The procedure used for these calculations is documented in the ARPANSA Technical Report "Radio Frequency EME Exposure Levels - Prediction Methodologies" which is available at <http://www.arpansa.gov.au>.

RF EME values are calculated at 1.5m above ground at various distances from the base station, assuming level ground.

The estimate is based on worst-case scenario, including:

- wireless base station transmitters for mobile and broadband data operating at maximum power
- simultaneous telephone calls and data transmission
- an unobstructed line of sight view to the antennas.

In practice, exposures are usually lower because:

- the presence of buildings, trees and other features of the environment reduces signal strength
- the base station automatically adjusts transmit power to the minimum required.

Maximum EME levels are estimated in 360° circular bands out to 500m from the base station.

These levels are cumulative and take into account emissions from all mobile phone antennas at this site.

The EME levels are presented in three different units:

- volts per metre (V/m) – the electric field component of the RF wave
- milliwatts per square metre (mW/m²) – the power density (or rate of flow of RF energy per unit area)
- percentage (%) of the ARPANSA Standard public exposure limit (the public exposure limit = 100%).

Results

The maximum EME level calculated for the proposed systems at this site is 0.21 V/m; equivalent to 0.11 mW/m² or 0.0056% of the public exposure limit.

Radio Systems at the Site

There are currently no existing radio systems for this site.

It is proposed that this base station will have equipment for transmitting the following services:

Carrier	Radio Systems
NSW Telco	GRN (proposed)

Calculated EME Levels

This table provides calculations of RF EME at different distances from the base station for emissions from existing equipment alone and for emissions from existing equipment and proposed equipment combined.

Distance from the antennas at Lot 1, DP 534151 5809 Come By Chance Road, Come By Chance, NSW, 2832 in 360° circular bands	Maximum Cumulative EME Level – All carriers at this site					
	Existing Equipment			Proposed Equipment		
	Electric Field V/m	Power Density mW/m ²	% ARPANSA exposure limits	Electric Field V/m	Power Density mW/m ²	% ARPANSA exposure limits
0m to 50m				0.19	0.099	0.0049%
50m to 100m				0.21	0.11	0.0056%
100m to 200m				0.2	0.1	0.0052%
200m to 300m				0.13	0.046	0.0023%
300m to 400m				0.17	0.079	0.004%
400m to 500m				0.18	0.084	0.0042%
Maximum EME level				0.21	0.11	0.0056
				51.38 m from the antennas at Lot 1, DP 534151 5809 Come By Chance Road, Come By Chance, NSW, 2832		

Calculated EME levels at other areas of interest

This table contains calculations of the maximum EME levels at selected areas of interest that have been identified through the consultation requirements of the Communications Alliance Ltd Deployment Code C564:2011 or via any other means. The calculations are performed over the indicated height range and include all existing and any proposed radio systems for this site.

Additional Locations	Height / Scan relative to location ground level	Maximum Cumulative EME Level All Carriers at this site Existing and Proposed Equipment		
		Electric Field V/m	Power Density mW/m ²	% of ARPANSA exposure limits
No locations identified				

RF EME Exposure Standard

The calculated EME levels in this report have been expressed as percentages of the ARPANSA RF Standard and this table shows the actual RF EME limits used for the frequency bands available. At frequencies below 2000 MHz the limits vary across the band and the limit has been determined at the Assessment Frequency indicated. The four exposure limit figures quoted are equivalent values expressed in different units – volts per metre (V/m), watts per square metre (W/m²), microwatts per square centimetre (μW/cm²) and milliwatts per square metre (mW/m²). Note: 1 W/m² = 100 μW/cm² = 1000 mW/m².

Radio Systems	Frequency Band	Assessment Frequency	ARPANSA Exposure Limit (100% of Standard)
LTE 700	758 – 803 MHz	750 MHz	37.6 V/m = 3.75 W/m ² = 375 μW/cm ² = 3750 mW/m ²
WCDMA850	870 – 890 MHz	900 MHz	41.1 V/m = 4.50 W/m ² = 450 μW/cm ² = 4500 mW/m ²
GSM900, LTE900, WCDMA900	935 – 960 MHz	900 MHz	41.1 V/m = 4.50 W/m ² = 450 μW/cm ² = 4500 mW/m ²
GSM1800, LTE1800	1805 – 1880 MHz	1800 MHz	58.1 V/m = 9.00 W/m ² = 900 μW/cm ² = 9000 mW/m ²
LTE2100, WCDMA2100	2110 – 2170 MHz	2100 MHz	61.4 V/m = 10.00 W/m ² = 1000 μW/cm ² = 10000 mW/m ²
LTE2300	2302 – 2400 MHz	2300 MHz	61.4 V/m = 10.00 W/m ² = 1000 μW/cm ² = 10000 mW/m ²
LTE2600	2620 – 2690 MHz	2600 MHz	61.4 V/m = 10.00 W/m ² = 1000 μW/cm ² = 10000 mW/m ²
LTE3500	3425 – 3575 MHz	3500 MHz	61.4 V/m = 10.00 W/m ² = 1000 μW/cm ² = 10000 mW/m ²

Further Information

The Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) is a Federal Government agency incorporated under the Health and Ageing portfolio. ARPANSA is charged with responsibility for protecting the health and safety of people, and the environment, from the harmful effects of radiation (ionising and non-ionising).

Information about RF EME can be accessed at the ARPANSA website, <http://www.arpansa.gov.au>, including:

- Further explanation of this report in the document “Understanding the ARPANSA Environmental EME Report”
- The procedure used for the calculations in this report is documented in the ARPANSA Technical Report; “Radio Frequency EME Exposure Levels - Prediction Methodologies”
- the current RF EME exposure standard
Australian Radiation Protection and Nuclear Safety Agency (ARPANSA), 2002, ‘Radiation Protection Standard: Maximum Exposure Levels to Radiofrequency Fields — 3 kHz to 300 GHz’, Radiation Protection Series Publication No. 3, ARPANSA, Yallambie Australia.
[Printed version: ISBN 0-642-79400-6 ISSN 1445-9760] [Web version: ISBN 0-642-79402-2 ISSN 1445-9760]

The Australian Communications and Media Authority (ACMA) is responsible for the regulation of broadcasting, radiocommunications, telecommunications and online content. Information on EME is available at <http://emr.acma.gov.au>

The Communications Alliance Ltd Industry Code C564:2011 ‘Mobile Phone Base Station Deployment’ is available from the Communications Alliance Ltd website, <http://commsalliance.com.au>.

Contact details for the Carriers (mobile phone companies) present at this site and the most recent version of this document are available online at the Radio Frequency National Site Archive, <http://www.rfnsa.com.au>.

Issued by:
RADHAZ Consulting Pty Ltd
Level 4, 357 Collins Street, Melbourne VIC 3000

Data reference file – Lot 1, DP 534151 5809 Come By Chance Road, Come By Chance, NSW, 2832 - 20160726115051

**11151 Mount Boppy
Gilgunnia-Canbelego Road, Canbelego
Lot 1, DP 767238**

Minor Works Review of Environmental Factors

Document No. | 2.1

14 September 2016

Document history and status

REF Revision History			
Version	Date	Nature of Revision	Issued by
1	31 August 2016	Draft MWREF issued to NSW TA	Joel Rodski
2	9 September 2016	Final MWREF	Joel Rodski
2.1	14 September 2016	Minor edits to Final MWREF	Joel Rodski

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Appendix A. Concept design

Appendix B. Relevant database searches

Declaration and sign-off

The purpose of this Minor Works Review of Environmental Factors (MWREF) is to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of the installation of antennas onto the existing 46m high Essential Energy telecommunications steel lattice tower and ancillary equipment to be installed within the existing Essential Energy equipment shelter (the proposal) at Mount Boppy, off Gilgunnia-Canbellego Road, Canbellego, NSW, 2835. The proposal is located in the Cobar Shire Council Local Government Area (LGA).

State Environmental Planning Policy (Infrastructure) 2007 (NSW) allows the proposal to be carried out without development consent. Accordingly the environmental assessment and determination of the proposal has been undertaken in accordance with Part 5 of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). Under Part 5 of the EP&A Act, the NSW Telco Authority is both the proponent and a determining authority for the proposal. The NSW Telco has prepared this MWREF in accordance with clause 228 of the *Environmental Planning and Assessment Regulation 2000* (NSW).

This MWREF has assessed the proposal and found that the environmental impacts would be negligible. Mitigation measures identified in Section 6 of this MWREF would be implemented to manage any potential environmental risks associated with the proposal.

The assessment concludes that the proposal is not likely to have a significant impact on the environment and accordingly, an Environmental Impact Statement (EIS) is not required for the proposal. The proposal is not likely to significantly impact a matter of national environmental significance or the environment of Commonwealth land and a referral to the Australian Government Department of the Environment is therefore not required under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act).

If the scope of work or work methods described in this MWREF change significantly following the awarding of the work contract, additional Environmental Impact Assessment (EIA) must be undertaken.

Prepared by

Tim Heffernan

Planning Consultant

Service Stream Mobile
Communications

Date: 14 September 2016

Reviewed by

Joel Rodski

Senior Planning Consultant

Service Stream Mobile
Communications

Date: 14 September 2016

Reviewed & Endorsed by:

Emily Manchee

Environmental Specialist

IPMO

Date: 14.09.2016

Signature:



Endorsed by:

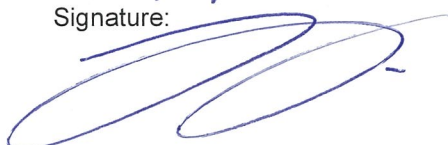
James McRobert

Program Director

NSW Telco Authority

Date: 14/9/16

Signature:



Approved by:

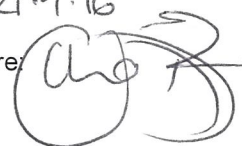
Name: CATHERINE Foy

Title: MANAGER DIRECTOR

NSW Telco Authority

Date: 21.9.16

Signature:



1. Introduction

The potential environmental impacts of the proposal have been assessed in accordance with the requirements of the *Environmental Planning and Assessment Act 1979* (NSW) (EP&A Act). In accordance with the *State Environmental Planning Policy (Infrastructure) 2007* (ISEPP), the proposal does not require development consent from Cobar Shire Council (the Council) and the impacts have been assessed under Part 5 of the EP&A Act. For this proposal, the NSW Telco Authority is both a public authority proponent (section 4 of the EP&A Act) and the determining authority (section 110 of the EP&A Act).

The purpose of this MWREF is to describe the proposal, to examine and take into account to the fullest extent possible all matters affecting or likely to affect the environment as a result of the proposal, to detail mitigation measures to be implemented and to determine whether the proposal can proceed.

In accordance with the *Environmental Planning and Assessment Regulation 2000* (EP&A Regulation), the MWREF has considered the requirements of the guideline *Is an EIS required?* (DUAP 1999) and the factors listed in clause 228(2) of the EP&A Regulation (refer to Section 5.1).

2. Proposal details

2.1 Description of the proposal

The proposal would be located at the existing telecommunications facility at Mount Boppy, off Gilcunnia-Canbelego Road, Canbelego, NSW, 2835 (Lot 1, DP 767238). The 'subject property' is a rectangle shaped lot approximately 6,450m² in area that is owned by Essential Energy at the summit of Mount Boppy. The 'site' is the existing Essential Energy 46m high telecommunications tower and its surrounding compound area, which is occupied by one equipment shelter and ancillary equipment. The site has existing road and power provision. The works would be contained within the existing site footprint.

The proposal would comprise the following features:

- A 1m diameter parabolic dish antenna installed on the existing lattice tower at a height of 15m.
- Feeder cables installed along the overhead cable route connecting the existing Essential Energy equipment shelter to the existing lattice tower.
- Ancillary equipment within the existing Essential Energy equipment shelter.

The following sequence of construction works would be carried out for the proposal:

- Establish the construction works area and fence off of no go areas as required.
- Install feeder cables along the overhead cable route.
- Install support mount and antenna on the existing lattice tower using either a crane or works platform during installation.
- Install ancillary equipment within the existing equipment shelter.
- Install approximately 15m underground sub-main to connect the existing equipment shelter to the power pole.
- Demobilise and clean site.

During construction, a works area would be required and would be contained entirely within the existing telecommunications site area. The construction area would include provision for:

- Crane and elevated works platforms as required.
- Site shed and amenities.
- Vehicle parking.
- Equipment and plant set down area.
- Materials unloading and storage, which may include lattice tower components and telecommunications facility equipment.

Noise and vibration emissions associated with the proposed facility are expected to be limited to the construction phase outlined above. Noise generated during the construction phase is anticipated to be of short duration and accord with the standards outlined in the Interim Construction Noise Guideline (DECC, 2009).

Once operational, the facility is designed to function on a continuously unstaffed basis and would typically only require maintenance works once a year, for approximately one day per year.

2.2 Proposal location and surrounds

The proposal would be located at the existing Essential Energy tower at the summit of Mount Boppy, near the small rural settlement of Canbelego, in the east of the Cobar Shire Council. The site is located within a rectangular shaped lot at the summit of Mount Boppy that is owned by Essential Energy and used as a telecommunications facility (refer to Figures 1, 2 and 3).

Mount Boppy is located approximately 4km northwest of the small rural settlement of Canbelego and approximately one kilometre south of the Barrier Highway, which crosses the area in an east-west direction. Canbelego is a rural locality situated between Nyngan to the east and Cobar to the west. The topography of the area is slightly undulating with Mount Boppy being the most dominant hill in the area. The surrounding land is undeveloped Crown land. Essential Energy have an easement over the Crown land to access the site.

There is an unnamed waterway 150m from the proposal.

The site has been previously disturbed to establish the existing telecommunications tower and ancillary infrastructure. All works would occur within the site area.

The site's coordinates are -31.54224 (latitude), 146.28067 (longitude). These coordinates have been used for the purpose of carrying out database searches e.g. AHIMS, EPBC Protected Matters.

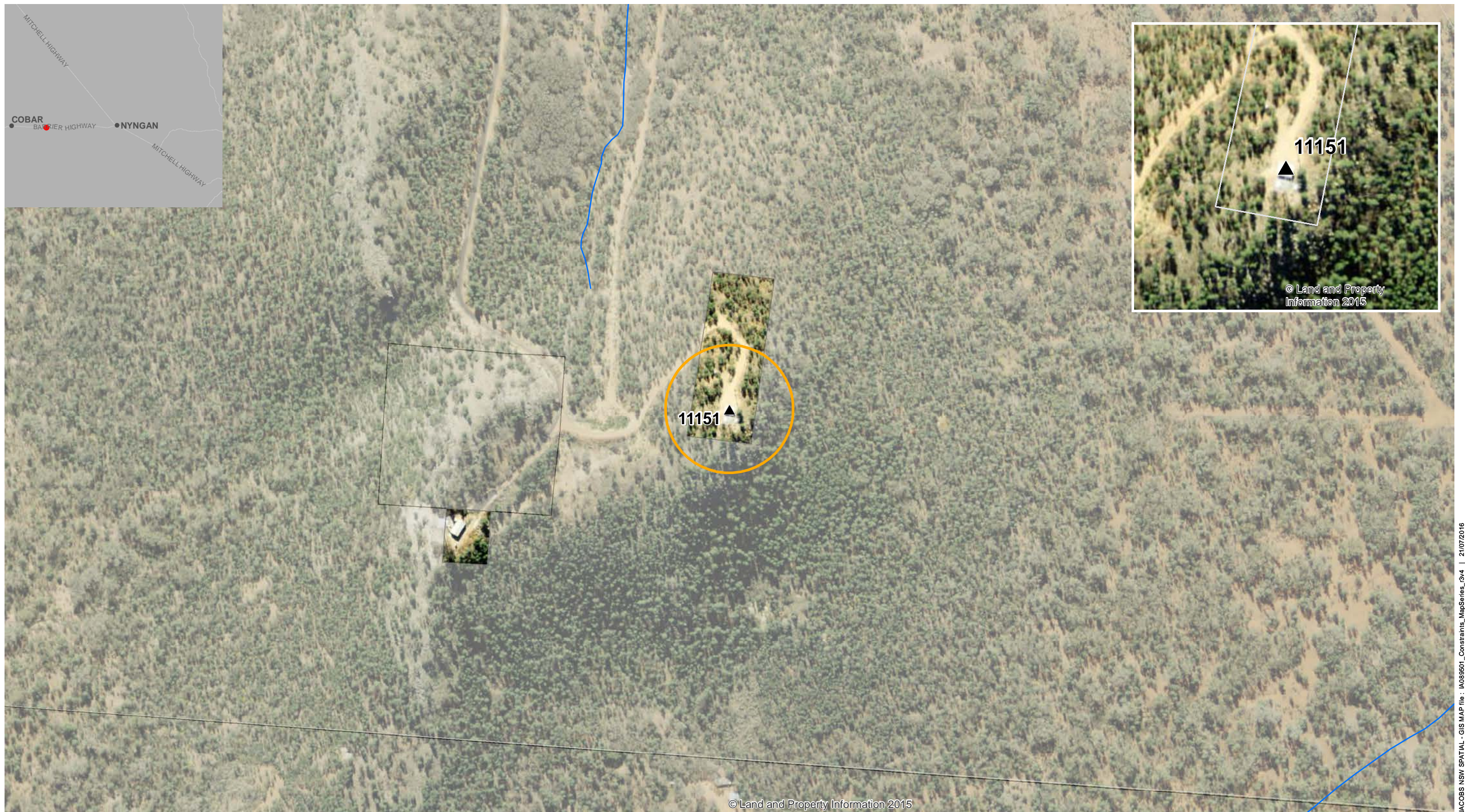
The photos below show the existing site area. Figure 3 (overleaf) is a location map of the site.



Figure 1: Existing Essential Energy telecommunications tower at Mount Boppy. Source: Servicestream 2016.



Figure 2: Existing telecommunications compound at Mount Boppy. Source: Servicestream 2016.



Legend

- ▲ PSP site
- Crown land
- PSP Site 50m buffer
- Watercourse

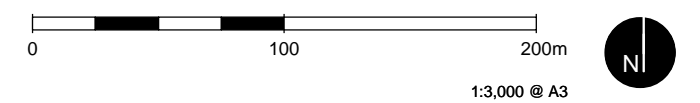


Figure 3: Mount Boppy Location Map

ACMA Id - 11151 Essential Energy Site Mount Bobby

Data sources

Jacobs 2015
RMS 2015
LPI 2016
DPE 2016

2.3 Construction details

2.3.1 Timeframe, duration and hours of work

Construction would commence in the second half of 2016 and is anticipated to take approximately 2 weeks to complete. This timing is subject to confirmation during the detailed design phase of the project.

Construction of the activity would occur within the following work hours:

- Monday to Friday: 7AM to 6PM.
- Saturday: 8AM to 1PM.

No works would be carried out on Sundays or on public holidays.

2.3.2 Plant and equipment

Construction equipment and plant that would likely be used during the construction phase of the project may include but not limited to:

- Trucks to deliver equipment.
- Crane to install equipment.
- Miscellaneous construction equipment including, welding plant, air compressor, power tools.

2.3.3 Access and traffic

- The existing site access would be used for the proposal and there would be no changes to existing access or traffic conditions.
- The facility would be unmanned and typically only visited for maintenance once per year.

2.4 Need and objectives of the proposal

NSW Telco Authority is responsible for the overall coordination of radio telecommunication services for the NSW Government. The Critical Communications Enhancement Program (CCEP) improves the quality and efficiency of the operational radio and paging networks that our frontline and emergency workers use. The new shared radio communications network would provide better coverage and reliability for more than 70 NSW Government agencies.

Over the last 20 years, many agencies have built their own networks. This means duplication of infrastructure, capacity, coverage and costs.

Under the CCEP, the same or better coverage would be provided, while eliminating the need for multiple organisations to occupy the same site. This reduces the doubling up of charges for electricity and site rental. Frontline staff will have access to increased capacity for both day-to-day and emergency operations. They would also be able to communicate more effectively with other agencies and across state borders.

Bringing NSW's network in line with other states and territories across Australia would also provide a platform for adopting the next generation of technology, which would allow public safety agencies to continue to improve their service delivery to communities across the state. More effective communications would enable faster and more flexible responses to emergencies.

The Pilot Project is an initial rollout of 25 sites being conducted in the north-west region of NSW, prior to the state-wide CCEP rollout. The Mount Boppy site is one of 25 sites that are a part of the Pilot Project.

3. Statutory and planning framework

3.1 Statutory framework

Table 3.1 : REF pathway analysis and legislative requirements

Legislative requirements / aspects	Comments
Infrastructure SEPP designation	ISEPP aims to facilitate the effective delivery of infrastructure across the state, including radio and telecommunications facilities. Clause 114(1) of the ISEPP permits development for the purposes of telecommunications facilities (including radio facilities) to be carried out by a public authority without consent on any land.
ISEPP consultation requirements (clause 13-16) (refer to Section 3.2.1).	Refer Section 3.2.1.
Land use zoning and tenure	The proposal is located within land zoned RU1 Primary Production Zone. The land is currently used for telecommunications. The land is owned by Essential Energy.
Other applicable Environmental Planning Instruments (EPIs)	Cobar LEP 2012.
Is the proposal a category identified as State significant development or State significant infrastructure under <i>State Environmental Planning Policy (State and Regional Development) 2011</i> or is the work likely to have a significant impact on the environment and require an Environmental Impact Statement?	The proposal does not fall into any of the categories identified in the <i>State Environmental Planning Policy (State and Regional Development) 2011</i> . The works to be carried out are considered minor and temporary in nature, and would be confined to previously disturbed areas. Mitigation measures would be implemented to ensure environmental impacts are minimised
Is the work likely to have a significant impact on a Matter of National Environmental Significance as defined under the <i>Environment Protection and Biodiversity Conservation Act 1999 (Cth)</i> ?	No. A protected matters search under the <i>Environment Protection Biodiversity Conservation Act 1999 (Cth)</i> was carried out on 31 August 2016. It found that the proposal would not impact on the following matters of national environmental significance: <ul style="list-style-type: none"> • World heritage properties • National heritage places • Wetlands of international importance • Great Barrier Reef Marine Park • Commonwealth marine areas The likelihood of disturbing actual or potential habitats associated with threatened species is considered to be low as the proposal would be constructed in a disturbed area. The proposal is unlikely to have a significant impact on any matters of national environmental significance.
Does the work involve an action on Commonwealth land that is likely to have a significant impact on the environment, or an action outside Commonwealth	No.

Legislative requirements / aspects	Comments
land that may significantly impact the environment on Commonwealth land?	
Is the land subject to a Native Title claim or the <i>Native Title Act 1993</i> ?	No.
Does the proposal comply with the Australian Radiation Protection and Nuclear Safety Agency (ARPANSA) Radio Frequency Standard? Radiation Protection Standard for Maximum Exposure Levels to Radiofrequency Fields – 3 kHz to 300 GHz 2002 (Radiation Protection Standard).	As the proposal would comprise transmission links only that do not produce electromagnetic radiation, a compliance report is not required.
Does the proposal require an approval, permit or licence under any other environmental legislation?	No other licences, approvals or permits are required under any other environmental legislation.

3.2 Stakeholder and agency consultation

3.2.1 ISEPP consultation

The ISEPP contains provisions for public authorities to consult with local councils and other public authorities prior to the commencement of certain types of development. This is detailed below:

Is consultation with council required under clauses 13-15 of the ISEPP?		
Are the works likely to have a substantial impact on the stormwater management services which are provided by council?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the works likely to generate traffic to an extent that will strain the existing road system in a local government area?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned sewerage system? If so, will this connection have a substantial impact on the capacity of the system?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve connection to a council owned water supply system? If so, will this require the use of a substantial volume of water?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve the installation of a temporary structure on, or the enclosing of, a public place which is under local council management or control? If so, will this cause more than a minor or inconsequential disruption to pedestrian or vehicular flow?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Will the works involve more than a minor or inconsequential excavation of a road or adjacent footpath for which council is the roads authority and responsible for maintenance?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Are the works located on flood liable land? If so, will the works change flooding patterns to more than a minor extent?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is there a local heritage item (that is not also a state heritage item) or a heritage conservation area in the study area for the works? If yes, does a heritage assessment indicate that the potential impacts to the item/area are more than minor or inconsequential?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is consultation with other agencies required under clause 16 of the ISEPP?		
Is the proposal adjacent to a national park, nature reserve or other area reserved under the <i>National Parks and Wildlife Act 1974</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

Is the proposal adjacent to a declared aquatic reserve under the <i>Fisheries Management Act 1994</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal adjacent to a declared marine park under the <i>Marine Parks Act 1997</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal in the Sydney Harbour Foreshore Area as defined by the <i>Sydney Harbour Foreshore Authority Act 1998</i> ?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Do the proposal involve the installation of a fixed or floating structure in or over navigable waters?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal for the purpose of residential development, an educational establishment, a health services facility, a correctional facility or group home in bush fire prone land?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

3.2.2 Consultation with other agencies

Is consultation with other agencies required?		
Is the proposal located within Crown land or would there be an impact to Crown land that is adjacent to a proposal. The site is adjacent to Crown land and access to the site would be via the existing access road through the adjacent Crown land. There is an existing access agreement with Essential Energy for the site, which would be utilised and no consultation with Department of Industry - Lands is required.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal located within land administered as a 'Special Area' by Water NSW? If yes, consultation with Water NSW would be required.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
Is the proposal located within Sydney Drinking Water Catchment? If yes, a Neutral or Beneficial Effect on Water Quality (NorBE) is required to be completed.	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

4. Environmental assessment

4.1 Overview of applicable environmental factors

An overview of potential environmental impacts of the proposal requiring environmental impact assessment within this MWREF are identified in Table 4.1. Where impacts are identified these are addressed in further detail in Section 4.2.

Table 4.1: Applicable Environmental Factors

Environmental factors checklist	Comments	Detailed discussion in REF?	Environmental factors checklist
Soils and landforms		Yes	<input type="checkbox"/>
<p><i>Would the proposal require any excavation or ground disturbance?</i></p> <p>Or</p> <p><i>Is the proposal likely to disturb contaminated land or contaminated material? (If required, check the NSW EPA Contaminated Lands Database for registered sites and sites notified to the EPA.</i></p> <p>NSW EPA Contaminated Lands Database</p>	The proposal would require minor ground disturbance to install the sub-main over a distance of approximately 15m within a previously modified area. There is unlikely to be any impact to soils and landforms provided the safeguards in Section 6 are implemented.	No	<input checked="" type="checkbox"/>
Water quality and hydrology		Yes	<input type="checkbox"/>
<p><i>Would the proposal potentially impact a waterway (natural or constructed) or groundwater?</i></p> <p>Or</p> <p><i>Would the proposal potentially impact an area administered by Water NSW (formerly Sydney Catchment Authority (SCA))?</i></p> <p>Protected Areas administered by Water NSW</p> <p>Or</p> <p><i>Is the proposal located within or immediately adjacent to the area covered by State Environmental Planning Policy (Sydney Drinking Water Catchment) 2011?</i></p> <p>Sydney Drinking Water Catchment Area</p>	The proposal is located 150m from an unnamed waterway. Due to the minor nature of the work and the distance from the waterway, there is not expected to be any impact on the waterway.	No	<input checked="" type="checkbox"/>
Noise and vibration		Yes	<input type="checkbox"/>
<i>Would the proposal generate noise and/or vibration that may impact on nearby properties?</i>	The proposal is located approximately 400m from the nearest house/residence. At this distance, and due to the minor nature of the proposal, there is unlikely to be any noise and/or vibration impact on the nearest sensitive receiver.	No	<input checked="" type="checkbox"/>

Environmental factors checklist	Comments	Detailed discussion in REF?	Environmental factors checklist
Air quality		Yes	<input type="checkbox"/>
<i>Would the proposal cause offensive odour, dust or air pollution?</i>		No	<input checked="" type="checkbox"/>
Traffic and access		Yes	<input type="checkbox"/>
<i>Would the proposal impact traffic, require partial or full lane closure or require a new access track to be formed or impact existing access to private property?</i>		No	<input checked="" type="checkbox"/>
Biodiversity		Yes	<input type="checkbox"/>
<i>Would the proposal impact native vegetation, native fauna or habitat? (Note this MWREF is not the appropriate form of assessment if the land affected is located in an area of environmental significance that, under a law of the Commonwealth, or a State is protected from significant environmental disturbance.) (Database checks included but are not limited to: Protected Matters Search Tool NSW Wildlife Atlas</i>	The proposal would occur within the previously disturbed compound area. There would be no vegetation clearance required for the proposal and no anticipated impact on biodiversity.	No	<input checked="" type="checkbox"/>
Aboriginal heritage		Yes	<input type="checkbox"/>
<i>Are there any registered Aboriginal heritage objects or declared Aboriginal places within 200 metres of the proposal (including associated activities)? (refer to Appendix B). Link to AHIMS</i>	An AHIMS basic search was undertaken on 31 August 2016 and there are no recorded Aboriginal sites within 200m of the proposal (refer to Appendix B).	No	<input checked="" type="checkbox"/>
Non Aboriginal heritage		Yes	<input type="checkbox"/>
<i>Would the proposal impact on any local heritage items (Note this MWREF is not the appropriate form of assessment if National or State heritage items are affected) Link to heritage registers: World, National and Commonwealth Heritage Significance State Heritage Register s170 Registers</i>		No	<input checked="" type="checkbox"/>
Waste management		Yes	<input type="checkbox"/>
<i>Is the proposal likely to generate hazardous waste or require disposal of hazardous building materials (HBM) (e.g. lead, asbestos, PCB or other substance designated as hazardous)</i>		No	<input checked="" type="checkbox"/>

Environmental factors checklist	Comments	Detailed discussion in REF?	Environmental factors checklist
Visual and social impacts		Yes	<input type="checkbox"/>
<i>Is the proposal likely to change the land use or visual character of the environment? (E.g. installation of above-ground structures, construction of new access roads, temporary works compounds)?</i>		No	<input checked="" type="checkbox"/>
<i>Is the proposal likely to impact on sensitive receivers (i.e. local residences/business/schools/hospitals)?</i>		Yes No	<input type="checkbox"/> <input checked="" type="checkbox"/>

5. Consideration of State and Commonwealth environmental factors

5.1 Environmental Planning and Assessment Regulation 2000 checklist

In addition to the requirements of the guideline Is an EIS required?, the following factors listed in clause 228 of the *Environmental Planning and Assessment Regulation 2000* have also been considered to assess the likely impacts of the proposal on the natural and built environment. This consideration is required to comply with sections 111 and 112 of the EP&A Act.

Environmental Factor		
a) Any environmental impact on a community?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
b) Any transformation of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
c) Any environmental impact on the ecosystems of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
d) Any reduction of the aesthetic, recreational, scientific or other environmental quality or value of a locality?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
e) Any effect on a locality, place or building having aesthetic, anthropological, archaeological, architectural, cultural, historical, scientific or social significance or other special value for present generations?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
f) Any impact on habitat of any protected fauna (within the meaning of the <i>National Parks and Wildlife Act 1974</i>)?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
g) Any endangering of any species of animal, plant or other form of life, whether living on land, in water or in the air?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
h) Any long-term effects on the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
i) Any degradation of the quality of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
j) Any risk to the safety of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
k) Any reduction in the range of beneficial uses of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
l) Any pollution of the environment?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
m) Any environmental problems associated with the disposal of waste?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
n) Any increased demands on resources, natural or otherwise which are, or are likely to become, in short supply?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
o) Any cumulative environmental effect with other existing or likely future activities?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No
p) Any impact on coastal processes and coastal hazards, including those under projected climate change conditions?	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No

5.2 Commonwealth matters of national environmental significance

Under the environmental assessment provisions of the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the following matters of national environmental significance are required to be considered to assist in determining whether the proposal should be referred to the Australian Government Department of Sustainability, Environment, Water, Population and Communities. (A Protected Matters Search under the EPBC Act is provided in Appendix B).

Factor	Impact
a) Any impact on a World Heritage property?	None
b) Any impact on a National Heritage place?	None
c) Any impact on a wetland of international importance?	<p>Three wetlands of international importance are located 600-700km upstream of the proposal: (Banrock station wetland complex 600-700km downstream; Riverland 500-600km upstream; and The Coorong, and Lakes Alexandrina and Albert wetland 700-800km upstream).</p> <p>Given the large distance between the site and the wetlands in South Australia, and the minor nature of the work, the risk of the works impacting on the wetlands is considered negligible.</p>
d) Any impact on a listed threatened species or communities?	None
e) Any impacts on listed migratory species?	None
f) Any impact on a Commonwealth marine area?	None
Additionally, any impact (direct or indirect) on Commonwealth land?	None

6. Summary of safeguards and environmental management measures

This section provides a summary of the generic environmental safeguards and management measures identified in Section 4 of this MWREF. These safeguards will be implemented to reduce potential environmental impacts throughout construction and operation.

Table 6.1: Summary of site-specific safeguards for the proposal

General	<ol style="list-style-type: none"> 1. All licence, approval and notification requirements identified in this REF are to be documented in the Construction Environmental Management Plan (CEMP). 2. Prior to commencement, all project staff and contractors will be inducted in the CEMP, including the environmental sensitivities of the work site and relevant safeguards. 3. The Project Manager (Delivery Management) will be notified immediately of any complaints relating to management of environmental issues. 4. In the event of any environmental incident that can harm the environment, the Delivery Contractor must notify the Environment Protection Authority (EPA) and any relevant authorities as defined in section 148(8) of the POEO Act.
Site/Fencing	<ol style="list-style-type: none"> 5. Building materials and equipment must be stored wholly within the work site unless an approval to store them elsewhere is held.
Soil and landforms	<ol style="list-style-type: none"> 6. All works will be carried out in accordance with Managing Urban Stormwater: Soils and Construction, Volume 1 (Landcom 2006) (the Blue Book) and Managing Urban Stormwater: Soils and Construction (Volumes 2A, 2C and 2D).
Waterways and water quality	<ol style="list-style-type: none"> 7. A functioning 'spill kit' will be kept on site at all times to clean-up accidental chemical/fuel spills. The 'spill kit' will be stored in an appropriate location that is quickly and easily accessible from all areas of the work site. Any spills will be contained and material collected and disposed of at an EPA licensed facility.
Noise and vibration	<ol style="list-style-type: none"> 8. Work must be carried out only between 7AM and 6PM, Monday to Friday, 8AM to 1PM Saturday, 9. Work must not be carried out on a Sunday or public holiday, 10. Works would be conducted in accordance with the DECC's 2009 Interim Construction Noise Guideline. 11. Contractors would be informed of noise mitigation measures during the general site induction and/or toolbox talks.
Air quality	<ol style="list-style-type: none"> 12. All work areas and stockpiles will be monitored for dust generation, particularly during hot, dry or windy weather. 13. In the event of excessive dust generation, implement appropriate dust suppression measures (e.g. watering, covering exposed areas/stockpiles with tarpaulins or geotextile fabric, appropriate seeding). Modify or cease work in adverse weather conditions if needed. 14. All work vehicles/machinery will be maintained in good working order and in accordance with relevant standards.
Traffic and access	<ol style="list-style-type: none"> 15. Access to the work sites will be via existing access routes only unless approved as part of the REF process.
Aboriginal and Non-Aboriginal Heritage	<ol style="list-style-type: none"> 16. If any Aboriginal object or non-Aboriginal heritage item is found, all excavation or disturbance will cease in the area and the NSW TA Project Manager must be notified immediately.
Biodiversity	<ol style="list-style-type: none"> 17. A CEMP would include the following:

	<ul style="list-style-type: none"> No go zones around sensitive areas and boundaries of the work area. Locations of parking, lay-down and storage areas for materials, plant and stockpiles. Location and full extent of any lopping, trimming, clearing or other vegetation disturbance required for the works. <p>18. If any threatened or native species (flora or fauna) are discovered during the works, all work will stop immediately and the Environmental Representative (Delivery Management) will be notified. Work will only recommence once the impact on the species has been assessed and appropriate control measures have been implemented.</p>
Waste	<p>19. All wastes are required to be classified in accordance to the <i>Waste Classification Guidelines (EPA, 2014)</i> and transported to a licensed facility.</p> <p>20. All hazardous or contaminated wastes on site (if identified) would be removed and disposed in accordance with the state and national regulations and guidelines and best practice for the removal of these materials. Hazardous materials will only be removed by suitably qualified, licensed and experienced contractors.</p> <p>21. The work site must be left clear of waste and debris at the completion of works and restored, as far as possible, to the original condition.</p>
Visual and social	<p>22. Contractors to maintain the site in a tidy appearance and treat community enquiries regarding the works appropriately and in accordance with NSW TA's policy.</p> <p>23. If any accidental damage to property occurs as a result of work activities, either within or outside the boundaries of the work site, the Project Manager (Delivery Management) will be notified and damage to property incurred by the works must be repaired in consultation with the affected property owner.</p> <p>24. External light fittings and fixtures will be selected and installed in a manner which ensures that lighting is directed downwards and does not adversely affect residents, fauna or other adjacent land uses including roadways.</p> <p>25. The Project Manager (Delivery Management) will be notified immediately of any complaints received and will respond as soon as possible.</p> <p>26. All services in the vicinity of the works will be located in the field and pegged-out and noted in the work plans prior to excavation works - "Dial 1100 Before You Dig".</p>

7. Conclusion and justification

This MWREF assesses the potential impacts of the proposal. On the basis of the information outlined in this document and by adopting the measures identified in Section 6 of this assessment, it is considered that the proposal is not likely to affect the environment. Accordingly an environmental impact statement under Part 5.1 of the EP&A Act is not required.

8. References

EPA (2014) 'Waste Classification Guidelines, Part 1-4" NSW Government.

DECC (2009) Interim Construction Noise Guideline

DECCW (2010) 'Due Diligence Code of Practice for the Protection of Aboriginal Objects in NSW', NSW Department of Environment, Climate Change and Water.

Department of Urban Affairs and Planning (DUAP) 1999.

Landcom (2004) 'Managing Urban Stormwater – Soils and Construction' 4th Edition. NSW Government, (Blue Book) DECCW (2010)

National Native Title Tribunal (2016) Register of Native Title Claims. Retrieved 17 August 2016, from <http://www.nntt.gov.au/searchRegApps/NativeTitleRegisters/Pages/Search-Register-of-Native-Title-Claims.aspx>

NSW Government (2016). Spatial Information Exchange. Retrieved 28 August 2016, from <https://maps.six.nsw.gov.au/>

NSW Government (2016) Office of Environment & Heritage. Retrieved 27 August 2016, from <http://www.environment.nsw.gov.au/heritageapp/heritagesearch.aspx>

NSW Government (2016) Planning & Environment, Planning Portal. Retrieved 27 August 2016, from <https://www.planningportal.nsw.gov.au/find-a-property>

NSW Government (2016) Environment Protection Authority, Contaminated Land. Retrieved 27 August 2016, from <http://www.epa.nsw.gov.au/prclmapp/searchregister.aspx>

9. Terms and acronyms used in the REF

Term / Acronym	Definition
AHD	Australian height datum
AHIMS	Australian Heritage Information Management System
ASS	Acid Sulfate Soils
CEMP	Construction environmental management plan
dB(A)	Decibels using the 'A' weighted scale, measured according to the frequency of the human ear
DBYD	Dial before you dig
DEC	NSW Department of Environment and Conservation (now OEH)
DECC	NSW Department of Environment and Climate Change (now OEH)
DECCW	NSW Department of Environment and Climate Change and Water (now OEH)
DoE	Department of the Environment
DPE	Department of Planning and Environment (previously DPI)
EEC	Endangered ecological community
EIA	Environmental impact assessment
EIS	Environmental impact statement
EP&A Act	Environmental Planning and Assessment Act 1979 (NSW). Provides the legislative framework for land use planning and development assessment in NSW
EPA	Environment Protection Authority
EPBC Act	Environment Protection and Biodiversity Conservation Act 1999 (Commonwealth). Provides for the protection of the environment, especially matters of national environmental significance, and provides a national assessment and approvals process.
ESCP	Erosion and Sediment Control Plan
Ecologically sustainable development.	Development which uses, conserves and enhances the resources of the community so that ecological processes on which life depends, are maintained and the total quality of life, now and in the future, can be increased
GRN	Government Radio Network
Heritage Act	Heritage Act 1977 (NSW)
ICNG	Interim Construction Noise Guideline (July 2009)
ISEPP	State Environmental Planning Policy (Infrastructure) 2007
LEP	Local Environmental Plan. A type of planning instrument made under Part 3 of the EP&A Act.
LGA	Local Government Area
MNES	Matters of national environmental significance under the Commonwealth Environment Protection and Biodiversity Conservation Act 1999.
Noxious Weeds Act	Noxious Weeds Act 1993 (NSW)
NOCC	National Operations Control Centre
NO ₂	Nitrogen dioxide
NPW Act	National Parks and Wildlife Act 1974 (NSW)
NSW	New South Wales

Term / Acronym	Definition
OEH	Office of Environment and Heritage
PMST	Protected matters search tool (EPBC Act)
REF	Review of Environmental Factors
RNP	Road Noise Policy
Roads and Maritime	Roads and Maritime Services
ROL	Road Occupancy Licence
SEPP	State Environmental Planning Policy. A type of planning instrument made under Part 3 of the EP&A Act.
TSC Act	Threatened Species Conservation Act 1995 (NSW)

Appendix A. Concept design

DATE OF ISSUE	XXXXXX										
DRAWING PACKAGE VERSION	1										

11151-A1	SITE SPECIFICATIONS AND LOCALITY DETAILS	01									
11151-A2	OVERALL SITE PLAN	01									
11151-A3	SITE SETOUT PLAN	01									
11151-A4	SITE ELEVATION	01									
11151-A5	ANTENNA LAYOUT PLAN	01									
11151-F1	EQUIPMENT SHELTER LAYOUT PLAN	01									
11151-E1	ELECTRICAL SPECIFICATIONS SHEET 1 OF 2	01									
11151-E2	ELECTRICAL SPECIFICATIONS SHEET 2 OF 2	01									
11151-E3	SITE EARTHING PLAN	01									

REFERENCE DOCUMENTATION

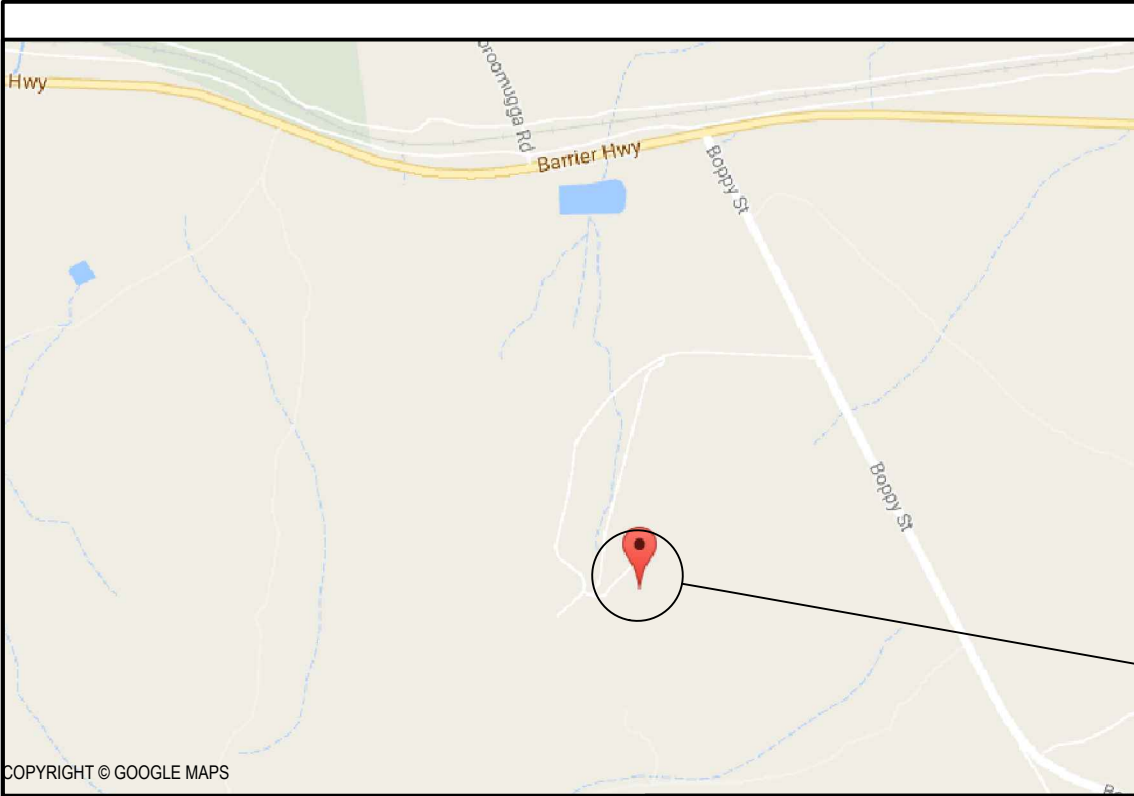
TA-STD-000	GRN HUT DOOR SIGNAGE	02									
TA-STD-001	RF EME SAFETY SIGNAGE SHEET	02									
TA-STD-002	STANDARD NOTES SHEET 1	01									
TA-STD-003	STANDARD NOTES SHEET 2	01									
TA-STD-004	STANDARD NOTES SHEET 3	01									
TA-STD-005	STANDARD NOTES SHEET 4	01									
TA-STD-006	STANDARD NOTES SHEET 5	01									
TA-STD-007	STANDARD NOTES SHEET 6	01									
TA-STD-008	STANDARD NOTES SHEET 7	01									
TA-STD-009	STANDARD NOTES SHEET 8	01									
TA-STD-010	STANDARD NOTES SHEET 9	02									
TA-STD-090	TYPICAL CHAINLINK FENCE AND GATE DETAILS "STANDARD SECURITY"	01									
TA-STD-122	EQUIPMENT SHELTER SLAB ON GROUND DETAILS (SHELTER TYPES 1, 2 & 3)	03									
TA-STD-140	TYPE 2 SHELTER (5.0m x 2.5m) SIDE DOOR FLOOR PLAN	03									
TA-STD-141	TYPE 2 SHELTER (5.0m x 2.5m) SIDE DOOR REFLECTED CEILING PLAN	02									
TA-STD-162	TYPICAL CABLE LADDER AND GLAND PLATE (TYPE 1) FIXING TO EQUIPMENT SHELTER	01									
TA-STD-165	TYPICAL CABLE LADDER SUPPORT POST DETAILS	01									
TA-STD-702	TYPICAL GROUND SITE EARTHING PLAN FOR GUYED MAST	02									
TA-STD-707	LARGE SHELTER (5.0m x 2.5m) INTERNAL EARTHING DIAGRAM	02									
TA-STD-751	AC POWER SUPPLY DISTRIBUTION	01									
TA-STD-752	DC DISTRIBUTION SINGLE LINE DIAGRAM	01									
TA-STD-753	STANDARD SITE METERING ARRANGEMENT	02									
TA-STD-755	CO-LOCATION AC SHELTER POWER DIAGRAM	01									
TA-STD-800	DC POWER SUPPLY DISTRIBUTION	01									
TA-STD-801	P25 BASE STATION SCHEMATIC	01									

COMPANY		REPRESENTATIVE				COPIES					
NSWTA	DAN LUAFALEALO	1									
NSWTA	SCOTT MARSHALL	1									

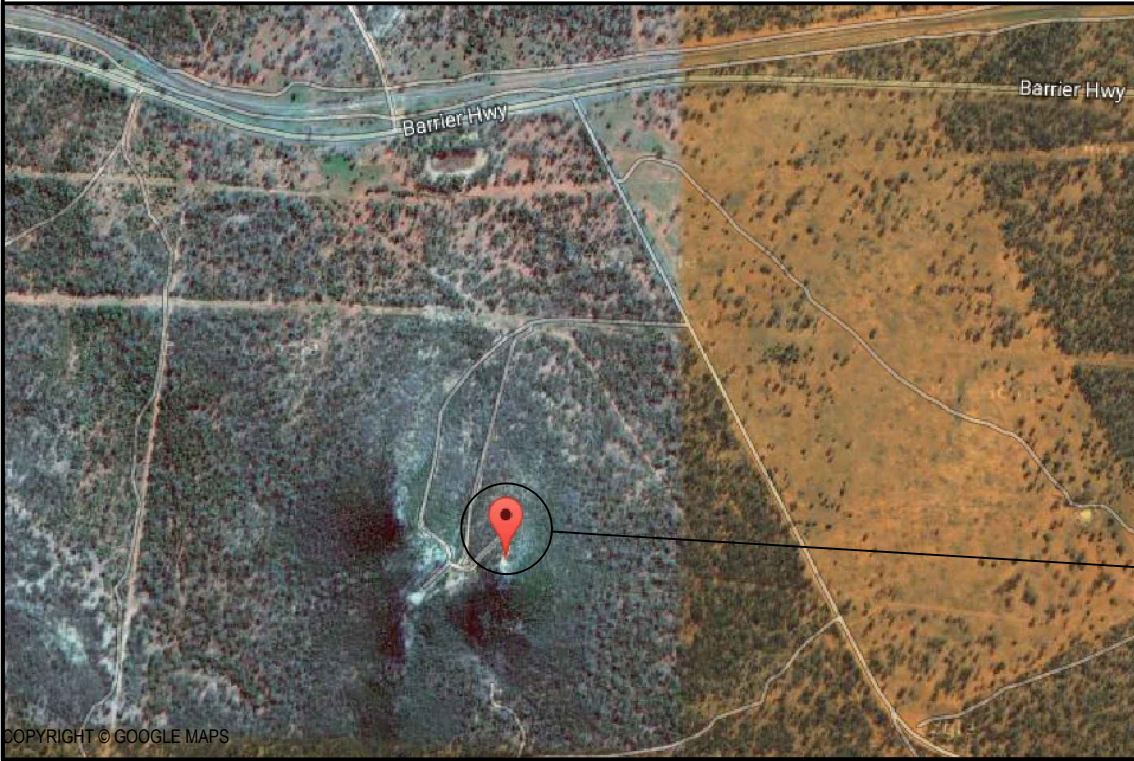


11151
MT BOPPY
OFF GILGUNNIA-CANBELEGO ROAD,
CANBELEGO,
NSW 2835





REGIONAL MAP 1



REGIONAL MAP 2

SITE CO-ORDINATES

DATUM:	GDA94	ZONE:	55 (SOUTHERN)
EASTING (m):	431 937	LAT. (Degrees):	-31.54141
NORTHING (m):	6 510 170	LONG. (Degrees):	146.282978

SITE LOCALITY DETAILS

REGION:	NSW	LOT:	1
PARISH:	TBC	DP / PLAN:	DP767238
COUNTY:	TBC	TITLE:	-

SITE LOCATION

SITE LOCATION

SITE INFORMATION:

- SITE ADDRESS**
OFF GILGUNNIA-CANBELEGO ROAD,, CANBELEGO,, NSW 2835, .
- GENERAL**
THE CONTRACTOR SHALL COMPLY WITH ALL RELEVANT NSW TELCO AUTHORITY CONSTRUCTION STANDARDS, AUSTRALIAN STANDARDS AND SPECIFICATIONS.
- SITE ACCESS**
FROM NYNGAN, TRAVEL WEST ON THE BBARRIER HIGHWAY FOR APPROX. 85km. TURN LEFT ONTO GILGUNNIA-CANBELEGO ROAD, CONTINUE FOR 650m AND TURN RIGHT. CONTINUE UP MOUNTAIN ON SEALED ROAD FOR APPROX. 1KM. TAKE LEFT TURN ONTO UNSEALED TRACK CONTINUE FOR 150m TO SITE. UNRESTRICTED ACESS, 4WD RECOMMENDED FOLLOWING WET WEATHER.
- EQUIPMENT SHELTER / FIT-OUT ROOM**
HUT A: EXISTING ESSENTIAL ENERGY EQUIPMENT SHELTER.
- STRUCTURE**
EXISTING ESSENTIAL ENERGY 46m HIGH STEEL LATTICE TOWER.
- ANTENNA ACCESS**
ANTENNA ACCESS VIA TOWER ACCESS LADDER OR EWP (BY QUALIFIED RIGGER PERSONNEL ONLY).
- EXISTING SERVICES**
THE CONTRACTOR SHALL IDENTIFY AND CONFIRM THE LOCATION OF ALL RELEVANT EXISTING SERVICES AS REQUIRED PRIOR TO THE COMMENCEMENT OF WORKS.
- SIGNAGE**
SIGNAGE HAS BEEN PROVIDED AS PER CURRENT NSW TELCO AUTHORITY SPECIFICATIONS, AND AS NOTED ON DRAWINGS.
- EXISTING SITE HAZARDS**
THE FOLLOWING HAZARDS ARE PRESENT ON SITE:
 - WORKING AT HEIGHTS
 - ELECTRICAL CABLING AND/OR TRIP HAZARDS
 - MANUAL HANDLING
 - OVERGROWN VEGETATION
 - EXISTING RF HAZARD AREA
- ELECTRICAL SUPPLY**
EXISTING INCOMING POWER SUPPLY FROM TRANSFORMER MOUNTED ON POWER POLE (POWER POLE NUMBER TBC) APPROX. 20m AWAY FROM CENTRE OF EXISTING ESSENTIAL ENERGY STEEL LATTICE TOWER.

ELECTRICAL ENGINEER TO CONFIRM NEW ELECTRICAL SUPPLY DETAILS.

01	08.08.16	NOT FOR CONSTRUCTION ISSUE	SSMC	JM	XX	XX	XX		
Issue	Date	Revision Description	Company	Drafted	Check	Engineer	Approved		

Design Contractor:



Level 1, 29 Christie Street, St. Leonards NSW 2065
T +61 2 9478 9999 | F +61 2 9478 9900 | www.servicestream.com.au

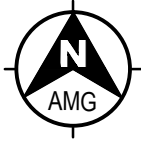
Project: NSW TELCO AUTHORITY

SITE No:- 11151
MT BOPPY
OFF GILGUNNIA-CANBELEGO ROAD,

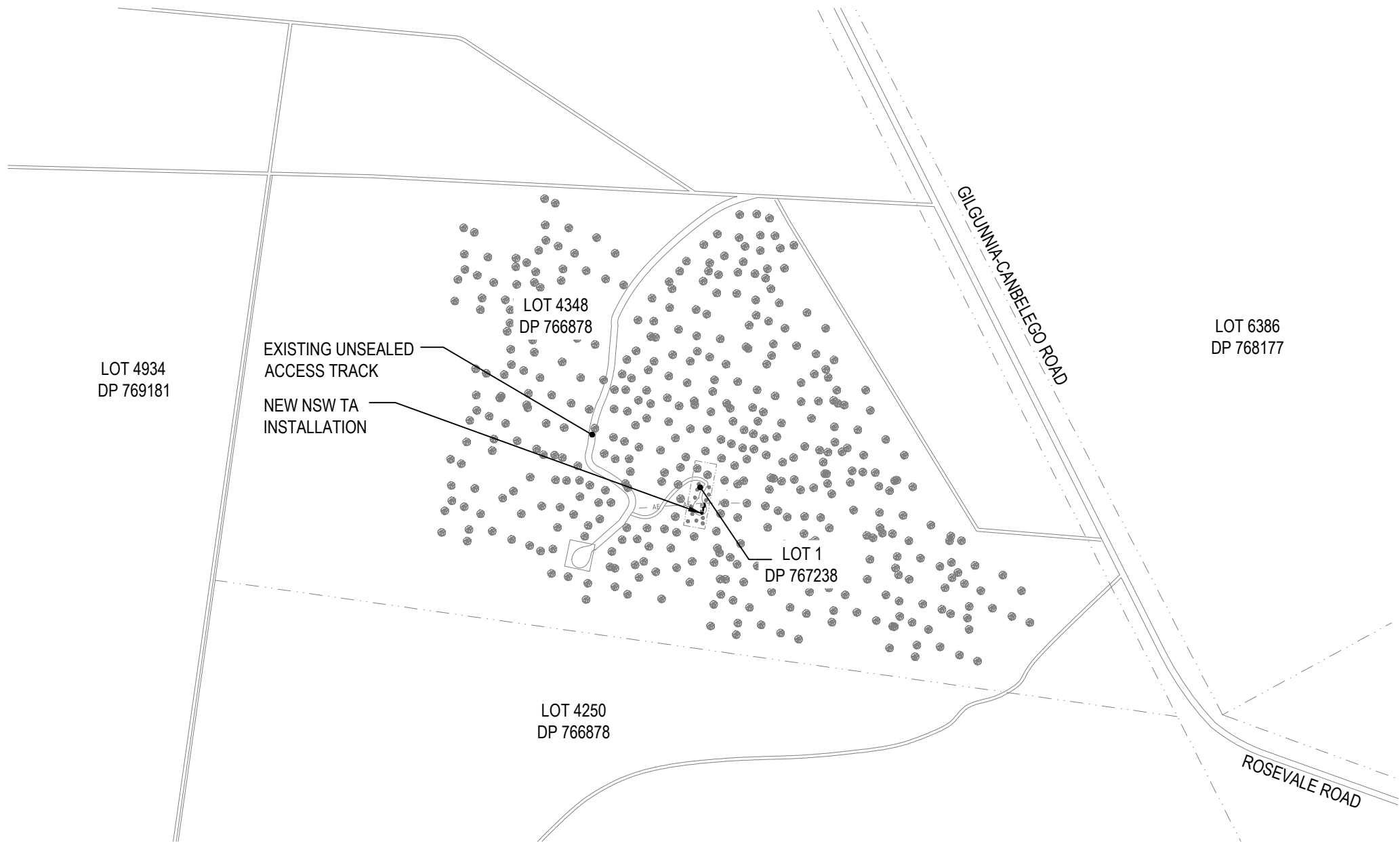


Drawing Title:
**SITE SPECIFICATIONS
AND LOCALITY DETAILS**

Status: NOT FOR CONSTRUCTION	Drawing No. 11151-A1	Revision 01
--	--------------------------------	-----------------------



DISCLAIMER:
LOT BOUNDARIES ARE APPROXIMATE BASED ON DEPARTMENT OF LANDS INFORMATION. FOR CONFIRMED BOUNDARY LOCATIONS, A CERTIFIED SURVEYOR IS REQUIRED TO SURVEY THE AREA.



OVERALL SITE PLAN
SCALE 1:10000

01	08.08.16	NOT FOR CONSTRUCTION ISSUE	SMMC	JM	XX	XX	XX	XX
Issue	Date	Revision Description	Company	Drafted	Check	Engineer	Approved	


Design Contractor:



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Project: NSW TELCO AUTHORITY

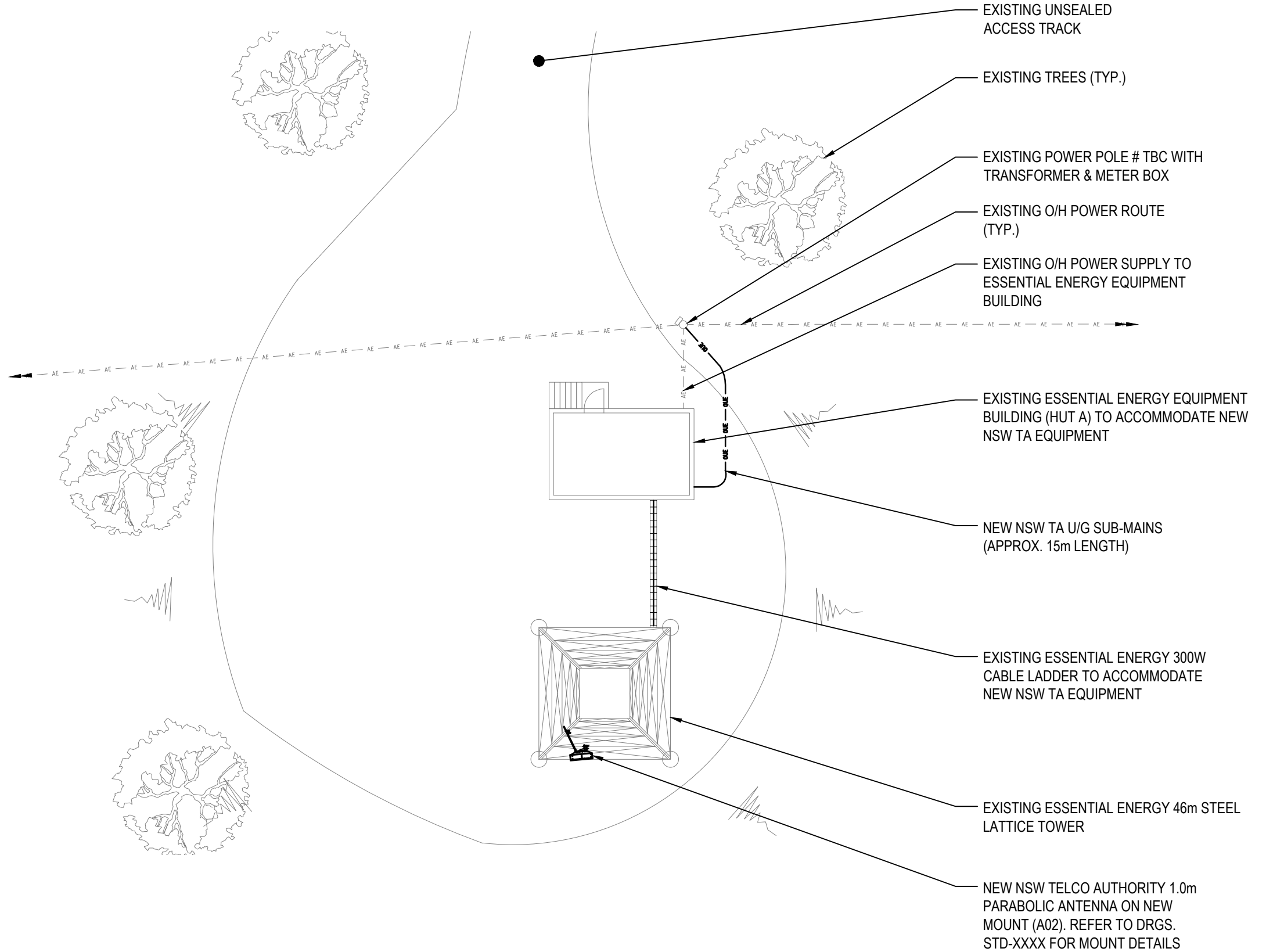
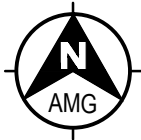
SITE No:- 11151
MT BOPPY
OFF GILGUNNIA-CANBELEGO ROAD,



Telco
Authority

Drawing Title:
OVERALL SITE PLAN

Status: NOT FOR CONSTRUCTION	Drawing No. 11151-A2	Revision 01
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NOTES:

- FOR TOWER MOUNTED EQUIPMENT DETAILS REFER DRG. 11151-A5.
- EXISTING OTHER OWNERS ANTENNAS TO BE CONFIRMED BY NSW TELCO AUTHORITY.
- FOR EQUIPMENT SHELTER DETAILS REFER DRG. 11151-F1.

SITE SETOUT PLAN

SCALE 1:200

01	08.08.16	NOT FOR CONSTRUCTION ISSUE	SMMC	JM	XX	XX	XX	XX
Issue	Date	Revision Description	Company	Drafted	Check	Engineer	Approved	

Design Contractor:



servicestream
MOBILE COMMUNICATIONS
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Project: NSW TELCO AUTHORITY

SITE No:- 11151
MT BOPPY
OFF GILGUNNIA-CANBELEGO ROAD,

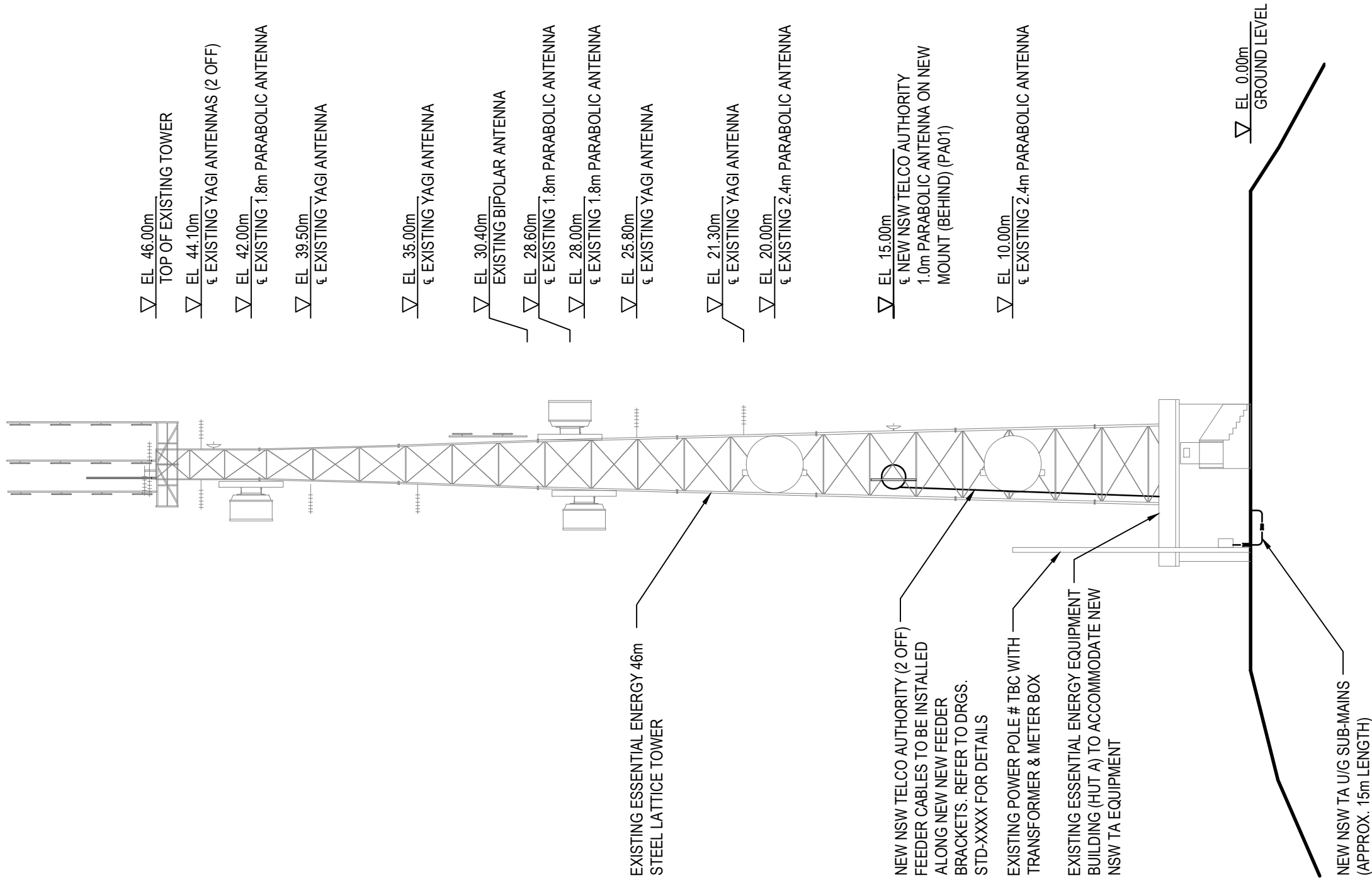


Drawing Title:
SITE SETOUT PLAN

Status: NOT FOR CONSTRUCTION	Drawing No. 11151-A3	Revision 01
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NOTES:

- FOR TOWER MOUNTED EQUIPMENT DETAILS REFER DRG. 11151-A5.
- EXISTING OTHER OWNERS ANTENNAS TO BE CONFIRMED BY NSW TELCO AUTHORITY.
- FOR EQUIPMENT SHELTER DETAILS REFER DRGS. 11151-F1.
- STRUCTURAL ADEQUACY OF EXISTING NSW TELCO AUTHORITY HAS BEEN CONFIRMED BY AND FOUND TO BE ADEQUATE. (REFER STRUCTURAL DATED / /).



01	08.08.16	NOT FOR CONSTRUCTION ISSUE	SSMC	JM	XX	XX	XX		
Issue	Date	Revision Description	Company	Drafted	Check	Engineer	Approved		

Design Contractor:



servicestream
MOBILE COMMUNICATIONS

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T +61 2 9478 9999 | F +61 2 9478 9900 | www.servicestream.com.au

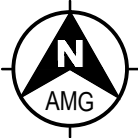
Project: NSW TELCO AUTHORITY

SITE No:- 11151
MT BOPPY

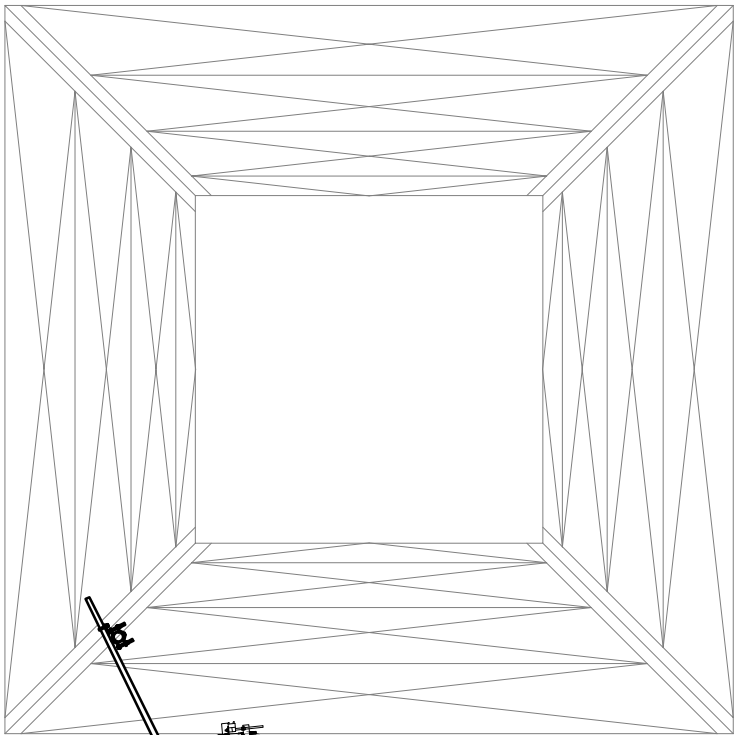
OFF GILGUNNIA-CANBELEGO ROAD,



Drawing Title: SITE ELEVATION		
Status: NOT FOR CONSTRUCTION	Drawing No. 11151-A4	Revision 01



ANTENNA NO.	ANTENNA TYPE	ANTENNA HEIGHT AGL (m)	ANTENNA BEARING (°TN)	ANTENNA SIZE (H x W x D) OR (Ø x H)	ANTENNA OWNER	STATUS	FEEDER SIZE & QUANTITY	FEEDER LENGTH (m)	B-END SITE No.	B-END SITE NAME
PA01	VHLPX3	15	174.68°	Ø1000	NSW TELCO AUTHORITY	NEW	2 x 7/8"	25	10964	MOUNT NYMAGEE





PA01

NEW NSW TELCO AUTHORITY
1.0m PARABOLIC ANTENNA ON
NEW MOUNT (PA01).
REFER TO DRGS. STD-XXXX
FOR MOUNT DETAILS

ANTENNA LAYOUT @ 15m

SCALE 1:50

								Design Contractor:		Project: NSW TELCO AUTHORITY		Drawing Title:		
										SITE No:- 11151 MT BOPPY				
								Level 1, 29 Christie Street, St. Leonards NSW 2065 T +61 2 9478 9999 F +61 2 9478 9900 www.servicestream.com.au		OFF GILGUNNIA-CANBELEGO ROAD,		ANTENNA LAYOUT PLANS		
01	08.08.16	NOT FOR CONSTRUCTION ISSUE	SSMC	JM	XX	XX	XX	Status:		Drawing No.		Revision		
Issue	Date	Revision Description	Company	Drafted	Check	Engineer	Approved	NOT FOR CONSTRUCTION		11151-A5		01		

Appendix B. Relevant database searches

- EPBC Act Protected Matters Search.
- Aboriginal Heritage Information Management System (AHIMS) database search.



EPBC Act Protected Matters Report

This report provides general guidance on matters of national environmental significance and other matters protected by the EPBC Act in the area you have selected.

Information on the coverage of this report and qualifications on data supporting this report are contained in the caveat at the end of the report.

Information is available about [Environment Assessments](#) and the EPBC Act including significance guidelines, forms and application process details.

Report created: 31/08/16 16:19:56

[Summary](#)

[Details](#)

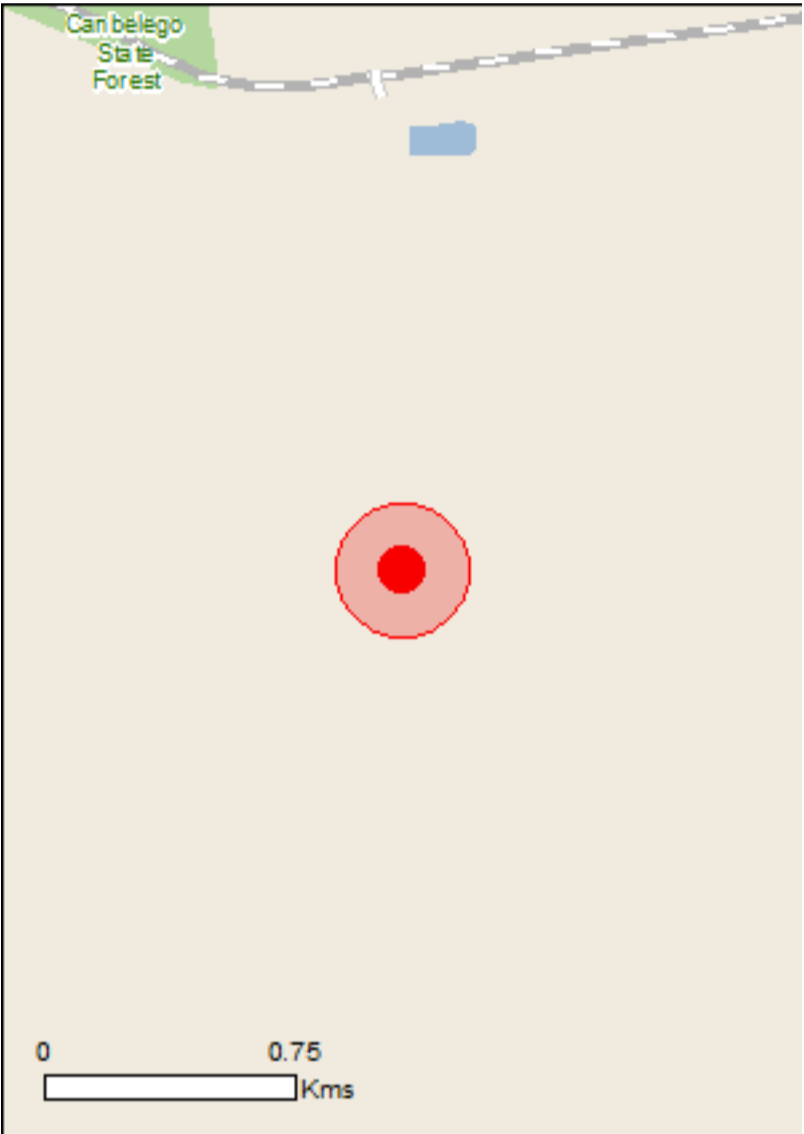
[Matters of NES](#)

[Other Matters Protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

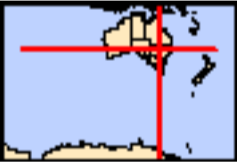
[Acknowledgements](#)



This map may contain data which are
©Commonwealth of Australia
(Geoscience Australia), ©PSMA 2010

[Coordinates](#)

[Buffer: 0.2Km](#)



Summary

Matters of National Environmental Significance

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the [Administrative Guidelines on Significance](#).

World Heritage Properties:	None
National Heritage Places:	None
Wetlands of International Importance:	3
Great Barrier Reef Marine Park:	None
Commonwealth Marine Area:	None
Listed Threatened Ecological Communities:	1
Listed Threatened Species:	8
Listed Migratory Species:	3

Other Matters Protected by the EPBC Act

This part of the report summarises other matters protected under the Act that may relate to the area you nominated. Approval may be required for a proposed activity that significantly affects the environment on Commonwealth land, when the action is outside the Commonwealth land, or the environment anywhere when the action is taken on Commonwealth land. Approval may also be required for the Commonwealth or Commonwealth agencies proposing to take an action that is likely to have a significant impact on the environment anywhere.

The EPBC Act protects the environment on Commonwealth land, the environment from the actions taken on Commonwealth land, and the environment from actions taken by Commonwealth agencies. As heritage values of a place are part of the 'environment', these aspects of the EPBC Act protect the Commonwealth Heritage values of a Commonwealth Heritage place. Information on the new heritage laws can be found at <http://www.environment.gov.au/heritage>

A [permit](#) may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species.

Commonwealth Land:	1
Commonwealth Heritage Places:	None
Listed Marine Species:	8
Whales and Other Cetaceans:	None
Critical Habitats:	None
Commonwealth Reserves Terrestrial:	None
Commonwealth Reserves Marine:	None

Extra Information

This part of the report provides information that may also be relevant to the area you have nominated.

State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	8
Nationally Important Wetlands:	None
Key Ecological Features (Marine)	None

Details

Matters of National Environmental Significance

Wetlands of International Importance (Ramsar)		[Resource Information]
Name	Proximity	
Banrock station wetland complex	600 - 700km upstream	
Riverland	500 - 600km upstream	
The coorong, and lakes alexandrina and albert wetland	700 - 800km upstream	

Listed Threatened Ecological Communities

[Resource Information]

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

Name	Status	Type of Presence
Weeping Myall Woodlands	Endangered	Community may occur within area

Listed Threatened Species

[Resource Information]

Name	Status	Type of Presence
Birds		
Grantiella picta Painted Honeyeater [470]	Vulnerable	Species or species habitat may occur within area
Leipoa ocellata Malleefowl [934]	Vulnerable	Species or species habitat likely to occur within area
Pedionomus torquatus Plains-wanderer [906]	Critically Endangered	Species or species habitat may occur within area
Polytelis swainsonii Superb Parrot [738]	Vulnerable	Species or species habitat may occur within area
Rostratula australis Australian Painted Snipe [77037]	Endangered	Species or species habitat may occur within area

Fish		
Maccullochella peelii Murray Cod [66633]	Vulnerable	Species or species habitat may occur within area

Mammals		
Nyctophilus corbeni Corben's Long-eared Bat, South-eastern Long-eared Bat [83395]	Vulnerable	Species or species habitat likely to occur within area
Phascolarctos cinereus (combined populations of Qld, NSW and the ACT) Koala (combined populations of Queensland, New South Wales and the Australian Capital Territory) [85104]	Vulnerable	Species or species habitat may occur within area

Listed Migratory Species

[Resource Information]

* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence

Name	Threatened	Type of Presence
Migratory Marine Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Migratory Terrestrial Species		
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
Migratory Wetlands Species		
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Commonwealth Land	[Resource Information]
-------------------	--

The Commonwealth area listed below may indicate the presence of Commonwealth land in this vicinity. Due to the unreliability of the data source, all proposals should be checked as to whether it impacts on a Commonwealth area, before making a definitive decision. Contact the State or Territory government land department for further information.

Name		
Commonwealth Land - Australian Telecommunications Commission		
Listed Marine Species		
* Species is listed under a different scientific name on the EPBC Act - Threatened Species list.		
Name	Threatened	Type of Presence
Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat likely to occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat likely to occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Gallinago hardwickii		
Latham's Snipe, Japanese Snipe [863]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area
Motacilla flava		
Yellow Wagtail [644]		Species or species habitat may occur within area
Rostratula benghalensis (sensu lato)		
Painted Snipe [889]	Endangered*	Species or species habitat may occur within area

Extra Information

Invasive Species

[Resource Information]

Weeds reported here are the 20 species of national significance (WoNS), along with other introduced plants that are considered by the States and Territories to pose a particularly significant threat to biodiversity. The following feral animals are reported: Goat, Red Fox, Cat, Rabbit, Pig, Water Buffalo and Cane Toad. Maps from Landscape Health Project, National Land and Water Resouces Audit, 2001.

Name	Status	Type of Presence
Birds		
Passer domesticus House Sparrow [405]		Species or species habitat likely to occur within area
Sturnus vulgaris Common Starling [389]		Species or species habitat likely to occur within area
Turdus merula Common Blackbird, Eurasian Blackbird [596]		Species or species habitat likely to occur within area
Mammals		
Capra hircus Goat [2]		Species or species habitat likely to occur within area
Felis catus Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Oryctolagus cuniculus Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Sus scrofa Pig [6]		Species or species habitat likely to occur within area
Vulpes vulpes Red Fox, Fox [18]		Species or species habitat likely to occur within area

Caveat

The information presented in this report has been provided by a range of data sources as acknowledged at the end of the report.

This report is designed to assist in identifying the locations of places which may be relevant in determining obligations under the Environment Protection and Biodiversity Conservation Act 1999. It holds mapped locations of World and National Heritage properties, Wetlands of International and National Importance, Commonwealth and State/Territory reserves, listed threatened, migratory and marine species and listed threatened ecological communities. Mapping of Commonwealth land is not complete at this stage. Maps have been collated from a range of sources at various resolutions.

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

For threatened ecological communities where the distribution is well known, maps are derived from recovery plans, State vegetation maps, remote sensing imagery and other sources. Where threatened ecological community distributions are less well known, existing vegetation maps and point location data are used to produce indicative distribution maps.

For species where the distributions are well known, maps are digitised from sources such as recovery plans and detailed habitat studies. Where appropriate, core breeding, foraging and roosting areas are indicated under 'type of presence'. For species whose distributions are less well known, point locations are collated from government wildlife authorities, museums, and non-government organisations; bioclimatic distribution models are generated and these validated by experts. In some cases, the distribution maps are based solely on expert knowledge.

Only selected species covered by the following provisions of the EPBC Act have been mapped:

- migratory and
- marine

The following species and ecological communities have not been mapped and do not appear in reports produced from this database:

- threatened species listed as extinct or considered as vagrants
- some species and ecological communities that have only recently been listed
- some terrestrial species that overfly the Commonwealth marine area
- migratory species that are very widespread, vagrant, or only occur in small numbers

The following groups have been mapped, but may not cover the complete distribution of the species:

- non-threatened seabirds which have only been mapped for recorded breeding sites
- seals which have only been mapped for breeding sites near the Australian continent

Such breeding sites may be important for the protection of the Commonwealth Marine environment.

Coordinates

-31.5422 146.28058

Acknowledgements

This database has been compiled from a range of data sources. The department acknowledges the following custodians who have contributed valuable data and advice:

- [-Office of Environment and Heritage, New South Wales](#)
- [-Department of Environment and Primary Industries, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment, Water and Natural Resources, South Australia](#)
- [-Parks and Wildlife Commission NT, Northern Territory Government](#)
- [-Department of Environmental and Heritage Protection, Queensland](#)
- [-Department of Parks and Wildlife, Western Australia](#)
- [-Environment and Planning Directorate, ACT](#)
- [-Birdlife Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)
- [-South Australian Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [Forestry Corporation, NSW](#)
- [-Geoscience Australia](#)
- [-CSIRO](#)
- Other groups and individuals

The Department is extremely grateful to the many organisations and individuals who provided expert advice and information on numerous draft distributions.

Please feel free to provide feedback via the [Contact Us](#) page.

Service Stream

Date: 31 August 2016

Level 4 / 357 Collins Street
Melbourne Victoria 3000

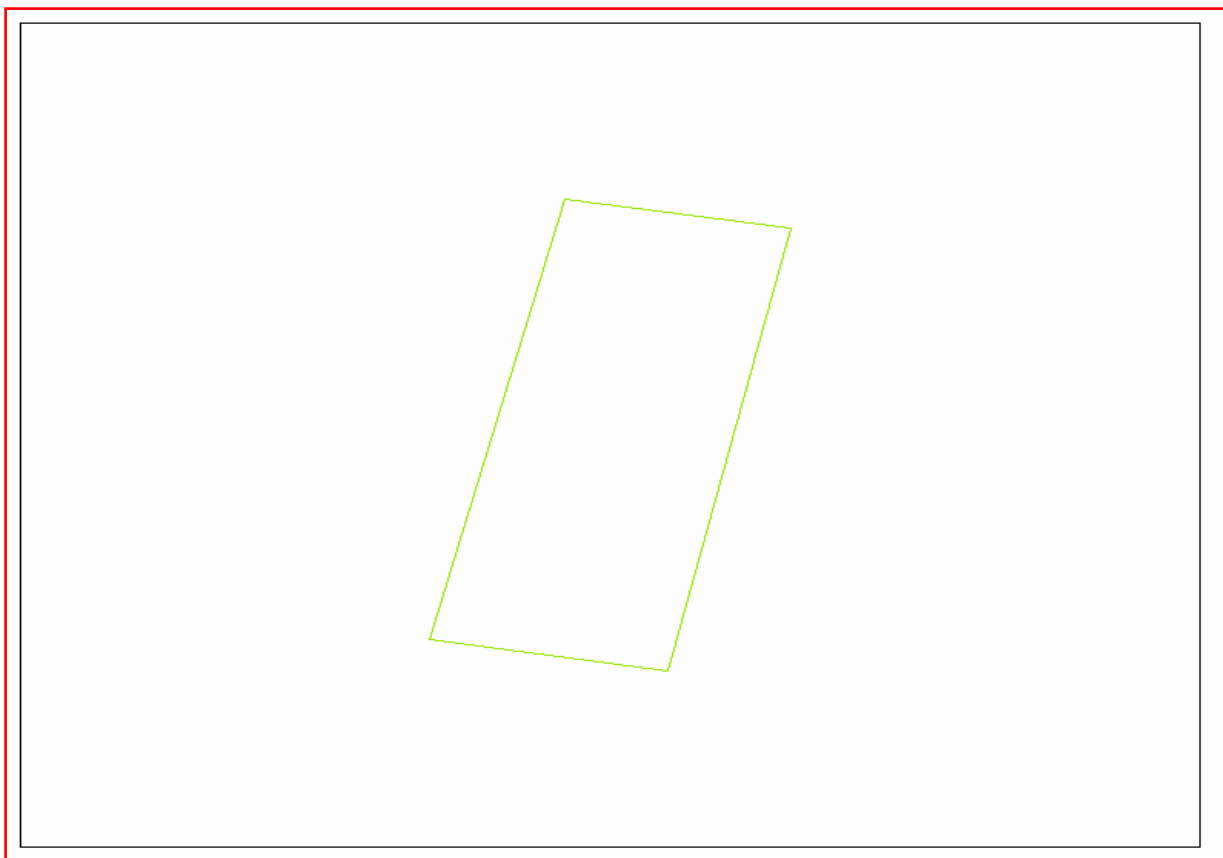
Attention: Tim Heffernan

Email: tim.heffernan@servicesctream.com.au

Dear Sir or Madam:

AHIMS Web Service search for the following area at Lot : 1, DP:DP767238 with a Buffer of 50 meters, conducted by Tim Heffernan on 31 August 2016.

The context area of your search is shown in the map below. Please note that the map does not accurately display the exact boundaries of the search as defined in the paragraph above. The map is to be used for general reference purposes only.



A search of the Office of the Environment and Heritage AHIMS Web Services (Aboriginal Heritage Information Management System) has shown that:

0	Aboriginal sites are recorded in or near the above location.
0	Aboriginal places have been declared in or near the above location. *

If your search shows Aboriginal sites or places what should you do?

- You must do an extensive search if AHIMS has shown that there are Aboriginal sites or places recorded in the search area.
- If you are checking AHIMS as a part of your due diligence, refer to the next steps of the Due Diligence Code of practice.
- You can get further information about Aboriginal places by looking at the gazettal notice that declared it. Aboriginal places gazetted after 2001 are available on the [NSW Government Gazette \(http://www.nsw.gov.au/gazette\)](http://www.nsw.gov.au/gazette) website. Gazettal notices published prior to 2001 can be obtained from Office of Environment and Heritage's Aboriginal Heritage Information Unit upon request

Important information about your AHIMS search

- The information derived from the AHIMS search is only to be used for the purpose for which it was requested. It is not be made available to the public.
- AHIMS records information about Aboriginal sites that have been provided to Office of Environment and Heritage and Aboriginal places that have been declared by the Minister;
- Information recorded on AHIMS may vary in its accuracy and may not be up to date .Location details are recorded as grid references and it is important to note that there may be errors or omissions in these recordings,
- Some parts of New South Wales have not been investigated in detail and there may be fewer records of Aboriginal sites in those areas. These areas may contain Aboriginal sites which are not recorded on AHIMS.
- Aboriginal objects are protected under the National Parks and Wildlife Act 1974 even if they are not recorded as a site on AHIMS.
- This search can form part of your due diligence and remains valid for 12 months.

Attachment C



**Telco
Authority**

NSW Telco Authority

Who we are, what we do

- The NSW Telco Authority currently operates the **Government Radio Network (GRN)** which provides voice and narrow band data for day-to-day operational and emergency communications for a wide range of NSW Government agencies and frontline staff , including public safety, law enforcement and essential services.
- The NSW Telco Authority is delivering the Critical Communications Enhancement Program (**CCEP**) which is the first step in the NSW Government's Operational Communications Strategy that drives significant reform, savings and better services to NSW Government and community.
- The CCEP will deliver an **enhanced GRN** by providing greater network coverage across NSW and establish a shared network to support organisations to share information and better coordinate responses to incidents.
- In 2016, the Department of Premier and Cabinet approved that the NSW Telco Authority be treated the same as **Emergency Service Organisations** for the purposes of determining rent payable for communications facilities on Crown land. Further consideration is being currently given to extend the treatment to Emergency Services Organisations for the purposes of communications facilities **on any land**.

Critical Communications Enhancement Program (CCEP)

An overview

- The CCEP will use existing and new assets to enhance the NSW Telco Authority's shared GRN.
- The CCEP will result in the rationalisation of approximately 2,400 existing Government agency sites to approximately 750 GRN sites.
- The majority of proposed sites in the CCEP involve co-locations on existing telecommunications facilities (approximately 80%).
- The CCEP is currently completing the state-wide preliminary design phase, and the pilot project for 25 sites (rationalised from 73 Government agency sites) is nearing completion of construction in the north-west of NSW.
- The CCEP is expected to be rolled out over the next three years and completed by 2020.

Benefits of an enhanced Government Radio Network

An enhanced shared radio communications network has significant benefits for NSW Government agencies and the broader NSW community, including:

- **Greater accessibility to public safety standard radio communications** for frontline personnel and day-to-day operations through the increased coverage and network capacity, availability and resilience designed to meet mission critical standards.
- **More flexible incident responses and coordination** as network users can easily share information between each other and across borders including during times of major incidents.
- **A single common platform to support the adoption of future technologies**, which will support agencies in continuing to deliver public safety, law enforcement and essential services to the NSW community.
- **More efficient management of resources** by reducing the duplication of infrastructure and taking advantage of the economies of scale that can be realised through a single portfolio.

The Program

Demonstrating capability

Pilot



Extending the GRN in the north west of NSW

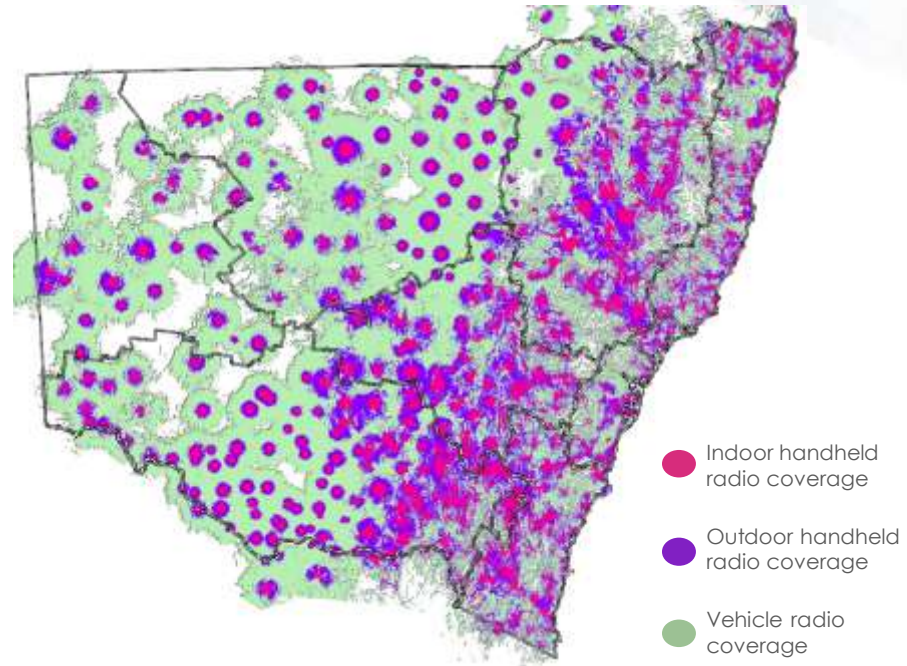
25 sites selected for GRN extension

rationalised from 73 existing agency sites

91% shared coverage of region

up from 79% existing aggregate coverage

Preliminary Design



≈ 750 potential sites identified for the enhanced GRN

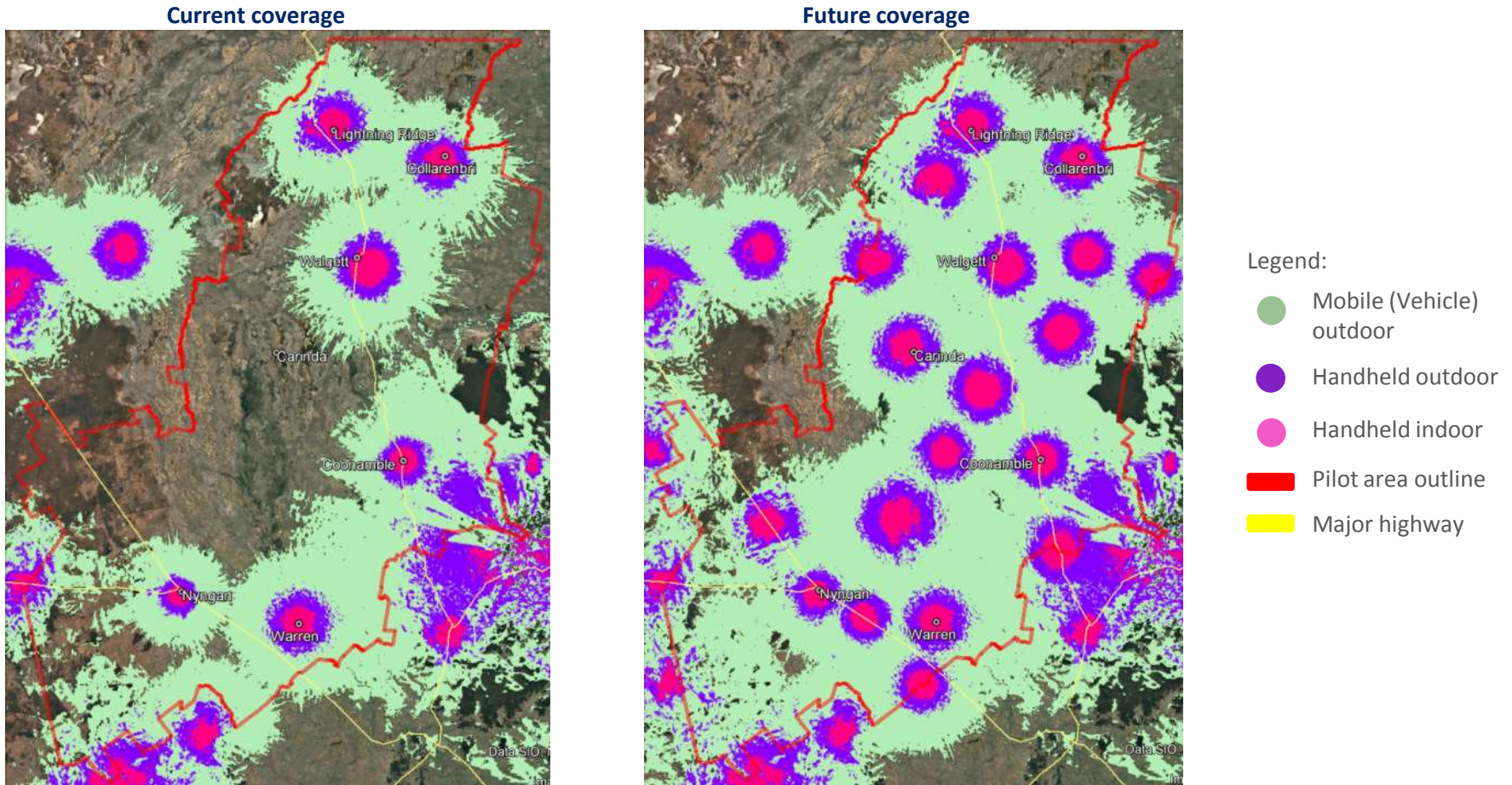
Rationalisation from ≈2400 existing sites

Preliminary Design (now) → **Detailed Design** →
Construction → **Migration** → **Decommissioning** (≈Q2 2020)

Over 75% of NSW will have shared and inter-operable coverage

The Program

Example of greater coverage in pilot region



Delivering improved network coverage for all NSW Government agencies by extending the GRN in the north west of NSW.

The Program

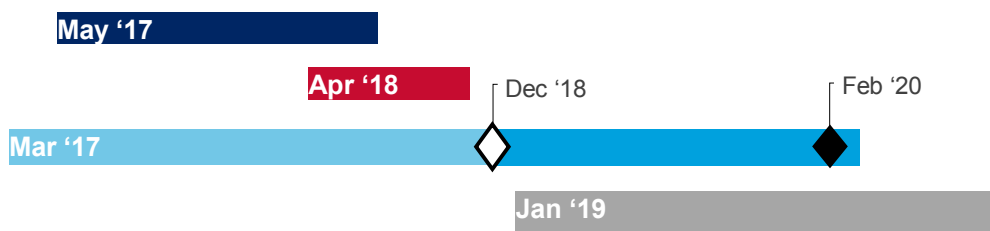
State-wide rollout (indicative timeframe)



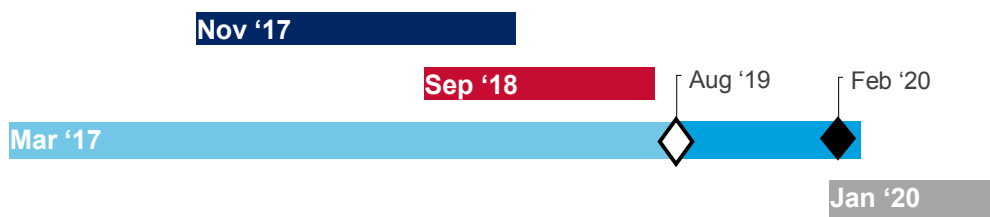
Pilot & State-wide Preliminary Design

May '16

North Coast



New England
Greater Metropolitan Area
South Coast & South West
West, North West & Central



Legend:

* includes network integration and operational acceptance

◇ NSW SES, NSW RFS, FRNSW & NSW Ambulance Start Migration

◆ NSWPF Start Migration

Frequently Asked Questions (FAQs)

1. How are network sites chosen?

It is expected that around 750 sites will be required for the enhanced GRN in NSW. Choosing sites is a balance between maximising coverage of radio communications while minimising impacts, such as visual amenity, at the site level. The CCEP has conducted technical workshops and utilised data from the state-wide audits of site and radio assets to select the most suitable sites across the state.

Most sites already have some radio communications infrastructure in place and it is expected that the majority of sites selected will use existing radio towers, preferably Government agency owned towers. The development of a new site is a last resort. All new sites will comply with relevant legislation and follow established guidelines. In addition, landowners, neighbouring stakeholders and local councils will be consulted and kept informed of proposed developments.

2. How is visual amenity considered in site selection?

The CCEP takes into consideration the potential visual impacts of proposed works and minimises this by:

- *Co-locating equipment on existing towers* – this is the preferred option, however in some cases it may not be feasible due to the existing tower's height or structural adequacy to hold additional equipment.
- *Co-siting with existing tower* – where a new tower is required, this option is undertaken by integrating the new infrastructure with existing vertical elements in the landscape and avoiding the proliferation of towers across the landscape.

Frequently Asked Questions (FAQs)

3. What is radiofrequency electromagnetic energy (EME)?

All radio antennas emit radiofrequency (RF) electromagnetic energy (EME) as “radio waves”, or radio frequency signals. The Telco Authority complies with the [Australian Radiation Protection and Nuclear Safety Agency](#) (ARPANSA) Standard.

The Australian Communications and Media Authority (ACMA) is responsible for regulating RF EME for telecommunications facilities. The Telco Authority complies with the EME regulatory requirements set by the ACMA.

4. Stakeholder consultation process with local government and State government agencies

As part of the overall stakeholder consultation process, local councils and State government agencies are being consulted to inform them of:

- a. The benefits of the GRN which will be available for use by NSW Government agencies and local government bodies.
- b. The sites identified for potential inclusion in the GRN, in their local government areas or management jurisdiction (ie. Crown lands, National Parks and State Forests) and the nature of the works proposed to gain initial feedback and confirm feasibility. This consultation is being completed as part of NSW Telco Authority’s best practice stakeholder consultation process, and is in addition to the ISEPP consultation requirements which would be undertaken during the detailed design phase of the CCEP.
- c. The property and planning process proposed by the NSW Telco Authority.



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