Our ref: M2153
QA: sj.

19 December 2025

Office of the Coordinator-General
Department of State Development
PO Box 15517
CITY EAST QLD 4002
Via: *Online Portal*

Attention: Gerard Coggan – Office of the Coordinator-General

Dear Gerard,

Re: Change Application (Minor) to State Development Area Approval AP2016/011 for Material Change of Use – Renewable Energy Facility on land described as Lot 42 on CP905700 (part of) and located at 1 Zinc Road, Stuart

Milford Planning act on behalf of Ark Energy Corporation Pty Ltd, and hereby formally submit the enclosed Change Application (Minor) to State Development Area Approval (SDA) AP2016/011 for Material Change of Use – Renewable Energy Facility over part of the abovementioned land.

The Coordinator General (the CG) approved SDA AP2016/011 without conditions on 29 March 2017, given the requirements and provisions of the *Townsville Zinc Refinery Act 1996*. The proposed change relates to the Sun Metals Energy Storage System (SMESS) project and establishing two areas for Battery Energy Storage Systems within the existing development footprint of Townsville Zinc Refinery, which will complement the existing solar farm.

Approved Fee Waiver

A second request for a fee waiver for the proposed change (SMESS project) was submitted to the CG on 27 August 2025, due to the first fee waiver issued 17 January 2025 expiring. The CG approved a second partial fee waiver on 19 September 2025 (refer Attachment 1), which notes the fee payable is $1,500 (GST exempt).

07 4724 0095
info@milfordplanning.com.au
283 Flinders Street
Townsville City Q 4810
PO Box 5463
Townsville City Q 4810
ABN 31 162 988 132
milfordplanning.com.au

Proceeding

We look forward to receipt of the written notice confirming the Change Application is considered a Minor Change to AP2016/011 and weather or not additional information is required to assess the Change Application (Minor).

If you have any questions regarding this application or the attached correspondence, please do not hesitate to contact the undersigned on TEL: (07) 4724 0095.

Yours sincerely,

MILFORD PLANNING

Sarah Jones

SENIOR TOWN PLANNER

Encl: Attachment 1: Fee Waiver Letter issued by the CG
Attachment 2: Change Application (Minor) Package

MILFORD PLANNING

Attachment 1

DELIVERING FOR QUEENSLAND | Queensland Government

Office of the
Coordinator-General

Our ref: OUT25/4581

19 September 2025

Ms Sarah Jones
Milford Planning
283 Flinders Street
Townsville QLD 4810
sjones@milfordplanning.com.au

Dear Ms Jones

AP2016/011-01 – Fee Waiver Request – Change application for an SDA approval for a material change of use for a renewable energy facility in the Townsville State Development Area (SDA)

Thank you for your email dated 27 August 2025 requesting a waiver of the relevant fee for a change application for an SDA approval (AP2016/011) for a renewable energy facility (change application) in the Townsville SDA.

In accordance with the Overview of fees for the Office of the Coordinator-General (July 2025), the Coordinator-General has decided to grant a partial fee waiver of the relevant fee for the change application. The fee payable is $1,500 (GST exempt) and is to be paid at the time of the lodgement of the change application.

This waiver is valid for six months from the date of this letter, despite any future variations to the fees as listed in the Guideline.

The Coordinator-General reserves the right to recover costs up to the maximum of the original relevant fee if additional costs are incurred by the Coordinator-General to assess the change application.

If you require any further information, please contact Maddison Granzin, Senior Planner Office of the Coordinator-General at maddison.granzin@coordinatorgeneral.qld.gov.au or on (07) 3452 7652, who will be pleased to assist.

Yours sincerely

K. Baker

Krystal Baker
A/Assistant Coordinator-General
Industry and Infrastructure Development
(as delegate of the Coordinator-General)

1 William Street
Brisbane Queensland 4000
PO Box 15517
City East Queensland 4002
Telephone 13 QGOV (13 74 68)
Website www.statedevelopment.qld.gov.au
ABN 29 230 178 530

MILFORD PLANNING

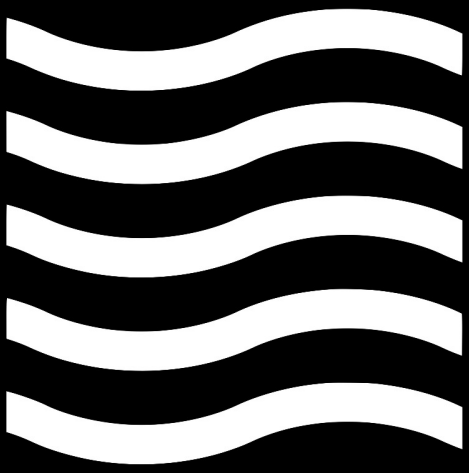
Attachment 2

MILFORD PLANNING

Applicant	**Ark Energy Corporation Pty Ltd**
Reference	**M2153**
Date	**December 2025**

Change Application (Minor)

Proposed Development	**Change Application (Minor) to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility**
Property Details	**1 Zinc Road, Stuart** **Lot 42 on CP905700**



DOCUMENT CONTROL

Applicant	Ark Energy Corporation Pty Ltd
Proposed Development	Change Application (Minor) to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility
Contact	Sarah Jones

Quality Assurance		
Date 19.12.25 **Version** 1 **Issue** Final **Template** DA-STN-1	Electronic Sarah Jones SENIOR TOWN PLANNER	Electronic George Milford DIRECTOR
	Author	**Reviewer**

Disclaimer

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TABLE OF CONTENTS

APPENDICES

Appendix 1	Land owner's consent
Appendix 2	SDA Approval AP2016/011
Appendix 3	SmartMap; and site aerial plan of the subject site
Appendix 4	State Assessment Referral Agency mapping
Appendix 5	Proposed development layout plans prepared by Ark Energy
Appendix 6	State Planning Policy Mapping
Appendix 7	Superseded State Development Area Assessment Development Criteria Table
Appendix 8	Townsville State Development Area Assessment Development Criteria Table
Appendix 9	Special Purpose Zone Code

1.0 INTRODUCTION

1.1 Purpose

The purpose of this application is to seek approval for a Change (Minor) to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility, under the provisions of the *State Development and Public Works Organisation Act 1971* (the Act).

The purpose of this report is to provide information about the proposed change to existing SDA Approval AP2016/011 and an assessment against the criteria relevant to the change application. The detail in this report is in accordance with the provisions and subordinate planning controls under the Act.

1.2 Structure

This report provides the following information with respect to the assessment of the proposed change:

- overview of the approved development;
- description of the proposed change;
- relevant legislation;
- assessment of the proposed change (minor) against the criteria relevant to the change application; and
- conclusion and recommendation.

The subject land is located within the Townsville State Development Area (TSDA) and will be assessed under the superseded *TSDA Development Scheme 2013* (superseded scheme), given this was the applicable State Development Scheme against which AP2016/011 was assessed and approved. The land is identified as being within the High Impact Industry Precinct and Environmental Conservation Precinct of the superseded scheme.

In accordance with the superseded scheme, the proposed change (minor) requires assessment against the superseded scheme. In accordance with Part 14 of the superseded scheme, it is considered that the proposed Change (Minor) Application is a properly made application as it:

(a) identifies the original approval to which this application applies;
(b) identify the changes to the original approval which are being sought;
(c) includes the consent of the owner of the land subject to the application;
(d) identifies that the proposed change does not require referral to a referral entity;
(e) payment of the relevant fee was made on lodgement; and
(f) it is accompanied by sufficient information to support the proposed change.

The Coordinator-General (CG) will confirm whether the application is properly made and the stages of the assessment process that will apply to the application.

This Change (Minor) Application is made in accordance with Section 84F of the Act and contains the mandatory supporting information specified in the applicable Form. The necessary SDA Application Form has been submitted as part of the electronic lodgement process of this development application. Land owner's consent for this development application is included in **Appendix 1**.

Further to the above, the *Townsville Zinc Refinery Act 1996 (Refinery Act)* applies to the subject site. Schedule 3 of the *Refinery Act* lists the ancillary uses that can be established over Lot 42 on CP905700 (formerly Lot 132 on EP1524), which includes 'power generation predominantly for zinc smelting and refining operations. Applications that are consistent with Schedule 3. Part 1 of the *Refinery Act* are nominated for approval without conditions.

2.0 APPROVED DEVELOPMENT

2.1 Detail of Approved Development

The following parameters are applicable to the approved development subject to this change application, refer to **Appendix 2**.

Approval Type	Development Permit
Development Type	Material Change of Use
Definition or General Description	Renewable Energy Facility
Assessment Manager	Coordinator General
Changed DA Reference	AP20216/011 (refer to **Appendix 2**)
SDA Planning Instrument	*Superseded Townsville State Development Area Scheme July 2013*
Category of Assessment	Assessable Development
Referral Agencies	Townsville City Council, Department of Transport and Main Roads, Powerlink.
Relevant Legislation	*State Development and Public Works Organisation Act 1971; and The Zinc Refinery Act 1996*
Decision Date	29 March 2017

As per the provisions of the *Zinc Refinery Act 1996,* the CG approved SDA AP2016/011 without conditions as the use was consistent with Schedule 3, Part 1 of this Act.

3.0 SUBJECT SITE

3.1 Site Details

Specific details pertaining to the subject site are incorporated in the following **Table 3.1**

Table 3.1 Site Characteristics

Street Address	1 Zinc Road, Stuart
Real Property Description	Lot 42 on CP905700 (refer **Appendix 3**)
Property Owner	Sun Metals Corporation Pty Ltd
Parent Lot Area	913.5 ha
Subject Site Area	10,105.95 m^2 and 11,019.56 m^2
Street Frontage	Zinc Road
Current Use	Sun Metals Zinc Refinery (inclusive of Solar Farm and Sun HQ Hydrogen Facility)
Zoning	High Impact Industry Precinct and Environmental and Conservation Zone
Local Heritage Register	The site is not listed on the Local Heritage Register.
Easement	Lot 42 on CP905700 is burdened by easements.
Topography	The site has generally even topography.
Existing Infrastructure	The property will be connected to Council's reticulated water.
Sara Mapping	The subject site is identified as being located within the following State Assessment and Referral Agency (SARA) mapping overlays (refer **Appendix 4**): ▪ Coastal management district (CMD); ▪ Coastal area - erosion prone area (EPA); ▪ Coastal area – high storm tide inundation area; ▪ Fish habitat management area A; ▪ Major (Tidal); ▪ Regulated vegetation management map (Category A and B extract) (Vegetation Clearing); ▪ Townsville priority port precinct; ▪ Wetland protection trigger area; and ▪ Area within 25 m of a railway corridor.
Referral Agencies	Refer to Table 5.4
Planning Instrument	*Superseded Townsville State Development Area Development Scheme 2013 and Townsville State Development Area Development Scheme 2019*
Other Legislation	*Zinc Refinery Act 1996*

3.2 Subject Site

The subject site forms part of the existing Sun Metals Zinc Refinery site, located at 1 Zinc Road, Stuart, Townsville (Lot 42 on CP905700). Lot 42 CP905700 is 913.5 ha in area and is located within Townsville State Development Area and in particular the High Impact Industry Precinct and Environmental Conservation Precinct of the superseded scheme. The subject site areas for the purposes of this application are 12,030.47 m^2 and 11,305.10 m^2, refer to **Figure 1** below.

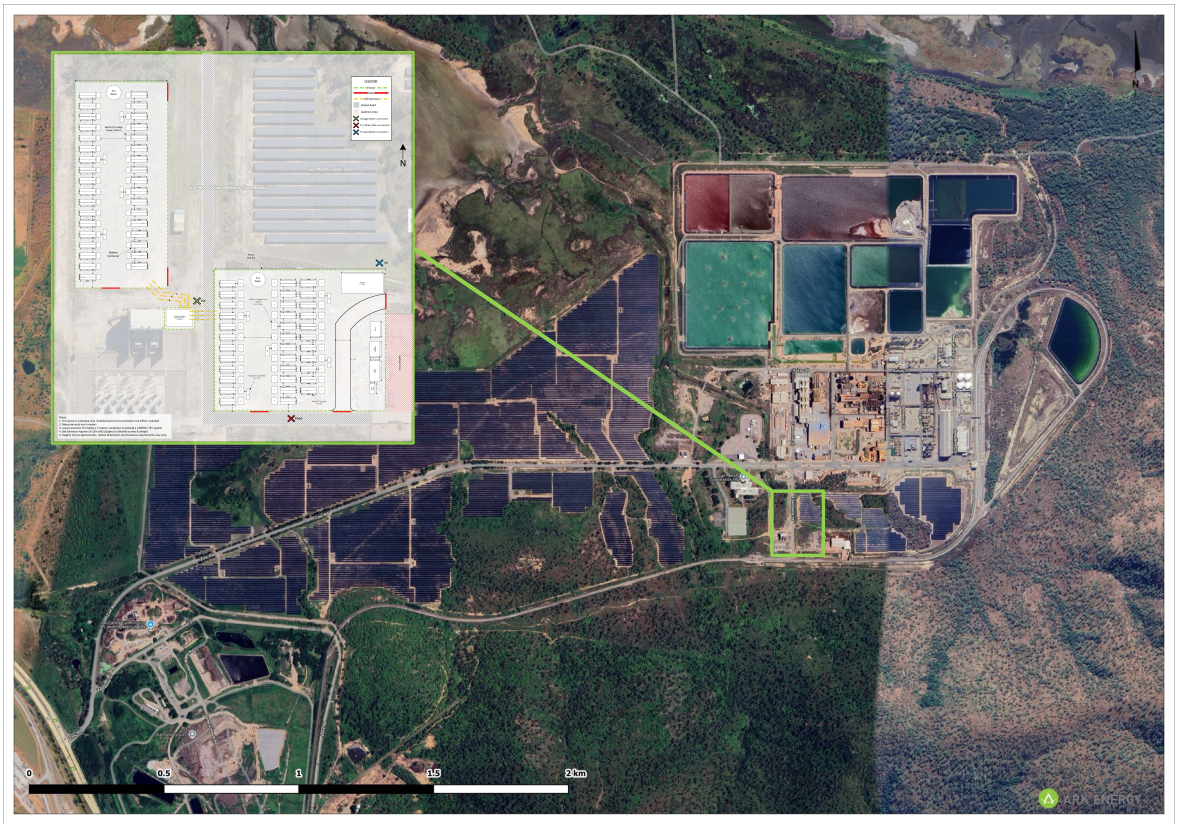

Figure 1: Subject Site Areas in the broader context of the solar farm and refinery (Source: Ark Energy)

The subject site areas are located to the south and west of part of the existing solar farm, with the former area having frontage to Zinc Road which connects with the Bruce Highway via a signalised intersection. The subject site areas are vacant hardstand areas, with minimal vegetated cover.

The subject land is listed on the Environmental Management Register. The land has been recorded on the register, as the existing Zinc Refinery operations are considered notifiable activities under the *Environmental Protection Act 1994.*

Construction of the existing refinery at the site commenced in 1996 and commissioning was completed in 1999. Prior to the construction of the zinc refinery, the land was used by previous owners for low intensity grazing. Much of the area was extensively disturbed prior to the zinc refinery construction by land clearing prior to 1960, and later by sand mining during the 1960's.

The existing refinery footprint, including the water storage ponds and ancillary activities, covers an area of approximately 200 ha. In May 2018, Sun Metals completed construction of a 124 MW solar farm adjacent to the refinery to supplement the refinery's electricity requirements. The solar farm covers an area of approximately 190 ha. The balance of the subject land (approximately 500 ha) is undeveloped and comprises estuarine coastal saltpans and sand dune systems to the north, and the vegetated foothills of the Muntalunga Ranges to the south and east.

The Sun Metals site is connected to the National Electricity Market (NEM) by two 132 kV transmission lines from Powerlink's Townsville South Sub-Station. Transmission easements exist to expand capacity within the precinct to support increased green zinc and green hydrogen production as required.

3.3 Surrounding Area

The subject site is surrounded by a variety of existing urban and industrial development and activities. These uses include:

- Cleveland Bay Industrial Park;
- the Port of Townsville located to the north;
- the Townsville residential suburbs located to the west; and
- the Bruce Highway and Flinders Highway located to the south, with a range of existing industrial uses including:
    - Aurizon Stuart intermodal freight facility;
    - Aurizon locomotive and rolling stock maintenance facility;
    - Glencore Xstrata copper refinery;
    - JBS Australia abattoir;
    - Origin Energy Mt Stuart peaking generator plant;
    - Pacific National rail freight terminal;
    - Townsville City Council landfill; and
    - Townsville Correctional Centre.

In addition to the 500 Ha of Lot 42 on CP905700 which is not developed, Sun Metals has established an extensive environmental buffer zone to the south and east of the refinery site through the purchase or lease of a further 1,170 ha of undeveloped land.

Given the industrial setting of the subject site and surrounds, there are minimal sensitive land uses in immediate proximity to the refinery site. The nearest residential land uses are in Cleveland

Palms (2.4 km), Alligator Creek (3.8 km), Stuart (3.5 km) and adjacent to the Bruce Highway (2.7 km) and are predominantly rural residential. The nearest educational and health care uses are located over 4 – 5 km from the subject site in the suburbs of Stuart and Wulguru.

3.4 Approvals Background

The CG approved a solar farm at Sun Metals Zinc Refinery (the refinery) on 29 March 2017. As the second largest single site consumer of electricity in Queensland, Sun Metals has a strong focus on being both *environmentally responsible* and the most *competitive* zinc refinery in the world.

The existing solar farm includes approximately 1.26 million solar PV modules which converts the collected DC power through 52 large scale outdoor inverters to AC power, which is utilised by the refinery and electricity network.

In 2021, CG approved the pilot scale SunHQ Hydrogen Production Facility at the zinc refinery as part of the SunHQ Hydrogen Hub project (SunHQ), which is being delivered by Ark Energy. Phase 1 of SunHQ includes a one-megawatt proton exchange (or polymer electrolyte) membrane (PEM) electrolyser that will produce renewable hydrogen from a behind-the-meter connection to the co-located 121 MWac Sun Metals Solar Farm. Compression, storage and refuelling facilities will be located adjacent to the electrolyser.

3.5 Ark Energy Corporation Pty Ltd

Ark Energy Corporation Pty Ltd (Ark Energy (the Applicant) is a leading Australian renewable energy company specialising in the greenfield development, construction and operation of utility-scale wind and solar energy generation, battery energy storage and renewable hydrogen production. It is a subsidiary of Korea Zinc Co Ltd a global top-tier nonferrous metal company with a 25-year history in Australia through Ark Energy's sister company, the refinery in Townsville.

Ark Energy's mandate is to facilitate the decarbonisation of Korea Zinc, commencing with Sun Metals, and support the decarbonisation of other major industrial and commercial customers in hard-to-electrify sectors including nonferrous metals refining and heavy haulage transport.

Ark Energy is also at the forefront of developing Australia’s renewable hydrogen industry. Ark Energy's first major renewable hydrogen project in Townsville will be one of the largest fully integrated green hydrogen production and refuelling facilities in Australia.

4.0 PROPOSED CHANGE

4.1 Overview

This report details a change application (minor) to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility. The change application is required to allow Ark Energy to establish the Sun Metals Energy Storage System (SMESS) project on land described as Lot 42 on CP905700 (part of) and located at 1 Zinc Road, Stuart.

4.2 Purpose and Description of Proposed Change

Ark Energy, seeks to establish a Battery Energy Storage System (BESS) and secure a future expansion area over the subject site, as illustrated on **Figure 1**. The proposed areas for the BESS and future expansion area will be 12,030.47 m^2 and 11,305.10 m^2 respectively. As illustrated on **Figure 3**, the existing substation will be extended with an additional approximately 15 m x 10 m switchroom with underground cabling connecting it to the BESS areas. The BESS has clear synergies with the existing Solar Farm and will add to the existing renewable energy capabilities for the refinery.

The SMESS project includes a 130 MW/ 260 MWh (2 Hour) BESS and a future expansion area to increase the duration to 520 MWh (4 Hours) to be installed over the subject site. The proposed BESS and future expansion area will be located to the west and north (respectively) of the existing Sun Metals 132 kV substation. The proposed development is expected to deliver important contributions to renewable energy targets for the refinery.

The SMESS will form part of the Sun Metals Green Industrial Precinct being developed by the Applicant within the Townsville State Development Area and North Queensland Renewable Energy Zone. The precinct includes the refinery, which will be capable of producing 300,000 tonnes (tpa) of green zinc, the 121 MWac Sun Metals Solar Farm (SMSF) and Phase 1 of the SunHQ Hydrogen Hub, which includes a 1 MW PEM electrolyser and associated compression, storage and dispenser that will produce green hydrogen for five new Hyzon Motors 140 tonne rated fuel cell electric trucks.

4.3 Design Overview

<u>Layout</u>

The BESS will be fully integrated with the Sun Metals Solar Farm, as well as the refinery. The SMESS project will allow intelligent co-ordination of energy use within the refinery site.

The layout of the proposed BESS facility is standard in nature and is likely to comprise of the following:

- approximately 70 battery containers to the east and west boundary of the site area;
- approximately 35 transformers (one per two containers) located adjacent to the containers;
- connection of the BESS areas to the existing extended electricity substation;
- the BESS will be installed on a hardstand pad and will be secured in place via a series of anchors;
- the BESS facility will be fenced (2.8 m high);
- supporting infrastructure will include an office, workshop, storage shed, amenities, laydown area and parking area; and
- three gated entry and exit points and an internal road/ driveway.

The layout of the future expansion area will be similar to the above.

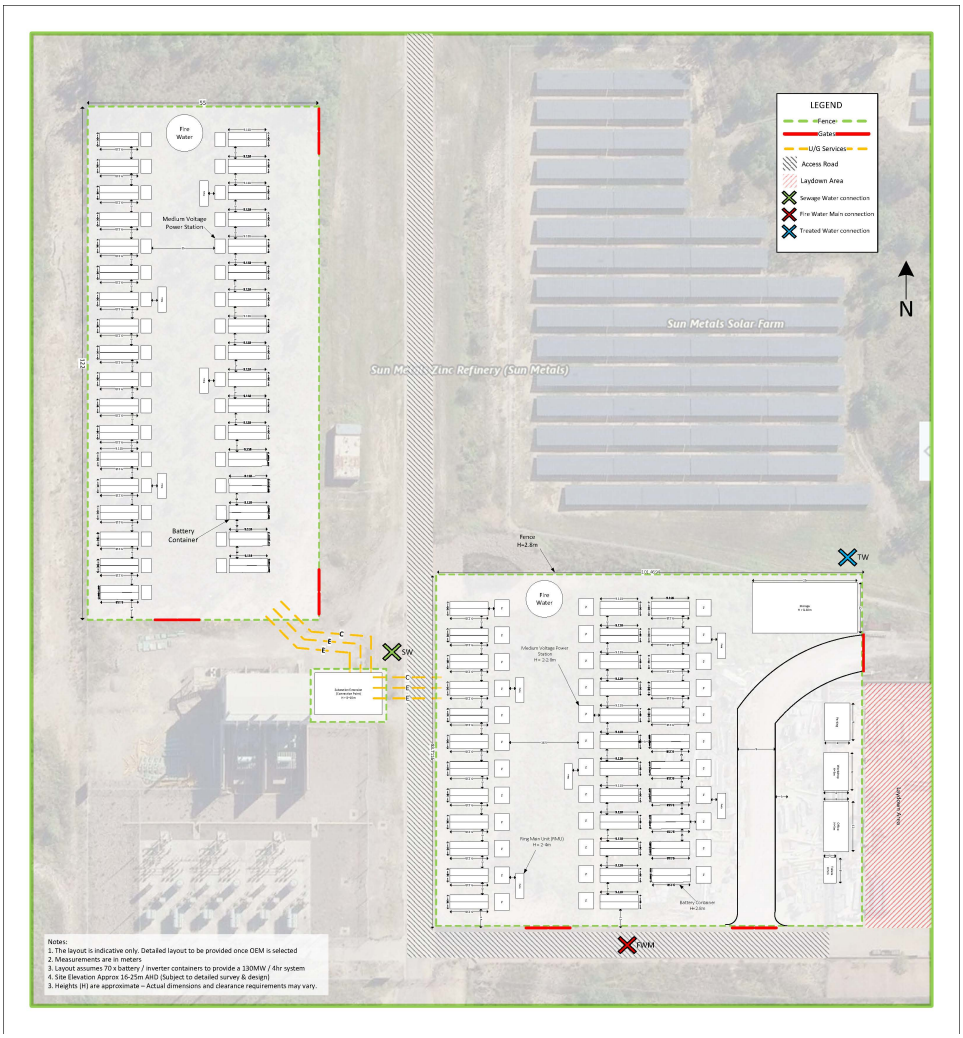

Figure 2: Indicative Layout (Source: Ark Energy Indicative Layout for the ultimate 130 MW/ 520 MWh BESS Facility, refer to Appendix 5)

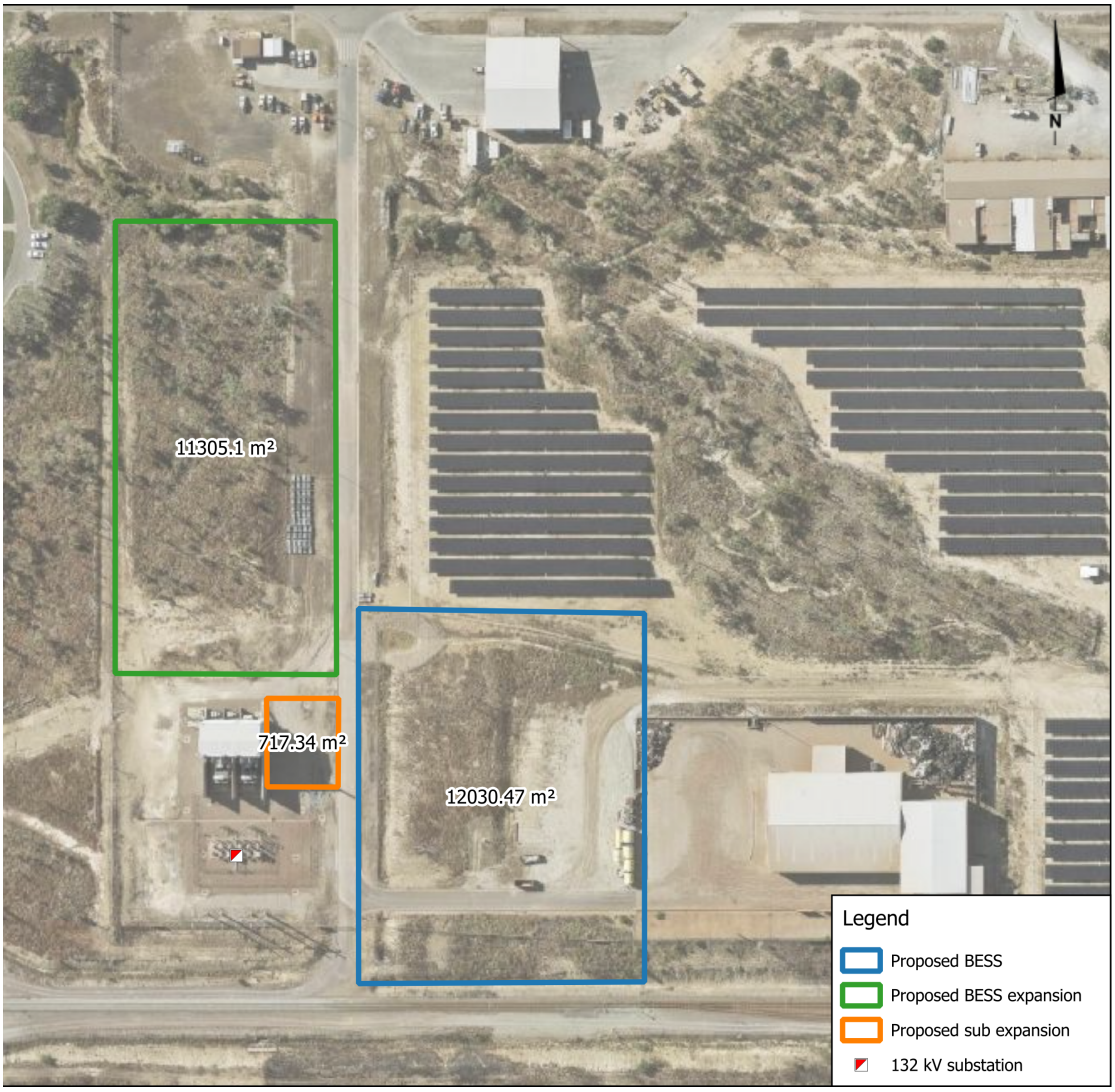

Figure 3: BESS Areas and Substation extension (Source: Ark Energy)

The batteries provide flexibility for the layout and configuration of the BESS, due to the modular design. Each container will be 9.118 m (width) x 1.659 m (depth) and 2.8 m (height), refer to **Figure 2** and **Appendix 5**.

Each Battery Container enclosure generally includes the following components (pending OEM selection) provided:

- inverter (2,400 kVA)
- AC main breaker
- battery modules (1,927.2 kW/ 3,854.4 kWh)
- battery module bays
- thermal cabinet
- customer interface bay
- site controller
- low voltage interface panel
- thermal roof
- IP66 enclosure

In addition to the battery containers, the SMESS project requires other infrastructure, typically:

- Meters (battery meter required, other meters optional)
- Line reactors
- Customer communications networking
- SCADA components
- Provisions for CMA units
- Transformers
- Water supply
- Maintenance infrastructure
- Switchgear

Operational Overview

The proposed BESS will be designed to enable the flexible storage and delivery of renewal energy sources from the Solar Farm to the refinery, to meet on site demands and thus will entail 24-hour operation. The proposed BESS will be integrated into the existing solar farm infrastructure, enabling it to store renewable energy in the rechargeable batteries for future use in the refinery's day to day operations. The BESS once constructed will be largely self-sufficient and will not result in additional permanent operational staff being required on site.

The increase in renewable energy sources and drive to achieve net zero carbon, makes the proposed BESS critical renewable energy infrastructure for the refinery's day to day operations. The proposed BESS positively contributes towards the pathway in transitioning to green energy and accelerating net zero emissions.

The future BESS expansion area will allow the duration of the BESS to be increased and will consist of a similar layout.

The SMESS project will be operated and managed by existing Ark Energy employees.

Scale and Intensity

The scale and intensity of the proposed BESS and future BESS expansion are minimal when viewed in the context of the existing refinery and the solar farm on the site. The footprint of the BESS and future expansion areas equate to approximately 0.23 % of the overall parent lot area.

Use Definition

The proposed BESS and future expansion area align with the Renewable Energy Facility definition in the superseded TSDA Development Scheme, which *'is the use of premises for the generation of electricity or energy from renewable (naturally reoccurring) sources',* this use SDA AP2016/011.

Access and Parking

Access to the refinery and subject site is via the Bruce Highway (north and south) and Zinc Road. The intersection of Bruce Highway and Zinc Road was upgraded to a signalised intersection in early 2019, and the merging lane for traffic turning north from Zinc Road extended. Zinc Road becomes a private road with no authorised public access at the Sun Metals property boundary.

Construction Traffic

Construction traffic for the proposed SMESS project will be minimal. It is estimated that the plant and equipment for the project will be imported via the Port of Townsville and delivered to the site. Similarly, the construction workforce needed to assemble and install the proposed BESS and future BESS expansion area will be minimal and traffic movements associated with the construction workforce are insignificant in comparison with the existing traffic volumes on Zinc Road and the Bruce Highway.

Operational Traffic

As there will be no permanent operational staff required on site during operations, there will be no impact on Zinc Road or Bruce Highway traffic, once the project is operational.

Parking

A total of 302 car spaces are currently available on site, excluding visitor parking and motorcycle parking. As the proposed development, once operational, will not result in an increase in employee or contractor numbers, it is considered that the existing on site car parking numbers are suffice.

Stormwater

The SMESS project will be constructed within an existing semi-impervious (hardstand), gently sloping area and involves limited excavation during civil works. There are no temporary or permanent water bodies within the project site. Stormwater runoff from the BESS areas will be directed to and captured in the broader and existing refinery's stormwater management regime and system.

Stormwater Quantity

As the project site comprises an existing semi-impervious surface (hardstand), there will be no change in stormwater runoff quantity as a result of construction or operational phase of the project. Existing stormwater drainage lines to the north, east and west of the project site will continue to drain rainfall runoff from the site.

As there will be no changes to stormwater flows as a result of the project, there is no risk that the project will adversely affect existing stormwater flow rates or flood heights at downstream or adjacent properties or transport infrastructure. Stormwater runoff from the BESS areas will be directed to and captured in the broader and existing Sun Metals stormwater management regime and system.

Stormwater Quality

The proposed BESS areas will comprise of pre-assembled modular infrastructure each suitably enclosed to protect the internal components from rainfall. As the infrastructure is enclosed, rainfall runoff from the site is unlikely to become contaminated.

Two street sweeping machines are in constant use at the refinery site. Street sweeping of the periphery of the BESS areas will be incorporated into the sweeper schedule to reduce the risk of gross pollutants (e.g. litter, sediment) entering stormwater flows at the BESS areas

Erosion And Sediment Control

Although civil works associated with the project construction phase are minimal, required excavation works will disturb soils and introduce the potential for erosion and sedimentation to occur. Ark Energy will develop suitable erosion and sediment controls for construction in conjunction with the civil contractor to ensure the potential for erosion and sedimentation is minimised. Control measures may include:

- silt fencing (or equivalent) to be installed prior to excavation works in areas where soil erosion and sediment transport is considered likely; and
- stockpiles of soil to be located away from drainage paths, be consolidated and treated with silt fencing or equivalent treatment if deemed necessary.

Electricity and Communications

There are two spare 1,250 A tiers on the refinery's 33 kV switchgear, which will be allocated to the SMESS project. Indicatively, this can allow up to 140 MW of inverter capacity, the actual capacity of the inverter will be determined during detailed design as well as grid studies. As illustrated on **Figure 3**, the existing substation will be extended with an additional approximately 15 m x 10 m switchroom.

Noise Emissions

There are no sensitive receptors nearby the SMESS project. The existing refinery facility operates 24/7, meaning there are existing background noise sources associated with existing operations and activities. Further, other background noise sources include the Bruce Highway, Ron McLean Drive existing railway line and other industrial end users the TSDA.

Based on information sourced from previous applications, the noise level immediately adjacent to the existing hydrogen plant is expected to be approximately 80 dBA based on information supplied by the electrolyser manufacturer. Based on BESS specifications, the audible noise, measured 10 meters from any side surface of the enclosure, is less than 85 dBA (SPL sound pressure) at full thermal system performance.

The noise emission associated with the BESS areas are expected to be minimal and will be indistinguishable from the existing background noise sources.

Landscaping

The proposed BESS areas are located within the existing refinery development footprint, where existing landscape buffers are appropriately provided and will be retained.

Amenity Impacts

Sun Metal Zinc Refinery is relatively isolated from public vantage points. To the south and east, views of the site are screened the undeveloped Muntalunga Range and to the north and west are areas of undeveloped land comprising salt pans, mangrove forest and the coastal dune and melaleuca wetlands of the Cleveland Bay coastline.

The SMESS project will be established within the existing refinery development footprint. The height and overall scale of the infrastructure associated with the proposed SMESS project will be considerably lower than the existing refinery infrastructure. As such there will be no visual impact as a result of the project.

Waste Management

A comprehensive waste management system is in place at the Sun Metals refinery site and will be extended to include the SMESS project. The existing waste management system ensures all wastes are classified and managed in accordance with their classification and where possible wastes are reused or recycled. All wastes requiring off-site disposal are handled by licensed waste management contractors.

Construction Waste

The majority of the SMESS project equipment will be imported from overseas and is expected to have associated packaging (wood, plastic, cardboard). An additional Roll-On-Roll-Off (RORO) 15 m^3 general waste skip will be located at the project site to manage construction wastes.

If required, an additional front lift bin will be provided for the project for putrescible (organic/ food) waste generated by the construction workforce.

Operational Waste

Waste generated by the ongoing operation of the SMESS facility is expected to be minimal. Some wastes generated during routine maintenance activities may occur. These small quantities of wastes will be accommodated by the existing site waste management facilities and processes.

Wastewater

To the extent required, the project will utilise existing infrastructure and services established at the Sun Metals refinery site including the internal road and drainage network, water supply, renewable electricity supply and electrical distribution network, waste management services, on-site wastewater treatment. Each BESS container has a closed-loop internal liquid cooling system

which does not require a continuous water supply and no wastewater will be generated during normal operation, only during maintenance possibly.

Fire

Ark Energy through the detailed design phase of the project will ensure that the proposed development complies with all applicable safety, quality and engineering legislation and standards. This will be achieved by specifying the relevant legislative requirements and industry standards in the technical procurement specification, ensuring all complying proposals from suppliers are scoped and designed in accordance with the requirements.

Ark Energy will work closely with the equipment suppliers during the detailed design phase and employ formal risk analysis processes to ensure all plant and equipment is equipped with robust safety and process control features.

The proposed BESS facility will be serviced by a dedicated fire water supply line. The battery container units will have in built fire alarm systems and will automatic shutdown in the event of a fire. The proposed BESS facility is located with the boundaries of the existing refinery development footprint and will be monitored, once operational 24/7.

In terms of potential bushfire hazard, the proposed BESS project footprint is identified as being within a medium bushfire hazard area and the bushfire buffer area. The two BESS sites are located in areas devoid of any dense vegetation or other fuel sources. It is further noted that Sun Metals has in place an annual hazard reduction burn program for the Sun Metals land holdings and mature site emergency response protocols.

The potential for bushfire impacting the proposed BESS sites will be mitigated by the project's development footprint location (within a developed area of the refinery) and existing fire management controls in place at the refinery site (fire management plan and annual fuel load reduction program, emergency response plans, procedures, personnel and equipment).

4.4 Development Plans

The proposed development is detailed in the plans provided at **Appendix 5** and listed below. In addition, the proposed development is further detailed in the associated reports listed below and appended as referenced.

Title	Number	Issue	Date
SMESS Concept Layout of the BESS	-	3	9.12.2025
SMESS Concept Layout the BESS (Site Location)	-	3	9.12.2025

4.5 Prelodgement Meeting

The proposed development was the subject of a prelodgement meeting between the Office of the Coordinator General (CG), Townsville City Council (Council), the Applicant and the Applicant's representatives on 17 May 2023. The CG and Council were noted as being generally supportive of the proposed development given its synergies to the existing solar fam. It was noted that the proposed development would add to the existing renewable energy capabilities for the refinery and would be small scale in the context of the refinery.

After the abovementioned prelodgement meeting, further discussions occurred with the CG to discuss the inclusion of a future BESS area within the proposed development, the type of development application Change Application (Minor) or new Material Change of Use Development to lodge and relevant planning instrument to assess the proposed development against. The CG confirmed, seeking a change to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility, would be acceptable/ logical given, the synergies to the existing Solar Farm and it aligns with the Renewable Energy Facility use definition. Changing SDA Approval AP2016/011 will result in the Change Application being assessed against the *Superseded TSDA Development Scheme 2013*.

Further to the above, the CG flagged the provisions of the *Refinery Act 1996*. Schedule 3 of this Act lists the ancillary uses that can be established over Lot 42 on CP905700 (formerly Lot 132 on EP1524), which includes 'power generation predominantly for zinc smelting and refining operations. Applications within the *TSDA Development Area* over Lot 42 on CP905700 that are consistent with Schedule 3 Part 1 of the *Refinery Act*, will be approved by the CG without conditions.

4.6 Change to SDA Approval AP2016/011

As outlined in Section 17 (*Townsville Zinc Refinery Act 1996*) of the *Superseded TSDA Development Scheme*, the *Townsville Zinc Refinery Act 1996* (Refinery Act) identifies purposes for the Townsville Zinc Refinery Land. Applications under the *Superseded TSDA Development Scheme* over Lot 42 on CP905700 that are consistent with Schedule 3 Part 1 of the Refinery Act will be approved by the CG without conditions. The Advice section of SDA Approval 2016/011 will need to be amended to reference to the any approved plans and supporting documentation associated with the proposed development.

5.0 RELEVANT LEGISLATION

5.1 Commonwealth Legislation

The application is not subject to assessment against Commonwealth legislation. It is not anticipated that development of this land will trigger assessment against the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC), as it is not anticipated that the development will significantly impact upon a matter of national environmental significance.

5.2 State Development and Public Works Organisation Act 1971

The *State Development and Public Works Organisation Act 1971* (SDPWOA) regulates development within State Development Areas (SDA). Under s 79 of the SDPWOA, all SDAs require a development scheme which overrides local government and State government planning instruments.

Part 3 of the *State Development and Public Works Organisation (State Development Areas) Regulation 2009* declares the Superseded TSDA Development Scheme as being the relevant instrument for the assessment of development within the TSDA.

In accordance with Schedule 2 of the SDPWOA a minor change application means a change application for a minor change to a development approval, as defined in the *Planning Act 2016 (the Act)*.

5.3 Development Scheme and Assessment Manager

In accordance with the provisions of the superseded TSDA Development Scheme, the proposed development requires approval for a Change to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility. Therefore, the application requires assessment by the CG.

5.4 Potential State Interests and Referral Entities

Pursuant to Section 14.2(d) of the Superseded TSDA Development Scheme, the Applicant must identify in the Change Application, if the proposed change is likely to require referral to a referral entity.

Notwithstanding, this change application the current State referral mapping nominates the following mapping layers as relevant to the subject site:

- Coastal management district (CMD);
- Coastal area - erosion prone area (EPA);
- Coastal area – high storm tide inundation area;

- Fish habitat management area A;
- Major (Tidal);
- Regulated vegetation management map (Category A and B extract) (Vegetation Clearing);
- Wetland protection trigger area;
- Area within 25 m of a railway corridor; and
- Townsville priority port precinct.

Despite the current State referral mapping, it is acknowledged that pursuant to Section 2.2 (2) the CG (at their discretion) referred the original Development Application for Material Change of Use – Renewable Energy Facility was referred to Council, Department of Transport and Main Roads and Powerlink.

For the purposes of this change application (minor), we have included **Table 5.4**, which includes the applicable referral triggers (which appear to align with Referral Triggers that applied in 2016) and demonstrates the referral triggers do not apply to the SMESS project.

Table 5.4 State interests Referral Triggers (the *Planning Regulation 2017*)

State Interest	Assessable Development	Referral Trigger	SDC	Referral Triggered
Schedule 10, Part 3, Division 4, Table 2 - Clearing Vegetation	Material Change of Use MCU/ Operational Work (OPW)	Development application for a material change of use that is assessable development under a local categorising instrument and relates to a lot that is 5ha or larger, if— (a) the application— (i) is for a preliminary approval that includes a variation request; and (ii) relates to a lot that contains native vegetation shown on the regulated vegetation management map as a category A area or category B area; and (iii) is for a material change of use, other than a non-referable material change of use; or (b)the application is not stated in paragraph (a) and all of the following apply-	16	No – the proposed development is for an urban purpose in an urban area and the BESS areas are non-remnant Category X The proposed change does trigger referral for Clearing Vegetation

		(i) the material change of use does not involve prescribed clearing; (ii) accepted operational work may be carried out because of the material change of use, or the material change of use involves operational work that is assessable development under section 5; (iii) the accepted operational work or assessable operational work includes development other than the clearing of regulated regrowth vegetation on freehold land, indigenous land, or land the subject of a lease given under the Land Act for agriculture or grazing purposes		
Schedule 10, Part 6, Division 2, Subdivision 3, Table 1 – Assessable Development Under s 10 (Fish Habitat)	Operational Work	Development application for operational work that is assessable development under section 10, unless the chief executive is the prescribed assessment manager for the application	12	No – the proposed change is associated with SDA Approval AP2016/011 and not Operational Work The BESS areas are not mapped as FHAA The proposed change does not trigger referral for Declared Fish Habitat
Schedule 10, Part 6, Division 3, Subdivision 1, Table 1 – Assessable development under s 11 (Marine Plants	Operational Work	Development application for operational work that is assessable development under section 11, unless the chief executive is the prescribed assessment manager for the application	9	No – the proposed change is associated with SDA Approval AP2016/011 and not Operational Work The BESS areas are a significant distance from existing marine plants The proposed change does not trigger referral for removal, destruction or damage of Marine Plants

Schedule 10, Part 6, Division 4, Subdivision 3, Table 1 - QWWBW	Operational Work	Development application for operational work that is assessable development under section 12 (constructing or raising waterway barrier works), unless the chief executive is the prescribed assessment manager for the application	18	No – the proposed change is associated with SDA Approval AP2016/011 and not Operational Work The BESS areas are a significant distance from existing mapped waterways across the subject site The proposed change does not trigger referral for constructing or raising waterway barrier works
Schedule 10, Part 9, Division 2, Table 2 – Material change of use of premises near a substation or subject to an easement	Material Change of Use	Development application for a material change of use that is assessable development under a local categorising instrument and does not relate to reconfiguring a lot, if— (a) all or part of the premises are within 100m of a substation site; or (b) both of the following apply— (i) all or part of the premises are subject to an easement for the benefit of a distribution entity, or transmission entity, under the Electricity Act; (ii) the easement is for a transmission grid or supply network	-	No – whilst the parent lot contains an Easement in favour of Powerlink, it is not considered that the nature of the proposed change would cause Powerlink to significantly alter the referral agency response associated with the AP2016/011 The proposed change does not trigger referral to Powerlink
Schedule 10, Part 9, Division 4, Subdivision 1, Table 1 – Aspect of development stated in Schedule 20	Material Change of Use	Development application for an aspect of development stated in schedule 20 that is assessable development under a local categorising instrument or section 21, if— (a) the development is for a purpose stated in schedule 20, column 1 for the aspect; and	6	No - the proposed change to SDA Approval 2016/011 will have no impact on the State controlled road network It is acknowledged that the original development application was referred

		(b) the development meets or exceeds the threshold— (i) for development in local government area 1—stated in schedule 20, column 2 for the purpose; or (ii) for development in local government area 2—stated in schedule 20, column 3 for the purpose; and (c) for development in local government area 1—the development is not for an accommodation activity or an office at premises wholly or partly in the excluded area However, if the development is for a combination of purposes stated in the same item of schedule 20, the threshold is for the combination of purposes and not for each individual purpose.		to DTMR due to the likely volume and impacts associated with construction traffic. it is not considered that the nature of the proposed change would cause DTMR to significantly alter the referral agency response/ comments associated with the AP2016/011 The solar farm development aligned with Schedule 3, Part 1 of the *Refinery Act* meaning it was approved by the CG without any conditions
Schedule 10, Part 9, Division 4, Subdivision 2 Table 4 – Material change of use of premises near a State transport corridor or that is a future State transport corridor	Material Change of Use	Development application for a material change of use, other than an excluded material change of use, that is assessable development under a local categorising instrument, if all or part of the premises— (a) are within 25m of a State transport corridor; or (b) are a future State transport corridor; or (c) are— (i) adjacent to a road that intersects with a State-controlled road; and (ii) within 100m of the intersection	6	No – whilst the parent lot is within 25 m of a State transport corridor (rail corridor) it is not considered that the nature of the proposed change would cause DTMR to significantly alter the referral agency response associated with the AP2016/011 The solar farm development aligned with Schedule 3, Part 1 of the *Refinery Act* meaning it was approved by the CG without any conditions
Schedule 10, Part 17, Division 3, Table 6 – Work in a	Material Change of Use/ OPW	Development application for a material change of use that is assessable development under a local categorising instrument, if	8	No - the proposed change is associated with SDA Approval AP2016/011 and not Operational Work. Earthworks will

Coastal Management District		carrying out the change of use will involve— (a) operational work that— (i) is carried out completely or partly in an erosion prone area in a coastal management district; and (ii) is extracting, excavating or filling 1,000m^3 or more, or clearing native vegetation from an area of 1,000m^2 or more; or (b) building work, carried out completely or partly in an erosion prone area in a coastal management district, if the building work involves increasing the gross floor area on the premises by 1,000m^2 or more		not exceed 1,000 m^3 and clearing native vegetation will not exceed 1,000 m^3 The proposed change does not trigger referral for work in a Coastal Management District
Schedule 10, Part 20, Division 4, Table 3 – Material Change of Use of Premises in a Wetland Protection Area	Material Change of Use	Development application for a material change of use that is assessable development under a local categorising instrument, other than a material change of use relating to a domestic housing activity, government supported transport infrastructure or electricity operating works, If— (a) all or part of the premises are in a wetland protection area; and (b) the material change of use involves operational work that is high impact earthworks in a wetland protection area	9	No - the proposed change is associated with SDA Approval AP2016/011 and does not include high impact earthworks The BESS areas are a significant distance from existing mapped waterways across the subject site The proposed change does not trigger referral for work in a Wetland Protection Area
BESS	Material Change of Use	A material change of use of premises for a battery storage facility is assessable development, unless the material change of use is accepted development under schedule 7, section 16.	27	No – as the Chief Executive would be the Assessment Manager if the change application were lodged under the *Planning Act 2016* or *Economic Development Act*

				The proposed change does not trigger referral for a BESS

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The original Development Application for Material Change of Use - Renewable Energy Facility required referral the Department of Transport and Main Roads due to the traffic associated with the construction phase as opposed to the operational phase of the Solar Farm. The proposed development is of a significantly smaller scale project to the Solar Farm, from a construction and operational perspective, and will have minimal or no impact of the State controlled road network. Based on **Table 5.4** above, the proposed change does trigger referral under Schedule 10 of the Planning Regulation.

5.5 State Planning Policies

The State Planning IMS maps the following State interests on the subject site (refer **Appendix 7**):

- Biodiversity – MSES – Regulated vegetation (intersecting a watercourse);
- Biodiversity – MSES – High ecological value waters (watercourse);
- Biodiversity – MSES – wildlife habitat (special least concern animal);
- Biodiversity – MSES – strategic environmental areas (designated precinct);
- Biodiversity – MSES – High ecological value waters (wetland);
- Biodiversity – MSES – Declared fish habitat;
- Biodiversity – MSES – Regulated vegetation (essential habitat);
- Water Quality – High ecological value water areas;
- Coastal Environment – Coastal management district;
- Strategic Ports – Priority ports;
- Natural hazards risk and resilience – Flood hazard area – Level 1;
- Natural hazards risk and resilience – Flood hazard area – local government flood mapping;
- Natural hazards risk and resilience – Erosion prone area;
- Natural hazards risk and resilience – High storm tide inundation area;
- Development and Construction – State Development Area;
- Strategic airports and aviation facilities – Height restriction zone 90m; and
- Priority Ports – Townsville priority port precincts.

The majority of the abovementioned State interests are not relevant to the proposed SMESS project area. Further aspects of the SPP are already addressed in the relevant assessment criteria for the TSDA Development Scheme, and appropriately integrated into the *Townsville City Plan 2014*, with all of the relevant matters from these instruments being assessed in this Development Application to change SDA Approval 2016/011.

5.6 Townsville Zinc Refinery Act 1996

The purpose of the *Townsville Zinc Refinery Act 1996 (Refinery Act)* was to ensure that particular land in Townsville is appropriately zoned under the planning instrument applying to the land to enable a zinc refinery to be established on it, which for the purposes of this change application is Lot 42 on CP905700 (formerly Lot 132 on EP1524).

Schedule 3 of the *Refinery Act* lists the ancillary uses that can be established over Lot 42 on CP905700 (formerly Lot 132 on EP1524), which includes 'power generation predominantly for zinc smelting and refining operations. The proposed SMESS project is considered to be a suitable ancillary use and aligns with the definition for Renewable Energy Facility under the superseded TSDA Development Scheme. Applications that are consistent with Schedule 3 Part 1 of the Refinery Act, will be approved by the CG without conditions.

5.7 North Queensland Regional Plan

The *North Queensland Regional Plan* (Regional Plan) was implemented in March 2020, with the intent of capitalising on the growth, prosperity and diversity of the region by supporting a vibrant economy, generating jobs, improving business investment, protecting our natural environment, and encouraging tourism and lifestyle opportunities over the next 25 years. The vision of the Regional Plan will be realised through a series of goals and the proposed development is considered to align with the four regional goals.

Whilst the Regional Plan was not in force at the time AP2016/011 was approved, the proposed SMESS project is consistent with the regional goals, outcomes and policies of the Regional Plan, given it will support and expand the renewable energy capabilities of the refinery. On this basis, no detailed assessment has been undertaken against the Regional Plan in this Development Application to change SDA Approval 2016/011.

5.8 Sustainable Ports Development Act 2015

The superseded TSDA Development Scheme is consistent with the masterplan for the priority Port of Townsville 2019 and the Port overlay for the priority Port of Townsville 2020 under the *Sustainable Ports Development Act 2015*. On this basis, no further assessment has been undertaken in relation to these planning instruments or legislation.

6.0 MINOR CHANGE ASSESSMENT

6.1 Minor Change Criteria

The changes requested within this correspondence are considered to accord with the legislative definitions of a 'minor change', as specified in Schedule 2 of the Act, as the change to the development approval:

(i) would not result in substantially different development; and

(ii) if a development application for the development (including the change) were made at the time this change application is made, it would not cause:

(A) the inclusion of prohibited development in the application;

(B) referral to a Referral Agency, other than the Chief Executive, if there were no Referral Agencies for the original development application;

(C) referral to extra Referral Agencies, other than the Chief Executive;

(D) a Referral Agency to assess the application, or have regard to, any other matter other than matters that were assessed or regarded for the original application; or

(E) public notification if public notification was not required for the original development application.

6.2 Superseded Scheme Minor Change Definition

The administrative definition of a Minor Change to an Approval in the superseded scheme, means a change that does not, in the Coordinator-General's opinion, substantially alter the original approval.

6.3 Assessment Against Minor Change Criteria

The proposed change clearly complies with item (ii) given the nature of the proposed change which does not introduce any new components that would be prohibited, result in additional referral assessment, or introduce the requirement for public notification.

The proposed change complies with item (i) as it does not result in substantially different development, as prescribed by Schedule 1 of the Development Assessment Rules, given:

- the nature of the proposed change is minor;
- the proposed change does not involve the introduction of a new use, it is an extension of the existing approved Renewal Energy Facility;
- the proposed change does not result in the application applying to a new parcel of land;
- the proposed change does not dramatically change the intended built form in terms of scale, bulk, and appearance in the context of the development, given it involves the

introduction of new infrastructure to support and expand the renewable energy capabilities of the refinery;

- the proposed change includes two BESS, which are of a much smaller scale than existing buildings, plant and infrastructure at the refinery;
- the proposed change continues to be consistent with the superseded TSDA Vision and superseded TSDA Overall Outcomes, in that:
  - the proposed change seeks to establish supporting infrastructure for the existing Solar Farm and the refinery;
  - the proposed change facilitate the Applicant's mandate to facilitate the decarbonisation of the refinery;
  - the additional supporting infrastructure will further support and expand renewable energy options for the refinery;
  - the proposed change will not adversely impact upon the integrity and functionality of the TSDA or the Port of Townsville Limited;
  - the proposed change does not propose a land use and activity that will be incompatible with, or adversely affect, the continued use of the TSDA or the Port of Townsville Limited;
  - it is small in scale with the operations having no external impacts;
  - the proposed change will have minimal to nil impact on the capacity and efficient of the external road network given the limited number of vehicles associated with the SMESS project;
  - the proposed BESS areas will be located above the 1 % AEP flood level;
  - the SMESS project area is not located within proximity to any sensitive receptors;
  - the proposed BESS and Future BESS Expansion Area will be operated in accordance with current best practices, and all future operations regulated by Federal, State and local legislation; and
  - the SMESS project area is located a significant distance from areas over the parent lot that are identified as having high environmental values (SARA and SPP mapping), thus avoiding adverse impacts on mapped values.
- the change does not remove a component of the development that is integral to its operation;
- the proposed change poses limited impact associated with noise, light, odour, dust and waste emissions;
- the proposed change does not result in significant impacts to traffic flow and the transport network;
- the proposed change does not introduce new impacts or increase the severity of known impacts;
- the proposed change does not remove an incentive or offset component that would have balanced a negative impact of the development;
- the proposed change does not impact on the provision of infrastructure; and

- the proposed change poses no unknown risk to the CG.

In addition, the development inclusive of the proposed change remains consistent with the relevant assessment benchmarks as originally approved.

6.4 Affected Entities

Pursuant to Section 14.2(d) of the Superseded TSDA Development Scheme, the Applicant must identify in the Change Application, whether the proposed change is likely to require referral to a referral entity. As outlined in **Table 5.4**, the proposed change does trigger referral for any State interests.

The proposed change complies with the relevant assessment benchmarks that would ordinarily be considered by the Council and DTMR. An assessment against the appliable benchmarks was included in AP2016/011, to assist the CG's assessment, the said assessment can also be applied to this change application. It is considered unlikely that the assessment of this change application by either Council or DTMR will significantly alter the referral agency response associated with the AP2016/011.

The original Development Application for Renewable Energy Facility (Solar Farm) required referral to Powerlink due to an existing easement over the parent lot. It is considered unlikely that the assessment of this change application by Powerlink will significantly alter the referral agency response associated with the AP2016/011, given the nature and scale of the change proposed.

The purpose of the *Townsville Zinc Refinery Act 1996 (Refinery Act)* was to ensure that particular land in Townsville is appropriately zoned under the planning instrument applying to the land to enable a zinc refinery to be established on it, which for the purposes of this change application is Lot 42 on CP905700 (formerly Lot 132 on EP1524).

Schedule 3 of the *Refinery Act* lists the ancillary uses that can be established over Lot 42 on CP905700 (formerly Lot 132 on EP1524), which includes 'power generation predominantly for zinc smelting and refining operations. The proposed SMESS project is considered to be a suitable ancillary use and aligns with the definition for Renewable Energy Facility under the superseded TSDA Development Scheme. Applications under the *Superseded TSDA Development Scheme* over Lot 42 on CP905700 that are consistent with Schedule 3 Part 1 of the Refinery Act, will be approved by the CG without conditions.

7.0 SUPERSEDED TSDA DEVELOPMENT SCHEME ASSESSMENT

7.1 Introduction

This section of the report provides an assessment against the relevant provisions of the *Superseded TSDA Development Scheme 2013*. The subject land is designated within the High Impact Industry Precinct and Environmental Precinct of the of the Superseded TSDA Development Scheme.

An assessment against the applicable sections of the Superseded TSDA Development Scheme was completed and included in the original application associated with TSDA Approval AP2016/011 and it is considered that the previous assessment remains current and relevant to this change application (minor). The proposed Change to SDA Approval 2016/011, aligns and complies with the Vision and Overall Objectives of the Superseded TSDA Development Scheme. An updated response table to the superseded TSDA Wide Assessment Criteria of the superseded scheme has been prepared in support of this Change Application, refer to **Appendix 7**.

8.0 TOWNSVILLE STATE DEVELOPMENT AREA SCHEME

8.1 Introduction

This section of the report provides an assessment against the relevant provisions of the *TSDA Development Scheme 2019*. The subject land is designated within the Medium Impact Industry Precinct of the TSDA.

An assessment against the following sections of the scheme has been provided:

- Strategic Vision and Overall Objectives of the *TSDA Development Scheme*;
- Preferred Development Intent for the Medium Impact Industry Precinct; and
- SDA Wide Assessment Criteria.

The SMESS project footprint is entirely contained within the High Impact Industry Precinct (precinct) of the *TSDA Development Scheme and has synergies to other renewable energy infrastructure that the existing refinery is connect to*. As such, it is considered that the proposed development aligns with the precinct's preferred development intent nominated in the *TSDA Development Scheme*. Assessment against the Strategic Vision, Overall Objectives and preferred Development Intent of the High Impact Industry Precinct has been undertaken.

8.2 TSDA Vision and Overall Objectives

Section 2.2 and 2.3 of the *TSDA Development Scheme* establishes the Strategic Vision and Overall Objectives for development in the TSDA.

The vision for the TSDA is to:

(a) be the preferred location in North Queensland for the establishment of industrial development of regional. State and national significance, including supporting infrastructure, which is reliant on direct access to one or more of the Port of Townsville, national freight rail and major road networks;

(b) ensure development of the Townsville SDA occurs in a logical sequence and is equally focused on the short- and long-term economic benefits to the region and the State;

(c) facilitate the continued operation and future expansion of existing industrial operations and regionally significant extractive industries;

(d) facilitate a coordinated approach to the delivery of infrastructure and maximise the efficient use of existing and future port, road, rail and ancillary infrastructure;

(e) recognise and protect environmental, cultural heritage and community values; and

(f) contribute to maintaining the outstanding universal value of the Great Barrier Reef World Heritage Area.

The strategic vision is supported by the overall objectives for development and preferred development intents of development precincts within the TSDA. The overall objectives for development within the TSDA include:

(a) capitalises on the Townsville SDA's strategic location, supports the role and function of the Port of Townsville and stimulates economic growth;
(b) ensures lots are appropriately sized to accommodate preferred development;
(c) ensures the integrity and functionality of the Townsville SDA is maintained and protected from incompatible development;
(d) avoids or minimises adverse impacts on sensitive land uses;
(e) ensure design, construction and operation is consistent with current best practice;
(f) avoids adverse impacts on environmental, cultural heritage and community values, or minimises, mitigates or offsets impacts where they cannot be avoided;
(g) uses water and energy efficiently and minimises potential impacts on water quality and climate change;
(h) manages impacts of air quality on the capacity of the Townsville airshed;
(i) uses land and infrastructure efficiently and does not compromise or adversely impact on infrastructure, infrastructure corridors and future development opportunities;
(j) is adequately serviced by infrastructure, generally in accordance with established infrastructure planning;
(k) manages the risks associated with natural hazards, to protect people and property;
(l) achieves appropriate levels of flood immunity consistent with current best practice; and
(m) ensures no net worsening of flood levels on land for existing and potential urban uses and on environmental values.

The proposed development is aligned with the strategic vision and intent for the TSDA and will be located within the development footprint of the existing refinery and supported by existing infrastructure. The proposed development will expand the renewable energy sources available to the existing refinery. The increase in renewable energy sources and drive to achieve net zero carbon, makes the proposed BESS critical renewable energy infrastructure for the refinery's day to day operations. The proposed BESS positively contributes towards the pathway in transitioning to green energy and accelerating net zero emissions. The existing on site substation will be extended to service the proposed SMESS project.

The proposed development supports the increased production and storage renewable energy for the refinery, one of the largest industrial uses within the TSDA. The proposed development facilitates the continuation and growth of the Zinc Refinery through access to a reliable, renewable energy source. The SMESS project will support the existing High Impact Industry use of the Zinc Refinery and support the continuation and economic growth of the existing operation.

The proposed BESS will be designed to enable the flexible storage and delivery of renewal energy sources from the Solar Farm to the refinery, to meet on site demands, As a consequence the

proposed BESS will be integrated into the existing solar farm infrastructure, enabling it to store renewable energy in the rechargeable batteries for future use in the refinery's day to day operations, and reduce reticulated energy costs.

8.3 High Impact Industry Precinct

As detailed within Section 2.4.2 of the TSDA Development Scheme, the preferred development intent for the High Impact Industry Precinct is as follows:

(a) this precinct is to accommodate high impact industrial development that:
- *(i) requires significant buffers from sensitive land uses*
- *(ii) requires access to key transport and supply chain networks.*

(b) Infrastructure within the precinct is coordinated to optimise transport, infrastructure and land use.

(c) Defined uses that support the preferred development intent are:
- *(i) high impact industry;*
- *(ii) medium impact industry*
- *(iii) utility installation.*

Defined uses that support the preferred development intent are:
- *(i) food and drink outlet, where required to service the immediate employment catchment;*
- *(ii) infrastructure facility;*
- *(iii) office, where ancillary to an industrial use;*
- *(iv) renewable energy facility;*
- *(v) service station;*
- *(vi) special industry, where impacts on sensitive land uses can be mitigated;*
- *(vii) substation; and*
- *(viii) telecommunications facility.*

The proposed development is considered to complement the preferred land use intent of the High Impact Industry Precinct. Particularly, the proposed development:

- involves expanding the renewable energy infrastructure within the existing development footprint of the existing refinery;
- the proposed development will support the day to day operations of the existing refinery, which is one of the largest end users in the TSDA;
- the proposed development has synergies with the existing solar farm and refinery and is supported by the existing established infrastructure associated with the refinery;
- the BESS areas are strategically located in close proximity to existing substation and solar farm;
- the day-to-day operations are industrial in nature, in terms of activities and are considered compatible with other uses in the TSDA;

- the proposed BESS area will be designed to enable the flexible storage and delivery of renewal energy sources from the Solar Farm to the refinery; and
- the location of the proposed BESS will ensure minimal impact on environmental values associated with the refinery site.

8.4 SDA Wide Assessment Criteria

Section 2.5 of the TSDA Development Scheme provides assessment criteria which supports the strategic vision, overall objectives and the preferred land use intent for the precincts.

A thorough response to this assessment criteria is provided in **Appendix 8**. Overall, it is considered that the proposed development is compliant with the outcomes sought by the SDA Wide Assessment Criteria.

9.0 STATE DEVELOPMENT ASSESSMENT PROVISIONS (SDAP)

9.1 Introduction

The SDAP provides the assessment framework to address each of the jurisdictions identified within Schedule 10 of the *Planning Regulation 2017*. The SDAP comprises State Codes that correlate to each of the assessment jurisdictions detailed within the regulation.

The assessment criteria for the *Superseded TSDA Development Scheme* indicates that the changed development is to demonstrate consistency with relevant legislation. **Table 5.4** in Section 5 of this report lists the applicable referral triggers associated with the relevant State Interests mapped over the parent lot and the relevance of these triggers in the assessment of the proposed change to ASDA Approval AP2016/011. **Table 5.4** demonstrates that the proposed change does not require referral to any referral entity or assessment against the relevant SDAP's and it is considered unlikely that the assessment of this change application will significantly alter the referral agency responses associated with the AP2016/011.

10.0 LOCAL PLANNING INSTRUMENT

10.1 Introduction

The changed development requires assessment against the applicable benchmarks of the *Townsville City Plan 2014* (planning scheme), given Council is anticipated to be a Referral Agency for the application and will provide for a more streamlined assessment for Council.

In addition, addressing the relevant assessment benchmarks of the planning scheme can be taken as an assessment against the SPP, given Council have been appropriately integrated the SPP into the planning scheme. Assessment against the applicable sections of the planning scheme was completed and included in the original application associated with SDA Approval AP2016/011 and it is considered that the previous assessment remains current and relevant to this change application (minor). An updated response to the Special Purpose Zone Code has been prepared in support of this change application (minor), refer **Appendix 9**.

11.0 CONCLUSION

11.1 Assessment Summary

The assessment of the proposed change to the approved development against the criteria relevant to the change application (minor) supports a recommendation for approval based on the following reasons:

- the proposed change is consistent with the criteria defining a minor change;
- the proposed change does not result in substantially different development;
- the development inclusive of the proposed change remains consistent with the relevant assessment benchmarks as originally approved; and
- compliance with Schedule 3 Part 1 of the *Townsville Zinc Refinery Act 1996*.

11.2 Recommendation

Given the above facts and circumstances presented in this change application (minor), we recommend that the CG **approve** the proposed change subject to referencing the approved plan and supporting documents in the Advice section of the amended SDA Change Approval.

MILFORD PLANNING

Appendix 1

MP ref: M2153
QA: sj

9 April 2025

Office of the Coordinator-General
Department of State Development
PO Box 15517
CITY EAST QLD 4002

Attention: Gerard Coggan –Coordinator-General

Dear Sir/ Madam,

Re: Land Owner Consent

Under the provisions of the *State Development and Public Works Organisation Act 1971* and *Townsville State Development Area Development Scheme*, we **SUN METALS CORPORATION PTY LTD**, being the registered owner of land described as **Lot 42 on CP905700 (part of)** and located at **1 Zinc Avenue**, **Stuart**, do hereby consent to the land being included in a Change Application by Ark Energy Corporation Pty Ltd seeking a Change to SDA Approval AP2016/011 for Material Change of Use – Renewable Energy Facility to include a Battery Energy Storage System component.

Date	2025년4월10일	09 April 2025
Signature		
Name	KD Park	Sung Chae Lee
Position	Director	CEO

Note

Where registered owner is a company the ACN must be included and accompanied by:
(a) the signature of either:
- two directors of the company;
- a director and a company secretary of the company; or
- if a proprietary company that has a sole director who is also the sole company secretary, that director; **or**

(b) the company seal (if the company has a common seal) witnessed by:
- two directors of the company;
- a director and a company secretary of the company; or
- for a propriety company that has a sole director who is also the sole company secretary, that director.

MILFORD PLANNING

Appendix 2

Queensland Government

Our ref: DGBN17/130

Office of the
Coordinator-General

29 MAR 2017

Ms Colette Hayes
Planner
AECOM Australia Pty Ltd
PO Box 5423
TOWNSVILLE QLD 4810

Email: Colette.Hayes@aecom.com

Dear Ms Hayes

AP2016/011 – SDA application for a material change of use for a renewable energy facility in the Townsville State Development Area

I refer to your SDA application for a material change of use for a renewable energy facility in the Townsville State Development Area made with the Coordinator-General and deemed properly made on 7 February 2017.

In accordance with section 84E of the *State Development and Public Works Organisation Act 1971*, I have decided to approve all of your SDA application.

Please find enclosed the SDA approval for your reference.

If you require any further information, please contact Felicity McCann, Senior Project Officer, State Development Areas, Office of the Coordinator-General, Department of State Development, on 3452 7563 or felicity.mccann@coordinatorgeneral.qld.gov.au, who will be pleased to assist.

Yours sincerely

Barry Broe

Barry Broe
Coordinator-General

Enc

1 William Street
PO Box 15517 City East
Queensland 4002 Australia
Telephone +61 7 3452 7100
www.statedevelopment.qld.gov.au
ABN 29 230 178 530

Decision notice

Application details:

Application type	SDA application for material change of use for a renewable energy facility
Reference #	AP2016/011
Proponent	Sun Metals Corporation Pty Ltd.
Land subject of the SDA application	Lot 42 on CP905700
State development area	Townsville State Development Area
Decision date	29 March 2017

Decision details:

In accordance with section 84E of the *State Development and Public Works Organisation Act 1971*, the Coordinator-General has decided to **approve** all of the above SDA application for a material change of use for a renewable energy facility.

Please find enclosed an advice statement for this approval.

Barry Broe

Barry Broe
Coordinator-General

Advice

General

Plan of development

The development should be carried out generally in accordance with the following approved plans contained in Enclosure 1:

- Plan titled 'Sun Metals Constraints' (S-100 revision A), prepared by RCR-O'Donnell Griffin Pty Ltd, dated 05/01/2017

Currency period

This SDA approval is valid until the end of the currency period, four years after the date of approval, unless the approval states a different period. For the SDA approval to remain valid the proponent must have, before the end of the currency period:

- substantially started the development; or
- made an application to the Coordinator-General to extend the currency period.

Other approvals

This SDA approval relates solely to the material change of use for a renewable energy facility within the Townsville State Development Area. All other approvals and/or permits required under local, state and/or commonwealth legislation must be obtained prior to the commencement of the use.

Cultural heritage – duty of care

Where items of archaeological importance are identified during construction of the project, the proponent must comply with its duty of care under the *Aboriginal Cultural Heritage Act 2003* and the Department of Environment and Heritage Protection 2014 guideline: archaeological investigations. All work must cease and the relevant State agency must be notified. Work can resume only after State agency clearance is obtained.

Management plans and assessment reports

The proponent is requested to submit to the Coordinator-General the following plans and reports as soon as practicable:

- Ecological assessment
- Cultural Heritage Duty of Care assessment
- Construction environmental management plan
- Any other relevant plans or reports related to the development

Townsville City Council

Erosion management

To limit the risk of erosion, the proponent should establish and maintain a good ground cover for the life of the development as recommended in the planning report.

Assessment may be required to assess the potential impact on natural vegetation due to erosion beyond the extent of the development and to protect natural vegetation against potential erosion.

Department of Transport and Main Roads

Construction traffic

It is recommended the intersection be assessed both with and without development traffic during the construction phase, to ensure that no mitigation measures are required during the construction phase. This should be undertaken by a certified RPEQ engineer as part of an updated Traffic impact Assessment.

Impacts on state-controlled road

DTMR note that while there is no mention of road trains in the Traffic Impact Assessment, road trains may be necessary to transport the construction materials efficiently. Should the proposed construction transport vehicle change, individual operators will likely require a permit to operate type 1 or 2 road trains in the Bruce Highway. There might be conflicts when mixing with other traffic on the Bruce Highway.

Stormwater management

Stormwater management should ensure there is no worsening ort actionable nuisance to the state controlled road by peak discharges, flood levels, frequency/duration of flooding, flow velocities, water quality, sedimentation and scour effects.

Powerlink Queensland (Powerlink)

Powerlink infrastructure

The development is required to comply with the generic requirements in respect to proposed works in the vicinity of Powerlink Queensland infrastructure as detailed in the Enclosure 2.

No operational works are to be undertaken within Easement F on SP113159 unless prior written consent for the Operational Work has been provided by Powerlink Queensland.

Network connection

It is strongly advised the proposed works be discussed with the Powerlink Business Development team to ensure that any changes to the current connection to the transmission network required for the proposed solar farm can be accommodated.

Enclosure 1

Plan of development

Enclosure 2

Powerlink Queensland - Annexure A – Generic Requirements

ANNEXURE A – GENERAL CONDITIONS

The conditions contained in this annexure have been compiled to assist persons (the applicant) intending to undertake work within the vicinity of high-voltage electrical installations and infrastructure owned or operated by Powerlink. The conditions are supplementary to the provisions of the Electrical Safety Act 2002, Electrical Safety Regulations 2002 and the terms and conditions of registered easements and other forms of occupational agreements hereinafter collectively referred to as the "easement". Where any inconsistency exists between this annexure and the easement, the easement shall take precedence.

1. POWERLINK INFRASTRUCTURE

You may not do any act or thing which jeopardises the foundations, ground anchorages, supports, towers or poles, including (without limitation) excavate or remove any soil, sand or gravel within a distance of twenty (20) metres surrounding the base of any tower, pole, foundation, ground anchorage or support.

2. STRUCTURES

No structures should be placed within twenty (20) meters of any part of a tower or structure foundation or within 5m of the conductor shadow area. Any structures on the easement require prior written consent from Powerlink.

3. EXCLUSION ZONES

Exclusion zones for operating plant are defined in Schedule 2 of the Electrical Safety Regulation 2002 for Untrained Persons. All Powerlink infrastructure should be regarded as "electrically live" and therefore potentially dangerous at all times.

In particular your attention is drawn to Schedule 2 of the Electrical Safety Regulation 2002 which defines exclusion zones for untrained persons in charge of operating plant or equipment in the vicinity of electrical facilities. If any doubt exists in meeting the prescribed clearance distances from the conductors, the applicant is obliged under this Act to seek advice from Powerlink.

4. ACCESS AND EGRESS

Powerlink shall at all times retain the right to unobstructed access to and egress from its infrastructure. Typically, access shall be by 4WD vehicle.

5. APPROVALS (ADDITIONAL)

Powerlink's consent to the proposal does not relieve the applicant from obtaining statutory, landowner, third party or shire/local authority approvals.

6. MACHINERY

All mechanical equipment proposed for use within the easement must not infringe the exclusion zones prescribed in Schedule 2 of the Electrical Safety Regulation 2002. All operators of machinery, plant or equipment within the easement must be made aware of the presence of live high-voltage overhead wires. It is recommended that all persons entering the Easement be advised of the presence of the conductors as part of on site workplace safety inductions. The use of warning signs is also recommended.

7. EASEMENTS

All terms and conditions of the easement are to be observed. Note that the easement takes precedence over all subsequent registered easement documents. Copies of the easement together with the plan of the Easement can be purchased from the Department of Natural Resources, Mines & Water.

8. EXPENDITURE AND COST RECOVERY

Should Powerlink incur costs as a result of the applicant's proposal, all costs shall be recovered from the applicant.

Where Powerlink expects such costs to be in excess of $10 000.00, advanced payments may be requested.

9. EXPLOSIVES

Blasting within the vicinity (500 metres) of Powerlink infrastructure must comply with AS 2187. Proposed blasting within 100 metres of Powerlink infrastructure must be referred to Powerlink for a detailed assessment.

10. BURNING OFF OR THE LIGHTING OF FIRES

We strongly recommend that fires not be lit or permitted to burn within the transmission line corridor and in the vicinity of any electrical infrastructure placed on the land. Due to safety risks Powerlink's written approval should be sort.

11. GROUND LEVEL VARIATIONS

Overhead Conductors

Changes in ground level must not reduce statutory ground to conductor clearance distances as prescribed by the Electrical Safety Act 2002 and the Electrical Safety Regulations 2002.

Underground Cables

Any change to the ground level above installed underground cable is not permitted without express written agreement of Powerlink.

12. VEGETATION

Vegetation planted within an easement must not exceed 3.5 metres in height when fully matured. Powerlink reserves the right to remove vegetation to ensure the safe operation of the transmission line and, where necessary, to maintain access to infrastructure.

13. INDEMNITY

Any use of the Easement by the applicant in a way which is not permitted under the easement and which is not strictly in accordance with Powerlink's prior written approval is an unauthorised use. Powerlink is not liable for personal injury or death or for property loss or damage resulting from unauthorized use. If other parties make damage claims against Powerlink as a result of unauthorized use then Powerlink reserves the right to recover those damages from the applicant.

14. INTERFERENCE

The applicant's attention is drawn to s.230 of the Electricity Act 1994 (the "Act"), which provides that a person must not wilfully, and unlawfully interfere with an electricity entity's works. "Works" are defined in s.12 (1) of the Act. The maximum penalty for breach of s.230 of the Act is a fine equal to 40 penalty units or up to 6 months imprisonment.

15. REMEDIAL ACTION

Should remedial action be necessary by Powerlink as a result of the proposal, the applicant will be liable for all costs incurred.

16. OWNERS USE OF LAND

The owner may use the easement land for any lawful purpose consistent with the terms of the registered easement, the conditions contained herein, the Electrical Safety Act 2002 and the Electrical Safety Regulations 2002.

17. ELECTRIC AND MAGNETIC FIELDS

Transmission lines produce electric and magnetic fields (EMF) and there have been concerns raised by some research about possible health effects particularly of magnetic fields. Although these fields are commonly experienced in the everyday environment, health authorities have been unable to conclude anything definite about their ability to adversely affect health.

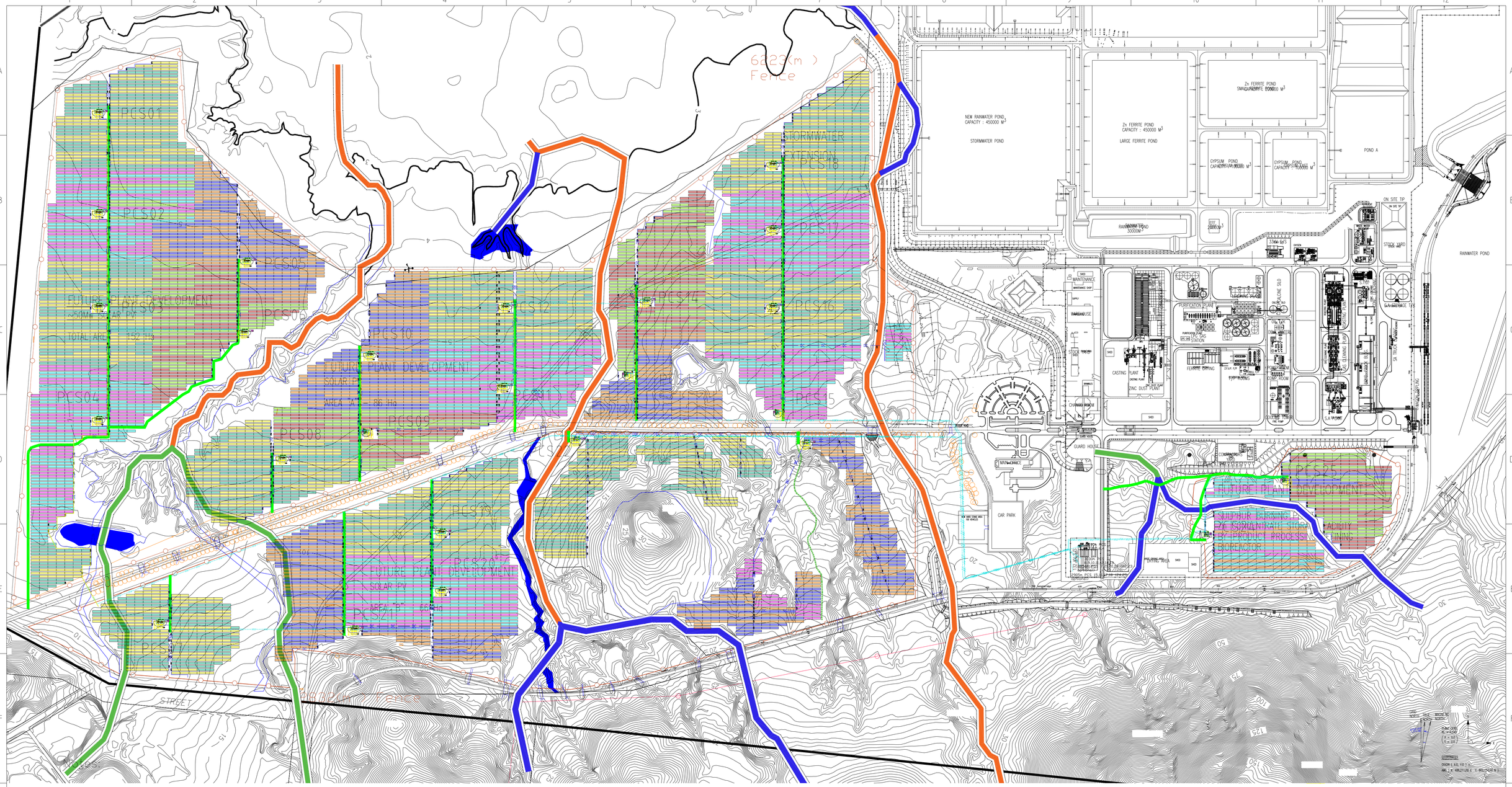
Powerlink has adopted a prudent avoidance policy in relation to EMF. This policy is based upon a detailed assessment by authoritative scientific and medical review panels and is reviewed periodically in light of results of ongoing research in this area.

No standards currently exist to limit the level of magnetic fields to which the general public may be exposed in their everyday lives because no level has been demonstrated as being unsafe. The Australian National Health and Medical Research Council (NHMRC) has published Guidelines (Interim Guidelines of Limits of Exposure to 50/60 Hz Electric and Magnetic Fields – 1989). These are based on known biological effects and publications of the International Commission on Non-Ionising Radiation Protection (under the auspices of the World Health Organisation).

The guideline limit for continuous public exposure in the NHRMC document is 1000 mG. The fields from the powerlines affecting the proposed development will be much less than one tenth of this figure.

The Australian Government Agency ARPANSA (Australian Radiation Protection and Nuclear Safety Agency) continually reviews the EMF issue and reports on the most up to date research being undertaken. We refer you to their website; http://www.arpansa.gov.au/ for the latest information.

We draw your attention to the uncertainty in the health science, the public perception of the EMF issue and the concept of prudent avoidance. Should the proposal include the positioning of sites close to the line for schools, day care centres or kindergartens we would encourage modification of the proposal to locate such facilities further from the powerlines.



LEGEND

EASEMENT
PROJECT PERRIMITER FENCE
SUBSTATION FENCE PERSONEL
TYPE SUBSTATION
INTERNAL ROAD
3(m) LANDSCAPE BUFFER
AC/DC TRENCH
DC 900D X 600W Trench
HV
HV 900D X 600W TRENCH (m).
MV EARTH
PV TABLE FRAME

BARE COPPER 50mm
EARTH TERMINATION
COMMS & SECURITY POWER
COMM —— COMM FIBER COMMS & SECURITY
COMBINER BOX TYPE 1 (24 INPUTS)
COMBINER BOX TYPE 2 (16 INPUTS)

PV TABLE FRAME

INGETEAM CON40 4.92kVA
INVERTER STATION EARTH GRID
LAYOUT

SUNMETALS CONSTRAINT(NEXTRACKER)

RCR-O'Donnell Griffin
Pty Ltd
Level 39
50 Bridge Street
Sydney NSW 2000
Tel: +61 2 8413 3000

100 0 100 200 300 400
SCALE 1:1000

DESIGNED 03.11.16
C.WILSON

DRAWN 03.11.16
I.MACAULAY

VERIFIED
J.BOCKING

APPROVED
APPROVED

LETTER	DETAILS OF AMENDMENT	APP'D	DATE
C	BALANCE TABLE LAYOUT TO INVERTERS 5/1/2017	IM	5/01
B	CORRECT LEGAND, ADD BOAR SITES 30/12/2016	IM	30/12
A	AVAILABLE SITE CONSTRAINTS 29/12/2016	IM	29/12

COPYRIGHT

N

SUPERSEDES

RECOMMENDED

ACCEPTED
SUNMETALS

SUNMETALS
CONSTRAINTS

-

A1 PROJ No. A005553 DRAWING STATUS: PRELIMINARY

DRAWING No.
S-100

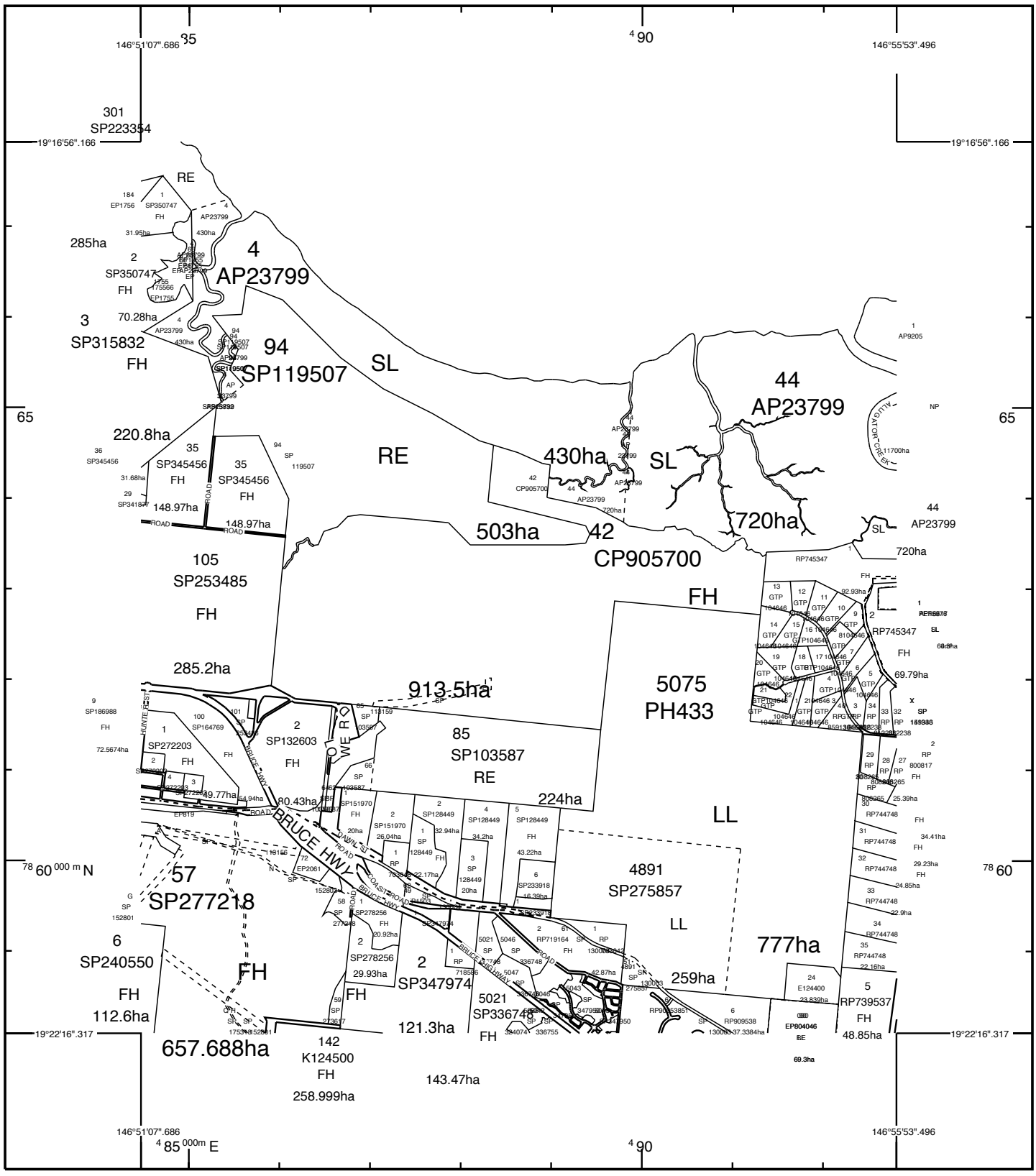
REV
A

SHEET No.
1

RCR-EXT NOV 2016
554
801

MILFORD PLANNING

Appendix 3



STANDARD MAP NUMBER
8259-21341

0 1.2 2.4 3.6 4.8 6.0 km

HORIZONTAL DATUM:GDA94 ZONE:55 SCALE 1 : 60000

MAP WINDOW POSITION & NEAREST LOCATION

146°53'30".591
19°19'36".241
STUART
3.94 KM

SUBJECT PARCEL DESCRIPTION

DCDB

Lot/Plan	42/CP905700
Area/Volume	913.5ha
Tenure	FREEHOLD
Local Government	TOWNSVILLE CITY
Locality	STUART
Segment/Parcel	51438/9

CLIENT SERVICE STANDARDS

PRINTED 19/12/2025

DCDB 18/12/2025 (Lots with an area less than 4.000ha are not shown)

GDA

SmartMap

An External Product of SmartMap Information Services

Based upon an extraction from the Digital Cadastral Data Base

Queensland Government

MILFORD PLANNING

Drawing
Site Aerial

Property
1 Zinc Road, Stuart
Lot 42 on CP905700

Drawing Number	Issue	Sheet
M2153-SK-04	A	1
Date	**Author**	**Reviewer**
4.6.25	AF	SJ

Legend

- Cadastre
- Subject Site

Scale (A3 Original)
1:10,000

0 70 140 210 280 350 m

Sources
Milford Planning GIS (2025)
DCDB extract – State of Queensland (2025)
Aerial imagery – Bing (2025)

Disclaimer
Areas and dimensions are approximate only and are subject to site survey.

MILFORD PLANNING

Appendix 4

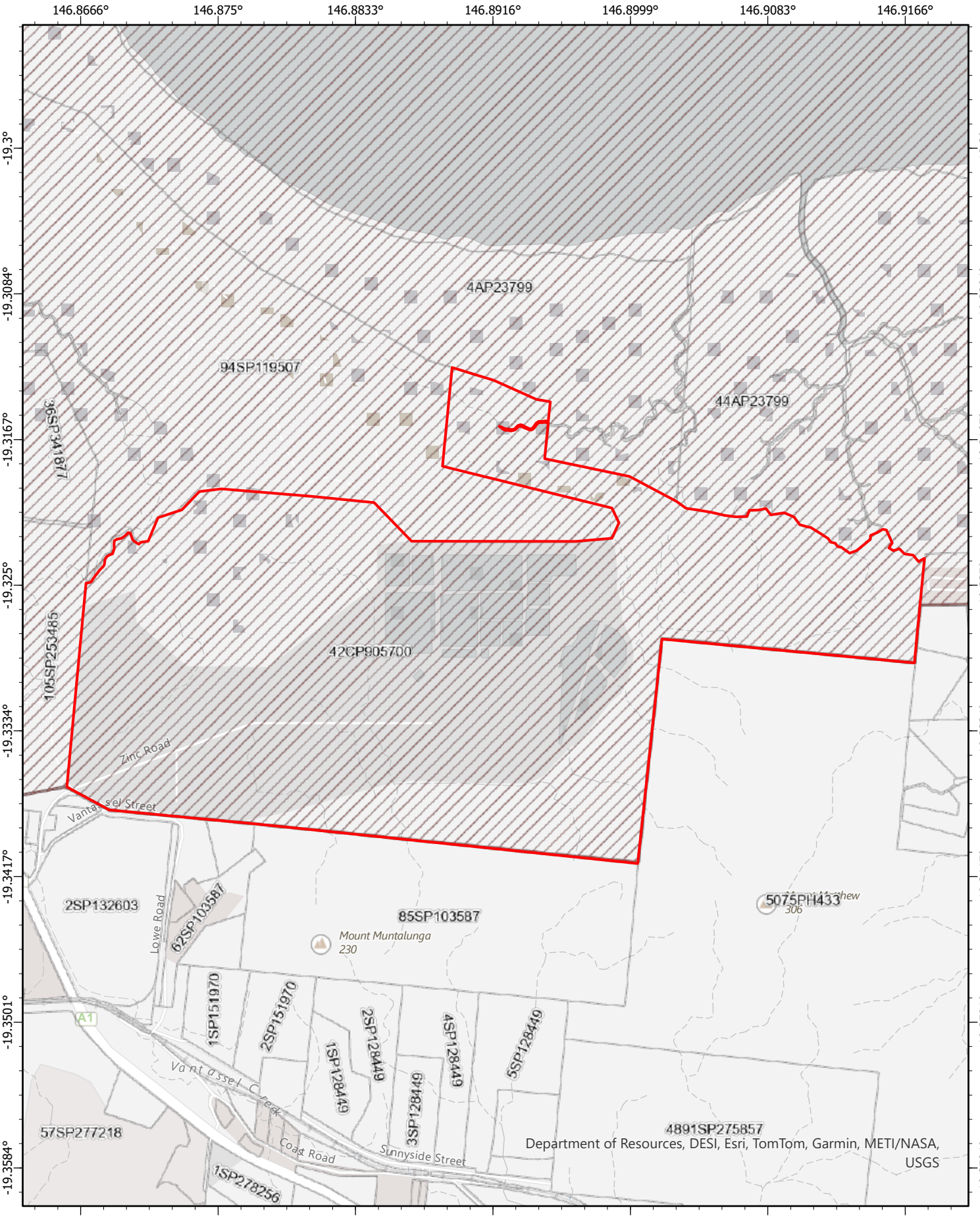
Matters of Interest for all selected Lot Plans

Coastal management district
Coastal area - erosion prone area
Coastal area - high storm tide inundation area
Fish habitat management area A
Major (tidal)
Regulated vegetation management map (Category A and B extract)
Townsville priority port precincts

Matters of Interest by Lot Plan

Lot Plan: 42CP905700 (Area: 9135000 m²)

Coastal management district
Coastal area - erosion prone area
Coastal area - high storm tide inundation area
Fish habitat management area A
Major (tidal)
Regulated vegetation management map (Category A and B extract)
Townsville priority port precincts



Coastal management district

Date: 04/06/2025

N

Scale: 1:33,600

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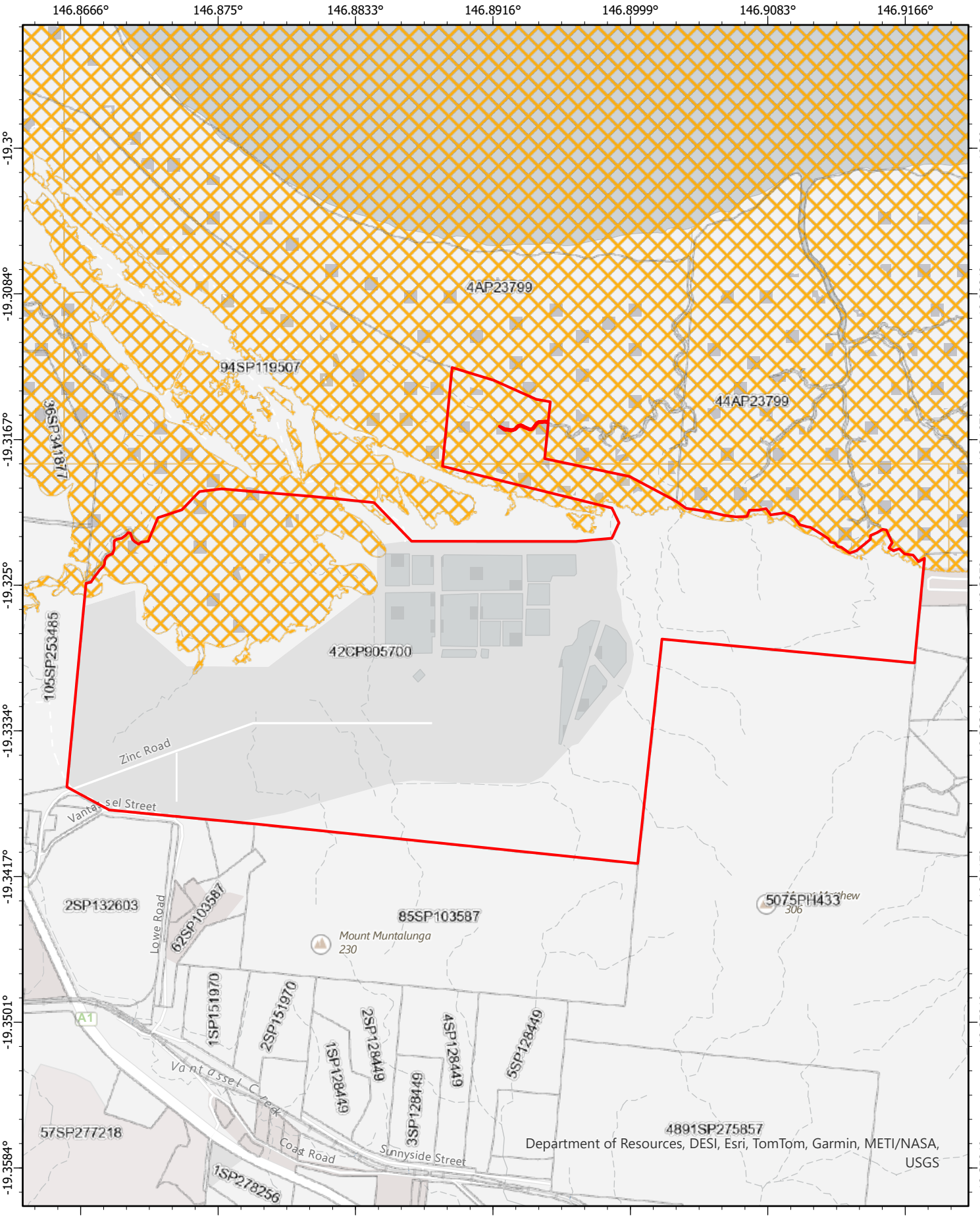
Metres

Queensland Government

Queensland Government



Coastal area - erosion prone area

Date: 04/06/2025

N

Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

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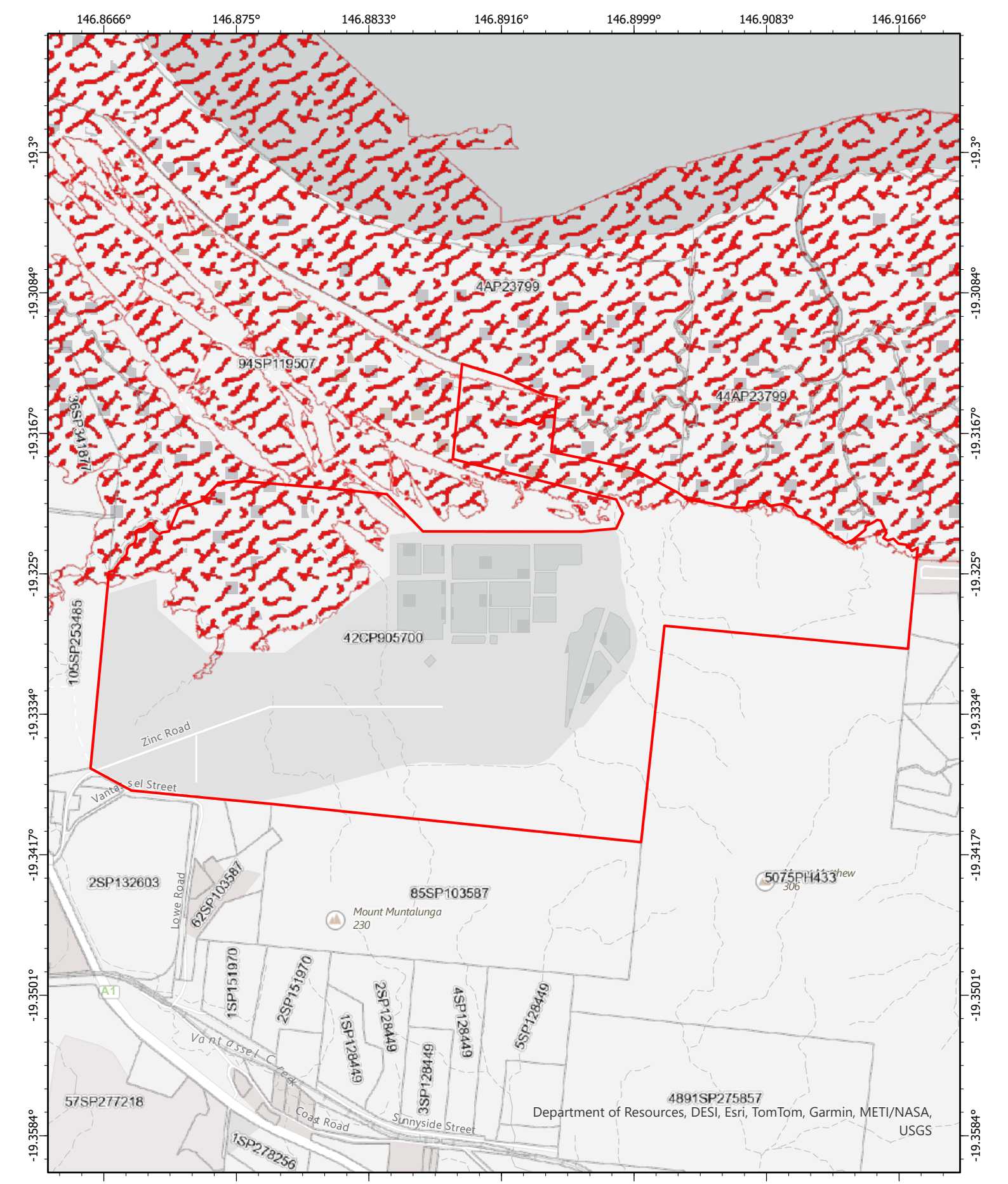

Coastal area - high storm tide inundation area

Date: 04/06/2025

N

Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

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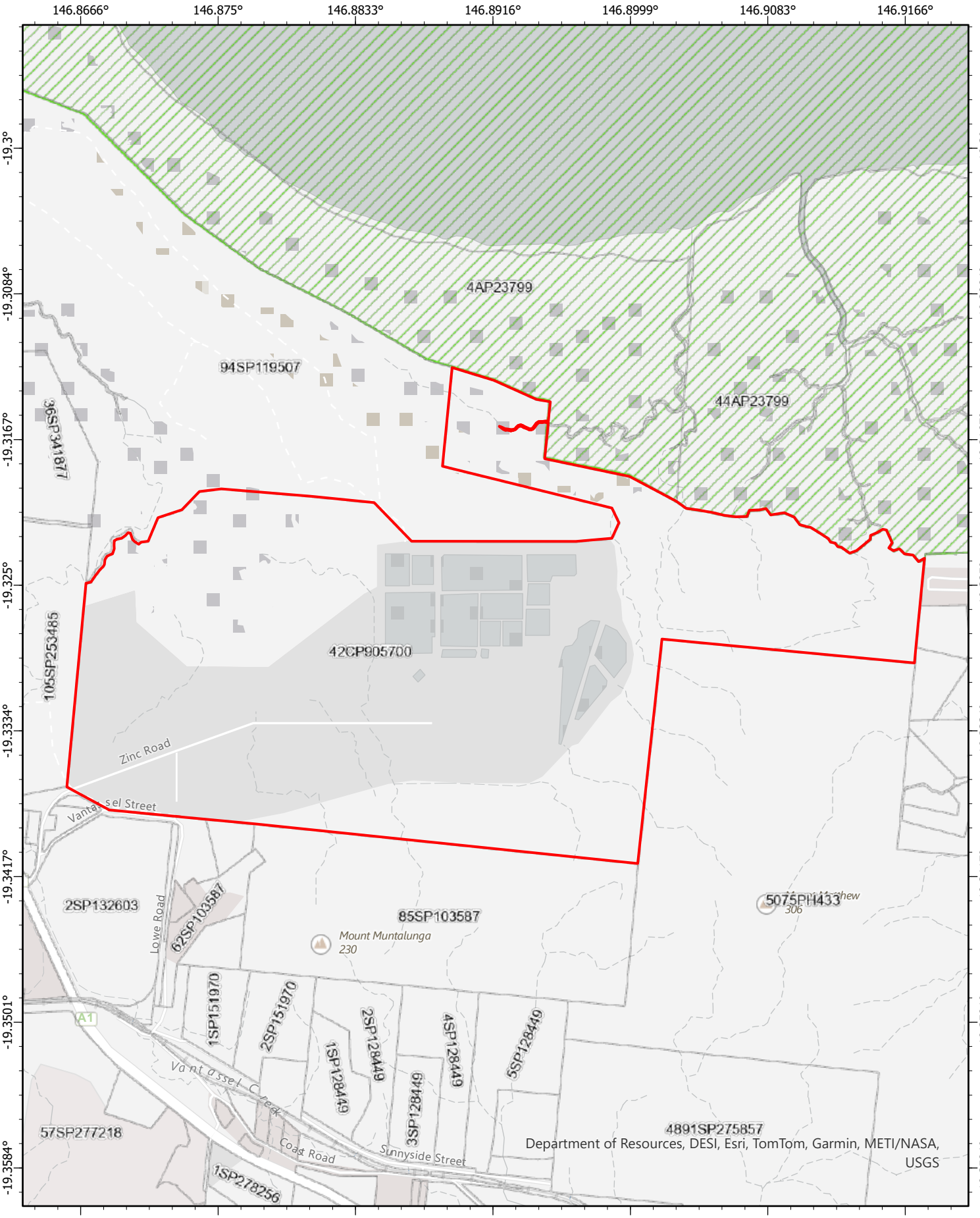

FHAA

Date: 04/06/2025

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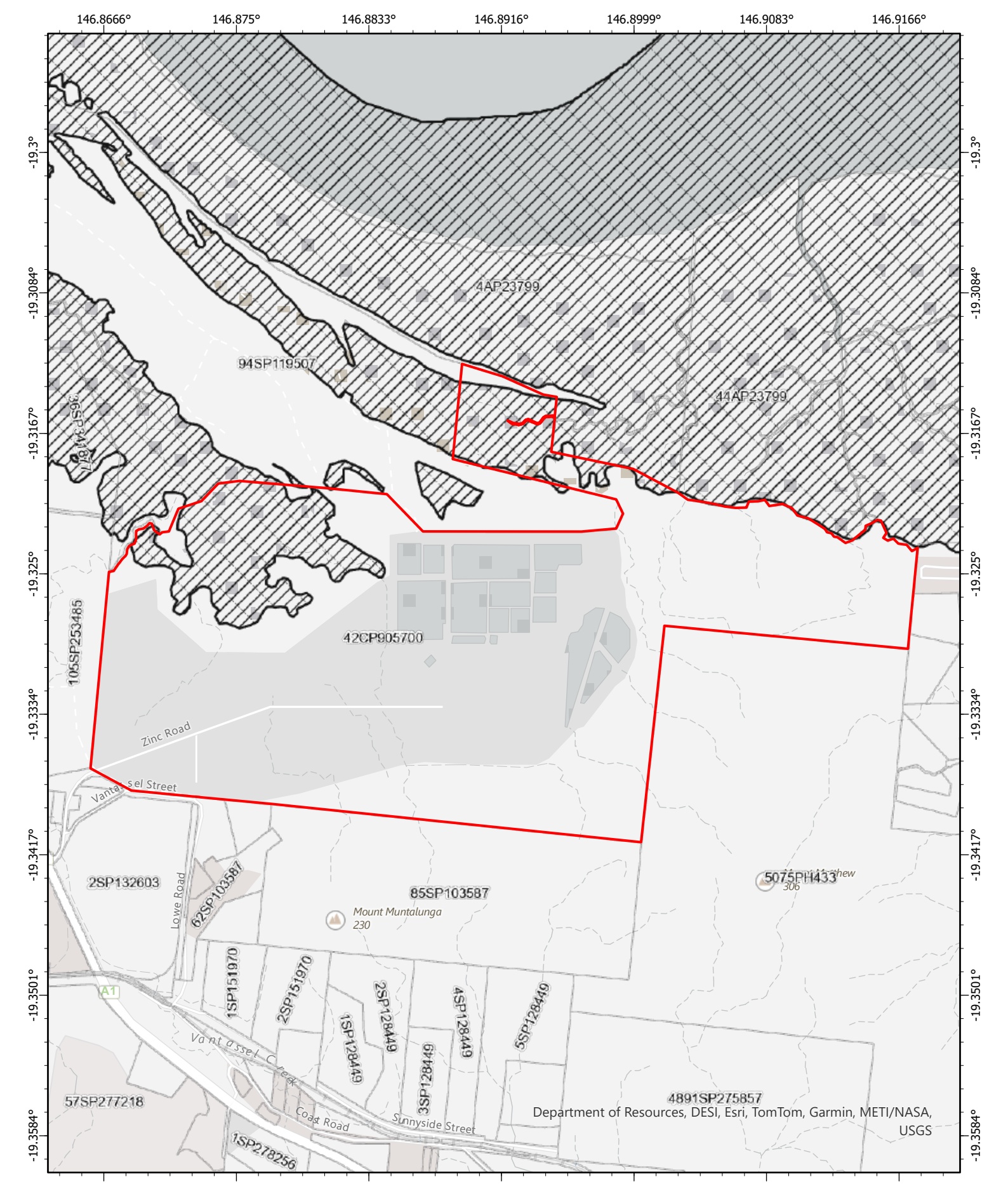
Metres

Queensland Government

Queensland Government



Major (tidal)

Date: 04/06/2025

N

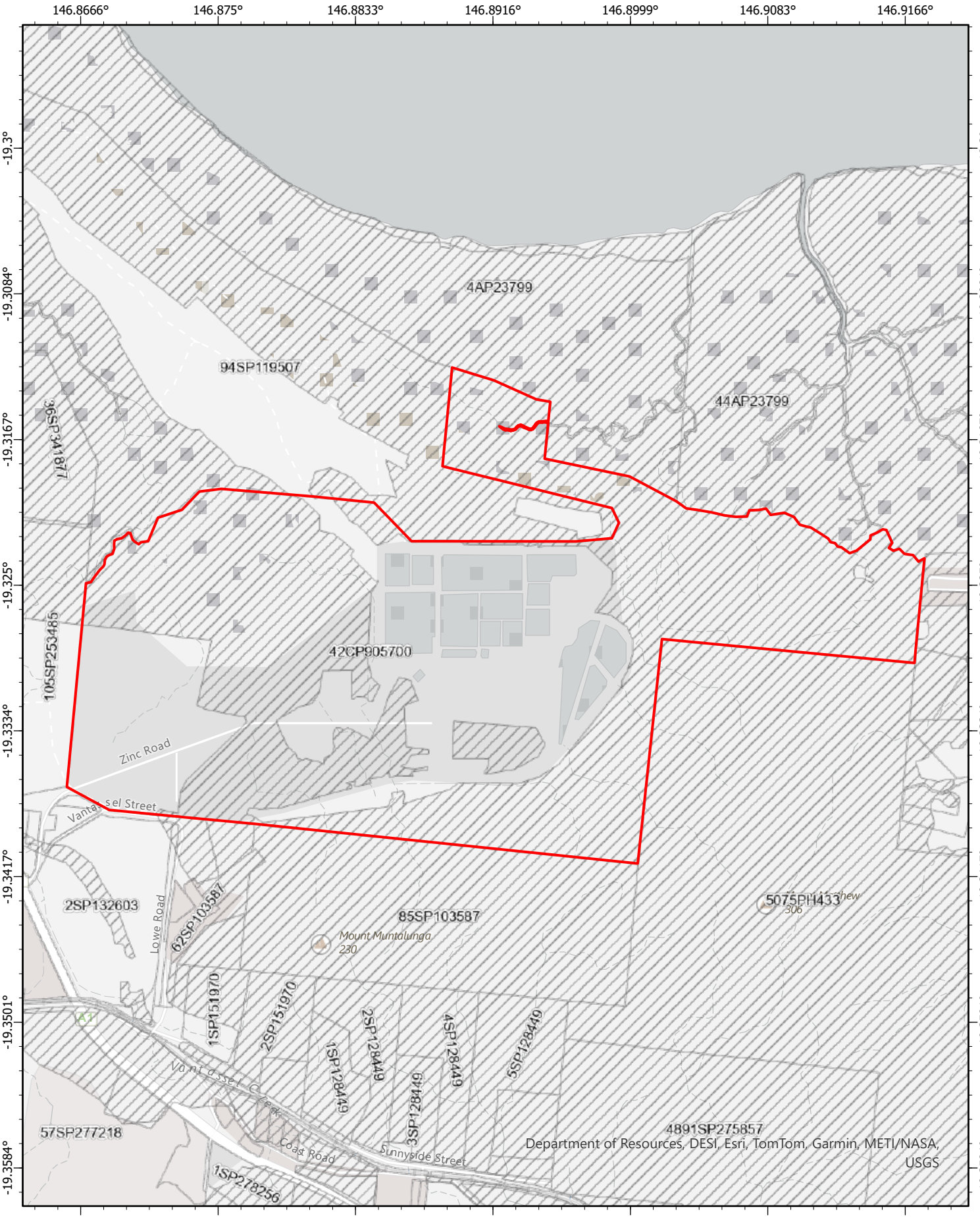
Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

Queensland Government



Date: 04/06/2025

Regulated vegetation management map (Category A and B extract)

Category B on the regulated vegetation management map

N

Scale: 1:33,600

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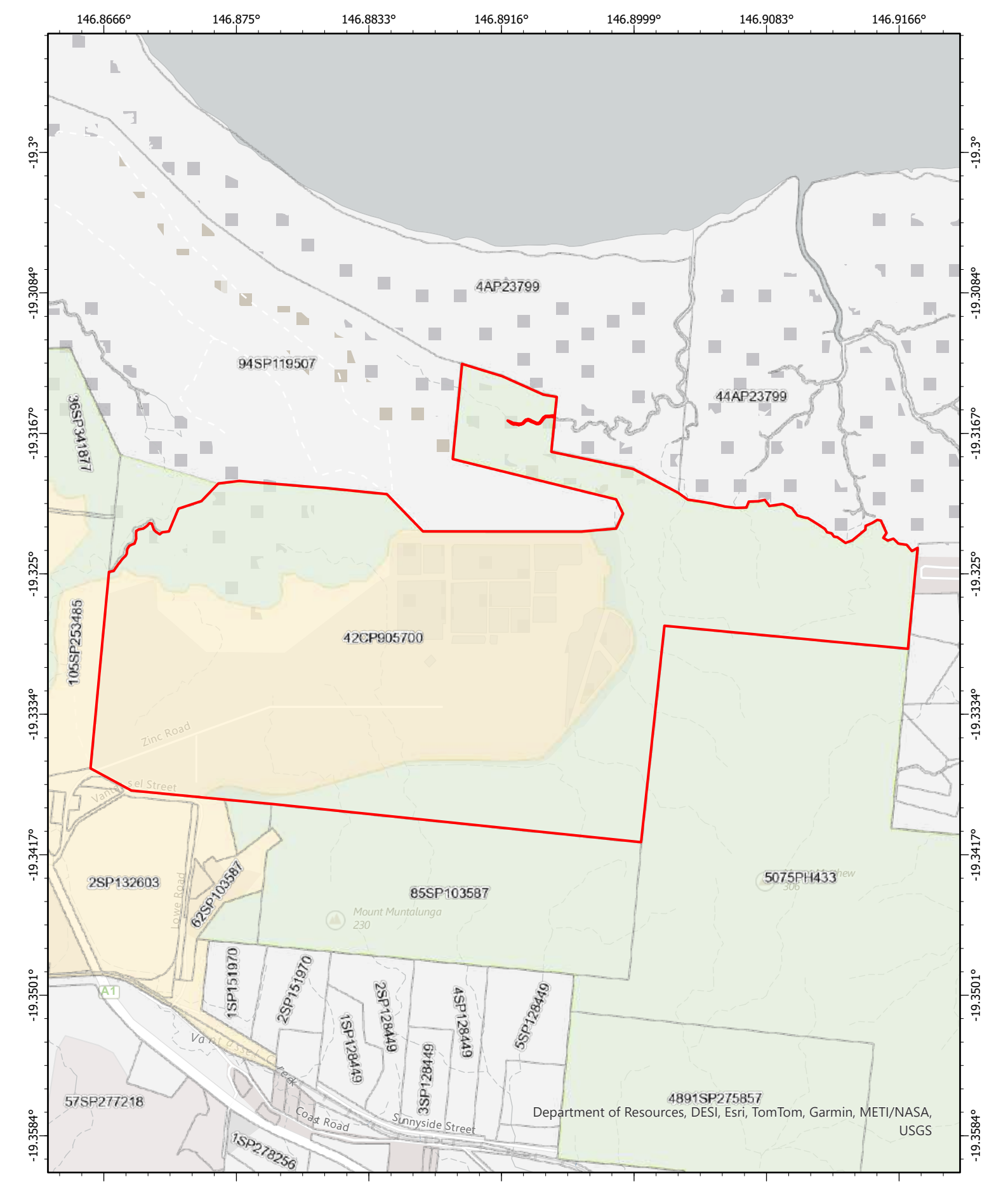
Metres

Queensland Government

Queensland Government



Townsville priority port precincts

Date: 04/06/2025

Precinct

- Environmental management
- Port industry and commerce

N

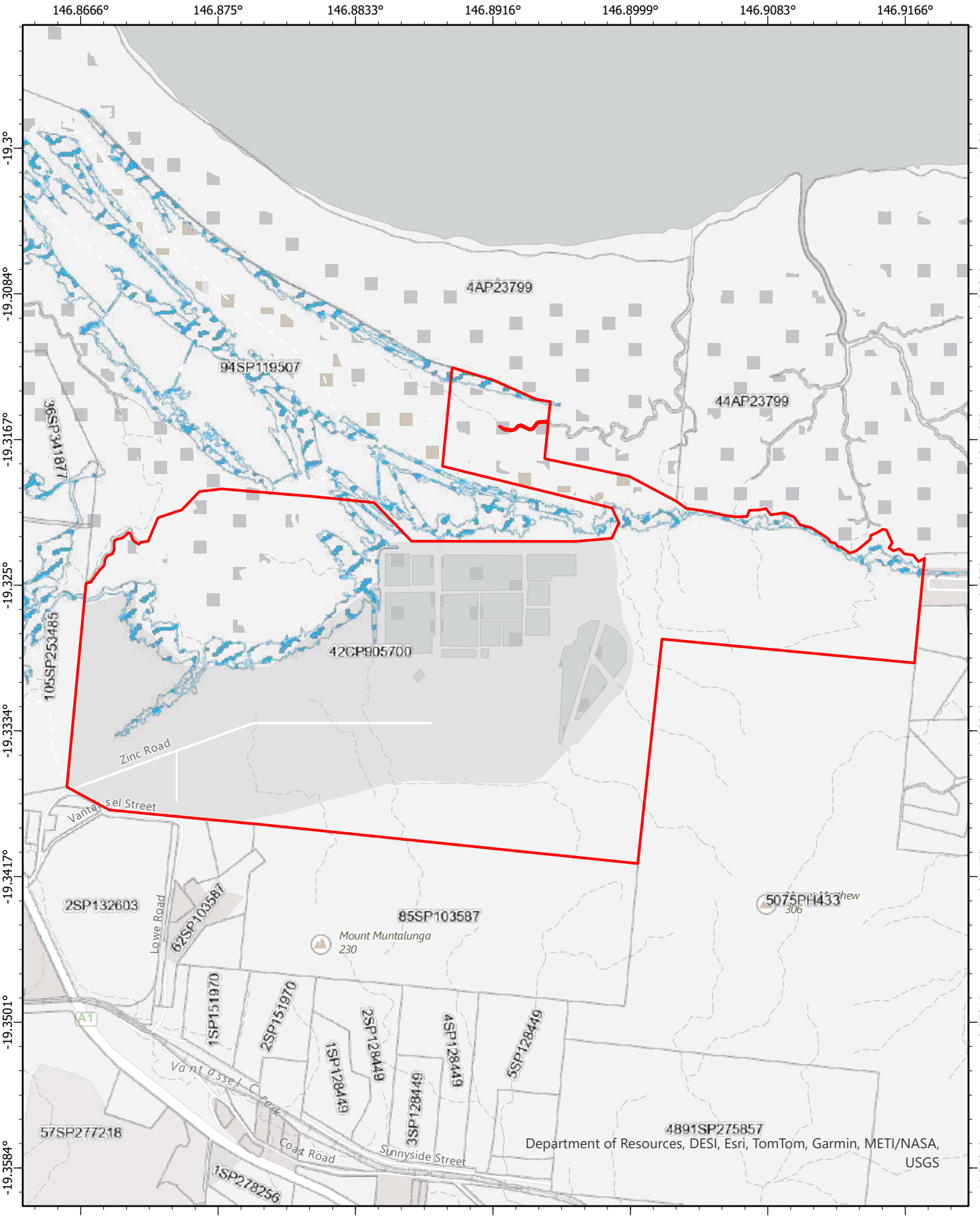
Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

Queensland Government



Coastal area - medium storm tide inundation area

Date: 04/06/2025

N

Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

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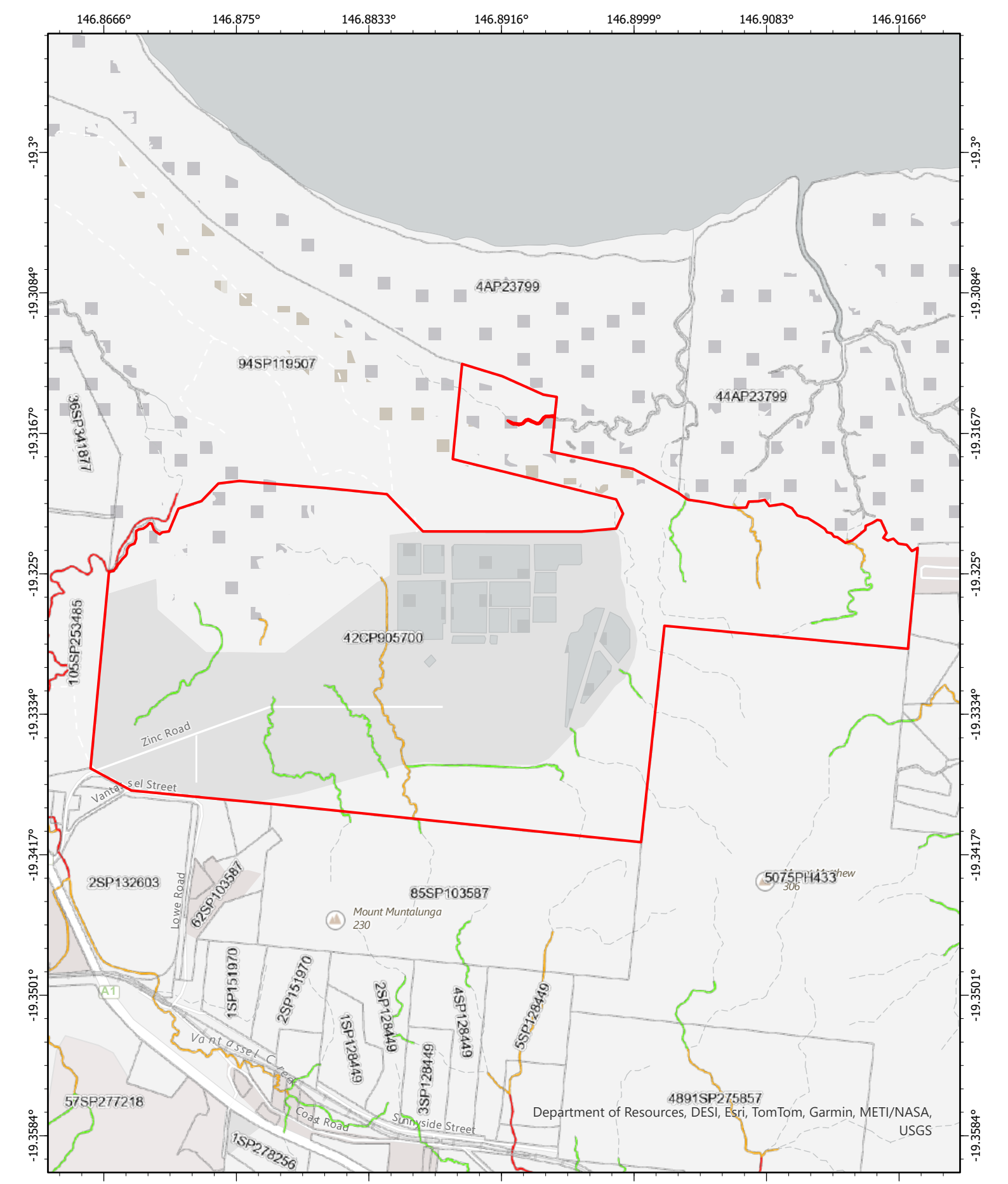


Queensland waterways for waterway barrier works

Risk of impact

- Low
- Moderate
- High
- Major (tidal)

Date: 04/06/2025

N

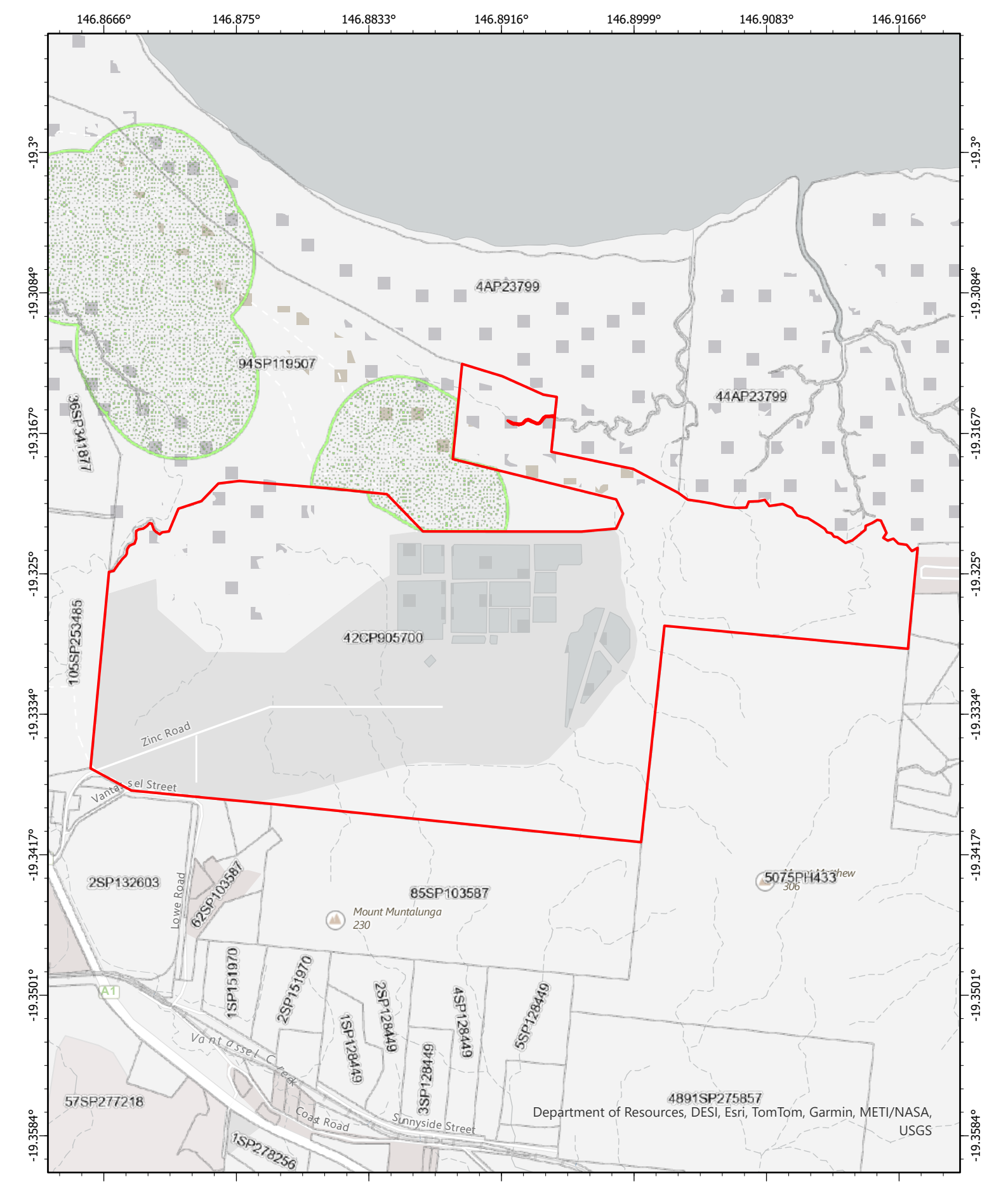
Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

Queensland Government



Wetland protection area
trigger area

Date: 04/06/2025

N

Scale: 1:33,600

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Metres

Queensland Government

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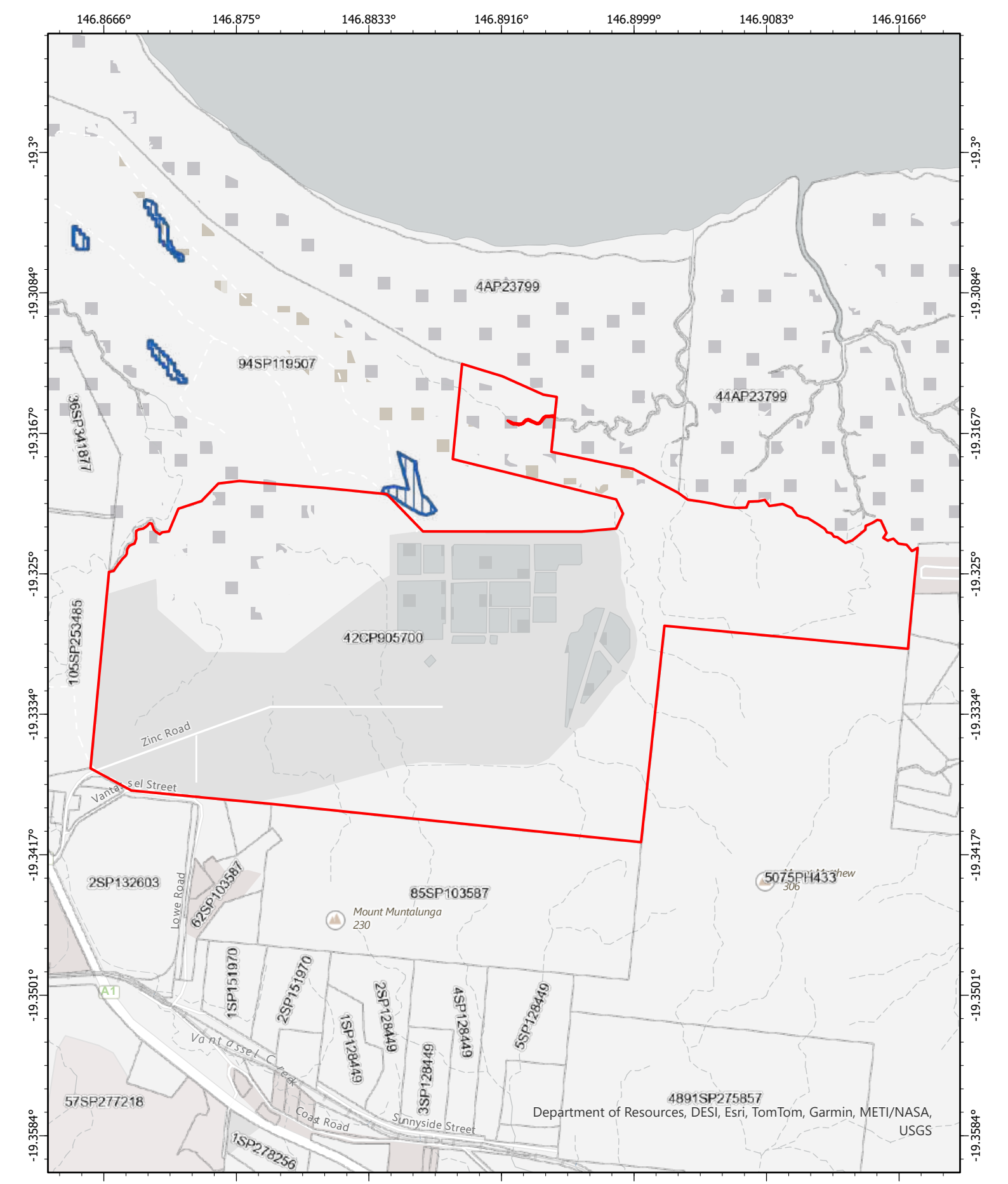

Wetland protection area
wetland

Date: 04/06/2025

N

Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

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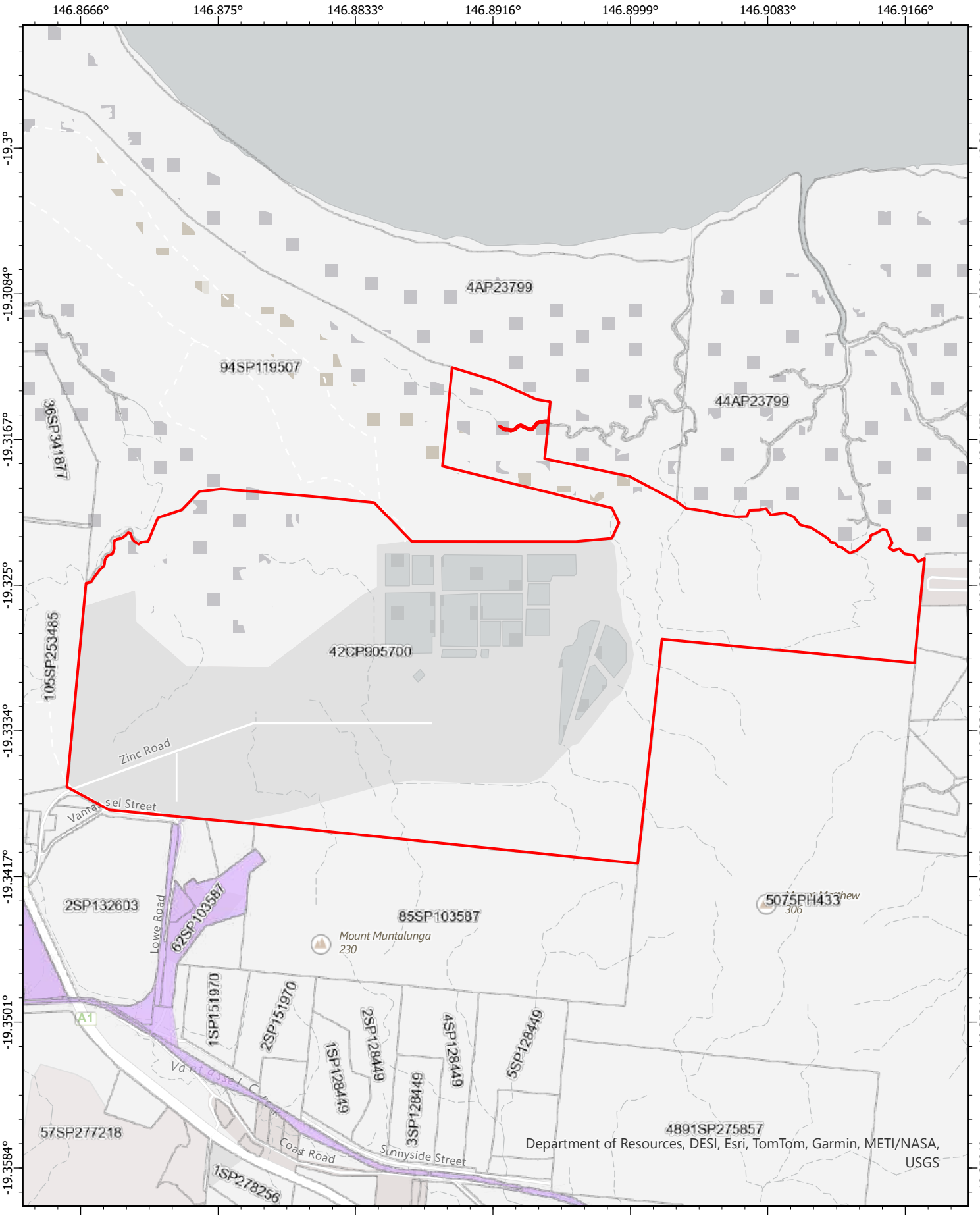


Railway corridor

Date: 04/06/2025

N

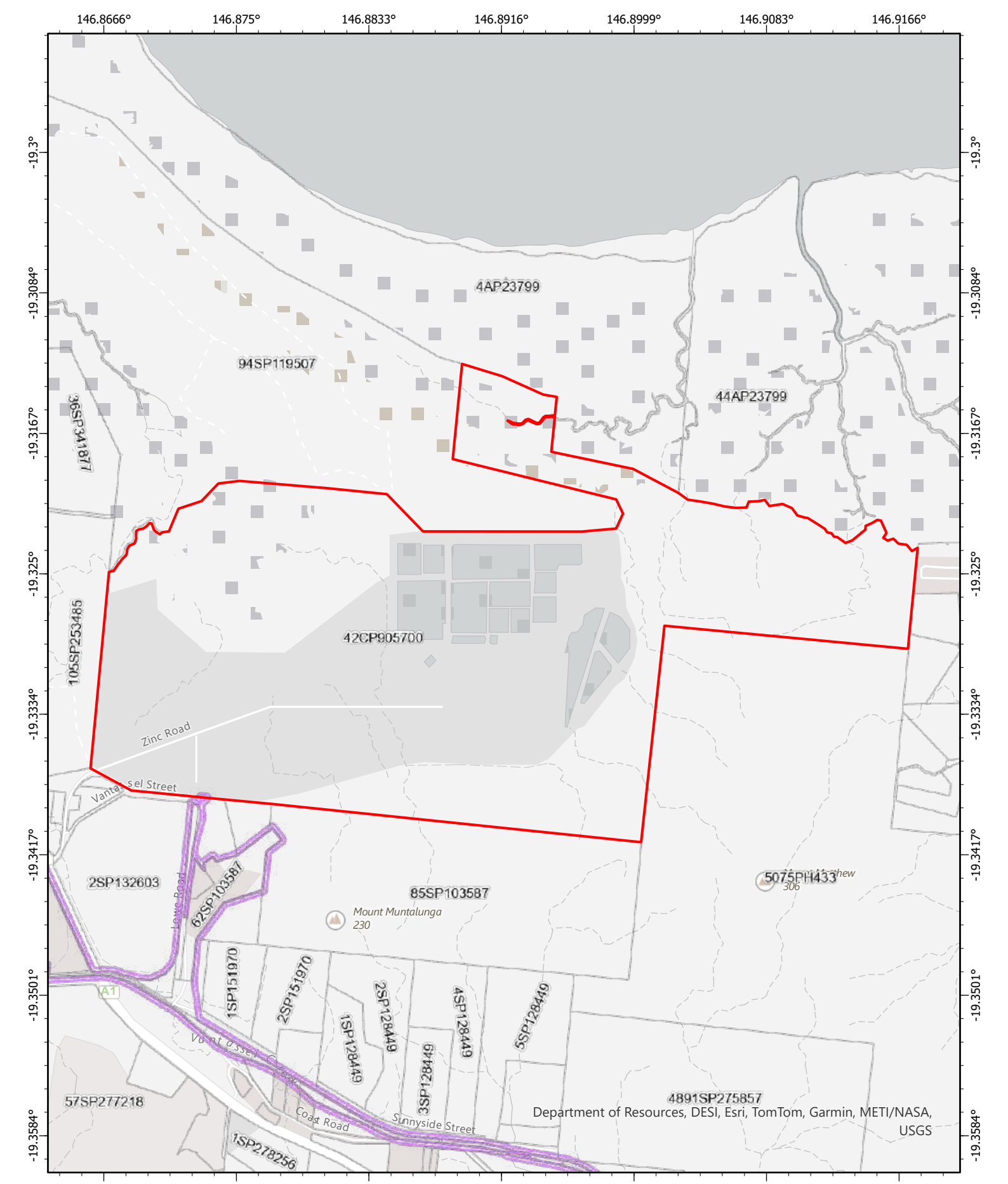
Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

Queensland Government



Area within 25m of a railway corridor

Date: 04/06/2025

N

Scale: 1:33,600

0 460 920 1,380

Metres

Queensland Government

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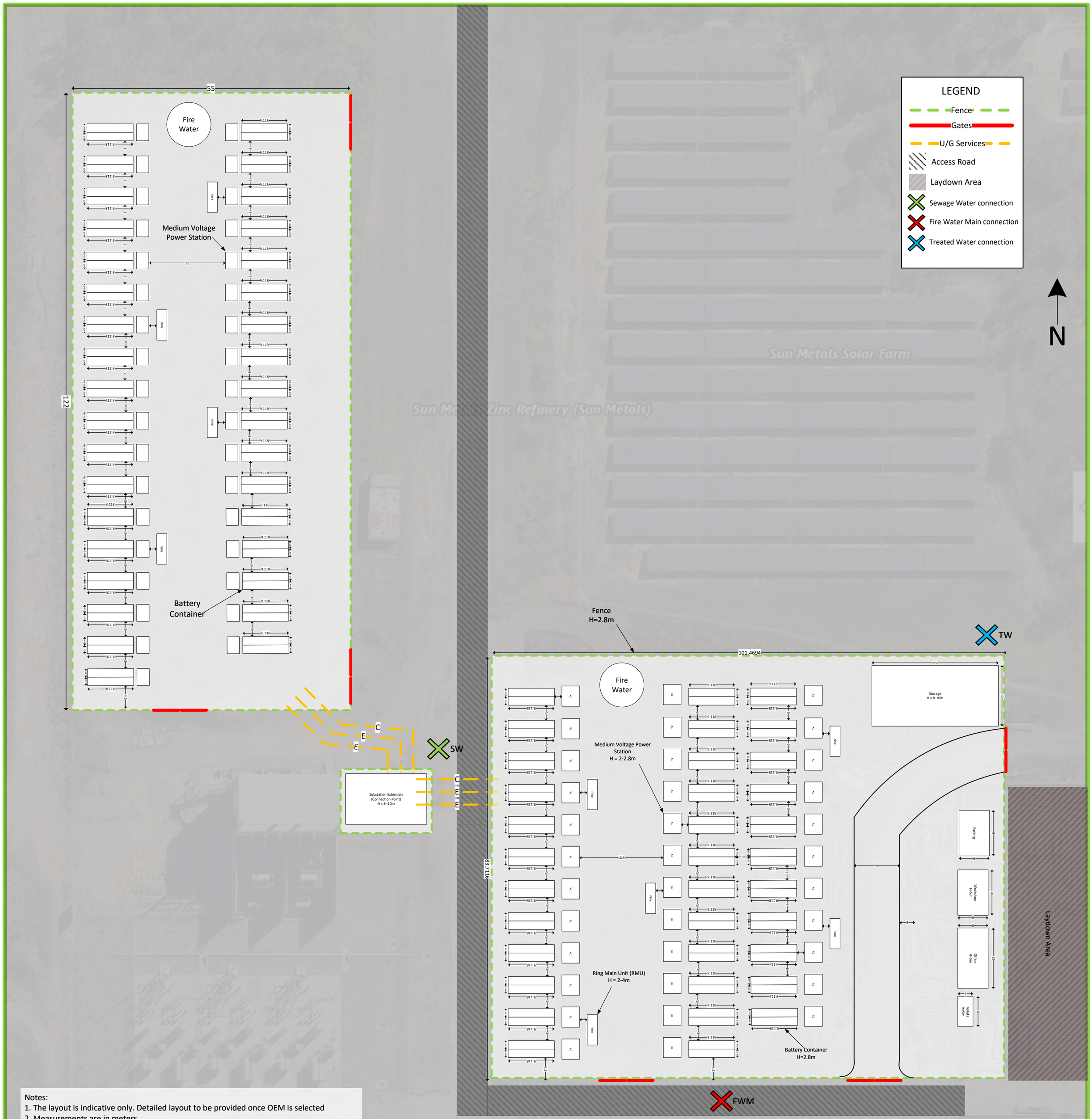
Queensland Government

MILFORD PLANNING

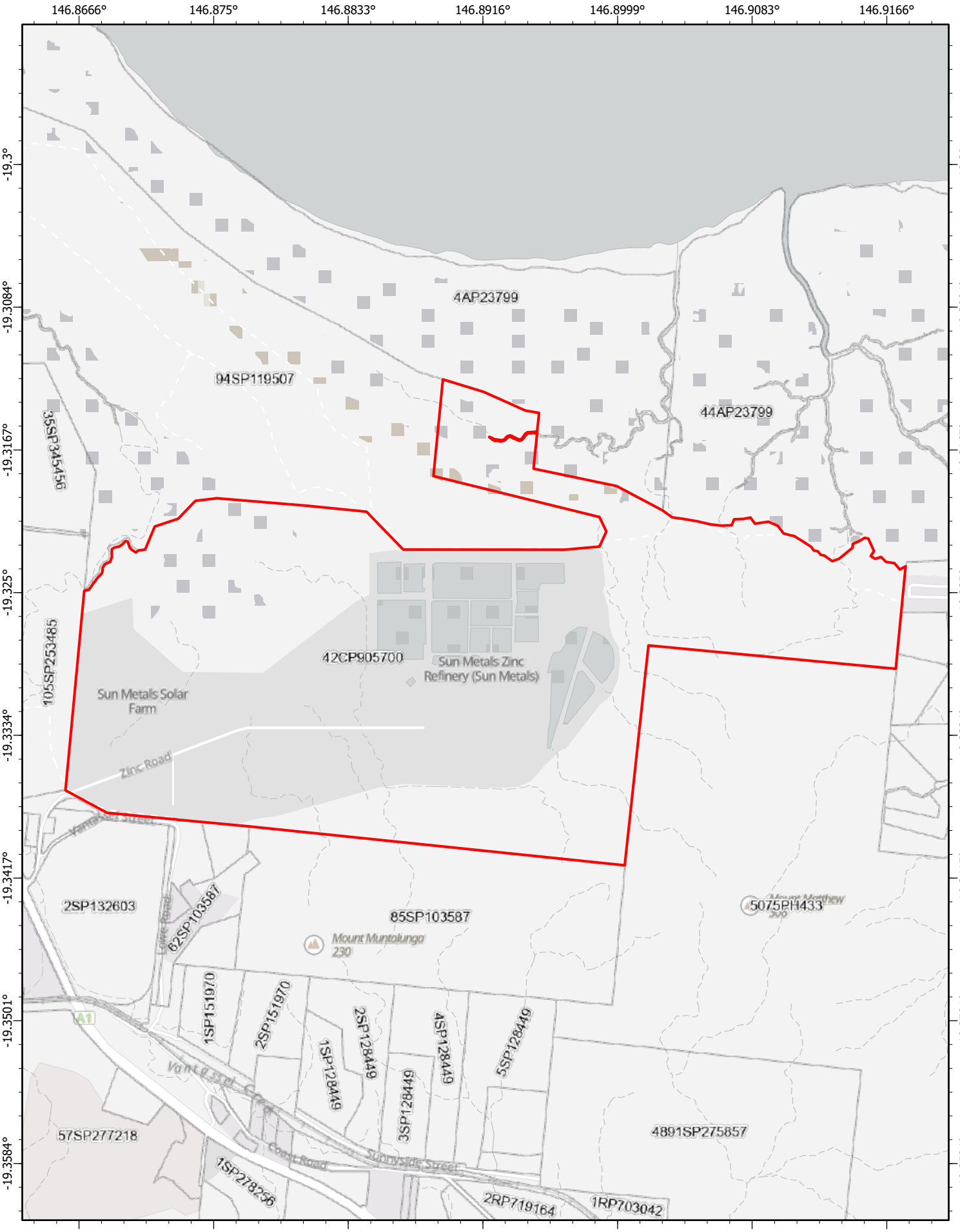
Appendix 5

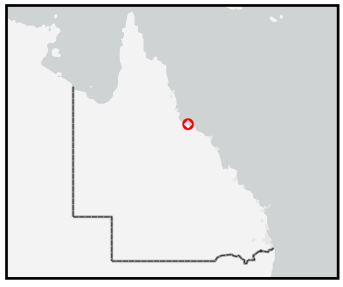

LEGEND
Fence
Gates
U/G Services
Access Road
Laydown Area
Sewage Water connection
Fire Water Main connection
Treated Water connection
N
Sun Metals Solar Farm
Sun Metals Zinc Refinery (Sun Metals)
55
122
Fire Water
Medium Voltage Power Station
15
RMU
Battery Container
Substation Extension (Connection Point) H = 8–10m
C
E
E
SW
Fence H=2.8m
TW
101.4694
Medium Voltage Power Station H = 2-2.8m
Storage H = 8-10m
25
12
Parking
Workshop H=5m
Office H=5m
Toilets H=5m
Laydown Area
16.5
83.7116
Ring Main Unit (RMU) H = 2-4m
Battery Container H=2.8m
FWM
Notes:
1. The layout is indicative only. Detailed layout to be provided once OEM is selected
2. Measurements are in meters
3. Layout assumes 70 x battery / inverter containers to provide a 130MW / 4hr system
4. Site Elevation Approx 16-25m AHD (Subject to detailed survey & design)
3. Heights (H) are approximate – Actual dimensions and clearance requirements may vary.


LEGEND
Fence
Gates
U/G Services
Access Road
Laydown Area
Sewage Water connection
Fire Water Main connection
Treated Water connection
N
Fire Water
Medium Voltage Power Station
Battery Container
Notes:
1. The layout is indicative only. Detailed layout to be provided once OEM is selected
2. Measurements are in meters
3. Layout assumes 70 x battery / inverter containers to provide a 130MW / 4hr system
4. Site Elevation Approx 16-25m AHD (Subject to detailed survey & design)
3. Heights (H) are approximate – Actual dimensions and clearance requirements may vary.
Zinc Rd
Vantassel St
Sulfur St
0
0.5
1
1.5
2 km
N
ARK ENERGY

MILFORD PLANNING

Appendix 6





N

Scale: 1:33,600

0 460 920 1,380

Metres

Date: 19/12/2025

Disclaimer This map has been prepared with due care based on the best available information at the time of publication. However, the State of Queensland (acting through the department) makes no representations, either express or implied, that the map is free from errors, inconsistencies or omissions. Reliance on information contained in this map is the sole responsibility of the user. The State disclaims responsibility for any loss, damage or inconvenience caused as a result of reliance on information or data contained in this map

Queensland Government

Queensland Government

State Planning Policy mapping layers - consolidated list for all selected Lot Plans

(Note: Please refer to following pages for State Interests listed for each selected Lot Plan)

BIODIVERSITY
- MSES - Regulated vegetation (intersecting a watercourse)
- MSES - High ecological value waters (watercourse)
- MSES - Wildlife habitat (special least concern animal)
- MSES - Strategic environmental areas (designated precinct)
- MSES - High ecological value waters (wetland)
- MSES - Declared fish habitat area
- MSES - Regulated vegetation (essential habitat)

WATER QUALITY
- High ecological value water areas

COASTAL ENVIRONMENT
- Coastal management district

STRATEGIC PORTS
- Priority ports

NATURAL HAZARDS RISK AND RESILIENCE
- Erosion prone area
- High storm tide inundation area
- Flood hazard area - Level 1 - Queensland floodplain assessment overlay
- Flood hazard area - local government flood mapping area

DEVELOPMENT AND CONSTRUCTION
- State development area

STRATEGIC AIRPORTS AND AVIATION FACILITIES
- Height restriction zone 90m

PRIORITY PORTS
- Townsville priority port precincts

State Planning Policy mapping layers for selected

Lot Plan: 42CP905700 (Area: 9135000 m²)

DEVELOPMENT AND CONSTRUCTION
- State development area

BIODIVERSITY
- MSES - Regulated vegetation (intersecting a watercourse)
- MSES - Regulated vegetation (essential habitat)
- MSES - High ecological value waters (wetland)
- MSES - Strategic environmental areas (designated precinct)
- MSES - Declared fish habitat area
- MSES - High ecological value waters (watercourse)
- MSES - Wildlife habitat (special least concern animal)

COASTAL ENVIRONMENT
- Coastal management district

WATER QUALITY
- High ecological value water areas

NATURAL HAZARDS RISK AND RESILIENCE
- Flood hazard area - local government flood mapping area
- Flood hazard area - Level 1 - Queensland floodplain assessment overlay
- High storm tide inundation area
- Erosion prone area

STRATEGIC AIRPORTS AND AVIATION FACILITIES
- Height restriction zone 90m

STRATEGIC PORTS
- Priority ports

PRIORITY PORTS
- Townsville priority port precincts

MILFORD PLANNING

Appendix 7

SCHEDULE 4 – SUPERSEDED SDA WIDE ASSESSMENT CRITERIA

<table>
<tr><th>SDA Wide Assessment Criteria</th><th>Response</th></tr>
<tr><td colspan="2">Infrastructure and Services</td></tr>
<tr><td>1. Development maximises infrastructure efficiency and minimises infrastructure costs for infrastructure associated with telecommunications, transport, water, wastewater, recycled water and energy.</td><td>Complies
The BESS areas are located within the existing development footprint of the existing refinery, meaning it can easily be augmented to existing reticulated water and electricity infrastructure.</td></tr>
<tr><td>2. Development does not compromise the establishment and operation of existing and/or potential future infrastructure in the Materials Transportation / Services Corridor Precinct.</td><td>Complies
The BESS areas are located within the existing development footprint of the existing refinery, meaning not compromise the establishment and operation of existing and/or potential future infrastructure in the Materials Transportation / Services Corridor Precinct.</td></tr>
<tr><td>3. Development provides for and protects the safe and efficient function of the Bruce Highway, the North Coast rail line and Townsville Port Access Road.</td><td>Complies
The BESS areas are located within the existing development footprint of the existing refinery, which is serviced by existing and established road infrastructure from the Bruce Highway.

Given the nature of the proposed development it will not have an adverse impact on the safe and efficient function of the Bruce Highway, the North Coast rail line and Townsville Port Access Road.</td></tr>
<tr><td colspan="2">Development Footprint</td></tr>
<tr><td>4. Industrial development with the following development footprints (consistent with the preferred land use intent) is accommodated on the following development parcel sizes:

<table><tr><th>Development footprint</th><th>Minimum parcel size</th></tr><tr><td>Small</td><td>1ha</td></tr><tr><td>Small - Medium</td><td>2ha</td></tr><tr><td>Medium</td><td>5ha</td></tr><tr><td>Medium - Large</td><td>10ha</td></tr><tr><td>Large</td><td>25ha</td></tr></table></td><td>Complies
The BESS areas are located within the existing development footprint of the existing refinery which is a large footprint in the context of the development footprints listed in the table.</td></tr>
<tr><td colspan="2">Emissions</td></tr>
<tr><td>5. Levels of emissions from development including noise, air pollutants, water pollutants, heat, light and electromagnetic radiation, are compatible with the precinct intent, surrounding land uses and local environmental constraints, with emissions and hazards to be managed in accordance with the following legislation (and any subsequent revisions):
▪ the Environmental Protection (Air) Policy 2008
▪ the Environmental Protection (Noise) Policy 2008</td><td>Complies
The proposed development is unlikely to cause significant air or noise emissions that would adversely impact on the health and safety of surrounding refinery setting. The BESS areas are located within the existing development footprint of the refinery.

The Applicant will ensure, as with other activities that they comply with the</td></tr>
</table>

	SDA Wide Assessment Criteria	Response
	▪ the Environmental Protection (Water) Policy 2009 ▪ the Waste Reduction and Recycling Act 2011 ▪ the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011.	following legislation (and any subsequent revisions): ▪ *the Environmental Protection (Air) Policy 2008;* ▪ *the Environmental Protection (Noise) Policy 2008;* ▪ *the Environmental Protection (Water) Policy 2009;* ▪ *the Waste Reduction and Recycling Act 2011; and* ▪ *the Work Health and Safety Act 2011 and Work Health and Safety Regulation 2011.*
6.	Development with a potential to impact on the air quality of Townsville will be expected to conduct air shed modelling, in accordance with current best practice, to demonstrate compliance with air quality standards.	**Complies** The BESS areas are located within the existing development footprint of the refinery, and it is considered that the proposed development will be capable of meeting the air quality objectives in the *Environmental Protection Policy 2008* (and any subsequent versions).
7.	Development is to minimise potential impacts of conflicts arising from (but not limited to) spray drift, odour, noise, dust, smoke or ash emissions with sensitive uses. This can be achieved by an effective separation or other demonstrated effective management tool.	**Complies** The BESS areas are located within the existing development footprint of the refinery and is not in close proximity to any sensitive receptors.
Visual Amenity		
8.	Visual impacts of buildings and any retaining structures are minimised through building design. Townsville State Development Area: Development scheme and landscaping when viewed from a publicly accessible view point such as major roads, public parks or Cleveland Bay	**Complies** The BESS areas are located within the existing development footprint of the refinery, the existing built form infrastructure will screen the BESS areas.
9.	Incorporate high quality urban design and landscape treatments particularly for those areas that are highly visible from the Bruce Highway and external to the TSDA.	**Complies** The BESS areas are located within the existing development footprint of the refinery, the existing built form infrastructure will screen the BESS areas. The BESS areas are not highly visible from the Bruce Highway. The coastal dune system and Sun Metals buffer areas will screen the development from view from Cleveland Bay.
Flooding		
10.	Development is to demonstrate though appropriate flood modelling that appropriate levels of flood immunity can be achieved while avoiding alterations to existing flow rates, flood heights or other flooding impacts on upstream, downstream, or adjacent properties. This includes potential impacts from changes to stormwater flows, local flooding and storm surge.	**Complies** The proposed BESS areas will be located above the 1 % AEP flood level.
Contaminated Land		
11.	Development on land likely to be contaminated or recorded on the Environmental Management Register or Contaminated Land Register is to be investigated to ensure impacts to human health and the environment are	**Complies** The proposed development is located on land which is listed on the Environmental Management Register. The land has been

SDA Wide Assessment Criteria	Response
not adversely affected. If required, develop a strategy to manage the existing contamination and potential for additional contamination such that impacts to human health and the environment are not adversely affected.	recorded on the register as the Zinc Refinery operations are considered notifiable activities. These activities are contained to the Sun Metals Zinc Refinery operations area and are not within the area of proposed development. Sun Metals are not aware of any areas of contamination (or notifiable activities) within the Project footprint.
Acid Sulfate Soils	
12. Development avoids or minimises disturbance to acid sulfate soils. Where disturbance to acid sulfate soils is unavoidable, disturbance will be managed in accordance with current best practice.	**Complies** Historic testing has confirmed that the Project will not impact on any Acid Sulfate Soil.
Energy and Water Efficiency	
13. Building, site design and layout maximises energy efficiency having regard to: ▪ building orientation and passive solar design ▪ maximising opportunities for cross ventilation ▪ appropriate shade treatments ▪ landscaping treatments to the western side of the building.	**Not Applicable**
14. Water efficiency is optimised by minimising the use of reticulated town water through the use of alternative water supply sources, including: ▪ rainwater harvesting systems ▪ recycled water source.	**Not Applicable**
Climate Change	
15. Development will be expected to minimise its emission of greenhouse gases and identify how the use will adapt to projected climate change conditions.	**Complies** The proposed use is for BESS areas, which will contribute to minimising the refinery's reliance on fossil fuels. The BESS areas have a low carbon footprint and will not emit greenhouse gases.
Road Works	
16. Increased traffic arising from development is either able to be accommodated within existing road networks or works are undertaken to minimise adverse impacts on existing and future uses.	**Complies** The proposed BESS areas will be serviced by the Zinc Refinery private access road. No additional road works are proposed as a part of the Project.
17. Local road networks within, and intersections connecting precincts, are to be designed to accommodate the proposed vehicle type and predicted traffic volumes associated with the development and the precinct/s.	**Complies** The proposed BESS areas will be serviced by the existing established infrastructure. No additional road works are proposed as a part of the Project.
18. Site layout facilitates safe and efficient vehicular ingress and egress and does not unduly impact on the safe and efficient operation of the use of external road, rail or transport infrastructure.	**Complies** The proposed layout of the BESS areas facilitates safe and efficient vehicular ingress and egress from existing internal roads within the refinery.
Water Quality	
19. Development incorporates best practice Integrated Water Cycle Management strategies.	**Not Applicable**

	SDA Wide Assessment Criteria	Response
20.	Water sensitive urban design principles are integrated into the development.	**Not Applicable**
21.	Development is managed such that the quality of surface water, groundwater, or water with the potential to enter the Great Barrier Reef World Heritage Area, is enhanced.	**Complies** No impact is expected from the development to water quality of surrounding waterways or the Great Barrier Reef. No contaminates or pollutants will be utilised as a part of the SMESS Project, therefore limiting and potential impact from contaminated surface water.
22.	Development protects the environmental values3 of surface waters and groundwaters by: ▪ reducing potential adverse impacts on water quality ▪ preventing direct or indirect discharge of contaminants to surface or groundwater bodies ▪ managing stormwater runoff ▪ providing adequate treatment and distribution infrastructure; ▪ providing on-site disposal and treatment ▪ managing dangerous and/or hazardous substances.	**Complies** Refer to the response for Criteria 21.
23.	Development protects the ecological and hydraulic function of waterway corridors in the TSDA.	**Complies** Refer to the response for Criteria 21.
Environment, Cultural Heritage and Community		
24.	Environmental values, cultural heritage values and community values of the site and immediate surrounds are identified and protected, consistent with current best practice. Values are to be determined by detailed investigations prepared in accordance with a recognised methodology, and include the identification of local, regional, state and national values where relevant.	**Complies** The BESS areas are located within the existing development footprint of the refinery. Both areas are clear of environmental values, with the first BESS area currently being used to store goods and materials and the second area being a grassed area. There is adequate separation buffer between the BESS areas and the environmental values associated with the refinery site.
25.	Any environmental offsets required as a result of development impacts must be offset in accordance with current best practice and relevant Queensland or Commonwealth Government policy. Development should demonstrate how offsets can be achieved and implemented within the Ecological Corridors and Priority Offsets Precinct and Environmental Conservation Precinct before seeking solutions external to the TSDA.	**Not Applicable** The BESS areas are located within the existing development footprint of the refinery and well separated from the existing environmental values associated with the broader refinery site. No environmental offset is required.
26.	Buffer requirements for new uses are to be accommodated within the development site.	**Not Applicable** The proposed development will not impact on areas within the site that have environmental values. There is adequate separation buffer between the BESS areas and the

SDA Wide Assessment Criteria	Response
	environmental values associated with the refinery site.
Engineering and Design Standards	
27. Development is to be designed and constructed in accordance with the Table of Relevant Engineering Standards (and any subsequent revisions to the relevant standards) below. Alternative, innovative solutions are encouraged.	**Complies** The construction, design and preparation of the site will be in accordance with the relevant engineering standards outlined within the assessment criteria.
Built Form	
28. The scale, character and built form of development contributes to a high standard of amenity consistent with surrounding areas and the intent of the precinct.	**Not Applicable** – given the nature of the proposed development.
Landscaping	
29. Development provides landscaping that: ▪ minimises the visual impacts of the development; ▪ incorporates at least 50% of local species; and ▪ is low maintenance.	**Complies** The proposed development will rely on the existing landscaping within the refinery site.
Other Government Matters	
30. New development is to demonstrate consistency with relevant legislation, regional plans, State Planning Policies to the extent practicable where the State interests articulated by these instruments may be affected by the proposed new use.	**Complies** The development is considered to be consistent with the relevant legislation and State Planning Policies. It has been demonstrated that the proposed development is consistent with : ▪ the relevant State referral requirements and SDAP modules that would be triggered by the *Planning Act 2016* as outlined in Section 7 of the town planning report; and ▪ the proposal has demonstrated compliance with the relevant Townsville City Plan 2014 assessment benchmarks as outlined in Section 8 of the town planning report. It is noted that an assessment has been undertaken against the *City Plan 2014* rather than the State Planning Policies. The reason for this is that the City Plan 2014 is considered to appropriately integrate the relevant State Planning Policies and will provide for a more streamlined assessment for Townsville City Council as a referral agency.
31. New uses are to avoid or minimise adverse impacts on existing or proposed State or local infrastructure.	**Complies** The proposed development includes two BESS areas within the footprint of the existing refinery.

MILFORD PLANNING

Appendix 8

TSDA DEVELOPMENT SCHEME 2019 – SDA WIDE ASSESSMENT CRITERIA

SDA Wide Assessment Criteria	Response
Infrastructure and Services	
1. Development maximises infrastructure efficiency and minimises infrastructure costs for infrastructure associated with telecommunications, transport, water, wastewater, recycled water and energy.	**Complies** The BESS areas are located within the existing development footprint of the existing refinery, meaning it can easily be augmented to existing reticulated water and electricity infrastructure.
2. Development plans for and manages impacts on existing and future known telecommunications, transport, water, wastewater, recycled water and energy networks.	**Complies** The BESS areas are located within the existing development footprint of the existing refinery, meaning it can easily be augmented to existing reticulated water and electricity infrastructure.
3. Development is adequately serviced by telecommunications, transport, water, wastewater, recycled water and energy networks as relevant.	**Complies** The BESS areas are located within the existing development footprint of the existing refinery, meaning it can easily be augmented to existing reticulated water and electricity infrastructure.
4. Development incorporates waste minimisation practices and considers refuse collection or disposal.	**Complies** A comprehensive waste management system is in place at the Sun Metals refinery site and will be extended to include the SMESS project. The existing waste management system ensures all wastes are classified and managed in accordance with their classification and where possible wastes are reused or recycled. All wastes requiring off-site disposal are handled by licensed waste management contractors.
5. Development avoids or minimises adverse impacts on existing or proposed State or local government infrastructures services.	**Complies** The proposed BESS areas will be serviced by the Zinc Refinery private access road. No additional road works are proposed as a part of the Project. The proposed development will not have an adverse impact on on existing or proposed State or local government infrastructures services. The SMESS project will be operated and managed by existing Ark Energy employees.
6. Development provides for and protects the safe and efficient function of the Bruce Highway, the North Coast rail line and Townsville Port Access Road.	**Complies** The proposed development is not anticipated to impact the existing function of the Bruce Highway, the North Coast railway line or the Townsville Port Access Road, given the nature of the of the development. The SMESS project will be operated and managed by existing Ark Energy employees.
Emissions	
1. Development is designed to avoid or minimise: (a) Adverse impacts from air, noise and other emissions that will affect the health and safety, wellbeing and amenity of communities and individuals (b) Conflicts arising from (but not limited to), spray drift, odour, noise, dust, light spill, smoke or ash	**Complies** The proposed development has been designed and will be operated in an appropriate manner to avoid and minimise adverse impacts from air, noise and other emissions that will affect the health and safety, wellbeing and amenity of communities and individuals. The BESS areas are located within the existing development footprint of the refinery.

SDA Wide Assessment Criteria	Response
emissions with sensitive and/or incompatible land uses.	The subject site is sufficiently buffered from sensitive land uses.
2. Development supports the achievement of the relevant acoustic and air quality objectives of the Environmental Protection (Noise) Policy 2008 and the Environmental (Air) Protection Policy 2008.	**Complies** It is considered the proposed development will be capable of meeting the acoustic and air quality objectives in the *Environmental Protection Policy 2008 (or any subsequent versions)* given the location of the BESS areas within the existing refinery and the separation distance and buffering between the development and nearest sensitive receptors.
3. Development with the potential to impact on the air quality of Townsville will be expected to conduct air shed modelling, in accordance with the current best practice, to demonstrate compliance with air quality standards.	**Complies** The proposed development is not anticipated to have any impacts on the air quality of Townsville and will be operated in accordance with best practice.
Contaminated Land	
1. Development on land likely to be contaminated or recorded on the Environmental Management Register or Contaminated Land Register does not adversely impact on human health or the environmental by exposure, management, or movement of contaminants.	**Complies** The proposed development is located on land which is listed on the Environmental Management Register. The land has been recorded on the register as the Zinc Refinery operations are considered notifiable activities. These activities are contained to the Sun Metals Zinc Refinery operations area and are not within the area of proposed development. The Applicant is not aware of any areas of contamination (or notifiable activities) within the SMESS Project footprint.
2. Where required, develop a strategy to manage any existing contamination and the potential for additional contamination such that human health are not adversely impacted.	**Complies** Should contamination be determined to be present than the Applicant will engage a suitable qualified consultant to prepare reporting on how to manage the contaminated land.
Acid Sulfate Soils	
1. Development, in accordance with current best practice, is to: (a) Avoid the disturbance of acid sulfate soils (ASS) or (b) Ensure that the disturbance of ASS avoids or minimises the mobilisation and release of acid and metal contaminants.	**Complies** Historic testing has confirmed that the Project will not impact on any Acid Sulfate Soil.
Climate Change	
1. Development minimises emission of greenhouse gases and demonstrates how it will adapt to projected climate change conditions.	**Complies** The proposed use is for BESS areas, which will contribute to minimising the refinery's reliance on fossil fuels. The BESS areas have a low carbon footprint and will not emit greenhouse gases.
Transport	
1. Increased traffic arising from development is either able to be accommodated within existing road networks or works are undertaken to minimise adverse impacts on existing and future uses and road network.	**Complies** Traffic generated from the proposed development will be limited in the context of the construction and operational phases and can be accommodated within the existing State, local and private road networks.

SDA Wide Assessment Criteria	Response
2. Local road networks within the Townsville SDA are to be designed to accommodate the proposed vehicle type and predicted traffic volumes associated with the development and the precincts.	**Complies** The proposed BESS areas will be serviced by the existing established infrastructure. No additional road works are proposed as a part of the Project.
3. Development is designed to facilitate safe and efficient vehicular ingress and egress and does not unduly impact on the safe and efficient operation of transport infrastructure.	**Complies** The proposed layout of the BESS areas facilitates safe and efficient vehicular ingress and egress from existing internal roads within the refinery.
4. Adequate car parking for the number and nature of vehicles expected are provided on site.	**Complies** Adequate car parking is currently provided within the refinery, no additional car parking spaces are required as a consequence of the proposed development.
Environment, Cultural Heritage and Community	
1. Environmental values, cultural heritage values, and community values of the premises on which the development is undertaken, and immediate surrounds, are identified and managed, consistent with current best practice.	**Complies** The BESS areas are located within the existing development footprint of the refinery. Both areas are clear of environmental values, with the first BESS area currently being used to store goods and materials and the second area being a grassed area. There is adequate separation buffer between the BESS areas and the environmental values associated with the refinery site.
2. Development is designed and sited to: (a) Avoid adverse impacts on environmental values including matters of local, State and national environmental significance, or where adverse impacts cannot be avoided, impacts are minimised, mitigated or offset. (b) Maintain ecological connectivity and processes. (c) Maintain the outstanding values of the Great Barrier Reef World Heritage Area (d) Avoid adverse impacts on cultural heritage and community values, or where adverse impacts cannot be avoided, impacts are minimised, mitigated or offset.	**Complies** The BESS areas are located within the existing development footprint of the refinery. Both areas appear clear of environmental values, with the first BESS area currently being used to store goods and materials and the second area being a grassed area. There is adequate separation buffer between the BESS areas and the environmental values associated with the refinery site.
3. Environmental offsets are provided in accordance with the relevant commonwealth or State environmental offset framework.	**Not Applicable** No environmental offsets are required.
4. Environmental offsets should be accommodated within the Environmental Management Precinct before seeking solutions external to the Townsville SDA.	**Not Applicable** No environmental offsets are required.
5. Where the development requires a buffer to mitigate the impact of development, that buffer must be accommodated within the development site.	**Not Applicable** The proposed development will not impact on areas within the site that have environmental values. There is adequate separation buffer between the BESS areas and the environmental values associated with the refinery site.

SDA Wide Assessment Criteria	Response
Engineering and Design Standards	
1. Development is designed and constructed in accordance with relevant engineering and design standards (and any subsequent revisions to the relevant standards) stated in able 8 below. Alternative innovative solutions that demonstrate compliance with the relevant standards are encouraged.	**Complies** The construction, design and preparation of the site will be in accordance with the relevant engineering standards outlined within the assessment criteria.
Other Government Matters	
1. Development is to demonstrate consistency with any other relevant legislative requirements for the development to proceed and operate. Development, to the extent practicable, is to be consistent with regional plans, the State Planning Policy, and the State Development Assessment Provisions where the State interests articulated by thee instruments are likely to be affected by the development.	**Complies** The development is considered to be consistent with the relevant legislation and State Planning Policy. It has been demonstrated that the proposed development is consistent with: ▪ the relevant State referral requirements and SDAP modules that would be triggered by the *Planning Act 2016* as outlined in Section 6 of the town planning report; and ▪ the applicable assessment benchmarks of the planning scheme. It is noted that an assessment has been undertaken against the *Townsville City Plan 2014* rather than the State Planning Policy. The reason for this is that the *Townsville City Plan 2014* is considered to appropriately integrate the relevant State Planning Policy and will provide for a more streamlined assessment for Townsville City Council as a referral agency.
Energy and Water Efficiency	
1. Building, site design and layout maximises energy efficiency having regard to: (a) Building orientation and passive solar design. (b) Maximising opportunities for cross ventilation. (c) Appropriate shade treatments. (d) Landscaping treatments to the western side of building.	**Not applicable** – given the nature of the proposed development.
2. Water efficiency is optimised through the use of alternative water supply sources, including: (a) Rainwater harvesting systems. (b) Recycled water source.	**Not applicable** – given the nature of the proposed development.
Visual Impacts	
1. Visual impacts of buildings, retaining structures or other development are minimised through building design, landscaping or other mitigation when viewed from a publicly accessible view point such as major roads, public parks or Cleveland Bay.	**Complies** The BESS areas are located within the existing development footprint of the refinery, the existing built form infrastructure will screen the BESS areas.
2. Development incorporates high quality urban design and landscape treatments particularly for those areas highly visible from public roads.	**Complies** The BESS areas are located within the existing development footprint of the refinery, the existing built form infrastructure will screen the BESS areas. The BESS areas are not highly visible from the Bruce Highway.

SDA Wide Assessment Criteria	Response
	The coastal dune system and Sun Metals buffer areas will screen the development from view from Cleveland Bay.
Built Form	
1. The scale, character and built form of development contributes to a high standard of amenity.	**Not applicable** – given the nature of the proposed development.
2. Development must incorporate crime prevention through environmental design (CPTED) principles.	**Not applicable** – given the nature of the proposed development.
Reconfiguring a Lot	
1. Development provides lawful, safe and practical access.	**Not Applicable** - the proposed development does not involve reconfiguring a lot.
2. Infrastructure is provided generally in accordance with established infrastructure planning	**Not Applicable** - the proposed development does not involve reconfiguring a lot.
3. Lot sizes are adequate to accommodate a development footprint consistent with the preferred development intent of each precinct. A range of lot sizes is preferred to accommodate development in each precinct. Minimum lot sizes for development precincts are generally consistent with the following: (a) Low Impact Industry Precinct – 1 hectare (ha). (b) Medium Impact Industry Precinct – 2ha. (c) High Impact Industry Precinct – 25h. (d) Port Industry Precinct – 2ha.	**Not Applicable -** the proposed development does not involve reconfiguring a lot.
4. Further subdivision of the Environmental Management, Infrastructure Corridors, and Resources Precincts is not supported, unless being undertaken for operational, management or regulatory purposes, or if there is an overriding need.	**Not Applicable** The proposed development does not involve reconfiguring a lot.
Landscaping	
1. Development provides landscaping that: (a) Minimises the visual impacts of the development. (b) Incorporates at least 50% local species. (c) Maintains and enhances significant vegetation. (d) Is low maintenance.	**Complies** The proposed development will rely on the existing landscaping within the refinery site.
Natural Hazards – Flooding, including Storm Tide Inundation	
1. Development, in accordance with current best practice: (a) Achieves an appropriate level of flood immunity (b) Does not adversely affect existing flow rates, flood heights or cause or contribute to other flooding impacts on upstream, downstream or adjacent properties or the State transport network. This includes	**Complies** The proposed BESS areas will be located above the 1 % AEP flood level.

SDA Wide Assessment Criteria	Response
potential impacts from changes to stormwater flows and local flooding. (c) Avoids, minimises or mitigates adverse impacts from flooding to protect people and property, and enhances the community's resilience to flooding. (d) Supports, and does not hinder disaster management capacity and capabilities. (e) Avoids risks to public safety and the environment from the location of the storage of hazardous materials and the release of these materials as a result of a natural hazard.	
2. Where development includes flood mitigation works: (a) Development may consider flood mitigation works within the Environmental Management Precinct where it cannot otherwise be accommodated within the development precinct. Development will demonstrate that the extent of such works must be proportional to the flood balance and must not restrict the development of other land. (b) Any flood mitigation works are to integrate environmental, cultural heritage and stormwater management outcomes.	**Complies** The proposed BESS areas will be located above the 1 % AEP flood level.
Natural Hazards - Other	
1. Development, in accordance with current practice: (a) Identifies relevant natural hazards that may impact upon the development. (b) Appropriately manages risk associated with identified hazards. (c) Avoids increasing severity of the natural hazard. (d) For coastal hazards, avoid erosion prone areas wherever possible.	**Complies** The proposed BESS areas are located with the existing development footprint of the refinery, where existing natural hazards are already appropriately managed. The proposed BESS areas will be designed and constructed in accordance with current practice.
Water Quality	
1. Development is located, designed, constructed and operated to avoid or minimise adverse impacts on environmental values of receiving waters arising from: (a) Altered stormwater quality and hydrology. (b) Wastewater (other than contaminated stormwater and sewage). (c) The creation or expansion of non-tidal man-made waterways. (d) The release and mobilisation of nutrients and sediments.	**Complies** Stormwater runoff from the BESS areas will be directed to and captured in the broader and existing Sun Metals stormwater management regime and system.

SDA Wide Assessment Criteria	Response
2. Development encourages a precinct-wide stormwater management approach that achieves an improved water quality outcome.	**Complies** Stormwater runoff from the BESS areas will be directed to and captured in the broader and existing Sun Metals stormwater management regime and system.

MILFORD PLANNING

Appendix 9

Performance Outcome/Acceptable Outcomes		Response
General		
PO1 The site layout and design: a) Minimises earthworks; b) Maximises retention of natural drainage patterns; and c) Ensures existing drainage capacity is not reduced.	**AO1** Development does not involve: a) earthworks involving more than 100 m^3; and b) any changes to existing drainage lines and wetlands.	**R1: Complies** The proposed development will involve earthworks involving more than 100 m^3; nor any changes to existing drainage lines and wetlands.
Defence Land		
PO2: Development does not adversely affect the safe and efficient operation of nearby Department of Defence Land.	**AO2** All buildings and operational components of a use are setback not less than 100m from the closest boundary of land in the control of or used by the Department of Defence.	**R2: Complies** The proposed development is not adjoining Department of Defence Land or involve activities that would prejudice the efficient operation.
Uses		
PO3: Development does not significantly detract from the availability or utility of land for industrial purposes.	No acceptable outcome is nominated.	**R3: Complies** The proposed development is contained within the existing development footprint of the refinery.
Community and Environmental Risk		
PO4: Development is designed and managed so that it provides protection for community health and safety, and avoids unacceptable risk to life or property.	No acceptable outcome is nominated.	**R4: Complies** The proposed development is contained within the existing development footprint of the refinery. The refinery site has a security procedures and measures in place to monitor visitors. The BESS areas are well contained with the existing development footprint of the refinery and there are no sensitive receptors adjoining the refinery site.
PO5: The site layout and design minimises impacts of on-site and surrounding drainage patterns and ecological values by: a) maximising retention of natural drainage patterns; b) ensuring existing drainage capacity is not reduced; c) maximising the retention or enhancement of existing vegetation and ecological corridor; and d) providing buffers to protect ecological functions of waterways.	No acceptable outcome is nominated.	**R5: Complies** The BESS areas are well contained with the existing development footprint of the refinery. Stormwater runoff from the BESS areas will be directed to and captured in the broader and existing refinery's stormwater management regime and system.