Native Vegetation Clearing Permit CPS123/9

Application for Amendment Supporting Document

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1 Introduction

Chevron Australia Pty Ltd (CAPL) is the proponent and nominated operator of the Barrow Island oilfield on behalf of the Barrow Island Joint Venture (BWIJV) partners. The other non-operating joint venture partners are Santos Offshore Pty Ltd and Mobil Australia Resources Company Pty Ltd.

The Barrow Island oil field and production facilities are reaching the end of field life, and CAPL intends to cease production on Barrow Island in 2025. Oil production is currently ramping down and will continue at a decreased rate until early 2025 when shut-in of the oilfield will commence. Following cessation of production, the oilfield will shift from an operating asset into operational decommissioning followed by restoration and rehabilitation.

CAPL is the permit holder of clearing permit CPS123/9, which authorises vegetation clearing for the purpose of *infrastructure maintenance, pipelines, minor works and emergencies* on Barrow Island. CAPL is seeking an amendment to CPS123/9 under 51K of the *Environmental Protection Act 1986* (EP Act). This amendment is intended to ensure the permit is suitable and effective for the decommissioning scope of work. The proposed amendments include modifying and redescribing the purpose of the permit, as well as varying conditions, principles, criteria, strategies and procedures pursuant to 51K(1)(a), (ca) and (d). This supporting document has been prepared to detail the decommissioning scope of work and proposed changes to CPS123/9.

1.1 Project Description

Decommissioning of the Barrow Island oilfield will include:

Near Term Operational Decommissioning

- Ongoing well plug and abandonment
- Demolition and removal of production infrastructure (excluding flowlines and pipelines)
- Demolition and removal of support infrastructure
- Detailed contaminated sites investigations
- Removal of foundations, footings and subsurface infrastructure
- Minor remediation and rehabilitation activities (where required at discrete areas, including revegetation trials)
- Care and maintenance of wells, production facilities and support infrastructure prior to decommissioning

Mid Term Operational Decommissioning

- Removal of onshore and offshore flowlines and pipelines
- Ongoing detailed contaminated sites investigations

Remediation and Rehabilitation (end state)

- Ongoing detailed contaminated sites investigations
- Remediation of contamination (where required) and removal or management of legacy waste materials

- Decommissioning of Bandicoot Bay Groynes and Barrow Island road network
- Removal of hardstand areas
- Removal of remaining foundations, footings and subsurface infrastructure or agreement on alternative end state
- Rehabilitation (land forming earthworks and revegetation)

The removal of flowlines and pipelines (including removal of the Barrow Tanker Loading Line and former production camp sewage outfall line) is indicatively planned to occur in or after 2027, following near term operational decommissioning infrastructure removal.

The later stage of the Project will comprise of Remediation and Rehabilitation which will form the closure of CAPL's BWIJV operations on Barrow Island and is subject to further investigation, engineering, design and stakeholder engagement on several complex issues such as remediation objectives and outcomes, waste management, final landform design, infrastructure retention (e.g. roads) and ongoing environmental obligations. Clearing activities required for this part of the Project is not currently anticipated to be undertaken under CPS 123/9 (or any subsequent amendment). The approval pathway for closure activities, including related clearing, is subject to ongoing engagement with State and Commonwealth regulators.

2 Regulatory Framework

CAPL (formerly West Australian Petroleum Pty Ltd) has been operating on Barrow Island since the 1960s and WA Oil predates the introduction of the *Environmental Protection Act 1986* (EP Act). WA Oil (including decommissioning) is a petroleum activity regulated under the Western Australian (WA) *Petroleum Act 1936*, the *Petroleum (Submerged Lands) Act 1982* (PSLA) and associated environmental regulations. In addition, CAPL holds applicable licenses and permits under Part V of the EP Act (including CPS123/9) and Section 40 of the *Biodiversity Conservation Act 2016 (*see Table 2-1 below).

Table 2-1: WA Applicable Legislation and Regulatory Instruments

Legislation	Applicability
Petroleum Act 1936 *And* *Petroleum Act Amendment Act 1966*	This Act governs the L 1H lease. This Act was repealed by the Petroleum Act 1967 (now called the Petroleum and Geothermal Energy Resources Act 1967 [PGERA]), however the *Petroleum Act 1936* continues to apply to the Barrow Island lease and its renewals.
PGERA *and* *Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (PGER(E)R)*	The Petroleum Regulations require an operator to have an accepted Environment Plan (EP) in place for a petroleum activity. The EP is designed to demonstrate that all environmental risks and impacts associated with a petroleum activity are reduced to as low as reasonably practicable and acceptable. These Regulations ensure petroleum activities are consistent with the principles of ecologically sustainable development and are managed in accordance with an EP. The Regulations also ensure the EP has appropriate environmental performance objectives and standards, as well as measurement criteria for determining whether the objectives and standards are met. The PGERA and PGER(E)R applies to L 10. The PGER(E)R (and the *Petroleum Act 1936*) applies to L 1H There are currently two active EPs for WA Oil operations: • BWIJV Legacy Environment Plan • BWIJV Environment Plan These Plans cover current operations as well as the potential risks, impacts and controls measures for all activities to be undertaken during Near Term Operational Decommissioning. EP revisions or new EPs will be required to be submitted for midterm operational decommissioning activities.
Barrow Island Act 2003 (WA)	Enables land on the Barrow Island Nature Reserve to be used under the *Land Administration Act* 1997, for gas processing purposes (Gorgon Joint Venture Project). The Barrow Island Act ratifies and authorises implementation of a State Agreement granted to the Gorgon Joint Venture Project. This Act is relevant to WA Oil as it holds the Barrow Island lease (L 1H) to which this Act refers to for the Gorgon Joint Venture Project and requires the Gorgon Joint Venture Project to '*take into account and make provision as far as practicable for use and sharing of services, facilities and infrastructure*'.
Environmental Protection Act 1986 (EP Act) *and* *EP Act Regulations*	Provides for the prevention, control, and abatement of pollution and environmental harm; and for the conservation, preservation, protection, enhancement, and management of the environment. Part V of the EP Act regulates the operation of prescribed premises. Categories of prescribed premises are set out in the Environmental Protection Regulations 1987 (Schedule 1). WA Oil facilities are operated under EP Act Licence L4467/1972/14 issued to CAPL by the Department of Water and Environmental Regulation (DWER). The Part V categories of prescribed premises assessed in L4467/1972/14, include: Category 10 – oil or gas production from wells

Legislation	Applicability
	Category 37 – char manufacturing (pyrolysis of vegetation) Category 57 – used tyre storage, and Category 61 – liquid waste facility
and *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*	Where required, clearing of native vegetation is undertaken as permitted within the WA Oil tenure for petroleum operations, and in accordance with Clearing Permit CPS 123 or additional clearing permits. The permit imposes limitations on the purpose for what clearing may be undertaken, requirements and procedures to avoid, minimise and reduce impacts and extent of clearing, ground and vegetation disturbance procedures, assessments, inspections and rehabilitation required. As per Condition 23, CAPL reports compliance with CPS 123 annually to DWER. As per Condition 25, an internal audit is conducted annually. In addition, as per Condition 26, an external audit of CAPL compliance to CPS 123 is undertaken every second year by an external accredited auditor and reported to DWER.
Contaminated Sites Act 2003	Provides for the identification, investigation, assessment, registration and remediation of contaminated sites. Applies to suspected contaminated sites associated with activities that are to be reported, investigated, and if necessary, remediated. Under this Act, Barrow Island has been reported and classified as '*Contaminated – remediation required*'. The contaminated site assessments completed on Barrow Island are required to be in accordance with the requirements of the current DWER Contaminated Sites Guidelines. These guidelines reflect the requirements of the WA *Contaminated Sites Act 2003*, the Contaminated Sites Regulations 2006, and the National Environment Protection (Assessment of Site Contamination) Measure 1999 (ASC NEPM) as amended in May 2013. Site assessment and remediation is undertaken in consultation with the DWER Contaminated Sites Branch and the DWER Accredited Contaminated Site Auditor.
Conservation and Land Management Act 1984 (CALM Act) *and* *CALM Act Regulations*	The CALM Act makes provision for 'the use, protection, and management of certain public lands and waters and the flora and fauna thereof', which are vested within the Department of Biodiversity, Conservation and Attractions (DBCA). In accordance with the CALM Act, CAPL must obtain approval from DBCA to take flora or fauna from Barrow Island. Note: some amendments have been made to this Act with the proclamation of parts of the *Biodiversity Conservation Act 2016*. Under the *CALM Act Regulations*, CAPL holds a Regulation 4 Lawful Authority to undertake activities to support oil and gas and ancillary activities. The Lawful Authorities are issued to CAPL by DBCA.

Legislation	Applicability
Biodiversity Conservation Act 2016 (BC Act) *and* *Biodiversity Conservation Regulations 2018*	The *Biodiversity Conservation Act* 2016 (WA) and its Regulations replace the *Wildlife Conservation Act* 1950. Provides protection for biodiversity, particularly threatened species and threatened ecological communities. Regulates the taking and disturbance of fauna (native animals) on all lands and waters, the taking of flora (native plants) on Crown lands and the taking of declared rare flora on all lands. CAPL holds a Ministerial Authorisation under section 40 of the BC Act to relocate fauna and are in the process of applying for a section 40 authorisation to take and disturb threatened species (critically endangered, endangered or vulnerable).
Aboriginal Heritage Act 1972 (WA)	Provides a framework for the recognition, protection, conservation and preservation of Aboriginal cultural heritage.
Underwater Cultural Heritage Act 2018 (UCH Act)	The UCH Act continues the protection of Australia's shipwrecks, and has broadened protection to sunken aircraft and other types of underwater cultural heritage including Australia's Aboriginal and Torres Strait Islander Underwater Cultural Heritage in Commonwealth waters.

3 Proposed Works

The following key activities (as included in the in-force EPs or new EPs, regulated by DEMIRS) will be undertaken during Near Term and Mid Term Operational Decommissioning.

3.1 Well Plug and Abandonment

There are 888 wells on BWI which will continue to be progressively plugged and abandoned. Plug and abandonment typically involves the placement of permanent barriers, usually cement, to isolate permeable hydrocarbon zones from the surface and from each other if required. Well heads will be removed as part of decommissioning activities, following confirmation of successful plug and abandonment of each well.

Equipment is mobilised and set up at the well site on the lease pad. No two well set ups are the same as each lease pad size, location and well are unique, therefore the layout of the rig set up will vary from site to site. In preparation for the rig set up, the lease pads (i.e. hardstand area) may require cleaning & minor site works to allow adequate access and provide a level surface for truck and rig. The rigs used for well plug and a activities are truck mounted workover rigs (see Figure 3-1) which are smaller in scale to oil and gas drilling rigs such as that used for the Gorgon Joint Venture Project (e.g. Ensign rig). Multiple rigs may undertake plug and abandonment activities on Barrow Island at any one time, with one only rig located per well site.

Figure 3-1: Example of a mobile rig used for workovers and plug and abandonment activities

3.2 Facilities Demolition and Removal

Demolition of facilities and infrastructure will be undertaken including but not limited to:

- Satellite stations
- Central Processing Facility (CPF)
- Produced water disposal facility
- Water flood system
- Terminal tank facility
- Flowline and pipeline systems, and
- Barrow Tanker Loading Line (BTLL)
- Gas systems

Removal of support and utility systems including but not limited to:

- Base – central warehouse and workshops, offices, diesel storage, etc
- Former production camp and gymnasium
- Sandblasting and painting facility
- Wellwork washdown facilities
- Central Power Station (CPS)
- Compressor Station

Demolition of redundant facilities (complete or sections) and infrastructure is generally the same for each site and will involve heavy machinery to remove any structures. Demolition activities on hardstand areas will typically include:

- Deconstruction and removal of structural components
- Large structural components will be dismantled or cut to a manageable size on-site using shears, oxy acetylene cutting, demolition hammers, concrete cracker and plate cutter, grabs etc and staged for future transport for disposal off site
- Structures that cannot be downsized at their existing location will be transported to a storage location, for further deconstruction, downsizing and storage
- Concrete foundations and footings will be removed. Below ground embedded sections of power poles may be removed, or alternatively will continue to remain in situ pending assessment to evaluate potential alternative end state. Concrete materials will be broken down to sizes appropriate for transport.

- Uncontaminated concrete will be transported to lay down areas for storage.
- Removal of buried fuel, power, water, gas and communication lines
- All waste material will be transported to staging areas to be disposed or recycled off site.

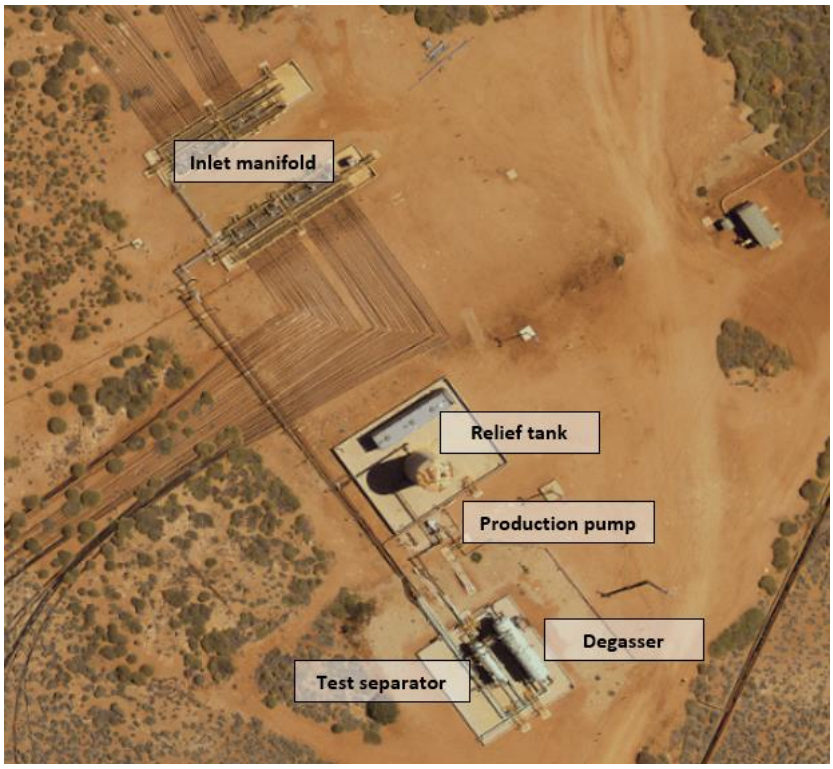

Figure 3-2: Typical Satellite Station (as per Satellite Station A)

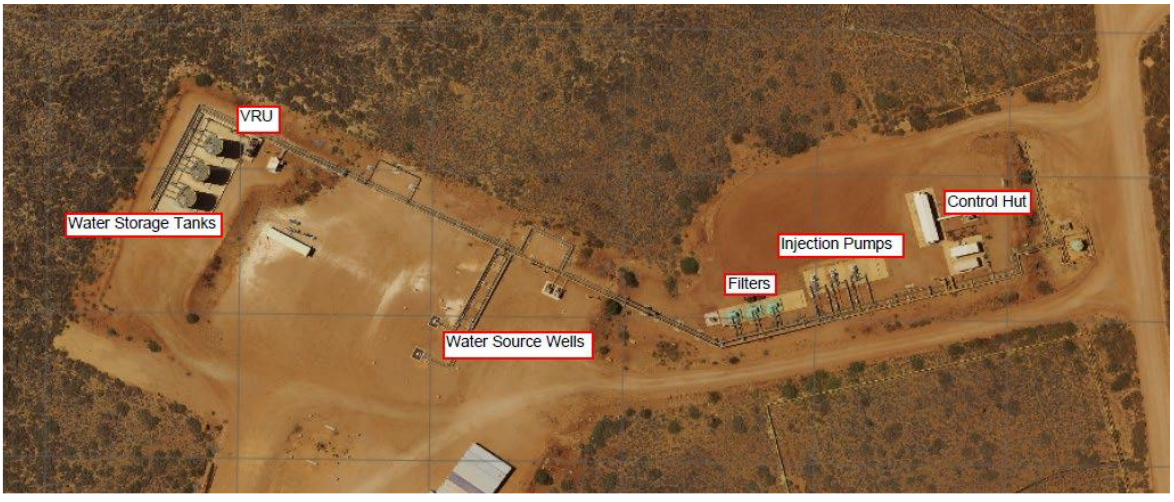

Figure 3-3: Water Flood Station 8

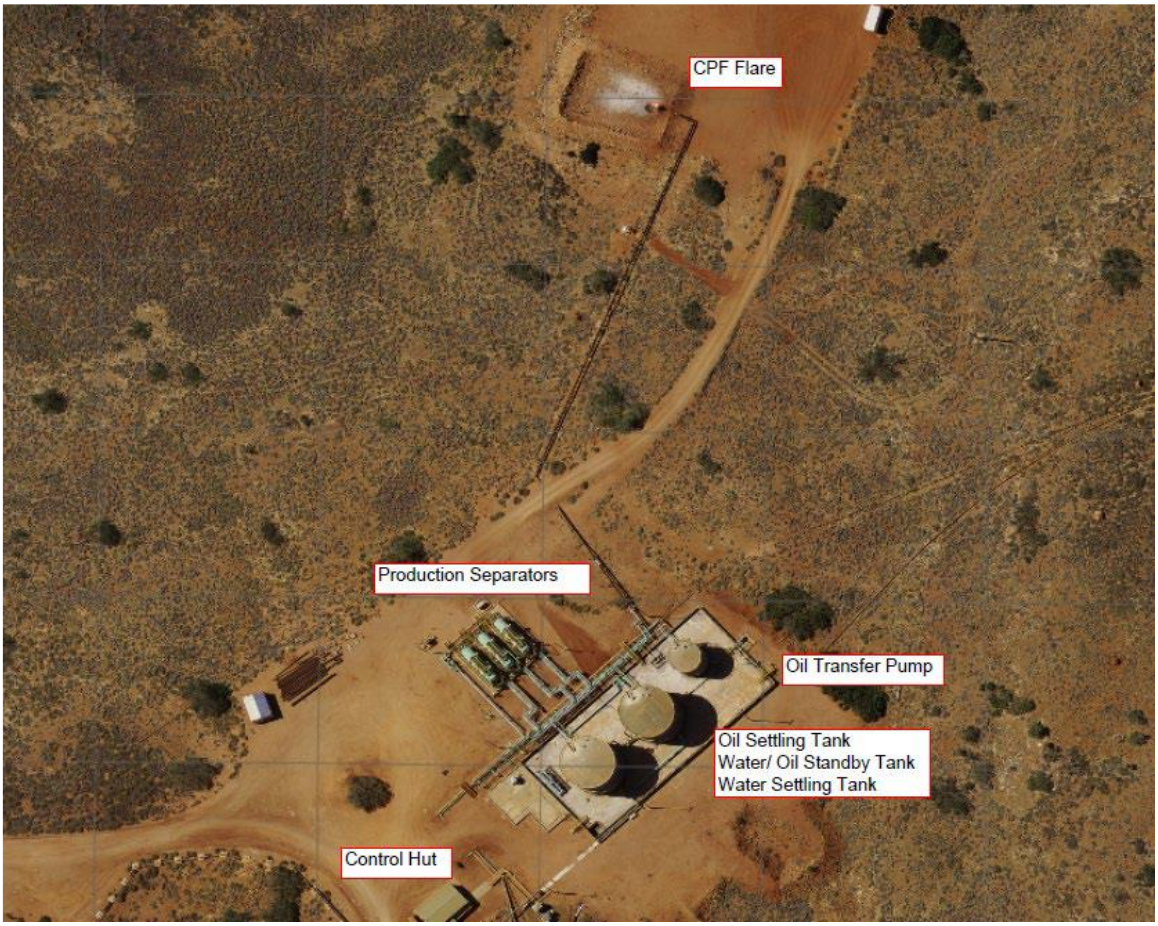

Figure 3-4: Central Processing Facility

Figure 3-5: Produced Water Disposal Facility

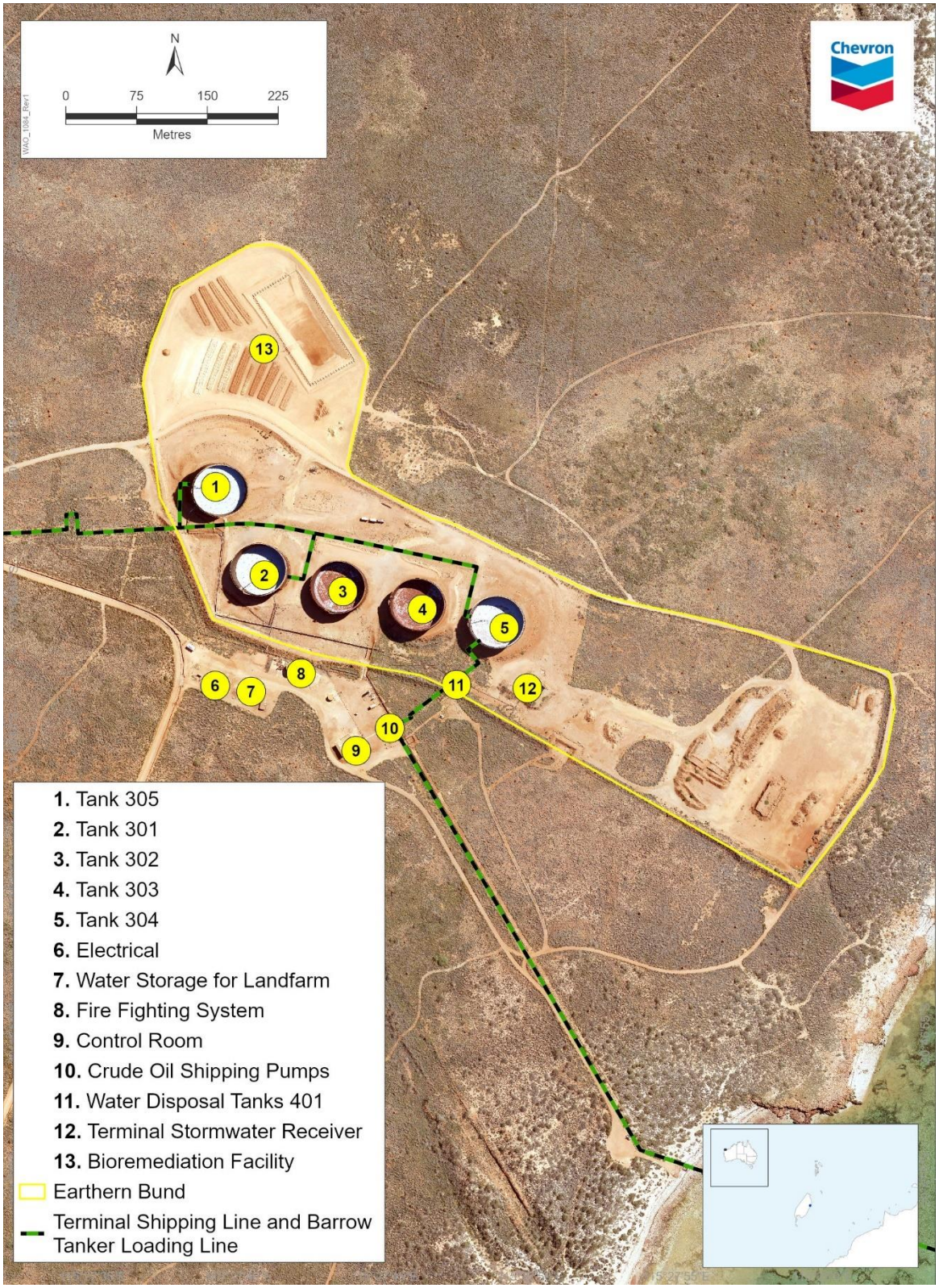

Figure 3-6: Terminal Tank and Bioremediation Facilities

3.2.1.1 Base Area

The central warehouse and workshop area on Barrow Island is known as the Base Area. Some facilities may be retained and removed a later stage of decommissioning. Facilities that may be removed at the Base Area include:

- Central Power Station
- Rig shop
- Utility warehouse / mudwash
- Warehouse
- Workshops
- Operations/maintenance/decommissioning offices, including the laboratory
- Administration building and offices
- Washbay for vehicle service and wash down
- Base air and generator
- Former Central Compressor Station (in decommissioning)
- Diesel storage and bowsers
- Chlorination facility
- Waste storage facility—a dedicated area for the segregation and storage of routine recyclable and non-recyclable wastes.

The location of these facilities at Base Area are depicted in Figure 3-7. Other equipment and areas at or near the base include a fire shed, sand blasting and painting facility, potable water tanks, pumps and generators.

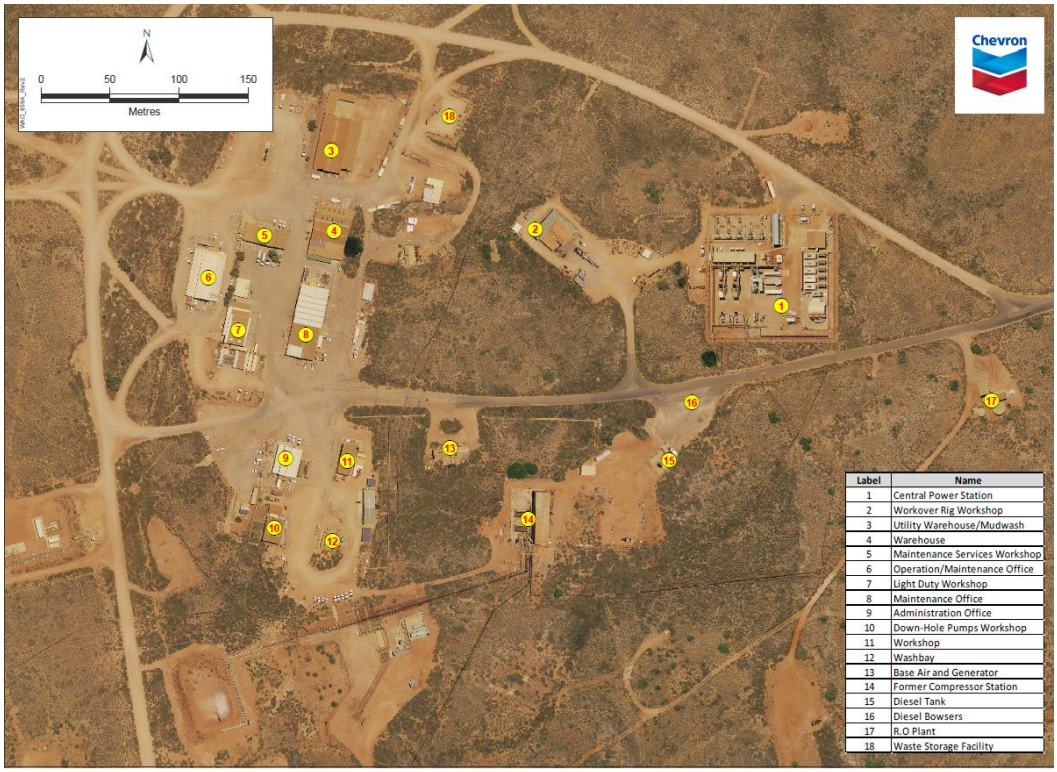

Figure 3-7: Base Area Facilities

3.2.1.2 Former Production Camp

The former production camp is currently in care and maintenance and consists of accommodation buildings, workshops, reverse osmosis plant, switch yard (power supply) and ancillary buildings.

Figure 3-8: Former Production Camp

3.3 Onshore Flowlines and Pipelines

There are approximately 1,080 km of known flowlines and pipelines across the asset. There are also expected un-mapped redundant flowlines in the field estimated to be around 320 km. There are a mixture of carbon steel lines and Glass Reinforced Epoxy (GRE) lines across the asset:

- ~900 km GRE
- ~500 km carbon steel
- ~27,200 pipeline supports of varying types across the asset.

Seven main pipeline and flowline systems are in use on Barrow Island. All lines are above ground except for road crossings. Different methods including pulling and/or cut and lift may be used to remove the lines.

Flowlines and pipelines will be de-inventoried following field shut in and therefore at the time of removal limited residual fluids will remain (worst case spill volume from residual fluids is <1 m^3).

Photograph 3-1: Flowline (<100 mm)

Photograph 3-2: Flowlines (<100 mm)

Photograph 3-3: Pipelines (>100 mm) and pipe supports

Photograph 3-4: Barrow Tanker Loading Line Onshore Pipeline

3.4 Offshore Flowlines and Pipelines

The offshore portion of the BTLL of the pipeline is ~ 10 km in length and terminates at the pipeline end manifold (PLEM) in approximately 17 m water depth. The pipeline is stabilised with a concrete thrust block at the shoreline and rock bolting and rock dumping at specific locations along the subsea section. A series of moorings and buoys are located around the PLEM.

The nearshore component of the BTLL out to approximately 700 m will be removed via terrestrial machinery at low tide. The pipeline will be cut into segments and transferred to shore for processing.

Sewage and greywater from the camp was treated at the wastewater treatment plant (WWTP) located on the east coast. The associated subsea ocean outfall pipeline extends approximately 300 m offshore. The pipeline is comprised of 50 mm HDPE and is planned to be removed from the shore via pulling. Concrete weights positioned along the pipeline will be removed by marine vessel.

3.5 Contaminated Site Management

Barrow Island is classified as '*Contaminated – remediation required*' under the Western Australian *Contaminated Sites Act 2003* (CS Act). The classification is based on the presence of known contamination as a result of historical or current use of the site for a range of potentially contaminating activities, including but not limited to oil and gas exploration, production, refining and storage, bulk fuel and oil storage, maintenance workshops, wastewater treatment, chemical processing, manufacturing and storage, drilling and well maintenance operations, electricity generation, landfilling and port and wharf operations.

The current DWER Basic Summary of Records for the site identifies that historical activities have resulted in 'a number of areas being impacted by contamination, predominantly in the form of hydrocarbon (such as oil) contamination within soil and/or groundwater at the impacted locations'. Other contaminants of potential concern associated with oil field activities include metals, asbestos, and perfluoroalkyl and polyfluoroalkyl substances' (PFAS).

Obligations under the CS Act require contaminated site assessments to be completed across the land area classified. These assessments work by developing a conceptual site model that sufficiently describes any source-pathway-receptor linkages, which supports identification of risk to any receptors that may be impacted by the potential contamination. These risk outcomes underpin decision making on further management or remediation actions required, which then further supports DWER to be able to reclassify the land area under the CS Act. The contaminated site assessments completed on Barrow Island are required to be in accordance with the current DWER Contaminated Sites Guidelines. These guidelines reflect the requirements of the CS Act, the Contaminated Sites Regulations 2006, and the National Environment Protection (Assessment of Site Contamination) Measure 1999 as amended in May 2013. Site assessment and remediation is undertaken in consultation with the DWER Contaminated Sites Branch and the DWER Accredited Contaminated Site Auditors.

Management of sites where operations have ceased and any required isolation, abandonment and decommissioning activities have been completed requires the completion of several activities, such as preliminary and detailed contaminated site assessment, remediation and ongoing monitoring. The need for remediation may be identified following the removal of infrastructure such as foundations, or to prevent human health exposure to contaminants during the activity (e.g. asbestos contaminated well pads). The information obtained during these works will inform the broader contaminated site management, remediation, and rehabilitation requirements for Barrow Island

3.6 Rehabilitation

Rehabilitation activities including landform reinstatement and ecological restoration (Revegetation) are currently undertaken on Barrow Island where operations have ceased and any required isolation, decommissioning and contaminated site management activities have been completed. The Prescription

for the Rehabilitation of Disturbed Areas details the rehabilitation methodology for BWIJV's activities on Barrow Island. This document was revised and approved in 2023. CAPL will continue to undertake ongoing monitoring and management of active rehabilitation sites.

CAPL may undertake rehabilitation activities at discrete areas or develop new rehabilitation trial sites on existing cleared areas however broadscale rehabilitation activities are out of scope. CAPL may also develop a plant nursery to further research and trial flora propagation methods that may enhance rehabilitation outcomes and support broad scale rehabilitation in later Stages of the Project. The nursery will utilise existing hard stand areas, infrastructure and facilities where required.

3.7 Vegetation Disturbance

Care and Maintenance

Following shut-in and decontamination of facilities, care and maintenance activities that may result in disturbance to vegetation will continue to occur. These include but are not limited to weed management, maintenance of fire and safety zones around infrastructure, road grading and accessing infrastructure. These activities are described in CPS123/9 Condition 4.

Well Plug and Abandonment

Prior to well plug and abandonment commencing, the well lease is prepped which may include the removal of vegetation regrowth from within the existing well pad footprint. Based on the type of well (e.g. deep formation), well barrier requirements and the size of the current well pad, the well pad footprint may need to be increased to support the required plug and abandonment equipment. Typically, this would be within the historical disturbance footprint of the well pad e.g. where vegetation has regrown over the well pad. It is expected that approximately 25 well pads may require the existing cleared hardstand area to be expanded. An example of this clearing is illustrated in Figure 3-9.

CAPL may also undertake limited clearing associated with the minor modification of infrastructure and /or access where required to support plug and abandonment activities.

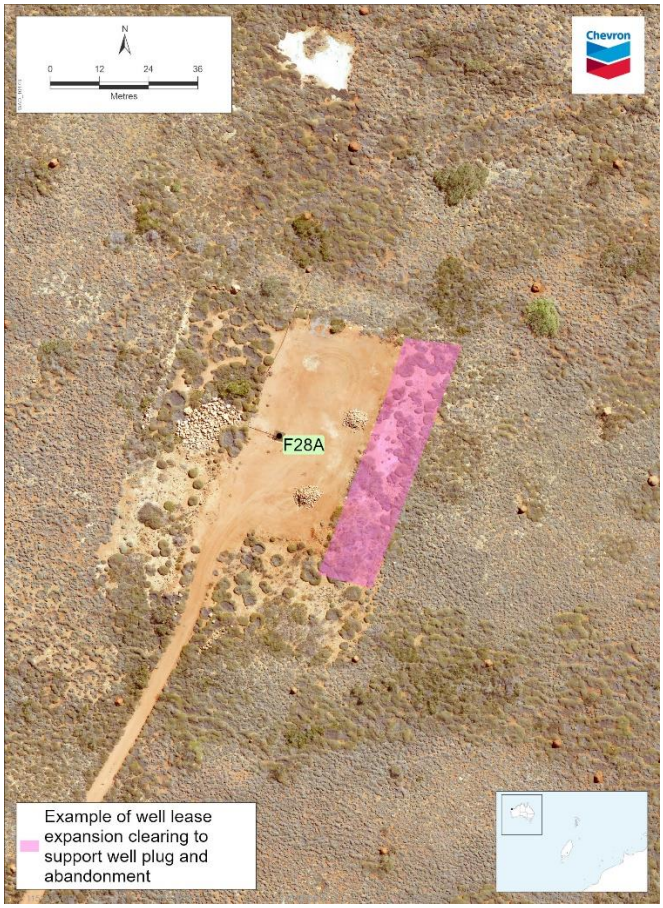

Figure 3-9: Example of well lease expansion vegetation clearing (previously disturbed area)

Contaminated Sites Investigations

Ongoing soil and groundwater investigations are required to assess the potential for impacts to receptors resulting from contamination associated with historical activities and infrastructure on Barrow Island in line with the WA *Contaminated Sites Act 2003.* These assessments are required to make decisions on further contamination management actions necessary (e.g. remediation).

A large proportion of the soil and groundwater investigations will be undertaken within existing cleared areas. The methodology employed will depend on the nature and scale of impacts and may include:

- Manual collection of soil samples using hand trowels, hand augers or similar implements. Requires negligible disturbance of vegetation.
- Test pitting utilising an excavator or backhoe to excavate a test pit typically 3 m in length, 0.5 m width and to a depth of refusal on caprock, which is typically shallow (<1 m) but test pit excavation are extended to no more than 3 m.
- Groundwater well installation, soil coring and boring using a mechanical drill rig with a typical disturbance footprint of approximately 5 x 5 m.
- Disturbance of vegetation during access to the investigation locations.

Assessments of soils off existing cleared areas into vegetation, are typically undertaken to delineate historical spills and releases that have gone off the

operational footprint, or where the operational area has changed over time and the area has revegetated.

Installation of groundwater monitoring wells are required to allow for the assessment of groundwater conditions where there is the potential that infrastructure or activities have had the potential to result in impacts. To minimise vegetation disturbance, groundwater monitoring wells are typically situated on existing cleared areas. However, there may be a need to disturb vegetated areas to support delineation of groundwater impacts. Intermittent access to installed groundwater monitoring wells will be required for the duration of the monitoring program.

Facilities Removal

Onshore facilities are located on bare ground or hardstand such as bitumen, gravel or concrete pads. For fire mitigation and maintenance purposes, facilities and surrounding areas are kept free of vegetation. Vegetation clearing will not be required with the exception of potential vegetation regrowth. Facilities removal will not increase the current BWIJV disturbance footprint.

Power distribution network removal

The power distribution networks consists of approximately 850 concrete power poles, concrete footings, overhead line and on-ground cables. Minor sections of underground cable are associated with road crossings. For maintenance access, an existing unsealed track is present alongside the entire overhead network. Only incidental disturbance of vegetation is expected during removal of the overhead network and is largely associated with the removal of power pole concrete footings and access. Following removal, excavations outside of hardstand areas will be reinstated.

Photograph 3-5: Overhead Power Distribution Network

During operations, each well pad is supplied power via a 1000-volt HDPE wrapped on-ground cable (ranges from 16 to 35 mm diameter [see Photograph 3-6 to Photograph 3-10]). There is approximately 250 km of on-ground cable to be removed during decommissioning. The cable will be removed via mechanical pulling towards existing hardstand areas or removal by hand. During pulling some minor lateral movement of the cable may occur. The weight of the cable is unlikely to result in permanent damage to vegetation should the cable move over vegetation during removal. Due to the light weight of the cable and small

diameter, any impacts are expected to be minor, temporary and largely limited to the pre-existing footprint of the cable.

Photograph 3-6: On-ground power cables exiting well lease

Flowlines and Pipelines

A variety of flowline and pipeline removal methodologies will be employed during decommissioning (see Section 3.3).

To minimise vegetation disturbance small diameter lines (<100 mm) are planned to be removed via pulling. On-ground lines that are <100 mm are referred to as flowlines. Flowlines will be mechanically pulled towards an existing cleared hardstand area. Vegetation may be impacted from disturbance of vegetation growing over the line, between lines (bundled arrangement) or the potential lateral movement of the line during pulling. Pegging of the line at regular intervals will be undertaken to prevent lateral movement. Flowlines not able to be pulled, will be walked out on foot. Flowlines comprise the largest portion of the on-ground pipe network.

Vegetation impacts are expected to be minor, temporary and largely limited to the pre-existing <100 mm disturbance footprint. CAPL currently considers that clearing from the flowline removal activity will not exceed existing permit allowances. This is supported by observations from an in-field flowline removal trial (see Photograph 3-7 to Photograph 3-10).

Photograph 3-7: Post flowline removal (pulled) ground disturbance

Photograph 3-8: Post flowline removal (pulled) ground disturbance

Photograph 3-9: Post flowline removal (pulled) ground disturbance (yellow line shows position of removed flowline)

Photograph 3-10: **Post flowline removal (pulled) ground disturbance (yellow line shows position of removed flowline)**

Larger diameter pipelines (>100 mm) such as bulk fluid lines, sit on pipe supports and will be removed via a cut and lift technique. Heavy vehicles will require access to within 5 m of the line (crane arm reach). All pipeline (>100 mm) corridors have historically been cleared during installation and again during replacement or maintenance where required. The majority of pipelines have at one point been accompanied by an adjacent maintenance track. Some tracks have been rehabilitated or revegetated naturally. The current Barrow Island Road and Maintenance track Network as per Annex 6 of CPS123/9 is shown in Figure 3-10. Where a maintained track is present, vegetation disturbance is expected to be negligible.

For lines without direct access or where the track has vegetation regrowth, heavy vehicles will be required to drive over vegetation. Vehicles may include a flat-bed trailer, truck with hiab lift capability (or similar) and light vehicles. Depending on the storage capacity of the trailer and distance between vehicle access points, the work crew may be required to undertake multiple trips along the same track, thereby impacting vegetation through trampling. Driving impacts to vegetation are expected to range in severity from minor damage up to plant mortality with disturbance largely limited to the area of impact from the tyre treads. The area between the tyres is expected to remain relatively undisturbed, except for tall shrubs (trees will be avoided). Offroad driving by heavy vehicles may result in soil compaction hindering the vegetations regeneration potential. Vegetation growing over or between lines may be disturbed during removal, but it is expected to be minor and temporary (minimal impact to root stock).

Concrete pipe supports vary in size depending on age and substrate (see Photographs 3-11 and 3-12). Some foundations comprise of concrete blocks resting on the ground surface and others may have buried concrete foundations. There are approximately 135 km of pipelines sitting on pipe supports. CAPL currently considers that clearing from the pipeline removal activity will not exceed existing permit allowances. Disturbance associated with removal of pipe supports will be small, discrete and dispersed.

Photograph 3-11: Pipeline (>100 mm) concrete block supports

Photograph 3-12: Pipeline (>100 mm) pipe supports with buried foundations

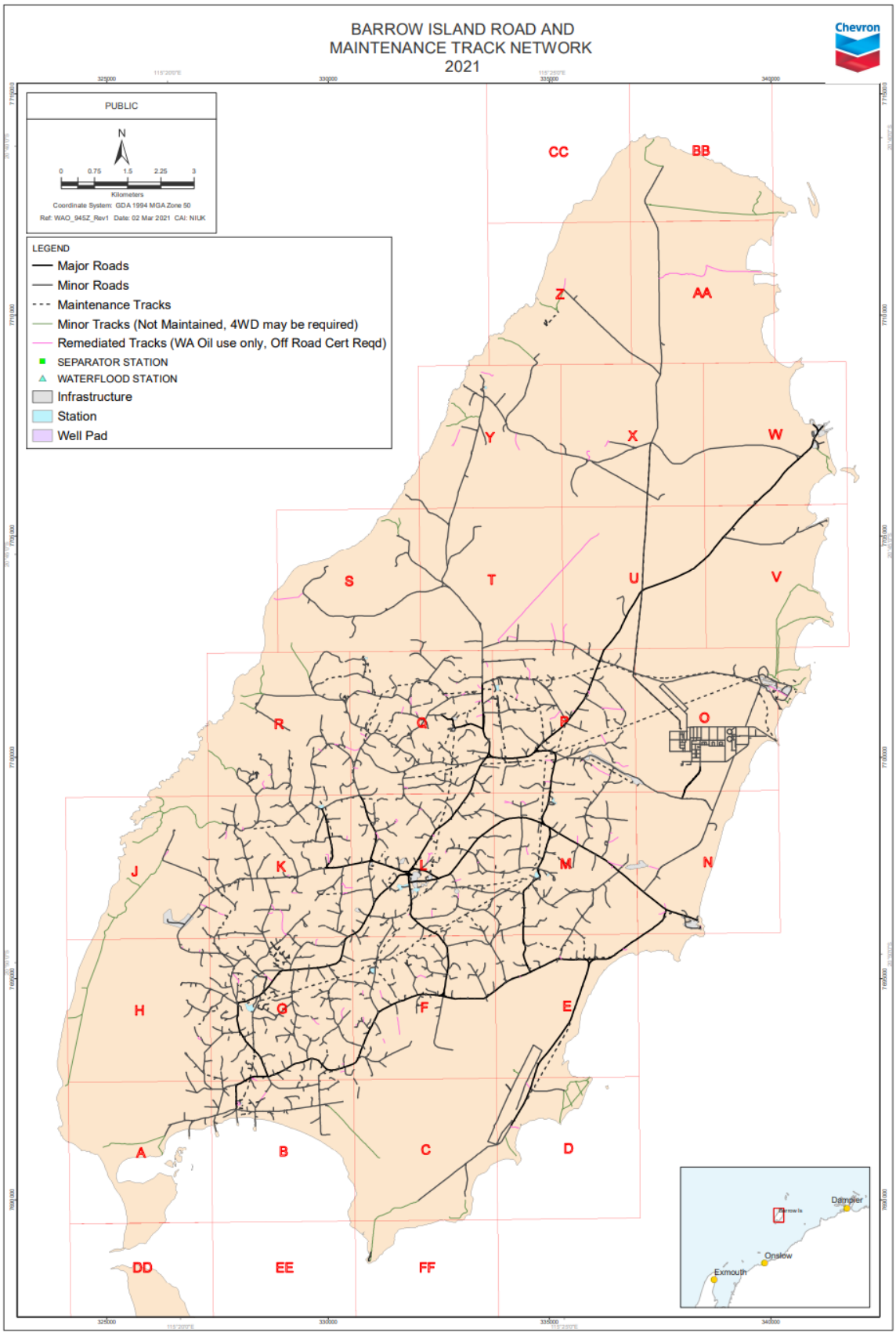

Figure 3-10: CPS123/9 Annex 6: Barrow Island Road and Maintenance Track Network

Mapped vegetation units within 2 m of flowlines (either side) and 5 m of pipelines represents the potential work area (not clearing footprint) and is presented Figure 3-11 to Figure 3-21. Vegetation mapping, as based on Mattiske 1996, shows that the majority of lines are situated within Hummock grasslands of *Triodia wiseana* (see Table 3-1).

Table 3-1: Flowline and Pipeline work area vegetation composition

Vegetation Community	Work Area % Vegetation composition
V1 Hummock Grassland of Triodia wiseana with mixed emergent shrub species on valley slopes	44.35
L3 Hummock Grassland of Triodia wiseana with low mixed shrubs including Acacia gregorii on limestone ridges	15.43
L1 Hummock Grassland of Triodia wiseana with Ficus platypoda var. platypoda on central limestone ridges.	14.71
L7 Hummock Grassland of Triodia wiseana with dense pockets of Melaleuca cardiophylla on limestone ridges	11.14
D2 Hummock Grassland of Triodia angusta along minor creek-lines and drainage lines	5.04
L4 Hummock Grassland of Triodia wiseana with dense emergent shrubs of Acacia pyrifolia, Acacia gregorii and Petalostylis labicheoides on limestone ridges	2.98
F5 Mixed Hummock Grassland of Triodia pungens - Triodia angusta on fringes of main red earth flats and drainage lines.	2.16
F6 Hummock Grassland of Triodia pungens on slopes of escarpments on fringes of red earth flats **(CPS 123/9 Annex 3 significant vegetation community)**	1.23
L9 Hummock Grassland of Triodia wiseana - Triodia angusta with emergent Sarcostemma viminali spp. australe and Ficus platypoda var. platypoda on coastal limestone flats and low ridges with localised pockets of Frankenia pauciflora	0.813
Triodia spp with varying composition characteristics.	0-0.8%

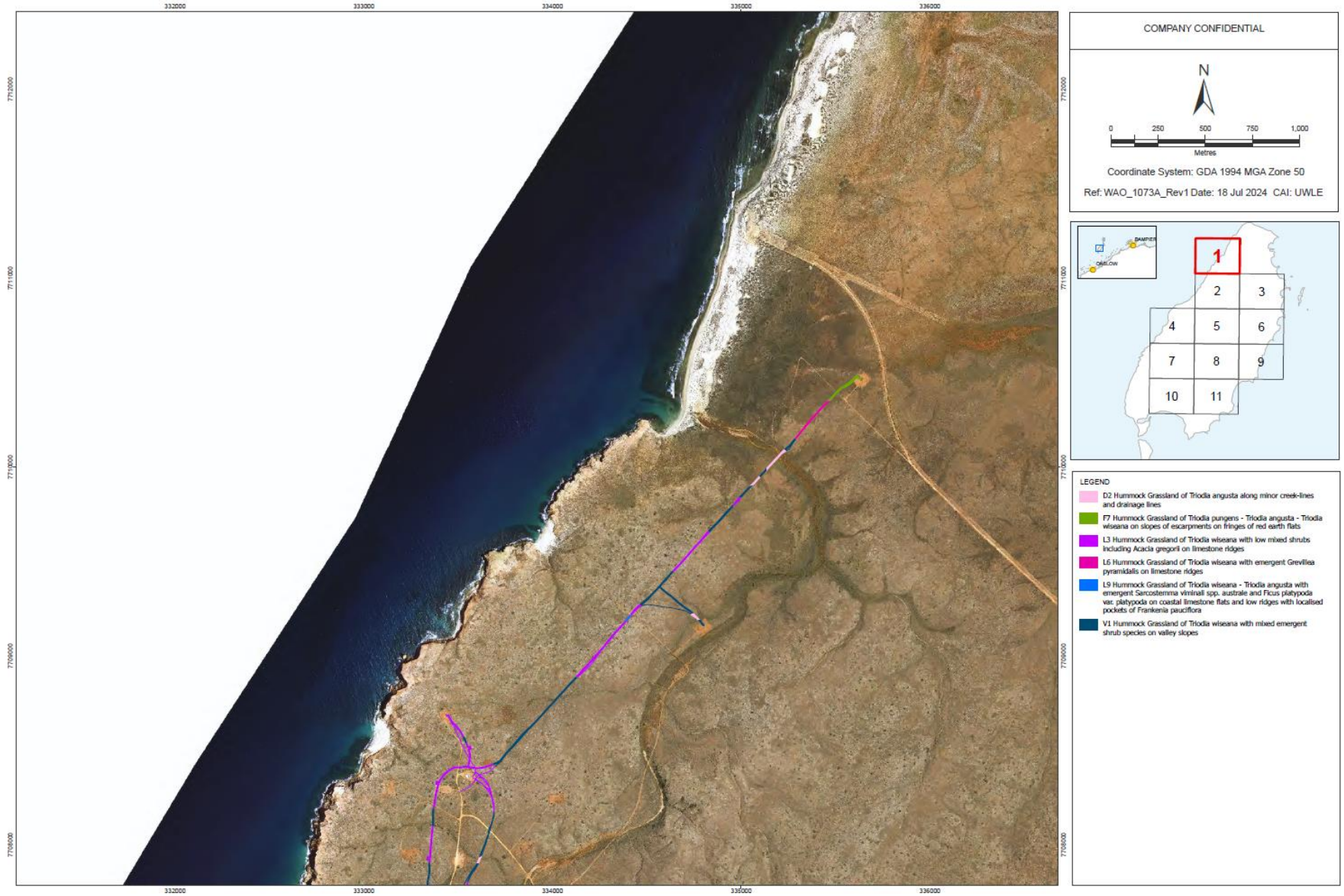

Figure 3-11: Vegetation Community: Flowline and Pipeline Removal Work Area

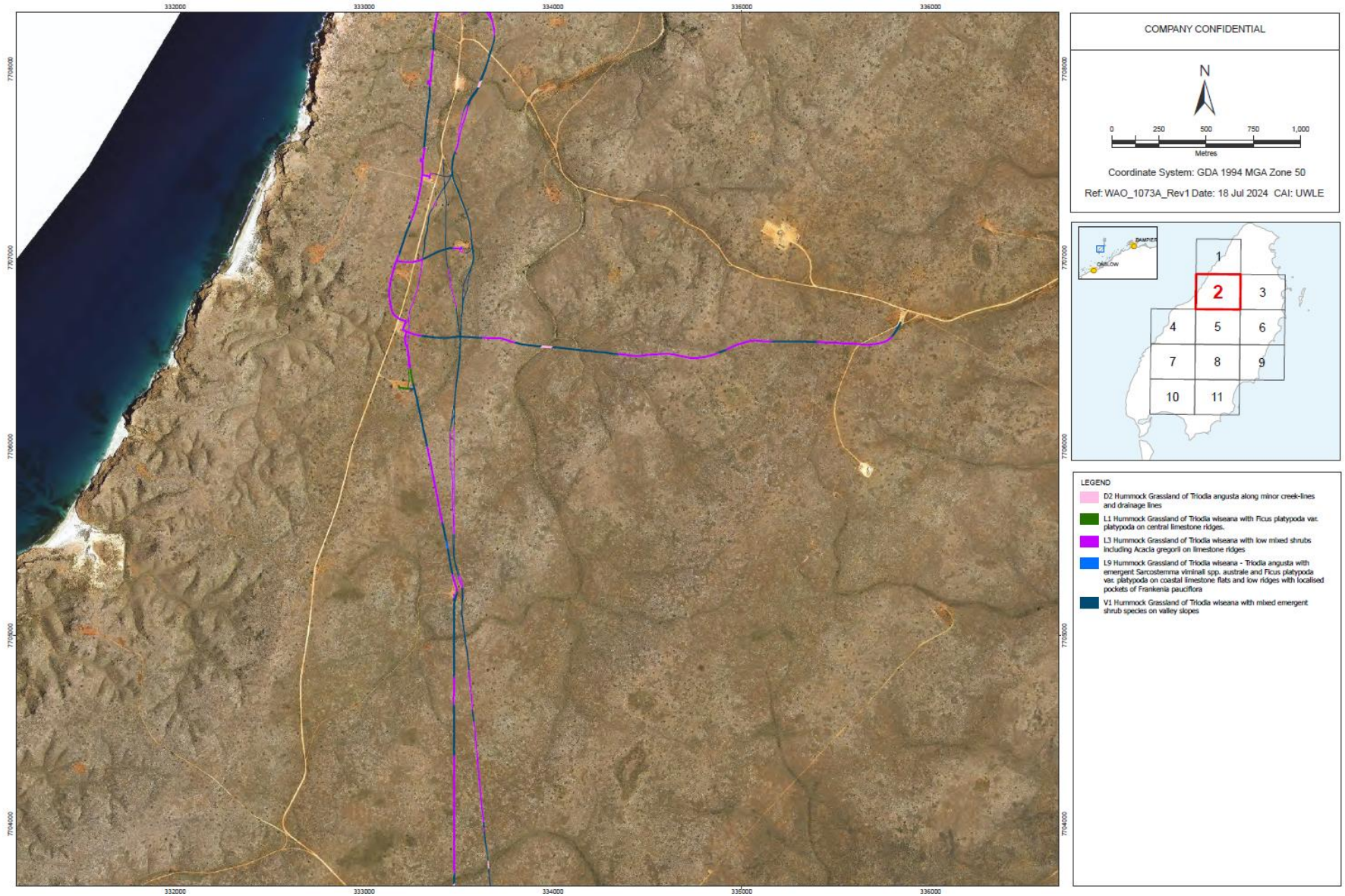

Figure 3-12: Vegetation Community: Flowline and Pipeline Removal Work Area

Figure 3-13: Vegetation Community: Flowline and Pipeline Removal Work Area

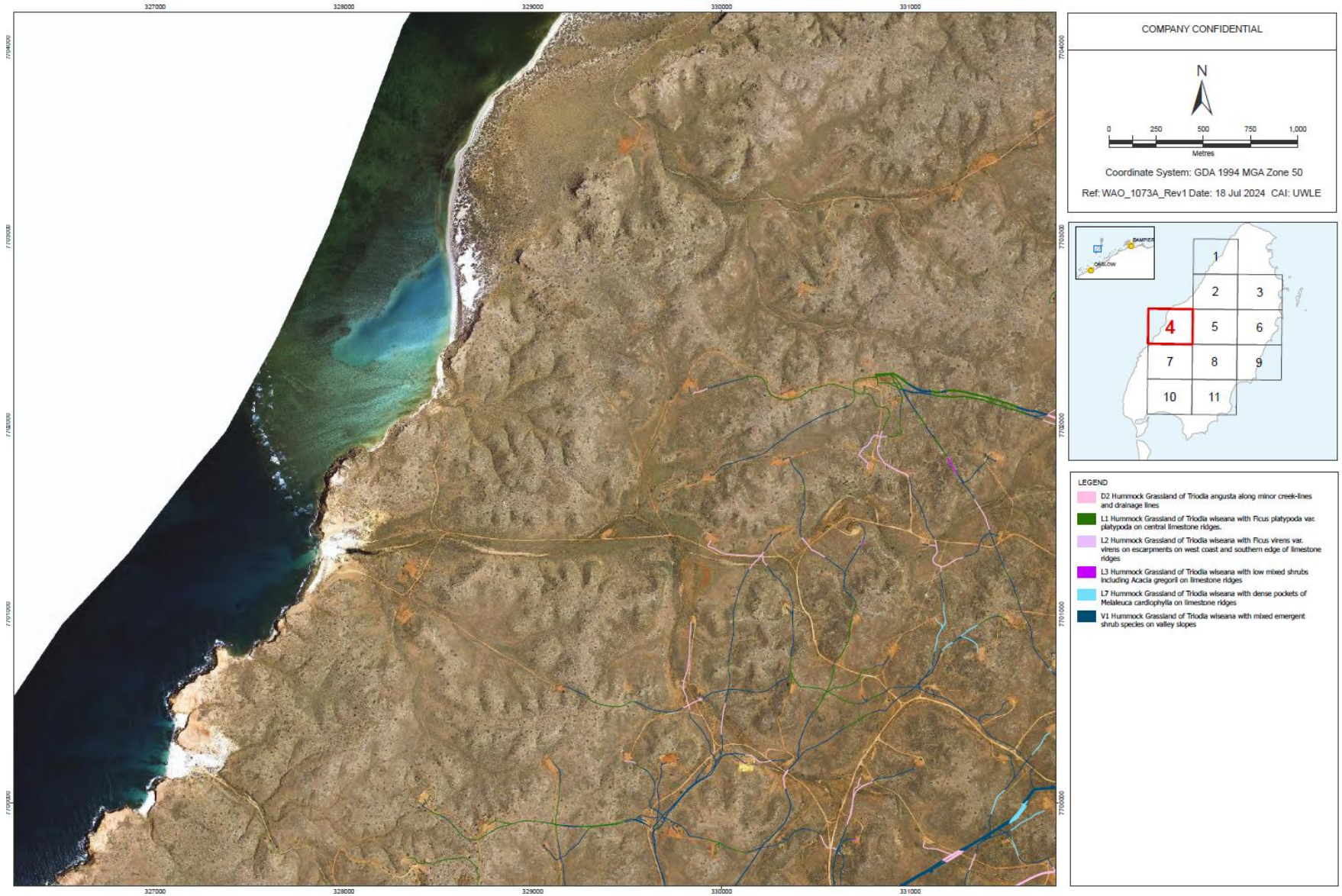

Figure 3-14: Vegetation Community: Flowline and Pipeline Removal Work Area

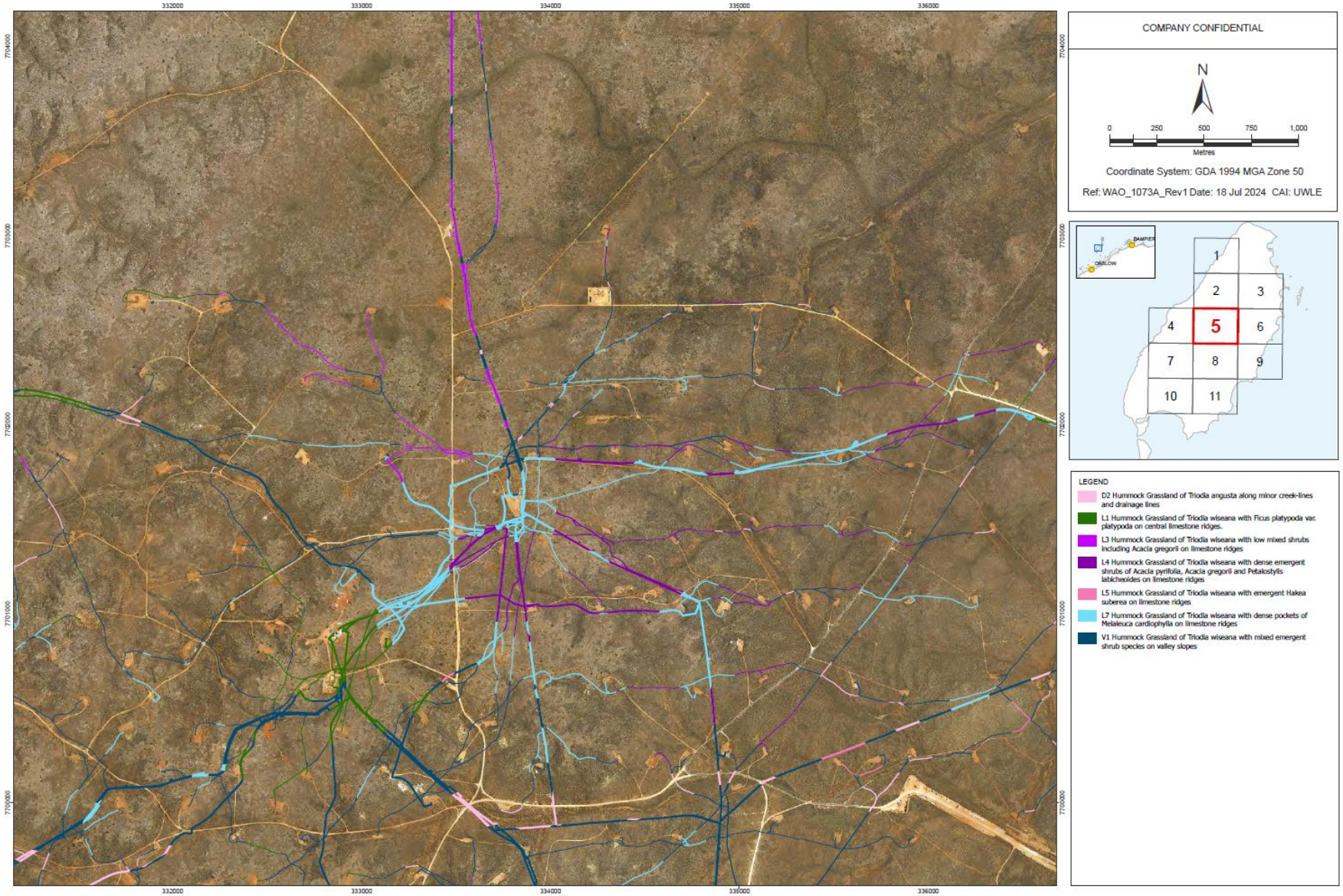

Figure 3-15: Vegetation Community: Flowline and Pipeline Removal Work Area

Figure 3-16: Vegetation Community: Flowline and Pipeline Removal Work Area

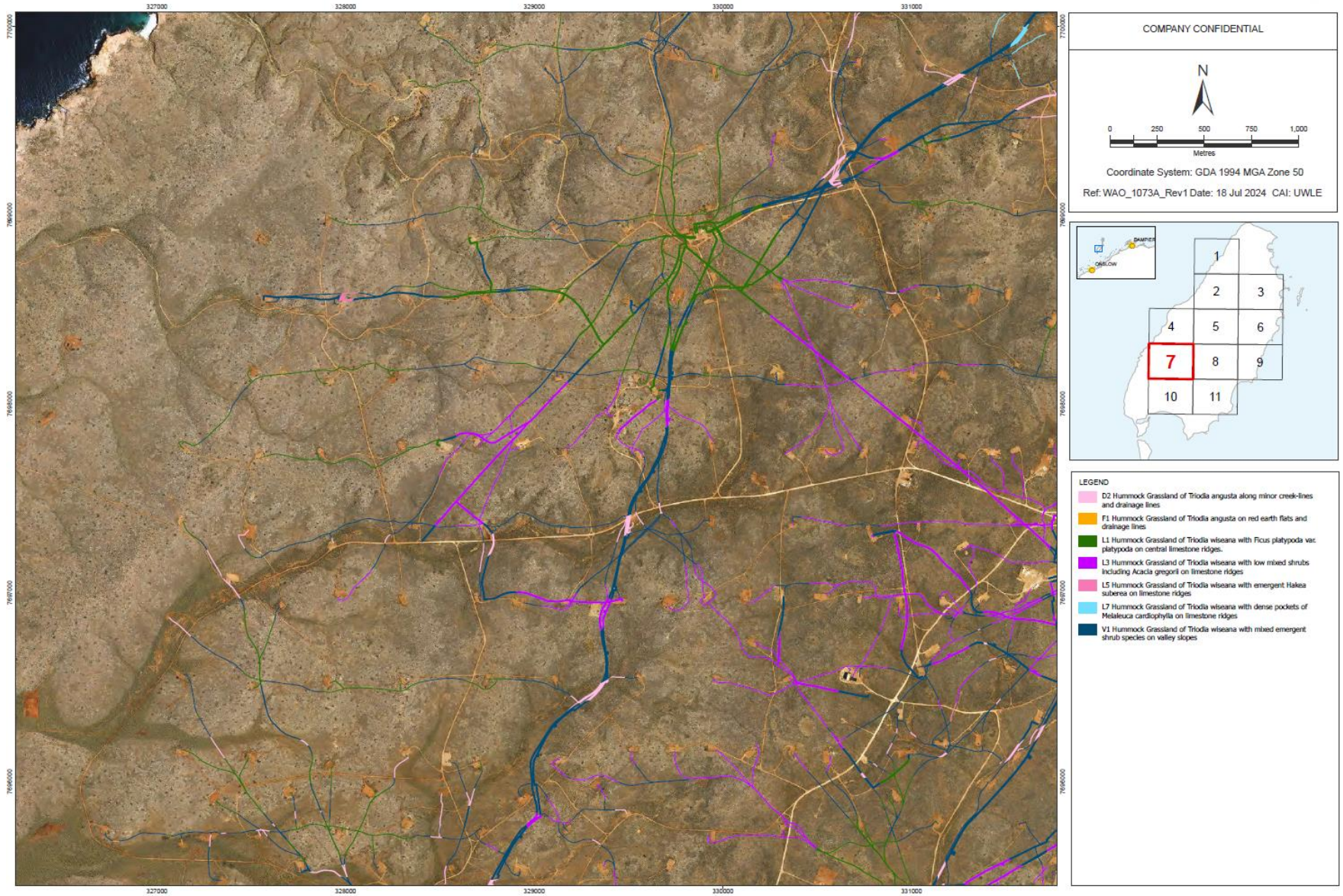

Figure 3-17: Vegetation Community: Flowline and Pipeline Removal Work Area

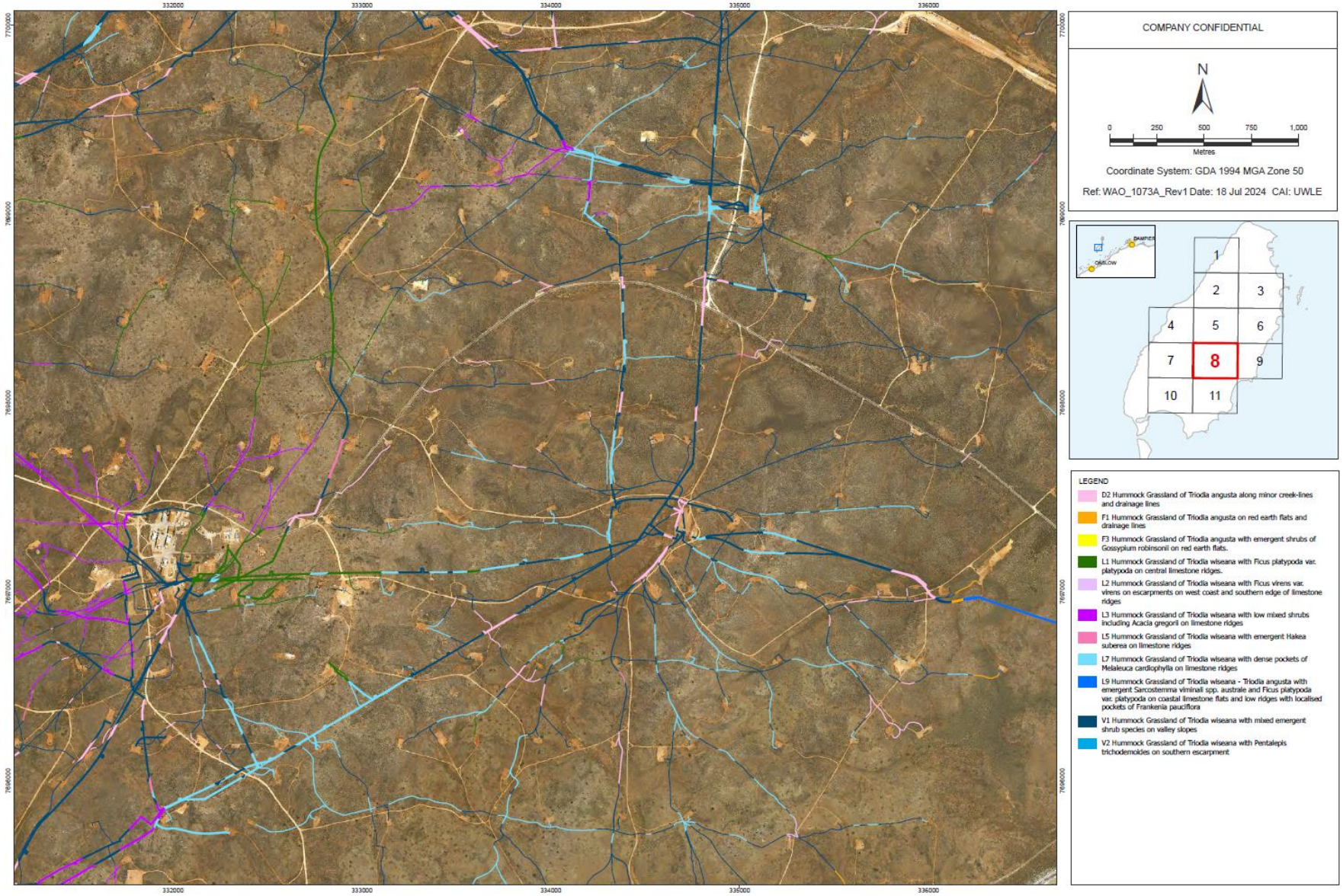

Figure 3-18: Vegetation Community: Flowline and Pipeline Removal Work Area

Figure 3-19: Vegetation Community: Flowline and Pipeline Removal Work Area

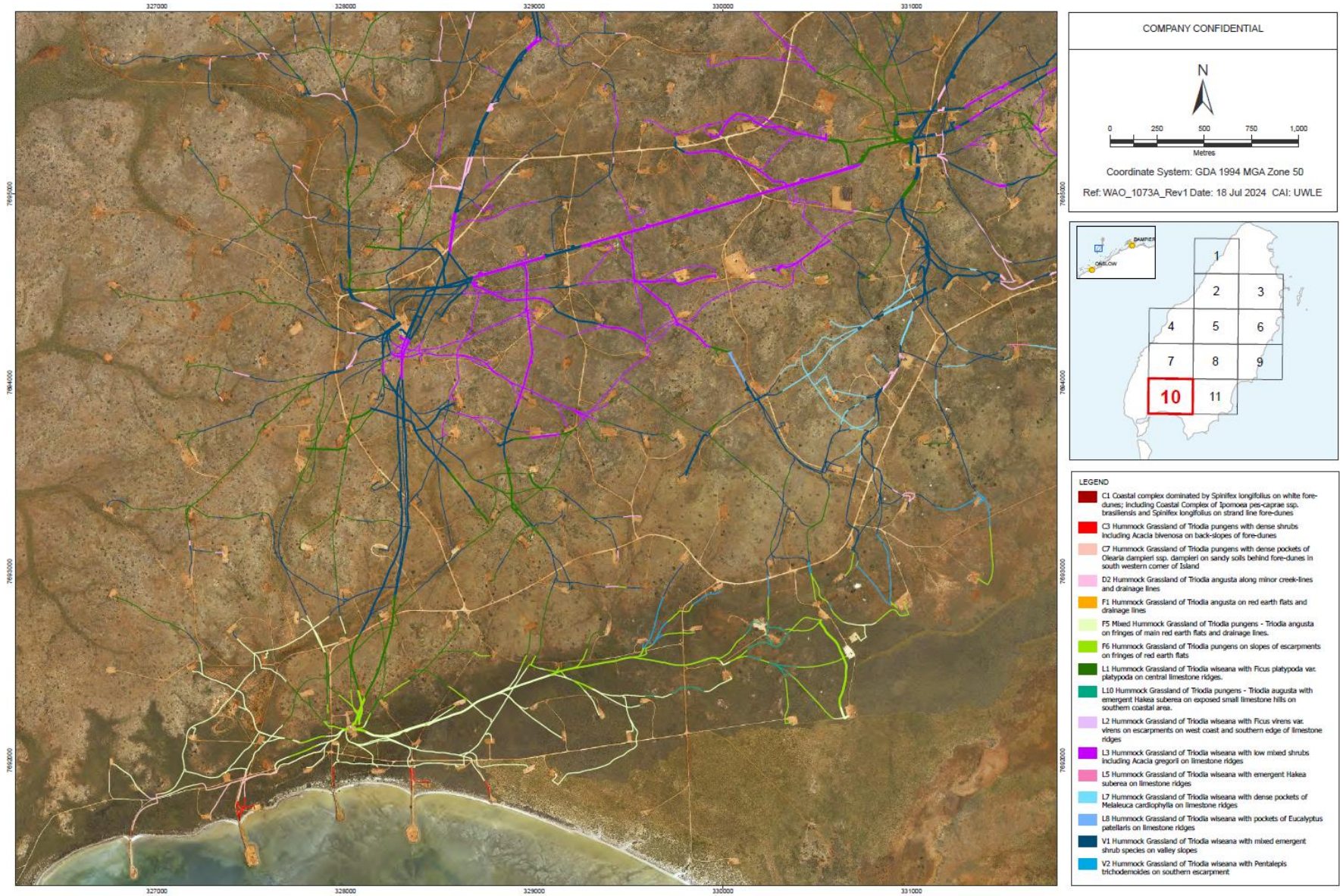

Figure 3-20: Vegetation Community: Flowline and Pipeline Removal Work Area

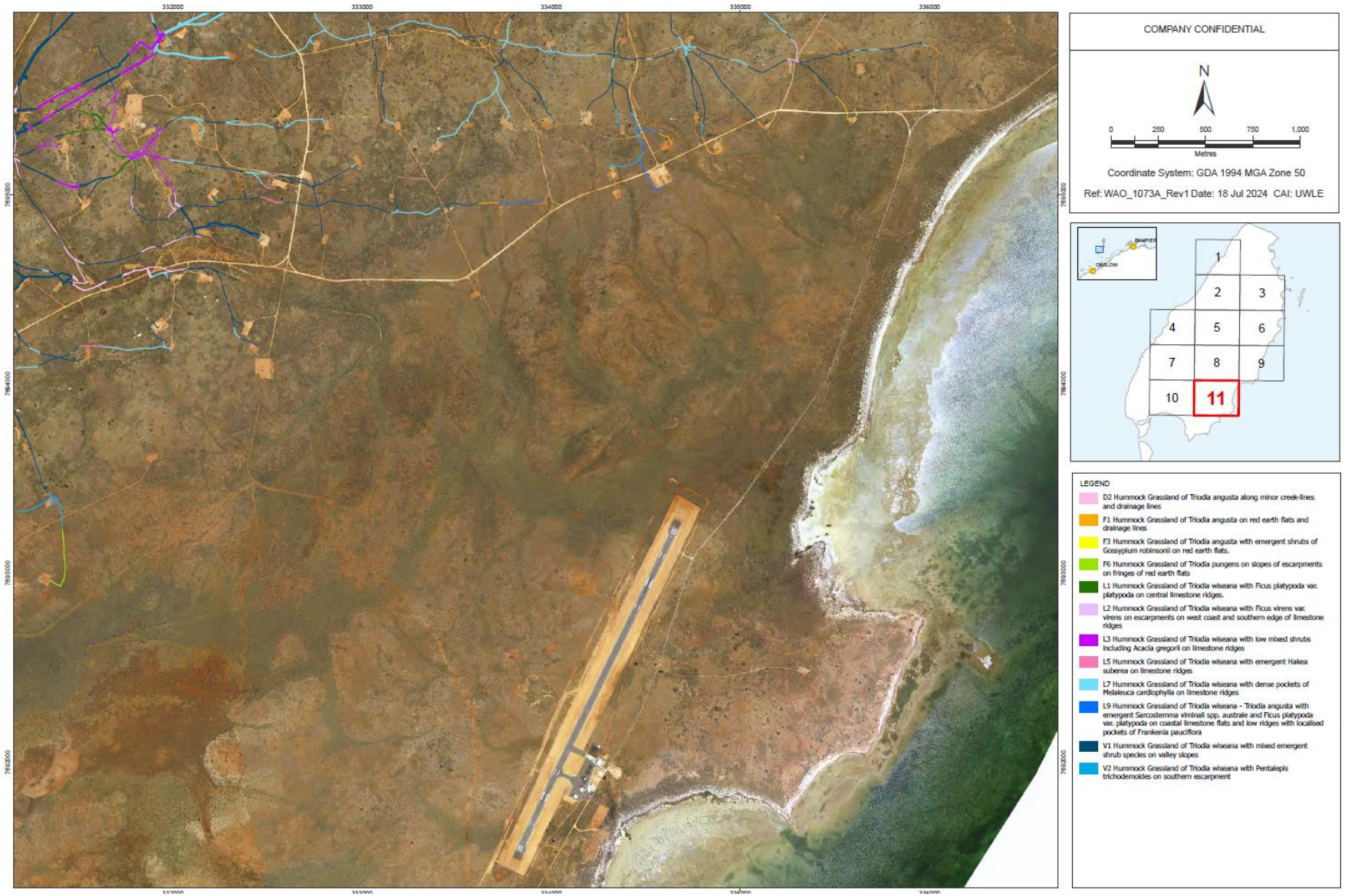

Figure 3-21: Vegetation Community: Flowline and Pipeline Removal Work Area

4 Proposed Amendments to CPS 123/9

Note strikethrough denotes a removal of wording from the original condition. Only conditions where an amendment has been proposed are detailed below, all other conditions remain unchanged with the exception of numbering.

Permit Duration
June 2006 – 12 Jun 2027
Proposed Amendment: Extend permit duration to 28 January 2030
Justification: Petroleum Lease L1 H as approved by the Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) under the *Petroleum and Geothermal Energy Resources Act 1967* expires on the 28 January 2030. Petroleum activities including obligations under the lease (such as removal of infrastructure and well plug and abandonment) that may result in the impacts to native vegetation will continue to be undertaken until expiry of the lease.
Condition 1: Purpose for which clearing may be done Clearing for the purpose of infrastructure maintenance, pipelines, minor works and emergencies.
Proposed Amendment: Clearing for the purpose of operation, maintenance and decommissioning of the Barrow Island oil field, including emergency response
Justification: The current purpose is highly prescriptive and does not align with the approved clearing activities as detailed in the permit e.g. permit includes disturbance associated with decommissioning of the Barrow Tanker Loading Line. As the implementation of the permit is bound by the purpose, CAPL's ability to undertake the approved activities as per the conditions, following end of field life for the purpose of decommissioning may be restricted. Decommissioning activities under Condition 5 and 6 are defined as 'minor works'. CAPL notes that it intends on removing all WA Oil infrastructure on Barrow Island, as such the use of the term 'minor' is not considered appropriate for the scale of the activity.
Condition 4: Clearing for Infrastructure Maintenance Authorised
Proposed Amendment: **Clearing for Onshore Activities Authorised**
Justification: Activities listed under this condition such as (f), (h), (i), (k), (m) and (n) may not be undertaken directly for the purpose of 'infrastructure maintenance'. The definition of 'maintenance' is not included in the permit. The Oxford dictionary definition of maintenance is 'the act of keeping something in good condition by checking or

repairing it regularly'. CAPL will commence the shut-in of the oil field in early 2025, followed by removal of infrastructure. Until mid-term decommissioning activities on the Island are complete, activities listed under Condition 4 will still be required (e.g. driving on access tracks and environmental monitoring) but would not be considered for the purpose of 'infrastructure maintenance'.

Condition 4:

In accordance with this Permit, the Permit Holder may clear previously disturbed vegetation without complying with Part II for the purposes of:
(a) maintaining and operating existing production, waterflood and watersource wells, cathodic cabinets and cables, roadside bollards, main camp infrastructure, sewer lines, airport perimeter beacons, airport perimeter fencelines and other similar infrastructure, other than pipelines[1];
(b) providing safety buffers around the infrastructure referred to in 4(a);
(c) replacing and upgrading infrastructure referred to in 4(a) in the same location;
(d) maintaining and grading existing graded roads, and maintaining and removing windrows;
(e) operating and carrying out works within hardstand areas;
(f) driving on access tracks;
(g) accessing power poles for repair and maintenance provided that the distance traversed from a graded road or access track to the power pole is less than 50 metres in total in one direction;
(h) active rehabilitation carried out in accordance with condition 18;
(i) assessing, monitoring and removal of dead vegetation at leak sites to allow for regeneration;
(j) clearing areas for maintenance of conduits passing under road crossovers;
(k) decommissioning and removal of redundant pipelines and road crossings;
(l) removing vegetation in areas previously cleared in order to maintain the effectiveness of a pipeline to the extent of 5 metres from the pipeline;
(m) environmental monitoring and investigation activities including biodiversity monitoring, bore construction, and soil and groundwater sampling and monitoring associated with contamination assessment, remediation and rehabilitation; and
(n) incidental clearing resulting from weed management activities involving herbicide use.
The clearing described in condition 4 is not subject to the 105 hectare limit on total clearing that otherwise applies to this Permit.

6. Other Clearing Authorised

In accordance with this Permit, the Permit Holder may clear up to 105 hectares of vegetation, to the extent reasonably necessary (including necessary safety buffers) for the purposes of:
(a) installing road side bollards;
(b) exploring and taking material at borrow pits;
(c) reducing fire risk around oilfield facilities;
(d) installation and modification of infrastructure at the central processing facility for the produced water reinjection project;
(e) accessing any infrastructure;
(f) environmental monitoring and investigation activities including biodiversity monitoring, bore construction, and soil and groundwater sampling and monitoring associated with contamination assessment, remediation and rehabilitation;
(g) remediation, including excavation of contaminated soil and installation of remedial devices;
(h) active rehabilitation carried out in accordance with condition 18;
(i) clearing from the base of overhead powerlines;

(j) installing, constructing, replacing, maintaining and operating airport perimeter beacons, water source wells and other similar minor works necessary for the maintenance, operation or upgrade of existing infrastructure other than pipelines; and
(k) activities associated with decommissioning, demolition and abandonment of infrastructure

Proposed Amendment:

Proposed amendments to Condition 4 (track changes):

In accordance with this Permit, the Permit Holder may clear up to 105 hectares of vegetation, to the extent reasonably necessary (including necessary safety buffers) for the purposes of:

(a) maintaining and operating existing ~~production, waterflood and watersource wells, cathodic cabinets and cables, roadside bollards, main camp~~ infrastructure and facilities ~~sewer lines, airport perimeter beacons, airport perimeter fencelines and other similar infrastructure other than pipelines~~[1]
(b) providing safety buffers and fire reduction zones around ~~the~~ infrastructure and facilities ~~referred to in 4(a);~~
(c) replacing ~~and~~ upgrading or installing infrastructure and facilities ~~referred to in 4(a) in the same location;~~
(d) maintaining and grading existing graded roads, and maintaining and removing windrows;
(e) operating and carrying out works within hardstand areas;
(f) driving on access tracks;
~~(g) accessing power poles for repair and maintenance provided that the distance traversed from a graded road or access track to the power pole is less than 50 metres in total in one direction;~~
(h) active rehabilitation carried out in accordance with condition 18;
(i) assessing, monitoring and removal of dead vegetation at leak sites to allow for regeneration;
(j) clearing areas for maintenance of conduits passing under road crossovers;
~~(k) decommissioning and removal of redundant pipelines and road crossings;~~
(l) removing vegetation in areas previously cleared in order to maintain the effectiveness of a pipeline to the extent of 5 metres from the pipeline;
(m) environmental monitoring and investigation activities including biodiversity monitoring, bore construction, and soil and groundwater sampling and monitoring associated with contamination assessment, remediation and rehabilitation; and
(n) incidental clearing resulting from weed management activities involving herbicide use

Condition 6 is deleted and the activities within Condition 6 identified below are to be incorporated into amended Condition 4:

~~(a) installing road side bollards;~~
(b) exploring and taking material at borrow pits;
~~(c) reducing fire risk around oilfield facilities;~~
~~(d) installation and modification of infrastructure at the central processing facility for the produced water reinjection project;~~
(e) accessing any infrastructure or area;
~~(f) environmental monitoring and investigation activities including biodiversity monitoring, bore construction, and soil and groundwater sampling and monitoring associated with contamination assessment, remediation and rehabilitation;~~
(g) remediation, including excavation of contaminated soil and installation of remedial devices;

~~*(h) active rehabilitation carried out in accordance with condition 18;*~~

(i) clearing from the base of overhead powerlines

~~*(j) installing, constructing, replacing, maintaining and operating airport perimeter beacons, water source wells and other similar minor works necessary for the maintenance, operation or upgrade of existing infrastructure other than pipelines; and*~~

(k) activities associated with decommissioning, demolition and abandonment of infrastructure and facilities (including pipelines)

Proposed Amendment to Condition 4 (clean version combining activities in both Condition 4 and 6):

In accordance with this Permit, the Permit Holder may clear up to 105 hectares of vegetation, to the extent reasonably necessary (including necessary safety buffers) for the purposes of:

a) maintaining and operating existing infrastructure
b) providing safety buffers and fire reduction zones around infrastructure and facilities
c) replacing, upgrading or installing infrastructure and facilities
d) maintaining and grading existing graded roads, and maintaining and removing
e) windrows;
f) operating and carrying out works within hardstand areas;
g) driving on access tracks;
h) active rehabilitation carried out in accordance with condition 18;
i) assessing, monitoring and removal of dead vegetation at leak sites to allow for
j) regeneration;
k) clearing areas for maintenance of conduits passing under road crossovers;
l) removing vegetation in areas previously cleared in order to maintain the effectiveness of a pipeline to the extent of 5 metres from the pipeline;
m) environmental monitoring and investigation activities including biodiversity monitoring, bore construction, and soil and groundwater sampling and monitoring associated with contamination assessment, remediation and rehabilitation; and incidental clearing resulting from weed management activities involving herbicide use
n) exploring and taking material at borrow pits;
o) accessing any infrastructure or area (by vehicle or machine);
p) remediation, including excavation of contaminated soil and installation of remedial devices;
q) clearing from the base of overhead powerlines
r) activities associated with decommissioning, demolition and abandonment of infrastructure and facilities (including pipelines)

Clearing activities as described in Condition 4) occurring in pre-disturbed areas are not subject to the 105 hectare limit of total clearing that otherwise applies to this Permit. Clearing activities as described in Condition 4) occurring in pre-disturbed areas are not subject to the requirements of Part II.

Justification:

The proposed revision is to combine Condition 4 and Condition 6. It is understood that the purpose of separate conditions was to define activities that are subject to the 105 ha limit, not subject to the 105 ha limit and where a Ground and Vegetation Disturbance Assessment is required. However, where activities are listed under both conditions but not wording in the same manner, the application of the conditions (e.g. 105 ha limit or Part II) is unclear. In addition, Condition 6 (g) '*remediation, including excavation of contaminated soil and installation of remedial devices'* is an activity occurring in pre-disturbed areas but is not listed under Condition 4. At present CAPL takes a conservative approach (worst case scenario) where the conditions are inconsistent. To ensure compliance CAPL would like to ensure that all requirements are clear.

Part II: VEGETATION DISTURBANCE ASSESSMENT PROCEDURE

Condition 10. Assessment Procedure

Once the Permit Holder has complied with condition 9 of this Permit, if any native vegetation is to be cleared, the Permit Holder must undertake the assessment procedure detailed in Part II for all clearing activities authorised under conditions 6 and 8, in order to minimise the amount and impacts of clearing within the permitted area.

Proposed Amendment:
Condition 9. Assessment Procedure

Once the Permit Holder has complied with condition 8 of this Permit, if any native vegetation is to be cleared, the Permit Holder must undertake the assessment procedure detailed in Part II for clearing activities authorised under Condition 4 and 7 in order to minimise the amount and impacts of clearing within the permitted area.

Justification:

Reflects changes to Condition 4 and 6, and subsequent numbering of Conditions.

Condition 11. Preparation of Ground and Vegetation Disturbance Assessment Form

(a) Prior to carrying out any clearing, or any activity likely to involve clearing, a Ground and Vegetation Disturbance Assessment Form must be prepared describing the proposed activity, the location of the proposed activity, and the kind of clearing that is likely to occur.

(b) The Ground and Vegetation Disturbance Assessment Form must be considered by an officer of the Permit Holder responsible for coordinating works and if it is reasonably likely that the proposed activity will involve or result in clearing of vegetation, the Ground and Vegetation Disturbance Assessment Form, together with information recorded on a global positioning system device relating to the location and extent of the proposed activity or clearing, must be submitted to the Environmental Specialist.

Proposed Amendment:
Condition 10. Preparation of Ground and Vegetation Disturbance Assessment Form

(a) Prior to carrying out any clearing, or any activity likely to involve clearing, a Ground and Vegetation Disturbance Assessment Form must be prepared and submitted to the Environmental Specialist describing the proposed activity, the GIS location of the proposed activity, and the kind and extent of clearing that is likely to occur.

~~(b) The Ground and Vegetation Disturbance Assessment Form must be considered by an officer of the Permit Holder responsible for coordinating works and if it is reasonably likely~~

~~that the proposed activity will involve or result in clearing of vegetation, the Ground and Vegetation Disturbance Assessment Form, together with information recorded on a global positioning system device relating to the location and extent of the proposed activity or clearing, must be submitted to the Environmental Specialist.~~

Justification:

The amendment is proposed to streamline conditions as they are both referring to the submission of a Ground and Vegetation Disturbance Assessment Form. For decommissioning CAPL may use the online geographic information system, GPS and field walkovers (by scope owners), where required, to plan work. CAPL has undertaken high-resolution imagery (4 cm resolution) of the entire L 1H lease area which is available to all CAPL personnel, as such field captured GPS location may not be required for planning activities in all instances. It is noted that this requirement relates to the submission of the GVD form only, GPS will be used by the work team where required to ensure they are working in the approved area.

Condition 12. Inspection and Survey by Environmental Specialist

(a) Prior to the activity or clearing being undertaken, an Environmental Specialist must:
(i) refer to the environmental sensitivity mapping database and determine whether the area to be cleared is classified as P1, P2, P3 or P4 in Annexure 2; and
(ii) walk, inspect and survey locations (except those walked by a qualified botanist for the proposed activity or clearing) classified as P1, P2 and P3 at which any proposed activity or clearing is to be undertaken or in respect of which a Ground and Vegetation Disturbance Assessment Form has been submitted.
(b) document the inspection and survey including:
(i) the proposed activity and method of clearing;
(ii) the location and extent of the proposed activity and clearing on a global positioning system device;
(iii) whether the area is classified as P1, P2, P3 or P4 on the environmental sensitivity mapping database;
(iv) the vegetation and fauna habitat present at the location of the proposed activity or clearing; and
(v) observations about preferred routes or locations for the proposed clearing, taking into account information from the inspection and information on the environmental sensitivity mapping database.
(c) record the data collected by the field inspection and survey required under this condition into the Permit Holder's electronic geographic information system incorporating the environmental sensitivity mapping database.

Proposed Amendment:
Condition 11. Inspection and Survey by Environmental Specialist

(a) Prior to the activity or clearing being undertaken, an Environmental Specialist must:
(i) refer to the environmental sensitivity mapping database and determine whether the area to be cleared is classified as P1, P2, P3 or P4 in Annexure 2; and
(ii) walk, inspect (field or desktop) or ~~and~~ survey locations (except those walked by a qualified botanist for the proposed activity or clearing) classified as P1, P2 and P3 at which any proposed activity or clearing is to be undertaken or in respect of which a Ground and Vegetation Disturbance Assessment Form has been submitted.
(b) document the inspection and/or survey including:
(i) the proposed activity and method of clearing;
(ii) the location and extent of the proposed activity and clearing ~~on a global positioning system device;~~
(iii) whether the area is classified as P1, P2, P3 or P4 on the environmental sensitivity

mapping database;
(iv) the vegetation and fauna habitat present at the location of the proposed activity or clearing; and
(v) observations about preferred routes or locations for the proposed clearing, taking into account information from the inspection and information on the environmental sensitivity mapping database.
(c) record the data collected by the ~~field~~ inspection and/or survey required under this condition into the ~~Permit Holder's~~ electronic geographic information system incorporating the environmental sensitivity mapping database.

Justification:

The current condition wording in a) ii) requires that the Environmental Specialist '*walk, inspect and survey locations (except those walked by a qualified botanist for the proposed activity or clearing) classified as P1, P2 and P3 at which any proposed activity or clearing is to be undertaken'*.
As CAPL moves from operations phase to decommissioning there will be a change in the nature and scale of activities occurring outside of existing hardstand areas, predominantly associated with pipeline and cable removal. CAPL considers that it would be highly impracticable for the Environmental Specialist (including with additional resources) to undertake a walk over of all areas (P1, P2 and P3) where clearing (or disturbance) may occur and which requires a ground and vegetation disturbance assessment. For example, the Environmental Specialist would be required to walk more than 2000 km of flowlines, pipelines and on-ground electrical cable if any activities fall outside of previously disturbed areas. This introduces a significant safety risk including heat stress, over exertion and slips, trips and falls.

In preparation for decommissioning a large body of work has been undertaken to increase the quality and quantity of environmental data (including digital data) including transitioning to new advanced technology or practices where appropriate including:

- fig tree location and condition mapping using artificial intelligence (over 70,000 fig trees and other tree species mapped including field verification)
- island wide flora surveys including detailed vegetation mapping by qualified botanists
- high resolution aerial imagery down to 4 cm resolution across the entire L1 H lease
- ongoing fauna surveys including revalidation and update of mapped Boodie warrens
- introduction of Heritage Assessment Procedure which requires all ground disturbing work to be assessed by the Aboriginal Affairs team for potential risk to cultural heritage
- Cultural heritage surveys
- Use of drones for inspection or survey activities.

As detailed in proposed changes to Condition 13 below, CAPL propose to utilise a range of available resources in order to assess the proposed activity or clearing.

Condition 13. Assessment Process

The Environmental Specialist must undertake an assessment of the activity or clearing in each case taking into account:
(a) the survey and inspection set out in condition 12 above and any qualified botanist's report that relates to the area to be cleared;

(b) the information on the environmental sensitivity mapping database, including the proportion of each vegetation type set out in Annexure 1 that remains prior to and after the proposed clearing, expressed as a percentage of the areal extent of these vegetation types as identified in Mattiske (1993);
(c) the nature and extent of the proposed activity or clearing;
(d) the environmental implications of the proposed activity or clearing for vegetation and fauna habitat, taking into account the guidelines set out in condition 15 below;
(e) any other relevant information; and
(f) shall determine whether the vegetation or areas to be affected by the proposed activity or clearing is classified P1, P2, P3 or P4 as described in Annexure 2.

Proposed Amendment:

Condition 12. Assessment Process
The Environmental Specialist must undertake an assessment of the activity or clearing in each case taking into account:
(a) the survey and inspection set out in condition 12 above and any qualified botanist's report that relates to the area to be cleared;
(b) the information on the environmental sensitivity mapping database and any other relevant resources such as high-resolution aerial imagery, environmental survey or monitoring data (e.g. fig tree mapping) including the proportion of each vegetation type set out in Annexure 1 that remains prior to and after the proposed clearing, expressed as a percentage of the ~~areal~~ aerial extent of these vegetation types as identified in Mattiske (1993);
(c) the nature and extent of the proposed activity or clearing;
(d) the environmental implications of the proposed activity or clearing for vegetation and fauna habitat, taking into account the guidelines set out in condition 15 below;
(e) any other relevant information; and
(f) shall determine whether the vegetation or areas to be affected by the proposed activity or clearing is classified P1, P2, P3 or P4 as described in Annexure 2.

Justification:

Changes reflect that CAPL will utilise additional resources where relevant in the assessment of impacts to the environment from proposed clearing. This supports proposed amendments to the current Condition 12.

Condition 16. Assessment Report

The Environmental Specialist must document the assessment undertaken in making the decision to grant or refuse a Ground and Vegetation Disturbance Assessment Form, including:
(a) whether or not any vegetation or areas classified as P1, P2, P3 or P4 in Annexure 2 is likely to be affected by the proposed activity or clearing;
(b) whether or not any identified priority flora, significant vegetation communities (Annexure 3), flora of significant conservation value (Annexure 5) or vegetation comprising significant or unique fauna habitat is likely to be affected by the proposed activity or clearing;
(c) the areal extent that the clearing of each vegetation type set out in Annexure 1 would represent, expressed as a percentage of the areal extent of each vegetation type as identified in Mattiske (1993);
(d) the areal extent that the vegetation remaining after the clearing would represent, in relation to each vegetation type set out in Annexure 1, expressed as a percentage of the areal extent of each vegetation type as identified in Mattiske (1993); and

(e) copies of any submission received from the Department of Biodiversity, Conservation and Attractions pursuant to condition 14, noting where changes were made to the proposed clearing in response to matters raised in the submission; and
(f) information demonstrating consideration of the guidelines set out in condition 15 above.

Proposed Amendment:

Condition ~~16~~ 15. Assessment Report
The Environmental Specialist must document the assessment undertaken in making the decision to grant or refuse a Ground and Vegetation Disturbance Assessment Form, including:
(a) whether or not any vegetation or areas classified as P1, P2, P3 or P4 in Annexure 2 is likely to be affected by the proposed activity or clearing;
(b) whether or not any identified priority flora, significant vegetation communities (Annexure 3), flora of significant conservation value (Annexure 5) or vegetation comprising significant or unique fauna habitat is likely to be affected by the proposed activity or clearing;
(c) the aerial ~~areal~~ extent that the clearing of each vegetation type set out in Annexure 1 would represent, expressed as a percentage of the aerial ~~areal~~ extent of each vegetation type as identified in Mattiske (1993);
(d) the aerial ~~areal~~ extent that the vegetation remaining after the clearing would represent, in relation to each vegetation type set out in Annexure 1, expressed as a percentage of the aerial ~~areal~~ extent of each vegetation type as identified in Mattiske (1993); and
(f) information demonstrating consideration of the guidelines set out in condition ~~15~~ 14 above.

Justification:

Updates to remove minor errors and update numbering following the removal of Condition 6.

PART IV: SPECIAL RESTRICTIONS AND CONDITIONS ON CLEARING FOR PIPELINES

19. Clearing for Pipelines Authorised
(a) Subject to complying with Part I and Part II of this Permit, the Permit Holder may clear for the installation, replacement, maintenance and decommissioning of pipelines in accordance with Part IV of this Permit.
(b) If the installation, replacement, maintenance and decommissioning of pipelines requires clearing of previously disturbed areas, the clearing is not subject to the 105 hectare limit on total clearing that otherwise applies to this Permit.

20. Special Restrictions and Conditions on Clearing for Pipelines
(a) The Permit Holder must not clear more than 20 metres in width for multiple parallel pipelines, except in areas within 20 metres of manifolds where pipelines converge;
(b) The Permit Holder must not remove root stock when clearing vegetation for pipelines, except
where creating pipeline road crossings and installing pipe supports;
(c) The Permit Holder must not clear vegetation by driving vehicles over known significant vegetation communities (Annexure 3), additional significant vegetation communities (Annexure 4), or
flora of conservation significance (Annexure 5) when installing, replacing or decommissioning GRE
pipelines, except where such GRE pipelines are of 80 millimetres or more in diameter;
(d) Where GRE pipelines are to be installed over a distance of less than 100 metres between two existing access tracks, the GRE pipeline must be installed without using

vehicles to drive along the route that section of the pipeline will traverse, unless the pipes to be installed are 80 millimetres or more in diameter;
(e) The Permit Holder must not dispose of residual pipe contents on vegetation;
(f) Prior to the installation of any pipeline, with the exception of electrical cables laid by hand, in an area that has not been previously cleared, a qualified botanist must, having regard to
the guidelines set out in condition 15 of this Permit:
(i) walk the proposed route for the new pipeline;
(ii) make and document recommendations for;
(A) preferred clearing methodology;
(B) preferred locations and route for any clearing;
(C) conditions or restrictions that should be imposed on the work or activity; and
(iii) record the location of the route on a global positioning system device.

Proposed Amendment:

Remove Part IV: Special Restrictions and Conditions on clearing for pipelines

Justification:

The inclusion of Part IV in the Permit is primarily related to the historical GRE (glass reinforced epoxy) replacement program. The program involved the replacement of a large section of the carbon steel pipeline network with GRE, requiring the laying of new pipeline in the environment and therefore vegetation clearing. The oilfield will commence shut-in and decommissioning in early 2025 and as such no new pipelines (excluding electrical cabling) are planned to be installed. Conditions 19 and 20 when applied to decommissioning (as per Condition 19 (b)) are not fit for purpose as described below.

Condition 19 (a) is contradictory in that for decommissioning of pipelines it requires compliance with both Part I and Part II. Condition 4 (k) allows for the '*decommissioning and removal of redundant pipelines and road crossings*' without complying with Part II when clearing in a pre-disturbed area. The proposed amendment to Conditions 4 and 6 clearly define activities which are subject to Part II and those activities which are subject to the 105 ha limit. CAPL proposes to remove Part IV of the permit.

Condition 20 (a) is for the purpose of pipeline installation, however the wording is not clear. If this is applied to decommissioning it would be overly restrictive as it would not allow activities outside the current 20 m corridor (such as machinery required for demolition and removal of the pipelines) which may be required.

Condition 20 (b) Decommissioning activities such as the removal of below ground infrastructure such as pipe supports, may result in the removal of root stock. The Ground and Vegetation Disturbance Assessment must have regard to Condition 15 (ii) '*disturbance to topsoil or rootstock must be avoided wherever possible'*.

Condition 20 (c) For pipelines <100 mm CAPL propose to remove via a pulling method as described in Section 3.7. No driving of vehicles off existing roads and tracks is planned during this activity however if required, it will be undertaken as per the revised Condition 4 (including Part II where required).

Condition 20 (d) No new pipelines (with the exception of electrical cabling) are planned, however minor modifications to the existing pipeline network may be required to support decommissioning activities under the BWIJV Environment Plan such as to support well plug and abandonment. Following the removal of the power plant and any part of the

power distribution network, CAPL may be required to lay electrical cabling to support decommissioning. These activities will be managed under the revised Condition 4.

Condition 20 (e) This activity is not permitted under the BWIJV Environment Plan as regulated by DEMIRS.

Condition 20 (f) No new pipelines (with the exception of electrical cabling) are planned, however minor modifications to the existing network may be required to support decommissioning activities under the BWIJV Environment plan such as to support well plug and abandonment. These activities will be managed under the revised Condition 4.

Annex 2
Environmental Criteria for GIS Modelling of Priority Areas for Barrow Island

Criterion	P1	P2	P3	P4
Vegetation Distribution, regenerative abilities and landform stability	Vegetation described in Annexures 3, 4 and 5 of this Permit, containing floristic components of particular vulnerability and/or with high sensitivity to disturbance (eg coastal dunes)	Vegetation described in Annexures 3, 4 and 5 of this Permit with lower sensitivity to disturbance, or where important floristic components are highly visible, widely distributed vegetation types containing components with particular importance to fauna and/or low ability to regenerate (eg Melaleuca)	Widely distributed vegetation not being vegetation described in Annexures 3, 4 and 5 of this Permit.	Very widely distributed vegetation or widely distributed vegetation and with high regeneration capacity, not being vegetation described in Annexures 3, 4 and 5 of this Permit.
Fauna Habitat and fauna susceptibility to impacts	Area immediately surrounding important habitat to protected fauna sensitive to disturbance, including nesting sites for marine turtles (green turtle, flatback turtle and hawksbill turtle), Bettong warren polygon +100m Bettong warren point + 150m Brahminy kite nest + 50m Sea-eagle/Osprey nests + 70m Stygofauna in caves/sinkholes + 100m			
Heritage Sites	Areas immediately surrounding			

	important heritage sites: Anthropological sites +100m Fossil sites +100m			
Landform Susceptibility to impacts	Areas at elevated risk from indirect impacts (leaks/spills); Caves, fissures soak wells +100m			

Proposed Amendment:

Criterion	P1
Fauna Habitat and fauna susceptibility to impacts	Area immediately surrounding important habitat to protected fauna sensitive to disturbance, including nesting sites for marine turtles (green turtle, flatback turtle and hawksbill turtle), Bettong warren polygon +100m Bettong warren point + 150m Brahminy kite nest on natural features + 50m Sea-eagle/Osprey nests on natural features + 70m Stygofauna in caves/sinkholes + 100m

Justification:

All WA Oil infrastructure will be removed during decommissioning, the inclusion of 'natural features' distinguishes between bird nests on CAPL installed nesting platforms and nests naturally occurring in the environment. CAPL holds a Ministerial Authorisation under Section 40 of the *Biodiversity Conservation Act 2016* to relocate fauna and are in the process of applying for a Section 40 Ministerial Authorisation to take and disturb threatened species (critically endangered, endangered or vulnerable).

Permit Area Map

Schedule 1, see Figure 4.1

Proposed Amendment:

See Figure 4.2. Shapefile provided.

Justification:

When CPS123/1 was approved in June 2006 the approved area was the Barrow Island Crown Reserve 11648. A GIS map area was introduced in 2011 in revision CPS123/3. The approved area excluded a section of the eastern coastline.
A subsequent revision to the approved area was made in 123/4 to include incidental impact to macroalgae and coral reef communities associated with maintenance of oilfield

infrastructure (e.g. Barrow Tanker Loading Line) and environmental monitoring in petroleum production, exploration and pipeline licenses, and permitted areas. It appears that the boundary of offshore petroleum permit areas (including L10) was used in the map however as the original permit area of CPS123 did not align with the onshore L-1H petroleum lease, a portion of the coastline remained excluded from the permit.

WA Oil infrastructure including the parts of the former production camp and sewage treatment plant, bioremediation facility, roads, and the shore crossing and suck back pump for the Barrow Tanker Loading line (see Figure 4.1) are not covered by the CPS123/9 approved clearing areas map. CAPL will commence shut-in of the Barrow Island oilfield in Jan 2025, followed by removal of infrastructure. Whilst new clearing associated with infrastructure removal is not proposed in these areas, incidental clearing in previously disturbed areas may be required during the activity. In addition, areas that have previously been disturbed or are associated with potentially contaminating activities such as current or former oil field infrastructure may require further investigation as required under the *Contaminated Sites Act 2003* (the Act).
Environmental investigations including the installation of soil and groundwater bores down gradient of the terminal tank and bioremediation facility, around the Barrow Tanker Loading Line and the former Production Camp may be required to meet obligations under the Act. These areas are not covered by the CPS123/9 approved area map (see Figure 4.1).

The proposed amendments are required to address the identified gaps in the clearing permit approved area. The proposed permit boundary (see Figure 4.2) is aligned with the Barrow Island Petroleum Lease L 1H area (down to low water mark) within which CAPL may undertake petroleum activities under the approved BWIJV Environment Plan and BWIJV Legacy Environment Plan.

Figure 4-1: Clearing Permit CPS123/9 Area Approved to Clear

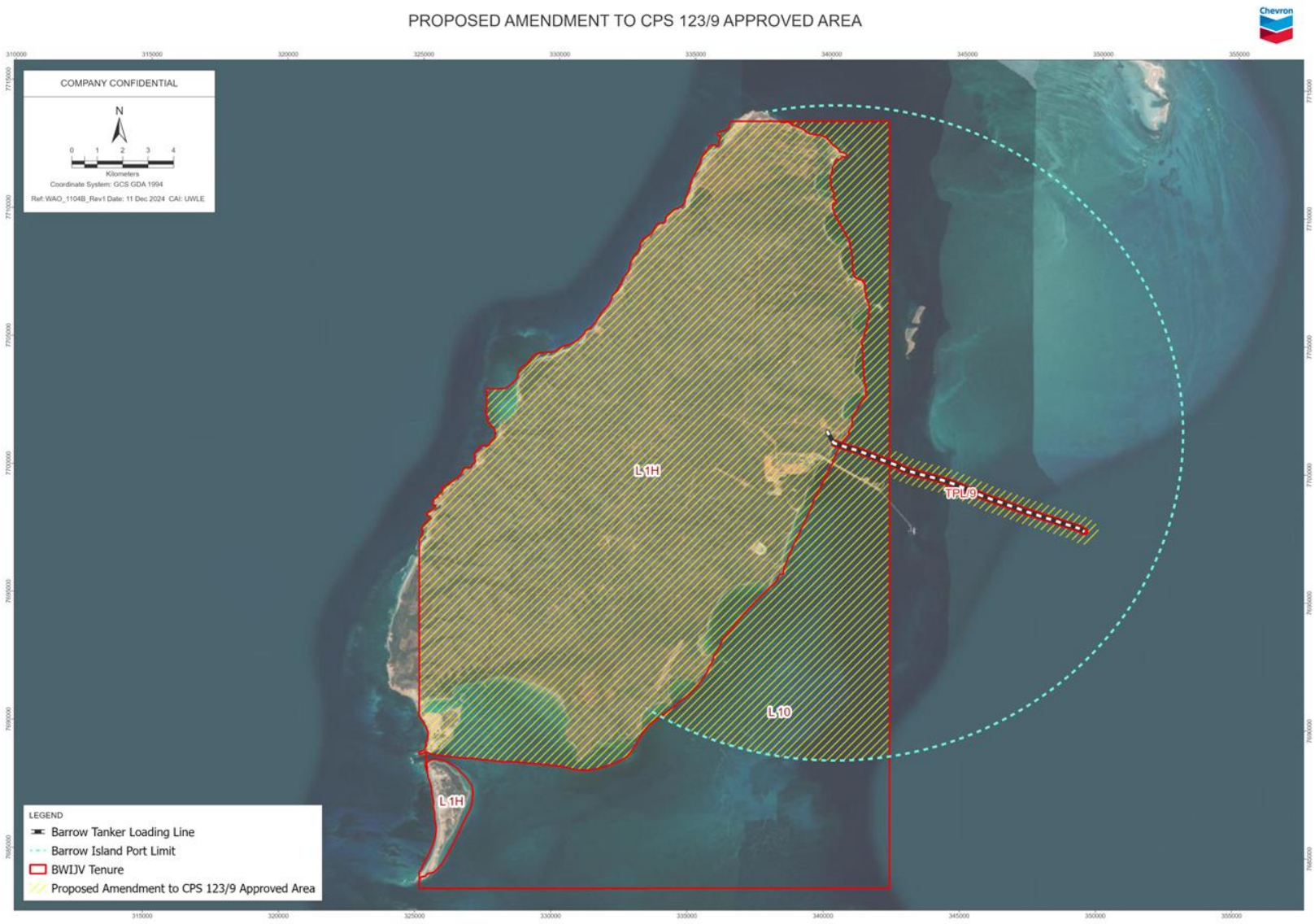

Figure 4-2: Proposed Amendment to CPS123/9 Approved Area