



SHIRE OF EXMOUTH

Attachments

Ordinary Council Meeting – 28 April 2022



ROWE
GROUP

LOCAL PLANNING SCHEME AMENDMENT

LOTS 1, 101, 112 & 220 MINILYA-EXMOUTH ROAD
LEARMONTH

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3. ENVIRONMENTAL ASSESSMENT REPORT
4. COASTAL HAZARD RISK MANAGEMENT ADAPTATION PLANNING REPORT
5. TRANSPORT IMPACT STATEMENT
6. BUSHFIRE HAZARD LEVEL ASSESSMENT



1. INTRODUCTION

Rowe Group acts on behalf of MG Kailis Group (MGK), being the landowner and leaseholder of four (4) lots on Minilya-Exmouth Road in Learmonth (the site of the former Kailis Prawn Processing Facility). For the purpose of this report the MGK landholdings will be referred to as the 'subject site'.

This report has been prepared in support of an application to Council, pursuant to Section 75 of the *Planning and Development Act 2005*, to initiate an amendment to the Shire Exmouth Local Planning Scheme No. 4 (LPS 4) to rezone the subject site from 'General Industry' Zone to 'Special Use' Zone and assigning a series of permissible land uses and development conditions (in Schedule 4 – Special Use Zones) to the subject site. The amendment also seeks to remove 'Special Control Area 6 – Minilya-Exmouth Road' from the western portion of the subject site.

The rezoning of the subject site in the manner proposed will facilitate the development of tourist uses and allow the subject site to be developed as a unique "fishing village" with strong ties to the subject site's original uses.

This report includes a description of the following matters:

- ▲ Location of the subject site;
- ▲ Description of the existing land use;
- ▲ Overview of relevant planning matters;
- ▲ Detailed explanation of the proposed amendment; and
- ▲ Justification for the proposed amendment.



2. DESCRIPTION OF SITE

2.1 LOCATION

The subject site is located in the Municipality of the Shire of Exmouth, approximately 1,100 kilometres north of the Perth.

Refer **Figure 1** – Regional Location.

The subject site is situated in the locality of Learmonth, approximately 13 kilometres north of Learmonth Airport. The subject site is located east of Minilya-Exmouth Road at the intersection of Charles Knife Road. Exmouth Gulf is located immediately east of the subject site. All the aforementioned roads are sealed, gazetted roads.

Refer **Figure 2** – Local Location.

2.2 CADASTRAL INFORMATION

The subject site comprises four (4) land parcels, being:

- ▲ Lot 1 Kailis Road, Learmonth, being Certificate of Title Volume 2230 Folio 171;
- ▲ Lot 101, being Certificate of Title 2230 Folio 171;
- ▲ Lot 112 Minilya-Exmouth Road, Learmonth, being Certificate of Title Volume LR3069 Folio 517 (leasehold Title); and
- ▲ Lot 220, being Certificate of Title Volume 2077 Folio 862.

The subject site has a total land area of approximately 27.84 hectares, with a frontage of approximately 865 metres to Minilya-Exmouth Road.

Refer **Figure 3** – Site Plan and **Attachment 1** – Certificates of Title.

2.3 HISTORICAL USE AND EXISTING IMPROVEMENTS

The subject site has been in MGK's possession since the 1970s (with the exception of the leasehold Lot 112, which was secured in the early 1980s). The subject site, in a general sense, accommodated the former Kailis Prawn Processing Facility. The following historical summary of the use of the four (4) lots that comprise the subject site by MGK has been provided to Rowe Group by MGK.

2.3.1 LOT 1

Lot 1 (freehold) contains the majority of the infrastructure previously associated with MGK's prawn processing. Lot 1 was granted to MGK in the early 1970s as compensation for the company to relocate its land-based fishing and seafood processing operations due to the expansion of the Learmonth RAAF base.

2.3.2 LOT 101

Lot 101 (freehold) is believed to have been created for a future "roadhouse" development, although it is understood MGK has no formal record identifying this. Lot 101 is currently vacant.



2.3.3 LOT 112

Lot 112 (leasehold) was secured by MGK in the early 1980s for the purpose of expanding its caravan park operations at Lot 1. It is understood an ablution facility was constructed at Lot 112 in 1984 and that a caravan park was never developed/progressed at Lot 112. MGK maintains the leasehold of Lot 112 and has entered into discussions with the Department of Planning, Lands and Heritage (DPLH) to potentially acquire the lot on a freehold basis.

2.3.4 LOT 220

Lot 220 was acquired by MGK soon after occupying Lot 1. MGK has advised that a public road existed between Lot 1 and Lot 220 that has been subsequently closed and amalgamated into the Lot 1 and/or Lot 220 landholdings. Lot 220 is currently vacant.

2.4 SERVICING CONSIDERATIONS

The subject site has existing servicing infrastructure including wastewater, power and telecommunications.

Information has been obtained from Dial Before You Dig (DBYD) in relation to the existing services at and in proximity to the subject site. The below demonstrates the subject site is connected to suitable servicing and infrastructure or is within proximity to services that could be upgraded as part of the prospective planning phases, meaning serviceability will not be a constraining factor on the proposed "fishing village" tourist facility.

2.4.1 WASTEWATER

As there is currently no existing reticulated sewer infrastructure in proximity to the subject site. All wastewater is processed by a bio-max sewerage system. The system is currently rated for in excess of 150 people.

Any intensification of development at the subject site will require consideration to an adequate wastewater system. Such details will be provided at the development application phase.

2.4.2 WATER

MGK has a licence to extract 100,000kL of potable water from bores located approximately three (3) kilometres inland from the subject site off Charles Knife Road (to the west). There are four (4) bores that pump into four (4) 45,000L fibreglass tanks and one (1) 90,000L concrete tank (at the subject site). The water quality is monitored due to the former prawn processing use at the subject site (food processing).

Any intensification of development at the subject site will require consideration to adequate supplies of potable water. Such details will be provided at the development application phase.

2.4.3 POWER

Power is obtained from a mains supply from the Exmouth townsite generators through an existing transformer at the subject site.



2.4.4 TELECOMMUNICATIONS

The subject site has an existing connection to telecommunications infrastructure.

No information is available from NBNCo as to whether the subject site will be upgraded and connected to NBN infrastructure (as is the case in the Exmouth town site).



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8116_FIG15A_20200527 Learmonth (Regional Location) · DRAWN: ADAM GLASKIN · DATE CREATED: 2020.05.27 · PROJECTION: MGA50 GDA94 · CADASTRE: LANDGATE · N/TOWN PLANNING/800-8999/8116/DRAFTING/A-CAD · ADAM GLASKIN · 2020.05.27

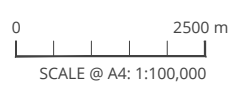
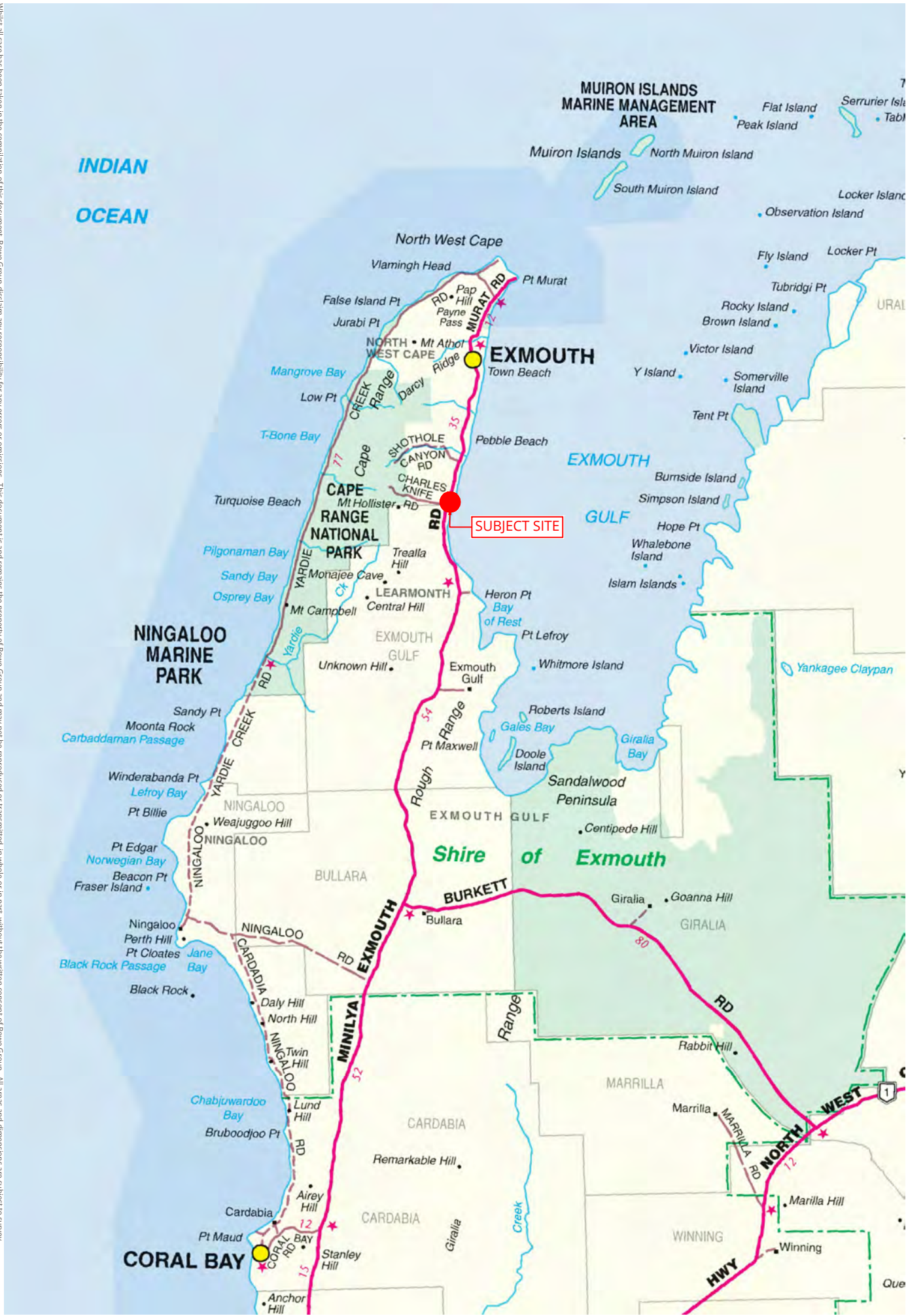


FIGURE 1
REGIONAL LOCATION

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8116_FIG08B_20200527 Learmonth (Local Location) · DRAWN: ADAM GLASKIN · DATE CREATED: 2020.05.27 · PROJECTION: MGA50 GDA94 · CADASTRE: LANDGATE · N/TOWN PLANNING/8000-8959/8116/DRAFTING/A-CAD · ADAM GLASKIN · 2020.05.27

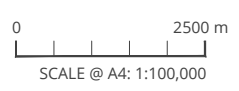


FIGURE 2
LOCAL LOCATION

3. DESCRIPTION OF PROPOSED FUTURE TOURISM FACILITY

MGK wishes to be in a position to respond expeditiously to the anticipated domestic tourism demand in the “post COVID-19 recovery phase”.

In addition to the (general) anticipated domestic tourism demand due to what is anticipated to be prolonged international travel restrictions, it is understood the Exmouth region is expecting a significant increase in visitors as a result of the hybrid solar eclipse in April 2023 (with the best viewing point for this eclipse located between the Exmouth townsite and Learmonth Airport – meaning the subject site is physically positioned to capitalise on visitors for the hybrid solar eclipse).

With the above in mind, coupled with the existing site attributes (including the former use of the site as a prawn processing facility with accommodation and ancillary uses), Rowe Group has prepared an Indicative Tourism Concept Plan (Concept Plan) for the subject site in accordance with MGK’s vision for the “fishing village” tourist facility.

This Scheme Amendment will assist in facilitating the development of tourist uses and allow the subject site to be developed as a unique “fishing village” with strong ties to the subject site’s original uses.

Refer **Attachment 2** – Indicative Tourism Concept Plan.

3.1 INDICATIVE TOURISM CONCEPT PLAN

The Concept Plan has divided the subject site into a number of precincts based on existing infrastructure and other attributes. The design philosophy for each precinct is summarised below. Please note, the plan is conceptual only and has been prepared to help inform this Scheme Amendment. It is acknowledged that a formal development application(s) will need to be submitted as part of the prospective planning processes.

Community Hub Precinct

- ▲ Utilises existing (upgraded) infrastructure;
- ▲ Destination and focal point;
- ▲ Social centre;
- ▲ Tavern/restaurant/pool; and
- ▲ Community/retail facilities.

Tentland Precinct

- ▲ Tent sites;
- ▲ Communal ablutions;
- ▲ Natural interface to creek; and



- ▲ Proximity to hardstand/vehicle parking.

Semi-Permanent Precinct

- ▲ Proximity to Fishing/Aquatic Precinct;
- ▲ Quiet location; and
- ▲ Utilisation of existing dwellings.

Fishing/Aquatic Precinct

- ▲ Fishing industry historical and interpretative area;
- ▲ Seafood processing, including for local consumption and for demonstrations supporting historical and interpretative uses; and
- ▲ General aquatic and boat support facilities including boat hardstand.

Caravan Precinct

- ▲ Point of arrival;
- ▲ Appropriate interface with Minilya-Exmouth Road;
- ▲ Office/fuel facility;
- ▲ Powered caravan sites; and
- ▲ Proximity/walkable to Community Hub Precinct.

Premium Cabin Precinct

- ▲ Premium cabins/eco-tents;
- ▲ Staggered separation;
- ▲ Privacy and quiet location; and
- ▲ Beach access and ocean views.

Opportunities exist for other compatible land uses to be co-located at the subject site including, but not limited to, sustainable energy initiatives such as a solar farm. MGK will explore such opportunities post-initiation of this Scheme Amendment request.

4. ENVIRONMENTAL CHARACTERISTICS

Coterra Environment was engaged by MGK to prepare sufficient environmental reporting to accompany this Scheme Amendment request. Coterra Environment has subsequently prepared an Environmental Assessment Report (EAR) that outlines the environmental features of the subject site, potential environmental impacts and discusses the design and management actions proposed to address these impacts.

The EAR is supportive of the Scheme Amendment and concludes that, subject to the following investigations as part of the (detailed) development process, the proposed tourism development would be unlikely to result in any unacceptable environmental outcomes.

The EAR recommends the following investigations be undertaken in relation to the subject site associated with future development stages:

- *Preparation of a Drainage Management Plan for submission with the DA;*
- *Preparation of a Foreshore Management Plan for submission with the DA;*
- *Preparation of a Native Vegetation Clearing Permit application for approval prior to clearing commencing. This will likely be prepared and lodged at a similar time to the DA;*
- *Undertake a PSI following the approval of the DA;*
- *If identified as required, undertake an ASS investigation following approval of the DA.*

Refer **Attachment 3** – Environmental Assessment Report.

4.1 HERITAGE

4.1.1 ABORIGINAL HERITAGE

A search of the DPLH Aboriginal Heritage Inquiry System was undertaken on 3 August 2020 and no Aboriginal sites were registered for the subject site or land in proximity to the subject site.

4.1.2 EUROPEAN HERITAGE

A search of the Western Australian Register of Heritage Places identified no sites of State heritage significance within the subject site or immediate surrounds.

A search of the Shire of Exmouth's Municipal Heritage Inventory identified no sites of local historic significance within the subject site. In proximity to the subject site is Place No. 4 – Charles Knife Road (Place No. 4). This Scheme Amendment will have no impact on Place No. 4.



5. COASTAL CONSIDERATIONS

MP Rogers and Associates (MPRA) was engaged by MGK to prepare the necessary coastal reporting to address the requirements of State Planning Policy 2.6 – Coastal Planning (SPP 2.6). A Coastal Hazard Risk Management Adaptation Planning (CHRMAP) assessment has been undertaken by MPRA in accordance with SPP 2.6 covering the following items:

- ▲ Establishment of the context;
- ▲ Coastal hazard assessment;
- ▲ Risk analysis and evaluation;
- ▲ Risk management and adaptation planning; and
- ▲ Monitoring and review.

The CHRMAP concludes the following:

This CHRMAP has been completed to provide guidance on required adaptation and management actions associated with existing and proposed assets within the Kailis Properties. It has been completed in line with the recommendations of SPP2.6 and WAPC (2019).

The completion of the coastal hazard risk assessment for this site has shown that there is a risk of coastal hazards adversely impacting the site, however over the 50 year planning horizon to 2071 the risk is deemed to be at a tolerable level. Despite the level of risk being tolerable, the ALARP approach has been adopted for the development and additional risk mitigation strategies have been proposed. This includes both a built form response for newly constructed assets as well as an overall management approach. Beyond the initial planning horizons, a risk mitigation strategy of planned or managed retreat informed by coastline monitoring and revised coastal hazard assessments will be implemented.

Finally this plan was developed on the basis that the risk to public safety as a result of cyclone inundation is already managed within the Kailis Properties and by DFES. It is recommended that Kailis review its existing evacuation and cyclone event management plan for appropriateness for the development.

Refer **Attachment 4** – Coastal Hazard Risk Management Adaptation Planning Report.

6. TRAFFIC AND TRANSPORT CONSIDERATIONS

Donald Veal Consultants (DVC) was engaged by MGK to prepare sufficient traffic reporting to accompany this Scheme Amendment request. DVC has subsequently prepared a Transport Impact Statement (TIS) *to demonstrate the capability of the site and surrounding road network to accommodate the anticipated tourism uses that would be capable of approval if the local planning scheme amendment is successful.*

The TIS has been prepared with reference to the WAPC guidelines and includes the following items:

- *Description of the planned development;*
- *Consideration of existing traffic conditions;*
- *Forecasting of traffic generated by the planned development;*
- *Consideration of expected operation of the road network at the design year; and*
- *Consideration of parking and facilities for pedestrians, cyclists and public transport users.*

The TIS is supportive of the Scheme Amendment request with respect to the traffic and road safety impact subject to further detailed intersection access design and speed limit assessment as part of any development application process. In this regard, the TIS concludes:

We conclude that the proposed rezoning may warrant an upgrade to the Kailis Road/ Minilya-Exmouth Road T-intersection to safely accommodate the increased demand for turning movements and a review of posted speed limit on Minilya-Exmouth Road at the (detailed) development application stage. Otherwise, no significant adverse impact on the capacity or safety of the surrounding road network is envisaged.

Donald Veal Consultants therefore fully support the rezoning application in terms of its traffic and road safety impact and recommend its approval provided any requirements to upgrade Minilya-Exmouth Road to accommodate the Kailis Road T-intersection and any other accesses are addressed and a review of speed limit along this section of Minilya-Exmouth Road is undertaken at the appropriate stage.

Refer **Attachment 5** – Transport Impact Statement.

7. TOWN PLANNING CONSIDERATIONS

7.1 ZONING

7.1.1 (FORMER) SHIRE OF EXMOUTH TOWN PLANNING SCHEME NO. 3

The Shire of Exmouth Town Planning Scheme No. 3 (TPS 3) was operative within the Municipality from September 1999 until early March 2019 (it was replaced by the Shire of Exmouth Local Planning Scheme No. 4 (LPS 4) on 12 March 2019).

Under the provisions of TPS 3, the subject site was zoned 'Industrial' and identified in TPS 3 as a 'Strategic Industrial Area'. The zoning of the subject site as 'Industrial' and designation as a 'Strategic Industrial Area' was facilitated by Scheme Amendment No. 27, which was initiated in 2012 after an Order to the Shire of Exmouth under Section 76(1) of the *Planning and Development Act 2005* by the Hon. Minister for Planning (which was Mr John Day MLA at that time). The Order, and subsequent Scheme Amendment No. 27, was in response to an identified need for land in the locality to be appropriately zoned for: *a marine supply base to service the oil and gas industry and fishing operations in [the] location which could bring significant economic benefits to the local community.*

Prior to the above zoning (as a result of Scheme Amendment No. 27), the subject site was zoned 'Special Use 1' (SU1) Zone. The SU1 Zone limited the use of the subject site for 'fish processing', 'fish shop', 'café', 'caravan park', 'residential' and 'aquaculture'.

7.1.2 ROWE GROUP SUBMISSION ON (DRAFT) SHIRE OF EXMOUTH LOCAL PLANNING SCHEME NO. 4

In mid-2016 the draft version of LPS 4 (Draft LPS 4) was advertised for public comment. Rowe Group made a series of formal submissions and representations to the Shire and the (then) Department of Planning opposing the inclusion of the western portion of the subject site within the Minilya-Exmouth Road Special Control Area 6 (SCA 6) and requesting further land use flexibility for the subject site by requesting a series of 'Additional Uses' for the subject site. These 'Additional Use' provisions were to include land uses that were prohibited at the subject site due to its 'General Industry' zoning (under the provisions of Draft LPS 4), to recognise uses that were permissible at the subject site under TPS 3 and to enable a flexible response to market demands for the future use of the subject site.

7.1.3 LOCAL PLANNING SCHEME NO. 4 (CURRENT LOCAL PLANNING SCHEME)

Under the provisions of LPS 4 the subject site is zoned 'General Industry'. The western portion of the subject site is affected by SCA 6. Lot 112 (leasehold lot) contains an 'Additional Use' provision which allows for a 'Caravan Park' as a discretionary ('D') use on Lot 112 only and 'Caretaker's Dwelling' as an incidental ('I') use on Lot 112 only.

The objectives of the 'General Industry' Zone, as stated in LPS 4, are:

- (a) *To provide for a broad range of industrial, service and storage activities which, by the nature of their operations, should be isolated from residential and other sensitive land uses.*



- (b) *To accommodate industry that would not otherwise comply with the performance standards of light industry.*
- (c) *Seek to manage impacts such as noise, dust and odour within the zone.*

With respect to SCA 6, LPS 4 states the following with respect to the purpose and objectives (of SCA 6):

Minilya-Exmouth Road is the primary entrance road to the town site, and in itself is a tourism experience showcasing the environmental and landscape qualities of the district. The purpose of SCA 6 is to preserve the landscape values along the Minilya-Exmouth Road from the encroachment of inappropriate development, and maintain viewsheds along Minilya-Exmouth Road. This 100 metre wide area on either side of the Minilya-Exmouth Road is from the southern edge of the gazetted Exmouth Townsite Boundary to the southern local government boundary. The objectives of SCA6 are:

- (a) *To protect natural environmental and landscape features along Minilya-Exmouth Road;*
- (b) *To maintain views of the Cape Range, Exmouth Gulf, and rural lands; and*
- (c) *To ensure that inappropriate development and use does not occur that would compromise the visual experience along Minilya-Exmouth Road.*

Clause 5.7.2 of LPS 4 contains the following additional provisions applicable to land within the SCA 6 boundary:

In addition to matters listed in clause 67 of the deemed provisions the local government shall have regard to:

- (a) *Development shall be supported by a Visual Landscape Assessment prepared in accordance with the Western Australian Planning Commission's Visual Landscape Planning in Western Australia a manual for evaluation, assessment, siting and design document.*
- (b) *Any proposed crossover providing access to Minilya-Exmouth Road shall be referred to Main Roads WA.*

Refer **Figure 4** – LPS 4 Zoning Plan.

7.1.4 SHIRE OF EXMOUTH LOCAL PLANNING STRATEGY

The Shire of Exmouth Local Planning Strategy (Local Planning Strategy) reaffirms the subject site's existing 'General Industry' zoning. In this regard, the Local Planning Strategy states:

Area 5 is referred to as the Kailis Site and is located adjacent to the intersection of Minilya-Exmouth Road and Charles Knife Road. Following a Ministerial decision under section 76(1) of the Planning and Development Act 2005, TPS 3 Amendment No 27 was approved in November 2013 rezoning the landholdings from 'Special Use' to 'Industrial' zone. This followed a change in land use intent for the locality to potentially support additional land based industrial infrastructure associated with a marine support facility servicing the oil and gas industry.



With respect to tourism land uses, the Local Planning Strategy contains the following objectives and strategies that are relevant to the subject site and this Scheme Amendment request (underlining is for emphasis).

Objectives

Encourage the sustainable growth of tourism and tourism related opportunities throughout the Shire and balance growth against the conservation values of the environment upon which the area's tourism industry is based.

Strategies

- 2) Encourage a diverse range of accommodation based on the projected tourism demand when assessing proposals for short stay accommodation, tourism/residential, caravan park and camping grounds, and nature-based parks.
- 3) Encourage development within the Shire that provides a tourism experience unique to Exmouth to add to the area's competitive advantage, subject to environmental and cultural management and appropriate levels of infrastructure.
- 5) Encourage affordable holiday accommodation specifically for caravan park and camping grounds in appropriate locations, including through the retention of existing and identification of future sites.

The Scheme Amendment is consistent with the Local Planning Strategy for the following reasons:

- ▲ The proposed (future) "fishing village" tourist facility will provide a diverse range of accommodation options including caravan park and camping ground accommodation; and
- ▲ The existing site attributes (including the former use of the site as a prawn processing facility with accommodation and ancillary uses) provides an opportunity to adapt the subject site and create a unique "fishing village" tourist facility with strong ties to the site's original uses that is expected to cater for a wide range of visitors to the region.

7.2 STATE PLANNING POLICIES

7.2.1 STATE PLANNING POLICY NO. 1 – STATE PLANNING FRAMEWORK

State Planning Policy No. 1 – State Planning Framework (SPP 1) *sets out the key principles relating to environment, community, economy, infrastructure, regional development and governance which should guide the way in which future planning decisions are made.*

SPP 1 contains six (6) key principles and associated factors that represent good and responsible decision-making in land use planning.

Of particular relevant to this Scheme Amendment are the following key principles:

- **Economy** – Principle: *Facilitate trade, investment, innovation, employment and community betterment.*



- **Environment** – Principle: Conserve the State's natural assets through sustainable development.
- **Regional Development** – Principle: Build the competitive and collaborate advantages of the regions.

SPP 1 identifies the Ningaloo Coast Regional Strategy Carnarvon to Exmouth (NCRS) as a WAPC adopted regional strategy. This serves to inform sub-regional and local planning processes including the preparation and review of local planning strategies and local planning schemes and amendments to such documents. The specifics of the NCRS are considered further in this report.

The Scheme Amendment is consistent with the above key principles of SPP 1 for the following reasons:

- ▲ Rezoning the subject site to 'Special Use' Zone to facilitate tourism activities is consistent with elements of the existing (and former) use of the site. Furthermore, a tourist facility at the subject site will contribute to ongoing investment and employment opportunities in the region; and
- ▲ Consistent with the sustainability and environmental objectives of SPP 1, the existing development at the subject site will be adapted and redeveloped to facilitate the proposed "fishing village" tourist proposal.

7.2.2 STATE PLANNING POLICY 2.6 – COASTAL PLANNING

Due to the subject site's proximity to Exmouth Gulf, consideration to the specifics of State Planning Policy 2.6 – Coastal Planning (SPP 2.6) in the context of this Scheme Amendment is provided. SPP 2.6 was prepared by the WAPC in 2013 replacing the former (2003) version of SPP 2.6.

The purpose of SPP 2.6 is as follows:

The purpose of this Policy is to provide guidance for decision-making within the coastal zone including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values. This policy recognises and responds to regional diversity in coastal types; requires that coastal hazard risk management and adaptation is appropriately planned for; and encourages innovative approaches to managing coastal hazard risk, and provides public ownership of coastal foreshore reserves.

The subject site has been developed since the 1970s with infrastructure associated with the former prawn processing facility including, but not limited to, dwellings and accommodation units, processing buildings, a restaurant/tavern facility and various outbuildings. Therefore, rezoning the subject site to facilitate a tourist facility will not be introducing new development at the subject site. That is, the subject site (for the purposes of SPP 2.6) should not be treated as a greenfields site.

SPP 2.6 provides a series of coastal risk mitigation principles that generally apply to the built form outcomes of a development (i.e. adaptation measures, management strategies, coastal protection works etc.). Due subject site being located within a cyclone prone climatic area any built form outcome at the subject site will take into consideration coastal processes and cyclonic weather events. A detailed CHRMAP has been prepared for the subject site and its surrounds (refer

Attachment 4). As outlined above, the CHRMAP confirms that the risk of coastal hazards adversely impacting the site over the 50 year planning horizon (to 2071) is deemed to be at a tolerable level.

7.2.3 STATE PLANNING POLICY 3.7 – PLANNING IN BUSHFIRE PRONE AREAS

State Planning Policy 3.7 – Planning in Bushfire Prone Areas (SPP 3.7) seeks to guide the implementation of effective risk-based land use planning and development to preserve life and reduce the impact of bushfire on property and infrastructure. Portions of the subject site are identified by the DFES Map of Bush Fire Prone Areas as being ‘bushfire prone’.

Due to part of the subject site being identified as ‘bushfire prone’, the principles and objectives of SPP 3.7 need to be considered as part of all strategic planning proposals.

Once the form, layout and specifics of the proposed tourist development are known (i.e. at prospective planning phases) any future development application(s) will, at that juncture, need to adequately address the detailed requirements of SPP 3.7.

Eco Logical Australia was engaged by MGK to undertake a Bushfire Hazard Level (BHL) Assessment which accompanies this Scheme Amendment request. The BHL Assessment concludes as follows:

In the author's professional opinion, the bushfire hazard level assessment undertaken demonstrates that following clearing for development, the subject site will be exposed to BHLs of moderate and low that can be maintained through the implementation of bushfire management measures documented in bushfire management plans supporting future planning applications.

A copy of the BHL Assessment is contained as **Attachment 6**.

7.2.4 STATE PLANNING POLICY 5.4 – ROAD AND RAIL NOISE

State Planning Policy 5.4 – Road and Rail Noise (SPP 5.4) was prepared by the WAPC in September 2019. SPP 5.4 applies to the subject site given part of the site is located within 200m of an “other significant freight/traffic route” (being Minilya-Exmouth Road).

The five (5) policy objectives of SPP 5.4 are as follows (underlining for emphasis):

- a) *protect the community from unreasonable levels of transport noise;*
- b) *protect strategic and other significant freight transport corridors from incompatible urban encroachment;*
- c) *ensure transport infrastructure and land-use can mutually exist within urban corridors;*
- d) *ensure that noise impacts are addressed as early as possible in the planning process; and*
- e) *encourage best practice noise mitigation design and construction standards.*

When the nature, layout and function of the proposed “fishing village” tourist facility is known (i.e. detailed design at the Development Application phase) acoustic considerations ought to be addressed. As such, an acoustic provision has been included in the special use provisions requiring acoustic considerations be addressed as part of a LDP and/or Development Application to ensure the acoustic requirements of SPP 5.4 are acknowledged as part of this Scheme Amendment and addressed at the appropriate planning stage (Development Application).



7.2.5 STATE PLANNING POLICY 6.3 – NINGALOO COAST

State Planning Policy 6.3 – Ningaloo Coast (SPP 6.3) was prepared by the WAPC in 2004 and applies to decision-making within the policy area (which includes the subject site). The four (4) key objectives of SPP 6.3 are as follows (underlining for emphasis):

1. *Provide state agencies, local government, community and proponents with clear guidance regarding acceptable and sustainable development on the Ningaloo coast.*
2. *Maintain the Ningaloo coast as an all-seasons recreation and nature-based tourism destination and limit growth with managed staged development, to ensure that the community continues to enjoy a remote and natural experience.*
3. *Preserve and protect the natural environment and enhance and rehabilitate degraded areas within the environment.*
4. *Consolidate future residential, commercial, higher-impact tourism and industrial development in the towns of Carnarvon and Exmouth and provide strategic directions for their future growth.*

The key objectives of SPP 6.3 are supported by a series of guiding principles which are to be used to *assess all future planning and development on the Ningaloo coast to ensure the protection and sustainable use of the environment for the future.* The guiding principles relate to the following 11 themes:

1. Sustainable development;
2. Community aspirations;
3. Aboriginal heritage;
4. Economic development;
5. Interdependence;
6. Limits of acceptable change;
7. Precautionary principle;
8. Cumulative impacts;
9. Protection of high-conservation values;
10. Protection of remote values; and
11. Protection of biodiversity.

The proposed Scheme Amendment is consistent with the objectives and guiding principles of SPP 6.3 for the following reasons:

- ▲ The existing site attributes (including the former use of the site as a prawn processing facility with accommodation and ancillary uses) provides an opportunity to adapt the subject site and create a unique “fishing village” tourist facility that is expected to cater for a wide range of visitors to the region. This directly addresses the principles of sustainability, economic development and interdependence;
- ▲ A tourist facility at the subject site will create a unique visitor experience in a unique setting for those seeking a natural experience along the coast;

- ▲ Any future tourist development at the subject site will address Aboriginal heritage matters. MGK is keen to explore opportunities with the local indigenous group(s) to incorporate an indigenous interactive experience(s) as part of the proposed “fishing village”, thus making the proposed tourist facility culturally appropriate within its setting; and
- ▲ The rezoning, and future tourist facility, will assist in actively creating regional wealth and will encourage economic activity in the region.

7.3 GASCOYNE COAST SUB-REGIONAL STRATEGY

The Gascoyne Coast Sub-Regional Strategy (GCSRS) has been prepared by the WAPC (June 2018) for the Gascoyne coast, which includes the Shire of Exmouth. The purpose of the GCSRS is as follows:

- *provide the sub-regional context for land-use planning in the Gascoyne Coast;*
- *consider a range of population growth scenarios, and within this context analyse the capacities of*
- *settlements to accommodate growth;*
- *identify strategic directions to guide local planning processes; and*
- *provide guidance for the preparation of and amendments to local planning strategies and schemes.*

With respect to tourism land use planning, the GCSRS states the following (underlining for emphasis):

Tourism is the most valuable sector to the Gascoyne Coast sub-region’s economy, and is likely to be fundamental in driving future growth in the sub-region. In particular, the sub-region offers a unique product that attracts visitors to the Gascoyne Coast.

Diversifying the existing tourism product – particularly in and around the main settlements of Carnarvon, Exmouth, Denham and Coral Bay – is considered important in expanding the sub-region’s tourism sector. Notwithstanding this, it is recognised that significant tourism potential exists in other tourism nodes, conservation reserves and rangelands areas, particularly those located in proximity to coastal areas.

As an economic activity, tourism impacts on a number of different geographic areas that encompass a range of land uses, including marine reserves, rangelands, activity centres and the movement network. As such there is no spatial definition of where tourism occurs on this sub-regional plan; however it is considered that, in accordance with the Strategy’s Activity Centres Framework, more intensive tourism development should be concentrated in the existing regional and sub-regional centres of Carnarvon, Exmouth and Denham; and to a lesser degree in the tourism centres of Coral Bay and Monkey Mia.

For the purpose of supporting land-use planning, further investigation into tourism requirements – including accommodation requirements – is proposed by this Strategy.

The GCSRS provides the following (relevant) strategic directions in support of the above position on tourism (underlining for emphasis):



- *Encourage the expansion and diversification of the tourism sector.*
- *Supporting the development of strategic and sustainable tourism and recreation infrastructure and services to cater for an anticipated increase in demand.*
- *More intensive tourism development should be concentrated in the existing regional and subregional centres of Carnarvon, Exmouth and Denham; and to a lesser degree in the tourism centres of Coral Bay and Monkey Mia.*

The proposed Scheme Amendment is consistent with the above provisions of the GCSRS for the following reasons:

- ▲ Rezoning the subject site to 'Special Use' Zone, and assigning a series of permissible tourist/commercial land uses, will increase the amount of land in the region capable of accommodating a range of tourism uses;
- ▲ The subject site's location on the Exmouth Gulf and in proximity to the Exmouth townsite and Learmonth Airport is advantageous and appropriate for tourist uses;
- ▲ The GCSRS acknowledges the anticipated growth in tourism demand for the region which MGK also acknowledges particularly in relation to the hybrid solar eclipse in April 2023 (with the best viewing point for this eclipse located between the Exmouth townsite and Learmonth Airport – meaning the subject site is physically positioned to capitalise on visitors for the hybrid solar eclipse); and
- ▲ The existing site attributes (including the former use of the site as a prawn processing facility with accommodation and ancillary uses) provides an opportunity to adapt the subject site and create a unique "fishing village" tourist facility that is expected to cater for a wide range of visitors to the region.

7.4 FUTURE DIRECTIONS FOR THE NINGALOO COAST REGIONAL STRATEGY CARNARVON TO EXMOUTH

The Ningaloo Coast Regional Strategy Carnarvon to Exmouth (NCRS) was prepared by the WAPC in 2004. Since that time there have been changes to the regional and local planning frameworks in the Gascoyne region. The DPLH prepared the Future Directions for the Ningaloo Coast Regional Strategy Carnarvon to Exmouth paper (Future Directions Paper) in January 2019 with the intent of the Future Directions Paper to *examine the current effective status of the applicable components of the NCRS in the context of the current planning framework applicable to the study area.*

The key outcome of the NCRS include (underlining for emphasis):

- *the dispersal of tourism away from unmanaged, potentially environmentally harmful camping, into small scale, low impact, managed nodes along the coast;*
- *district-level structure planning for the settlements of Carnarvon and Exmouth;*
- *the provision of detailed planning and infrastructure delivery for Coral Bay, to ensure long-term environmental sustainability; and*
- *detailed planning and environmental guidelines to assess future development.*

Since the release of the NCRS the Future Directions Paper acknowledges that the actions and guidelines (of the NCRS) have *largely been completed, substantially progressed or superseded by other*



projects and initiatives. Since this time, there has been even further progression and completion of regional and local plans, infrastructure delivery and other relevant projects and processes.

The NCRS (and subsequent Future Directions Paper) has relevance to this Scheme Amendment as the NCRS raised the visual amenity of the Exmouth-Minilya Road which resulted in the imposition of SCA 6 into LPS 4. In this regard, the NCRS states (underlining for emphasis):

The Minilya - Exmouth and Murat roads are an essential part of the service infrastructure needed to support the tourism industry. A corridor between Learmonth airport and Exmouth townsite, where landscaping and built structures are managed in accordance with a visual amenity plan, should be defined. This visual amenity corridor should cover an area approximately 100 m on each side of the road.

In this regard, the NCRS recommended the following action and guideline (underlining for emphasis):

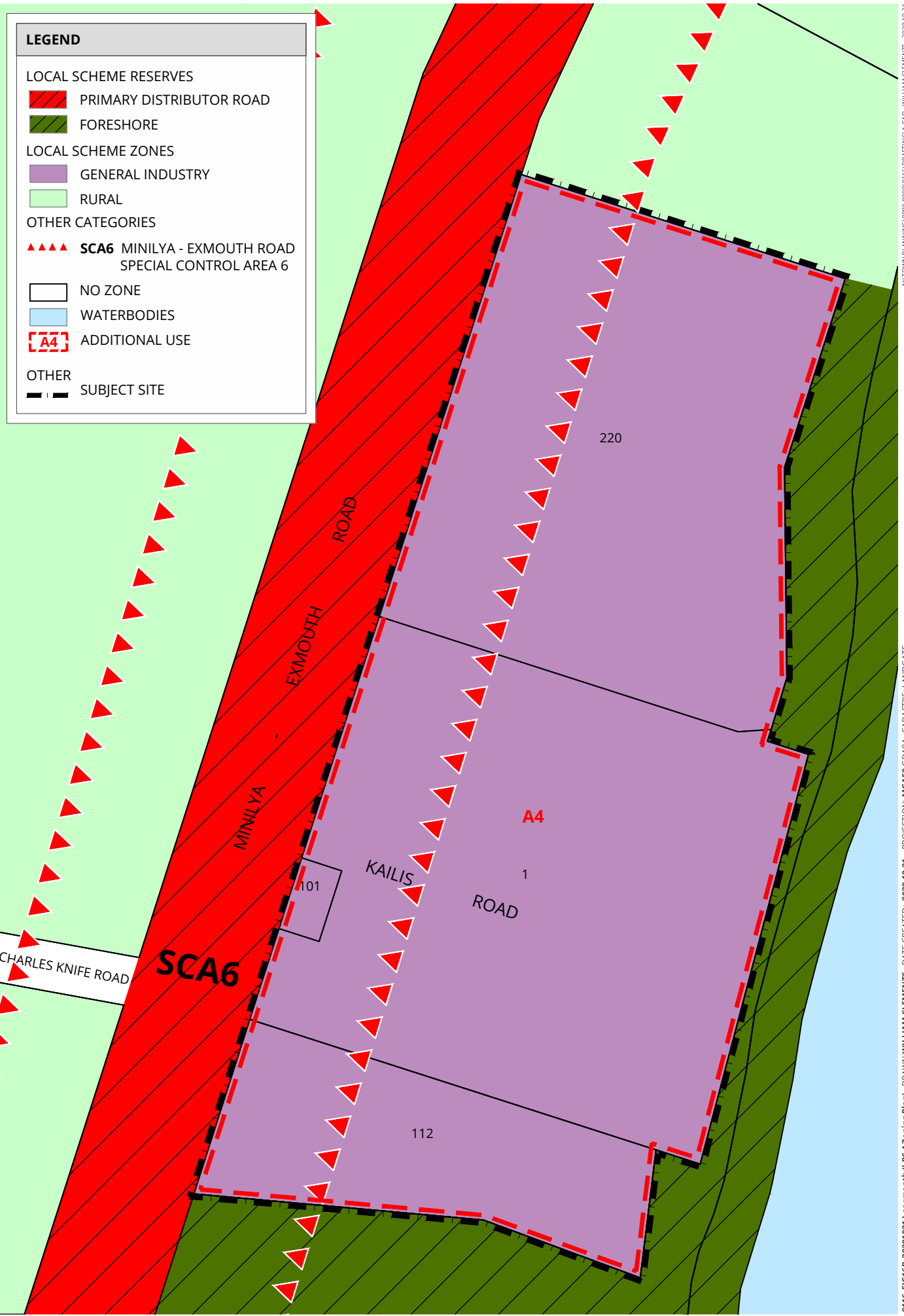
- Prepare a visual amenity policy to control landscaping and building development on the land each side of the Minilya - Exmouth and Murat roads between the Learmonth airport and Exmouth townsite (LG, DPI).

The removal of the subject site from SCA 6 is considered appropriate and justified, in the context of the NCRS, for the following reasons:

- ▲ The imposition of a visual amenity plan was intended to be a visual amenity policy (and not a statutory scheme provision); and
- ▲ The intent of the visual amenity plan/policy was to guide development and landscaping rather than preclude development.

The wording of SCA 6 in LPS 4 is subjective insofar as it does not provide clear guidance on what development can and cannot occur within the SCA 6 area. For this reason, the removal of the SCA 6 designation on the western portion of the subject site is sought as part of this Scheme Amendment.

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8116_FIG16B_20201021 Learmonth (LPS 4 Zoning Plan) · DRAWN: WILLIAM CLEMENTS · DATE CREATED: 2020.10.21 · PROJECTION: MGA50 GDA94 · CADASTRE: LANDGATE · NATOWN PLANNING 8000-899518 16 DRAFTING A-CAD · WILLIAM CLEMENTS · 2020.10.21

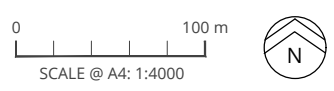


FIGURE 4
SHIRE OF EXMOUTH LOCAL PLANNING SCHEME No. 4

8. PROPOSED SCHEME AMENDMENT

8.1 LOCAL PLANNING SCHEME NO. 4

This Local Planning Scheme Amendment request seeks to rezone the subject site from 'General Industry' Zone to 'Special Use' Zone and assigning a series of permissible land uses and development conditions (in Schedule 4 – Special Use Zones) to the subject site. The amendment also seeks to remove 'Special Control Area 6 – Minilya-Exmouth Road' from the western portion of the subject site.

Assigning the subject site as a 'Special Use' Zone (SU 10) is considered appropriate given the proposed use of the subject site (as a "fishing village" tourist facility) does not comfortably site within any other specific zone in LPS 4.

Figure 5 (Proposed LPS 4 Zoning) illustrates the existing and proposed zoning of the subject site as sought and as justified by this Scheme Amendment request.

8.1.1 SPECIAL USE PROVISIONS

The following special use provisions are sought at the subject site as part of this Scheme Amendment:

No.	Description of Land	Special Use	Conditions
SU 10	Lot 1 Kailis Road and Lots 101, 112 and 220 Minilya-Exmouth Road, Learmonth	<p>As 'P' use:</p> <ul style="list-style-type: none"> - Camping Ground - Caravan Park - Holiday Accommodation - Nature Based Park - Warehouse/Storage <p>As 'D' use:</p> <ul style="list-style-type: none"> - Car Park - Exhibition Centre - Marine Filling Station - Motel - Reception Centre - Recreation – Private - Restaurant/Café - Service Station - Serviced Apartment - Small Bar - Tavern - Tourist Development 	<ol style="list-style-type: none"> 1. Site and development requirements shall be in accordance with any local planning policy adopted under Part 2 of the deemed provisions or other lawfully adopted planning policy or as otherwise approved by Council. 2. The local government may require a Local Development Plan to be prepared in accordance with Part 6 of the Deemed Provisions to address the following: <ul style="list-style-type: none"> - Vehicular access arrangements; - Indicative site layout, including provision of suitable setbacks and siting of development in a

		<p>As 'I' use:</p> <ul style="list-style-type: none"> - Bed and Breakfast - Caretaker's Dwelling - Cinema/Theatre - Club Premises - Convenience Store - Fast Food Outlet - Grouped Dwelling - Holiday House - Industry – Primary Production - Lunch Bar - Multiple Dwelling - Repurposed Dwelling - Residential Building - Second-hand Dwelling - Shop 	<p>manner that considers surrounding land uses;</p> <ul style="list-style-type: none"> - Appropriate coastal foreshore management measures to address <i>State Planning Policy 2.6 – Coastal Planning</i>; - Building heights; - Landscaping provision; - Fencing; - Acoustic management measures to address <i>State Planning Policy 5.4 – Road and Rail Noise</i>; and - Such other information as may be required by the local government. <p>3. The local government may require the preparation of the following to accompany a development application:</p> <ul style="list-style-type: none"> - Bushfire Management Plan; - Drainage Management Plan; - Foreshore Management Plan; and - Acoustic Management Plan. <p>4. In considering an application for development approval, the local government shall consider the following matters in addition to those which it may have regard to under the Scheme and any approved Local Development Plan:</p> <ul style="list-style-type: none"> - Land use buffers; - Compatibility of uses internal and external to the site; and
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			<ul style="list-style-type: none"> - Adequate provision of services. 5. All development shall be in accordance with the local government's adopted colour palette. 6. The local government may consider uses the subject of Clause 3.3.4 in accordance with those provisions. 7. The provisions of Clause 4.32 also apply to SU 10. 8. The land uses of 'Marine Filling Station; and 'Service Station' are limited to the sale of fuel only. 9. A maximum retail floorspace of 300sqm NLA applies to site.
--	--	--	--

The land uses outlined above are generally consistent with the land use permissibility for the 'Tourism' Zone (of LPS 4) and those proposed by MGK as part of the Concept Plan (**Attachment 2**). Justification for some land uses that are prohibited in the 'Tourism' Zone, and their appropriateness at the subject site, is outlined below.

8.1.1.1 CAMPING GROUND & CARAVAN PARK

As depicted on the Concept Plan (refer **Attachment 2**) areas for camping and caravans are proposed at the subject site. Notwithstanding, a 'Camping Ground' and 'Caravan Park' are typical accommodation typologies (at a tourist facility) and are proposed to form part of the overall "fishing village" tourist facility at the subject site.

Furthermore, it is understood there is a shortfall of 'Camping Ground' and 'Caravan Park' facilities in the region and specifically within proximity to the Exmouth townsite. Designation of the subject site for these uses will provide additional land capable of accommodating 'Camping Ground' and 'Caravan Park' uses as part of the overall "fishing village" tourist facility proposed at the site.

8.1.1.2 ACCOMMODATION USES

We understand the Shire has some land use compatibility concerns with respect to some of the accommodation uses proposed at the subject site. Therefore, the uses of 'Hotel', 'Motel', 'Serviced Apartment', and 'Tourist Development' are listed as discretionary ('D') uses at the site. This provides the Shire with the opportunity to refuse such uses on land use permissibility grounds (as opposed to the uses being permitted ('P') uses at the site).



Listing such tourist/accommodation uses as 'Special Uses' at the subject site will allow MGK to adequately respond to changes in the tourism market over time without the need to go through another scheme amendment process should such uses be the land use classification(s) best suited to a potential (future) component of the unique tourist facility. This also relates to the overarching objective to have a planning framework applicable to the subject site that provides flexibility to respond to changing tourism market conditions. For this same reason, the uses of 'Bed and Breakfast' and 'Holiday House' are also considered appropriate at the subject site, although such uses are unlikely to be "predominant" accommodation uses, therefore have been listed as incidental ('I') uses.

With respect to the use of 'Caretaker's Dwelling', the use is an existing and an ongoing essential component of the unique tourist facility, although will not be a "predominant" use. It is therefore appropriate for a 'Caretaker's Dwelling' to be listed as an 'I' use at the subject site.

8.1.1.3 COMMERCIAL USES

As with the above accommodation uses, we understand the Shire has some land use compatibility concerns with some of the commercial uses including 'Fast Food Outlet', 'Lunch Bar', 'Cinema/Theatre' and 'Club Premises', which were originally to be discretionary ('D') uses at the subject site. As such, these commercial uses are listed as incidental ('I') uses at the subject site, noting that MGK's key food and beverage land uses include 'Restaurant/Café', 'Small Bar' and/or 'Tavern', which are central (and critical) components to activate a tourist facility.

With respect to the land uses of 'Convenience Store' and 'Shop', it is not the intention to create a large retail precinct at the subject site. On this basis, a condition has been included limiting the retail floorspace to 300sqm NLA at the subject site.

8.1.1.4 INDUSTRY – PRIMARY PRODUCTION

The inclusion of the 'Industry – Primary Production' land use (as an incidental use) is important given the historic use of the subject site for seafood processing. It is intended that a component of the overall "fishing village" tourist facility will be to reinstate a small fish processing use in historical buildings where such a use was previously undertaken. That is, it is intended that a small component of the tourist/commercial redevelopment of the subject site will include fish processing that will pay homage to the historical use of the site as a seafood processing facility.

8.1.1.5 SERVICE STATION & MARINE FILLING STATION

Given the integrated "fishing village" theme of the proposed tourist facility at the subject site, and the site's distance from existing fuel outlets, a component of the proposal may include the sale of fuel at the subject site.

'Service Station' and 'Marine Filling Station' uses are therefore considered appropriate to enable the proposed tourist facility to provide fuel for on-site guests and patrons travelling south (which will negate the need to "back-track" to the Exmouth townsite).

The land uses are considered incidental and compatible with the overall tourist concept and are therefore appropriate uses at the subject site. Notwithstanding, a condition has been included to limit the uses to the sale of fuel only.



8.1.1.6 TAVERN & SMALL BAR

An historic tavern facility is located adjacent to the swimming pool at the subject site. The tavern has an existing active liquor licence for the tavern facility being (as per an extract from the Department of Local Government, Sport and Cultural Industries (Racing, Gaming and Liquor online portal)):

LICENCE REF.	LICENCE TYPE	PREMISES NAME	LICENSEE NAME	STATUS	DECISION	SUBURB	POSTCODE
6090003616	LIQ – Special Facility Licence	MG Kailis Gulf Fisheries Pty Ltd	MG Kailis Gulf Fisheries Pty Ltd	Current	Granted	Learmonth	6707

Given the existing infrastructure (built form and licence) is in place for the tavern, the tavern was operational whilst the former prawn processing facility was in operation and a licenced venue of this nature is commonplace and appropriate in a tourist facility as proposed, 'Tavern' and 'Small Bar' land uses are considered appropriate and justified at the subject site.

8.1.1.7 WAREHOUSE/STORAGE

It is intended that visitors to the "fishing village" tourist facility will wish to store their caravans and/or boats in a dedicated area when residing at the subject site or on a short-term basis when visiting other areas within the region. To enable certainty with respect to such a (storage) land use being permitted at the subject site the land use of 'Warehouse/Storage' is sought as part of this Scheme Amendment.

No long term or heavy (industrial) vehicle storage is proposed at the subject site under this land use provision.

In reviewing the land use definitions contained in LPS 4 the storing of caravans and boats on a short-term basis would be best defined as a 'Warehouse/Storage' use.

8.2 PLANNING AND DEVELOPMENT (LOCAL PLANNING SCHEMES) REGULATIONS 2015

8.2.1 TYPE OF AMENDMENT

For amendments to a local planning scheme, the Regulations (refer Regulation 35(2) Part 5 Division 1) require the resolution of the local government to specify whether, in the opinion of the local government, the amendment is a complex amendment, a standard amendment or a basic amendment and include an explanation for forming that opinion.

To assist the Shire of Exmouth, the Applicant is of the view that the proposed Scheme Amendment is a standard amendment for the following reasons:

- ▲ The amendment is consistent with the Shire of Exmouth Local Planning Strategy;
- ▲ The amendment would have minimal impact on land in the scheme area that is not the subject of this amendment;

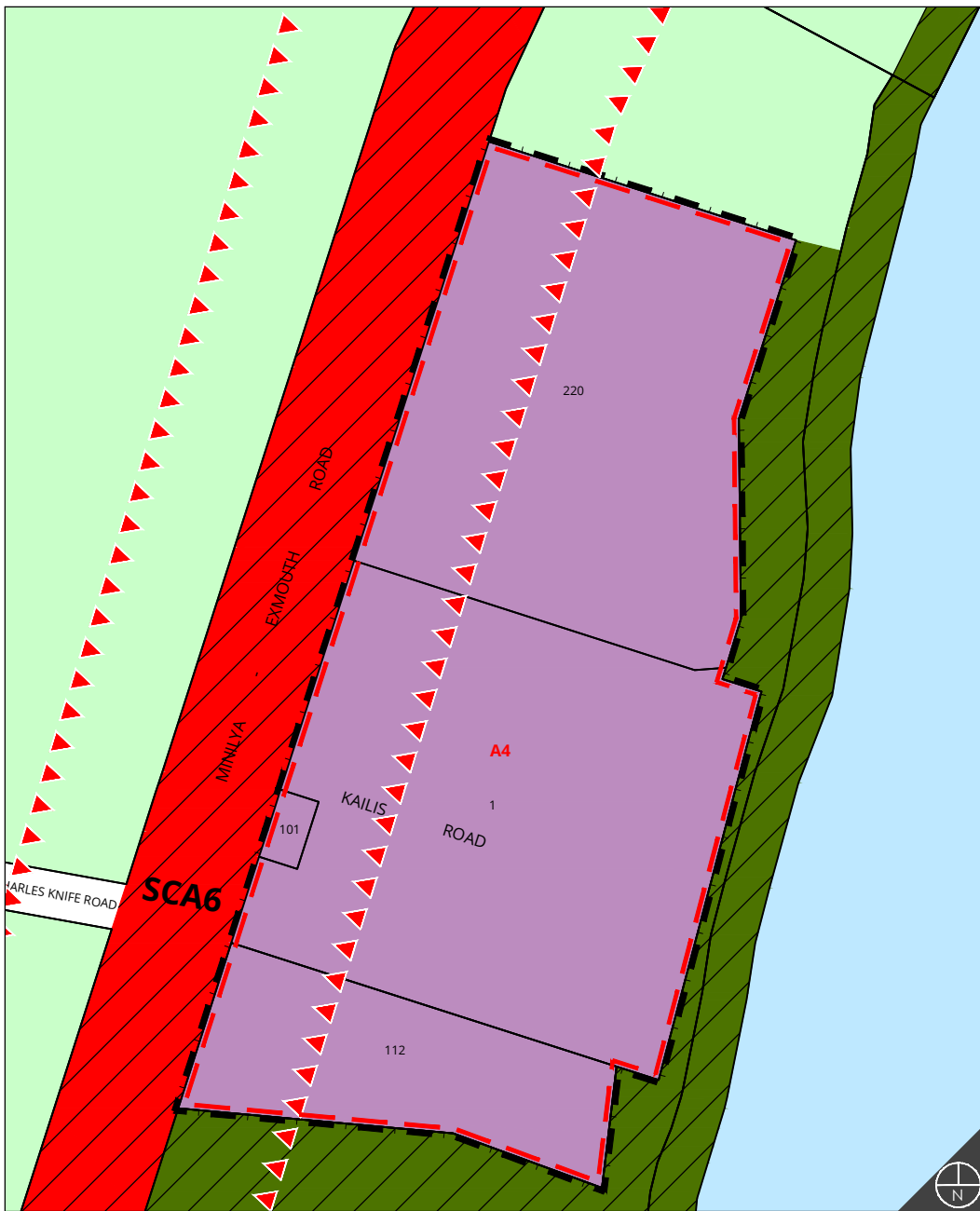


- ▲ The amendment does not result in any significant environmental, social, economic or governance impacts on the land in the scheme area; and
- ▲ The definitions of basic amendment and complex amendment do not apply to this proposal.

Notwithstanding the above, it is understood the Shire of Exmouth has sought preliminary advice from the DPLH with respect to elements of this scheme amendment including, but not limited to, its amendment type. The DPLH has advised that this amendment ought to be treated as a complex amendment.



Shire of Exmouth - Local Planning Scheme No. 4 Amendment No. xx



LEGEND

LOCAL SCHEME RESERVES

- PRIMARY DISTRIBUTOR ROAD
- FORESHORE

LOCAL SCHEME ZONES

- GENERAL INDUSTRY
- RURAL

OTHER CATEGORIES

- SCA6** MINILYA - EXMOUTH ROAD SPECIAL CONTROL AREA 6
- NO ZONE
- WATERBODIES
- A4** ADDITIONAL USE

OTHER

- SUBJECT SITE

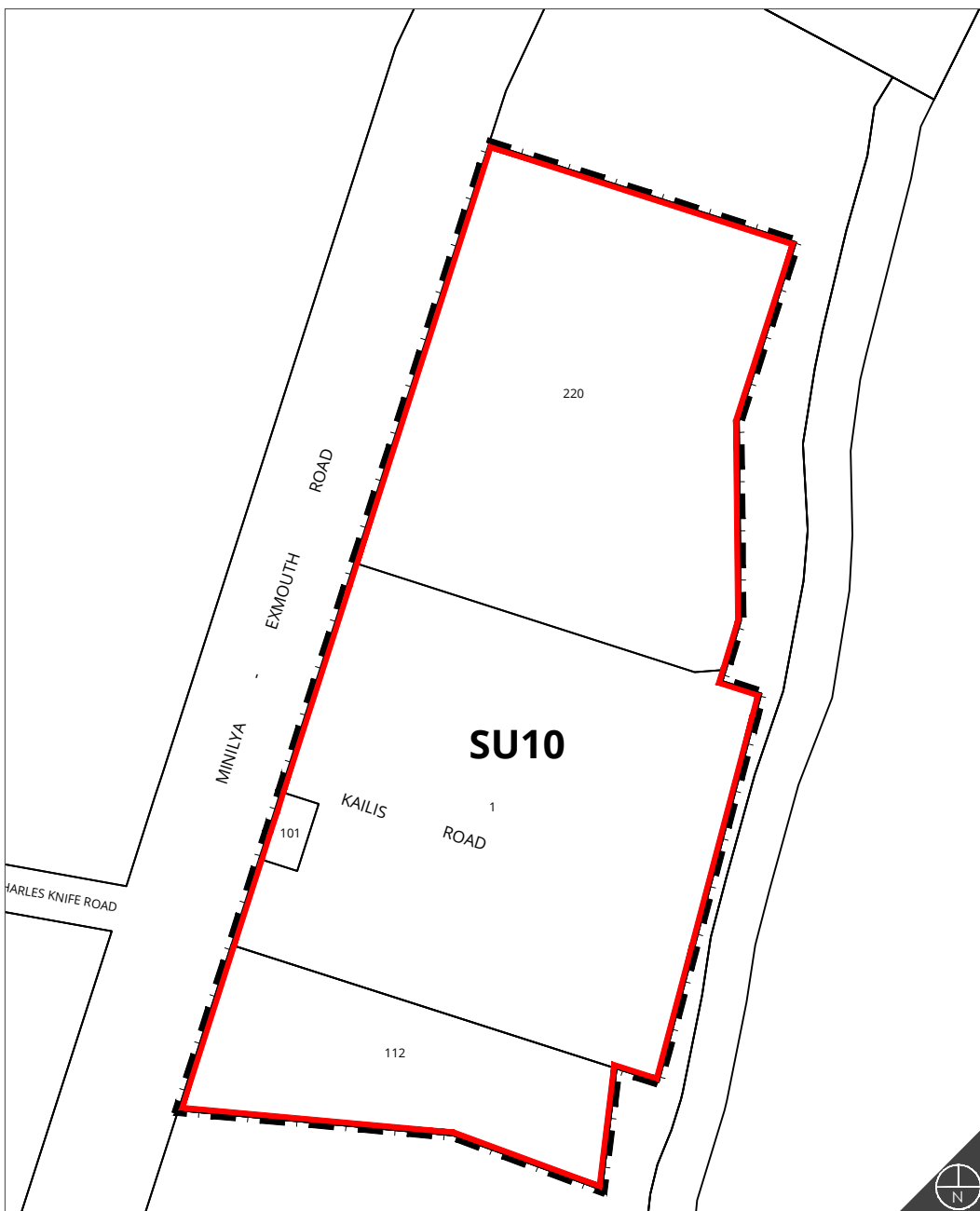
ADOPTION/REFUSAL

ADOPTION [Regulation 13(1)]
 ADOPTED by resolution of the Council of the Shire of Exmouth at the Ordinary Meeting of the Council held on the ____ day of ____, 202__.

MAYOR

CHIEF EXECUTIVE OFFICER

Existing Zoning



LEGEND

OTHER CATEGORIES

- SU10** SPECIAL USE AREA

OTHER

- SUBJECT SITE

FINAL APPROVAL

1. FINAL ADOPTION BY COUNCIL
 Adopted for Final Approval by Resolution of the Shire of Exmouth at the ____ Meeting of Council held on the ____ day of ____.
 The Common Seal of the Shire of Exmouth was hereunto affixed by authority of a resolution of the Council in the presence of:

MAYOR

CHIEF EXECUTIVE OFFICER

2. RECOMMENDED / SUBMITTED FOR FINAL APPROVAL:

DELEGATED UNDER S.16 OF PD ACT 2005

Date: _____

3. FINAL APPROVAL GRANTED

MINISTER FOR PLANNING

Date: _____

Proposed Zoning

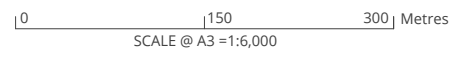


FIGURE 5
PROPOSED ZONING

9. CONCLUSION

This Local Planning Scheme Amendment request seeks to rezone the subject site from 'General Industry' Zone to 'Special Use' Zone (SU 10) and assigning a series of permissible land uses and development conditions (in Schedule 4 – Special Use Zones) at the subject site and seeks to remove 'Special Control Area 6 – Minilya-Exmouth Road' from the western portion of the subject site.

The Scheme Amendment is consistent with the provisions of the relevant planning framework being:

- ▲ Shire of Exmouth Local Planning Strategy;
- ▲ State Planning Policy 1 – State Planning Framework;
- ▲ State Planning Policy 2.6 – Coastal Planning;
- ▲ State Planning Policy 3.7 – Planning in Bushfire Prone Areas;
- ▲ State Planning Policy 5.4 – Road and Rail Noise;
- ▲ State Planning Policy 6.3 – Ningaloo Coast;
- ▲ Gascoyne Coast Sub-Regional Strategy; and
- ▲ Future Directions for the Ningaloo Coast Regional Strategy Carnarvon to Exmouth.

The Scheme Amendment is considered appropriate and justified for the following reasons:

- ▲ Assigning the subject site as a 'Special Use' Zone (SU 10) is considered appropriate given the proposed use of the subject site (as a "fishing village" tourist facility) does not comfortably site within any other specific zone in LPS 4.
- ▲ The proposed (future) "fishing village" tourist facility will provide a diverse range of accommodation options for the region;
- ▲ The existing site attributes (including the former use of the site as a prawn processing facility with accommodation and ancillary uses) provides an opportunity to adapt the subject site and create a unique "fishing village" tourist facility with strong ties to the site's original uses that is expected to cater for a wide range of visitors to the region;
- ▲ The rezoning will facilitate the development of a tourist facility that will contribute to ongoing investment and employment opportunities in the region;
- ▲ Rezoning the subject site from 'General Industry' to 'Special Use' Zone (and assigning a series of permissible tourist/commercial land uses) will see many of the potential coastal environmental risks/impacts significantly reduced given tourist uses are considered less detrimental than industrial uses in a coastal setting;
- ▲ A tourist facility at the subject site will create a unique visitor experience in a unique setting for those seeking a natural experience along the coast;
- ▲ The various land uses and their associated permissibility are generally consistent with the land use permissibility for the 'Tourism' Zone (of LPS 4) and those proposed by MGK as part of the Concept Plan for the "fishing village" tourist facility; and

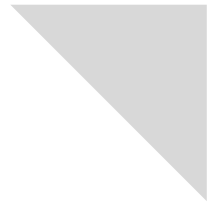
- ▲ The Scheme Amendment is supported by an Environmental Assessment Report, a Coastal Hazard Risk Management Adaptation Planning Report, Transport Impact Statement and Bushfire Hazard Level Assessment.

The removal of the subject site from SCA 6 is considered appropriate and justified for the following reasons:

- ▲ The protection of visual amenity was intended to be a visual amenity policy (and not a statutory scheme provision) as outlined in the Ningaloo Coast Regional Strategy Carnarvon to Exmouth;
- ▲ The intent of the visual amenity plan/policy was to guide development and landscaping rather than preclude development; and
- ▲ The wording of SCA 6 in LPS 4 is subjective insofar as it does not provide clear guidance on what development can and cannot occur within the SCA 6 area.

On this basis, the Council of the Shire of Exmouth is requested to initiate the proposed Scheme Amendment to its Local Planning Scheme No. 4 accordingly.





ATTACHMENT 1

CERTIFICATES OF TITLE



ROWE
GROUP

WESTERN



AUSTRALIA

REGISTER NUMBER N/A	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2230** FOLIO **171**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

THIS IS A MULTI-LOT TITLE

LAND DESCRIPTION:

LOT 1 ON DEPOSITED PLAN 47770
LOT 101 ON DEPOSITED PLAN 180602

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

MG KAILIS PTY LTD OF 50 MEWS ROAD, FREMANTLE

(XA J687687) REGISTERED 4/4/2006

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required.
* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF TITLE-----

STATEMENTS:

The statements set out below are not intended to be nor should they be relied on as substitutes for inspection of the land and the relevant documents or for local government, legal, surveying or other professional advice.

SKETCH OF LAND: 2230-171 (1/DP47770), 2230-171 (101/DP180602)
PREVIOUS TITLE: 2229-329
PROPERTY STREET ADDRESS: LOT 1 KAILIS RD, LEARMONTH (1/DP47770).
LOCAL GOVERNMENT AUTHORITY: SHIRE OF EXMOUTH

NOTE 1: K947513 LAND PARCEL IDENTIFIER OF LYNDON LOCATION 101 (OR PART THEREOF) ON SUPERSEDED PAPER CERTIFICATE OF TITLE CHANGED TO LOT101 ON DEPOSITED PLAN 180602 ON 20.5.2009 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.
NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE OF TITLE OR ON THE CURRENT EDITION OF DUPLICATE CERTIFICATE OF TITLE.



REGISTER NUMBER 112/DP182633	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

WESTERN AUSTRALIA

**RECORD OF CERTIFICATE
OF
CROWN LAND TITLE**
UNDER THE TRANSFER OF LAND ACT 1893
AND THE LAND ADMINISTRATION ACT 1997
NO DUPLICATE CREATED

VOLUME **LR3069** FOLIO **517**

The undermentioned land is Crown land in the name of the STATE OF WESTERN AUSTRALIA, subject to the interests and Status Orders shown in the first schedule which are in turn subject to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 112 ON DEPOSITED PLAN 182633

**STATUS ORDER AND PRIMARY INTEREST HOLDER:
(FIRST SCHEDULE)**

STATUS ORDER/INTEREST: LEASEHOLD

PRIMARY INTEREST HOLDER: M G KAILIS GULF FISHERIES PTY LTD OF 50 MEWS ROAD, FREMANTLE
(LC K706321) REGISTERED 5/9/2008

**LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)**

- 1. K706321 LEASE. SUBJECT TO THE TERMS AND CONDITIONS AS SET OUT IN THE LEASE. REGISTERED 5/9/2008.

Warning: A current search of the sketch of the land should be obtained where detail of position, dimensions or area of the lot is required. Lot as described in the land description may be a lot or location.

-----END OF CERTIFICATE OF CROWN LAND TITLE-----

STATEMENTS:

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SKETCH OF LAND: LR3069-517 (112/DP182633)
 PREVIOUS TITLE: LR3069-517
 PROPERTY STREET ADDRESS: LOT 112 MINILYA-EXMOUTH RD, LEARMONTH.
 LOCAL GOVERNMENT AUTHORITY: SHIRE OF EXMOUTH
 RESPONSIBLE AGENCY: DEPARTMENT OF PLANNING, LANDS AND HERITAGE (SLSD)

NOTE 1: A000001A LAND PARCEL IDENTIFIER OF LYNDON LOCATION 112 ON SUPERSEDED PAPER CERTIFICATE OF CROWN LAND TITLE CHANGED TO LOT 112 ON DEPOSITED PLAN 182633 ON 27-AUG-02 TO ENABLE ISSUE OF A DIGITAL CERTIFICATE OF TITLE.

END OF PAGE 1 - CONTINUED OVER

ORIGINAL CERTIFICATE OF CROWN LAND TITLE

REGISTER NUMBER: 112/DP182633

VOLUME/FOLIO: LR3069-517

PAGE 2

NOTE 2: THE ABOVE NOTE MAY NOT BE SHOWN ON THE SUPERSEDED PAPER CERTIFICATE
OF TITLE.

NOTE 3: K706321 CORRESPONDENCE FILE 01439-1977-02RO

WESTERN



AUSTRALIA

REGISTER NUMBER 220/DP192031	
DUPLICATE EDITION N/A	DATE DUPLICATE ISSUED N/A

RECORD OF CERTIFICATE OF TITLE
UNDER THE TRANSFER OF LAND ACT 1893

VOLUME **2077** FOLIO **862**

The person described in the first schedule is the registered proprietor of an estate in fee simple in the land described below subject to the reservations, conditions and depth limit contained in the original grant (if a grant issued) and to the limitations, interests, encumbrances and notifications shown in the second schedule.



REGISTRAR OF TITLES

LAND DESCRIPTION:

LOT 220 ON DEPOSITED PLAN 192031

REGISTERED PROPRIETOR:
(FIRST SCHEDULE)

M.G. KAILIS GULF FISHERIES PTY LTD OF 12 STIRLING HIGHWAY, NEDLANDS

(A G208115) REGISTERED 27/8/1996

LIMITATIONS, INTERESTS, ENCUMBRANCES AND NOTIFICATIONS:
(SECOND SCHEDULE)

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* Any entries preceded by an asterisk may not appear on the current edition of the duplicate certificate of title.
Lot as described in the land description may be a lot or location.

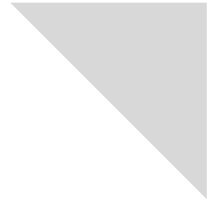
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STATEMENTS:

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SKETCH OF LAND: 2077-862 (220/DP192031)
 PREVIOUS TITLE: 2077-862
 PROPERTY STREET ADDRESS: NO STREET ADDRESS INFORMATION AVAILABLE.
 LOCAL GOVERNMENT AUTHORITY: SHIRE OF EXMOUTH

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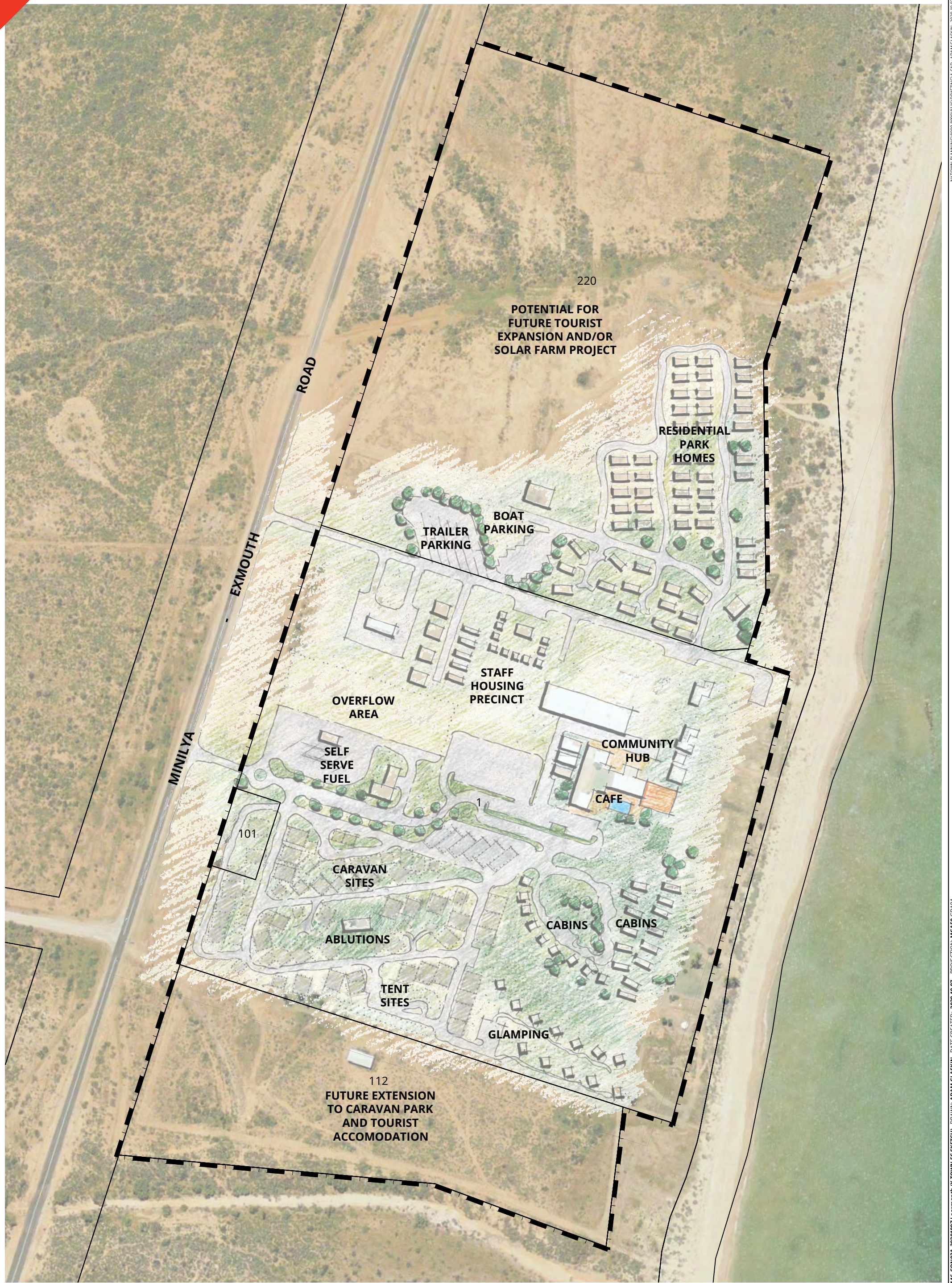
ATTACHMENT 2

INDICATIVE TOURISM CONCEPT PLAN



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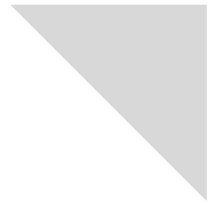
18116_CON02A_20201007 Learmonth (K TOWN) FC SKETCH | DRAWN: ADAM GLASKIN | DATE CREATED: 2020.10.07 | PROJECTION: MGA50 GDAS4 | N:\TOWN PLANNING\8000-8999\8116\DRAWING\CA0 - ADAM GLASKIN - 2020.10.07

"K TOWN"
 CONCEPT PLAN - PROPOSED TOURIST DEVELOPMENT
 LEARMONTH



0 62.5 m
 SCALE @ A3: 1:2500
 8116-CON-02-A





ATTACHMENT 3

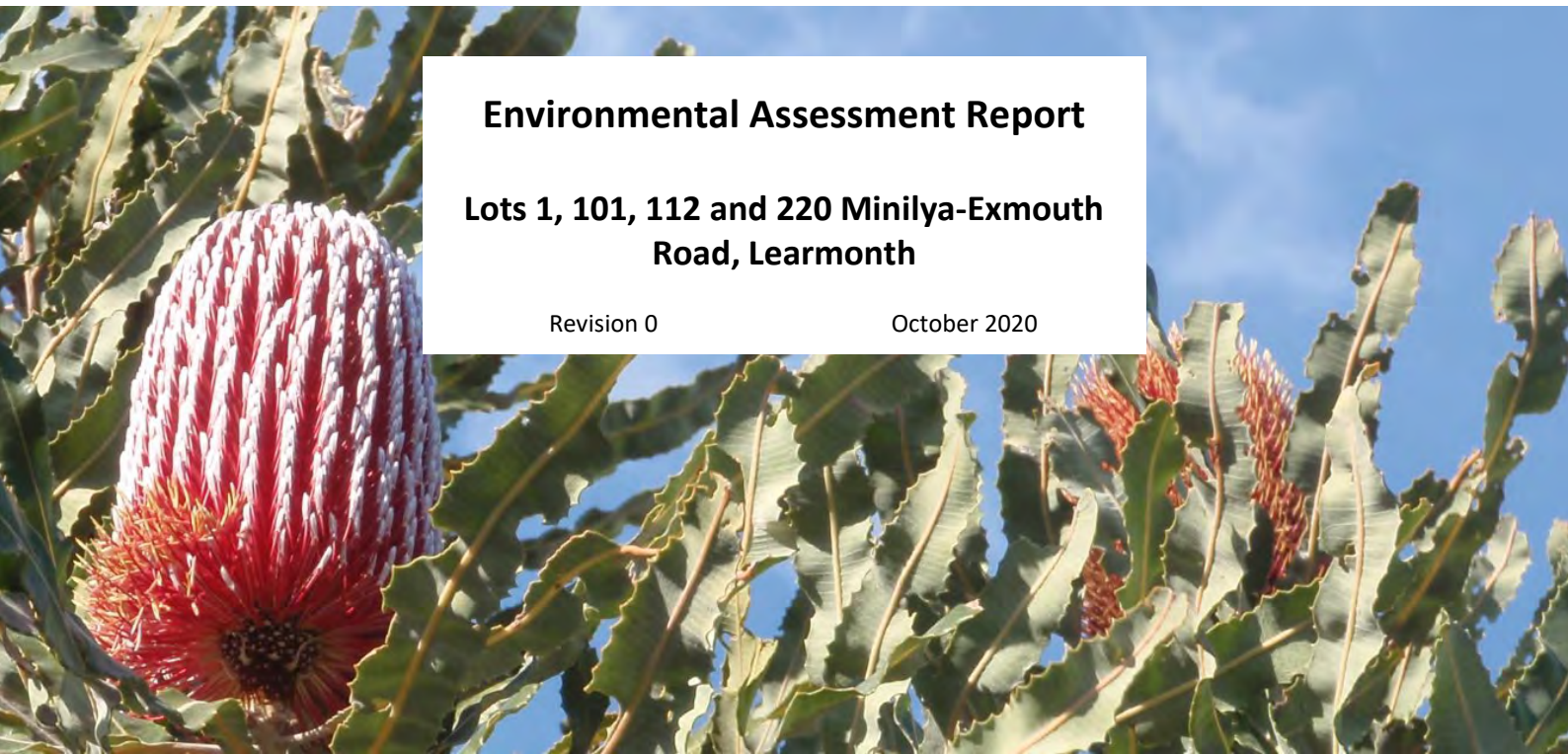
ENVIRONMENTAL ASSESSMENT REPORT



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ENVIRONMENT



Environmental Assessment Report
**Lots 1, 101, 112 and 220 Minilya-Exmouth
Road, Learmonth**
Revision 0 October 2020

CALIBRE | COMMITMENT | COLLABORATION

This report was prepared by: Coterra Pty Ltd trading as COTERRA ENVIRONMENT

ABN: ABN: 92 143 411 456

Our Ref: GRAEXM01

Author(s): K. Watts

Reviewer: S. Harley

Report Version: Revision 0

Date: October 2020

This report was prepared for:

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Fremantle WA 6160

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Appendices

Appendix 1	Draft Site Layout Plan
Appendix 2	Flora, Vegetation and Fauna Report

1 Introduction

1.1 Background

The site includes Lots 1, 101, 112 and 230 Minilya-Exmouth Road, Learmonth, which is approximately 22km to the south of the Exmouth townsite (Figure 1). The site extends over approximately 28ha.

The site was used as a base for the MG Kailis Group Exmouth seafood operations from the early 1970s. The vessel fleet moved to the Exmouth Marina in 1999, with processing only then remaining onsite. In 2011 the land-based processing activities were shifted to processing and freezing the prawn catch at sea (RPS, 2011).

The site contains mostly cleared or degraded vegetation with onsite facilities and structures in the southern and eastern sections of the landholdings including:

- Administration buildings
- Former seafood storage and processing facilities
- Former boat maintenance and servicing facilities
- Employee accommodation and recreation facilities

1.2 Scheme Amendment

1.2.1 Previous Scheme Amendment Application

A scheme amendment for the site was previously requested in 2011 under the Shire of Exmouth Town Planning Scheme No. 3 to facilitate the development of the site as marine supply base to service the oil and gas industry and fishing operations in this location. The site was zoned as 'Special Use I', and the amendment was sought to modify the special use description in the scheme text to accommodate the proposed activities.

The facilities which were to be provided onsite as part of the proposed development of the site to be facilitated by the rezoning were identified as (RPS, 2011):

- Perimeter fencing, roadways and signage for traffic management.
- Hardstand and pavement areas suitable for containerised cargo, project cargo and bulk cargo, which will be staged to suit operations.
- Re-fuelling and fuel storage facilities.
- Plant and vehicle wash downs bays.
- Site office and Ablution facilities.
- Warehouse buildings and maintenance and fabrication workshops.
- Sewer, water and stormwater drainage.
- Perimeter lighting and service pits for portable light stands within the storage area:
- Fire fighting equipment required by the Building Code of Australia (BCA) and Shire requirements

Following liaison with the Shire of Exmouth and the (then) Department of Planning, this amendment was processed under s76(1) of the *Planning and Development Act 2005*.

Following amendment of the Shire of Exmouth Town Planning Scheme No. 3 (TPS 3) which rezoned the site to 'Industrial' (Amendment No. 27), development of the site for this purpose did not occur.

Following the replacement of TPS 3 by TPS 4, a 'General Industry' zone was then assigned to the landholdings.



1.2.2 Current Scheme Amendment Application

The MG Kailis Group Learmonth properties are currently proposed to be rezoned from 'General Industry' to 'Tourism' with a series of additional uses.

The future site uses are proposed to comprise:

- Caravan/camping/accommodation precincts
- Boat and trailer parking zone
- Community hub
- Roadhouse

A copy of the draft site layout plan is provided in Appendix 1.

1.3 Purpose of this Report

The report has been prepared to accompany the current scheme amendment application. The report identifies the environmental features of the site, potential environmental impacts and discusses the design and management actions proposed to address these impacts.



2 Existing Environment

2.1 Climate

Climatic conditions in Learmonth include mean maximum temperatures ranging from 38.0°C (January) to 24.4°C (July). Mean minimum temperatures range from 24.0°C (February) to 11.5°C (July) (BoM, 2020). The mean annual rainfall is 254mm, with mean monthly distribution shown on Plate 2-1.

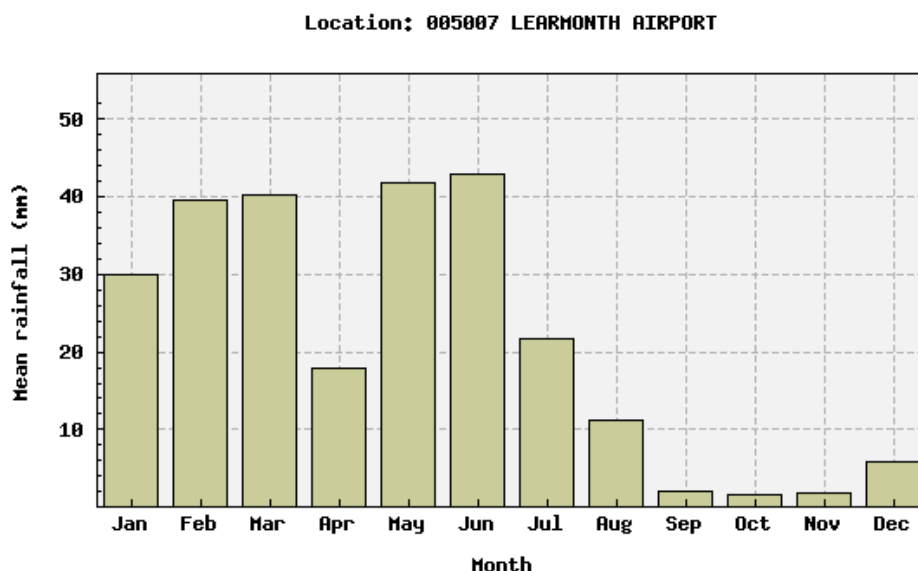


Plate 2-1: Mean Rainfall

Source: BoM, 2020

Tropical cyclones are a seasonally occurring natural hazard which can impact this region. A tropical cyclone is a circular rotating storm of tropical origin in which the mean wind speed exceeds 63 km/h (gale force). Gale force is the threshold speed at which a cyclone is named. Wind speeds greater than 100km/hr are common by the time a cyclone crosses the coast and higher wind speeds frequently occur. Tropical cyclones can occur at any time of the year, but they are very rare outside the cyclone "season" from the beginning of November to the end of April (SoE, 2020).

Once they cross the coast, cyclones tend to decay within 24 to 48 hours and the strong central winds die away. Dangerous flooding can occur as heavy rain falls from the decaying system (SoE, 2020).

2.2 Topography, Landform and Soils

2.2.1 Topography and Landform

Cape Range is a prominent northerly trending peninsula approximately 80km long, 20km wide and has a rugged topography reaching a maximum elevation of 314m. The range is bordered on the west by the Indian Ocean and a narrow continental shelf about 12km wide containing the Ningaloo Reef, and to the east by the shallow Exmouth Gulf (Allen, 1993; BBG, 1997).

Coastal plain formations occur on either side of the range (EPA, 1999) which is the landform represented onsite. Topographic elevation within the landholdings range from 2 to 9m AHD, sloping towards the east. Topographic contours are shown on Figure 2.



2.2.2 Geology and Soils

Cape Range forms part of the Exmouth sub-basin of the Carnarvon Basin and the Province is underlain by about 10 km of sedimentary rocks. Those forming the Range itself are predominantly carbonate sediments of the Palaeocene – Miocene period and are about 500m thick. Shallow water marine, alluvial, littoral and aeolian sediments of recent age form coastal plains on each side of the range (EPA, 1999). The sediments of the coastal plain range from about 5m in thickness on the western side of the range to 10m in the east (BBG, 1997).

Two geological units are mapped at a scale of 1:500,000 within the site as follows (DMIRS, 2020):

- Coastal (wave-dominated) unit, WCP. Carbonate-rich clay, silt and sand in coastal deposits.
- Sheetwash unit, WCP. Very gently inclined sheetflood plain (less than 1 degree slope); extremely low relief.

The location of these units is shown on Figure 3.

A geotechnical investigation was undertaken onsite in 2014 (URS, 2014). The generalised subsurface project across the site comprised topsoil to be depth of generally between 0.2m and 0.3m, overlying Silty/Clayey Sand. A layer of silty gravel at approximately 1m depth was observed in the northern end of the site. The test pits extended to 2.3m below ground level. No limestone was encountered in any of the test pits.

2.2.3 Acid Sulfate Soils

Acid sulfate soils (ASS) are naturally occurring soils, sediments and peats that contain iron sulfides, predominantly in the form of pyrite materials. These soils are commonly found in low-lying land bordering the coast or estuarine and saline wetlands and freshwater groundwater-dependent wetlands throughout Western Australia (DER, 2015).

In an anoxic state, these materials remain benign and do not pose a significant risk to human health or the environment. However, disturbing ASS, and exposing it to oxygen, has the potential to cause significant impacts (DER, 2015)

Areas to the south and east of the site are mapped as having a ‘Moderate to Low’ and a ‘High to Moderate’ risk of Acid Sulfate Soils (Figure 3).

2.2.4 Coastal Classification

State Planning Policy 2.6 – State Coastal Planning Policy (SPP 2.6) (WAPC, 2003) identifies that coastal lowlands typically feature flat to gently sloping shores often containing high percentages of finer sediments. In contrast to sandy coasts the landforms are generally the result of the historic geologic advance of a deltaic or outwash plain. The near shore environment often comprises tidal flats, salt marshes or mangroves. In many locations where there is an availability of sediments, a chenier plain or storm ridge may be present. These shorelines are strongly influenced by inundation and tidal processes. Examples include the deltaic landforms of the Ashburton River (Onslow), Gascoyne (Carnarvon) and the outwash plains of Wooramel (Shark Bay), and Yannarie (Exmouth Gulf).

This coastal classification appears to most accurately represent the coastal zone in this location.

2.3 Hydrology

2.3.1 Surface Water

The coastal plain between Exmouth and Learmonth is characterized by numerous intermittent incised creeks which discharge eastwards from Cape Range. These creeks are highly seasonal and typically only flow following intensive rainfall events (often associated with cyclones) (TME, 2013).

An ephemeral watercourse passes from west to east through Lot 220 and onwards to the coast (Figure 4 and Plate 2-2). Portions of the subject land, which lie adjacent to this watercourse, perform the hydrological function of a local flood plain which conveys and disperses the overland flow from the surrounding catchment area in the west during high rainfall or less frequent extreme events, such as tropical cyclones (RPS, 2012).



Plate 2-2: Lot 220 ephemeral watercourse

Date of Photography: 17 September 2020

There are also additional ephemeral flow paths within the subject land which convey overland flows from west to east across the site (RPS, 2012).

An ephemeral watercourse is also located to the south of the site (Figure 4). This watercourse originates over 5km inland within the Cape Range.

There is no flood mapping available for the water courses within or close to the site.

2.3.2 Groundwater

2.3.2.1 Regional Groundwater Description

The water table lies a couple of metres above present sea level near the coast. The aquifer is recharged both directly by rainfall and indirectly through the beds of ephemeral streams which carry storm runoff from the Range. However, limited recharge results in the thinness of the freshwater lens (Water Corporation, 1996; EPA, 1999).

2.3.2.2 Site Groundwater

Given the proximity to Exmouth Gulf, it would be expected that groundwater would occur around sea level at the eastern side of the site, possibly rising to 1-2mAHD along the western side.

It is noted that groundwater was not encountered in the geotechnical investigation which included subsurface assessment to 2.3m below ground level (URS, 2014).

2.3.2.3 Groundwater Abstraction

The site is located within the Gascoyne proclaimed groundwater area, and within the Exmouth Groundwater Sub-area (Landgate, 2020). As such any groundwater abstraction requires a licence.

The site receives its water supply from bores located approximately 2km inland. MG Kailis hold two groundwater licences in this location with a total allocation of 130,000 kL/annum. The details are:

- Groundwater licence number 47187 has a current allocation of 100,000 kL/annum. It is located in the Gascoyne groundwater area (Exmouth South sub-area) and draws from the Carnarvon - Cape Range Limestone aquifer (allocation available). The licence was issued 9th of May 2013 and expires on the 8th of May 2023.



- Groundwater licence number 159169 provides an additional allocation of 30,000 kL/annum and is also located in the Gascoyne groundwater area (Exmouth South sub-area). This licence draws from the Saline Resource aquifer (allocation available). The licence was issued on the 19th of September 2017, and expires on the 18th of September 2027.

2.3.3 Sea Level Rise

SPP 2.6 notes that climate change will cause variations in many environmental variables including mean sea level, ocean currents and temperature, wind climate, wave climate, rainfall/run-off and air temperature. The allowance for sea level rise should be based on a vertical sea level rise of 0.9 metres over a 100-year planning timeframe to 2110 (WAPC, 2003).

2.3.4 Storm Surge

Major flood events in the North West Cape are typically associated with storm surge. Tropical cyclones can cause significant increases in the ocean level through the combined effects of low atmospheric pressure, strong onshore winds and large waves breaking near shore. This increase in the water level (storm surge) has implications for coastal developments (Bureau of Meteorology, 2012; RPS, 2012).

2.4 Vegetation and Flora

2.4.1 Regional Vegetation

The landholdings fall within the Beard Vegetation Association 663 of the Cape Range vegetation system. The vegetation association description is (Govt of WA, 2018):

- Hummock grasslands, shrub steppe; waterwood over soft spinifex

The statistics relevant to this association are summarised on Table 2-1.

Table 2-1: Vegetation Association 663 Extent Statistics

Region	Original Extent	Current Extent	Land Protected for Conservation
Statewide	30,474.41 ha	25,976.66 ha (85.24%)	6,799.29 ha (22.31%)
IBRA Region (Carnarvon)	29,068.26 ha	25,866.32 ha (88.98%)	6,768.57 (23.29%)
IBRA sub-region (Cape Range)	26,068.26 ha	25,866.32 ha (88.89%)	6,768.57 ha (23.29%)
Shire of Exmouth	30,474.41 ha	25,976.66 ha (85.24%)	6,799.29 ha (22.31%)

Source: Govt of WA, 2018

2.4.2 Flora and Vegetation Survey (2011)

A Level 1 (Reconnaissance level) flora and vegetation survey of the site was undertaken in December 2011 (RPS, 2012). A copy of the survey report is provided in Appendix 2. A summary of the key findings is provided below.

2.4.2.1 Vegetation Units

The vegetation types mapped onsite are as follows:

- V1 - Tall Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Low Open Shrubland of *Acacia synchronicia*, *Acanthocarpus verticillatus* and *Jasminum didymium* subsp. *lineare* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* and *Cucumis maderaspatanus* over Tussock Grassland of **Cenchrus ciliaris* with Very Open Tussock Grassland of *Triodia epactia* on upland banks.

- V2 - Tall Open Shrubland of *Acacia synchronicia* over Low Shrubland of *Scaevola spinescens*, *Acacia tetragonophylla*, *Stylobasium spathulatum* and *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia epactia*.
- V3 - Low Open Shrubland of *Acacia coriacea* subsp. *coriacea*, *Acacia xiphophylla* and *Santalum lanceolatum* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.
- V4 - Low Open Shrubland of mixed *Chenopodiaceae* spp. and *Pittosporum angustifolium* over Very Open Tussock Grassland of **Cenchrus ciliaris*.
- V5 - Low Open Shrubland of *Acacia synchronicia* and/or *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.
- V6 - Tall Open Shrubland of *Acacia synchronicia* over Low Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Tussock Grassland of *Triodia epactia*.

The location of these vegetation units is shown on Figure 5.

2.4.2.2 Vegetation Condition

Vegetation condition within the landholdings ranged from 'Good' to 'Completely Degraded' based on the Keighery condition scale. Most of the vegetation within the subject land was considered to be in 'Degraded' to 'Completely Degraded', condition due to historic impacts from site works, weed invasion, stock grazing and vegetation removal (RPS, 2012).

The definitions for vegetation condition levels onsite (Keighery, 1994) are provided below:

- Good - Vegetation structure significantly altered by very obvious signs of multiple disturbances retains basic vegetation structure or ability to regenerate it.
- Degraded - Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not in a state approaching good condition without intensive management.
- Completely Degraded - The structure of the vegetation is no longer intact and the area is completely or almost without native species.

Vegetation condition mapping is provided on Figure 6.

Example photographs of the onsite vegetation are provided in Plate 2-3 to Plate 2-6.



Plate 2-3: Vegetation within Lot 112

Date of Photography: 17 September 2020



Plate 2-4: Coastal vegetation to the west of Lot 1 (looking south)

Date of Photography: 17 September 2020



Plate 2-5: Vegetation in the southern end of Lot 220

Date of Photography: 17 September 2020



Plate 2-6: Coastal vegetation in Lot 220

Date of Photography: 17 September 2020



Plate 2-7: Central portion of Lot 1 (north of Kailis Road)

Date of Photography: 17 September 2020

2.4.2.3 Vegetation Communities

No Threatened Ecological Communities (TECs) or Priority Ecological Communities (PECs) were recorded within the landholdings.

2.4.2.4 Threatened and Priority Flora

No flora species protected under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act) or *Wildlife Conservation Act 1950* (WC Act) were recorded in the subject land (RPS, 2012).

Two Priority 3 (Poorly-known species) flora species were recorded in the subject land: *Corchorus congener* (two plants) and *Gymnanthera cunninghamii* (one plant). Priority 3 species are defined as (DBCA, 2019):

- Species that are known from several locations, and the species does not appear to be under imminent threat, or from few but widespread locations with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Species may be included if they are comparatively well known from several locations but do not meet adequacy of survey requirements and known threatening processes exist that could affect them. Such species are in need of further survey.

Description of the two flora species found onsite are provided below (DBCA, 2020):

- *Corchorus congener* - Spreading shrub, to 0.6 m high. Fl. yellow, Apr to Jun or Aug to Nov. Sand, red sandy loam with limestone. Sand dunes, plains.
- *Gymnanthera cunninghamii* - Erect shrub, 1-2 m high. Fl. cream-yellow-green, Jan to Dec. Sandy soils.

2.5 Fauna and Habitat

2.5.1 Fauna Assessment (2011)

A Level 1 fauna assessment was undertaken within the landholdings in December 2011 (RPS, 2012). The key conclusions from this assessment were:

- The type of habitat found within the landholdings is not unique and is similar to those found within the Exmouth area that surrounds the subject land.
- Twelve conservation significant vertebrate fauna species were noted to potentially occur in this location. Eight of these species were migratory birds, two were mammals and two reptiles.
- It is likely the Rainbow Bee-eater (migratory bird) utilises the subject land for feeding and breeding. Several burrows which appear likely to be made by Rainbow Bee-eaters were observed within the drainage lines onsite. The following is noted in relation to this species (DAWE, 2020a):
 - This species migrates between Australia, Eastern Indonesia, and Japan.
 - The birds tend to occupy open forests and woodlands, cleared or semi-cleared areas and farmland, in usually timbered landscapes, often in close proximity to water.
 - They nest in an enlarged chamber at the end of a long burrow that is excavated from flat or loping ground, cliff faces or mounds of gravel. The nests generally remain unlined.
 - The species is known to occur across the majority of mainland Australia.
 - The species is not rare.
- The assessment concluded that although the subject land may potentially contain habitat which could be utilised by some of the identified conservation significant species, it is considered unlikely to be significant habitat upon which any of the identified species is dependent upon for survival.

A copy of the fauna assessment report is provided in Appendix 2.

2.5.2 Site Observations

An Osprey Nest was observed close to the beach near the southern end of the site during the site visit. The nest and the approximate location are shown below. The nest is not proposed to be removed as part of the future development onsite.



Plate 2-8: Osprey Nest

Date of Photography: 17 September 2020

2.5.3 Subterranean Fauna

The nationally important wetland ‘Cape Range Subterranean Waterways’ is mapped partially within the Project area (Figure 7). This wetland was listed because of its known or potential value for subterranean fauna (Bennelongia Environmental Consultants, 2017).

Subterranean fauna species can be aquatic and living in the groundwater (stygo fauna), or air-breathing and living in rock voids above the water table (troglifauna). The presence of subterranean fauna is strongly linked to geology and hydrology and the availability of suitable micro-habitats, e.g. air-filled voids or caves for troglifauna, and aquifers that are not hypersaline for stygo fauna (EPA, 2016).

Given the limited freshwater lens which is likely to be present at the site (Section 2.3.2) the underlying groundwater may be too saline for stygo fauna. The presence of rock or limestone within the soil profile was also not identified during the geotechnical works onsite which is required for troglifauna.

2.5.4 Marine Fauna

RPS (2012) noted that five of the six species of marine turtles that are known to occur in Australia could potentially utilise the coastal environment for habitat located directly to the east of the subject land. Of these five species, green turtles (*Chelonia mydas*), flatback turtles (*Natator depressus*), hawksbill turtles (*Eretmochelys imbricate*) and loggerhead turtles (*Coretta caretta*) are known to use the coastal environment of Western Australia as nesting habitat (DEC, 2012).

However, there are no known beaches used by marine turtles for nesting within the Exmouth Gulf and in close proximity to Learmonth, which includes the coastal environment located directly to the east of the subject land (RPS, 2012).

2.6 Coastal Interface

The interface to the east of Lots 1 and 112 mostly comprises cleared land with small areas of planted or coastal vegetation. Additional native vegetation is present east of Lot 220, although weeds were also observed to be present in this area.

Photographs of the interface between the site and the gulf waterbody are provided in Plates Plate 2-4, Plate 2-6 and below.



Plate 2-9: Coastal Zone looking north-east



Plate 2-10: Coastal Zone looking north

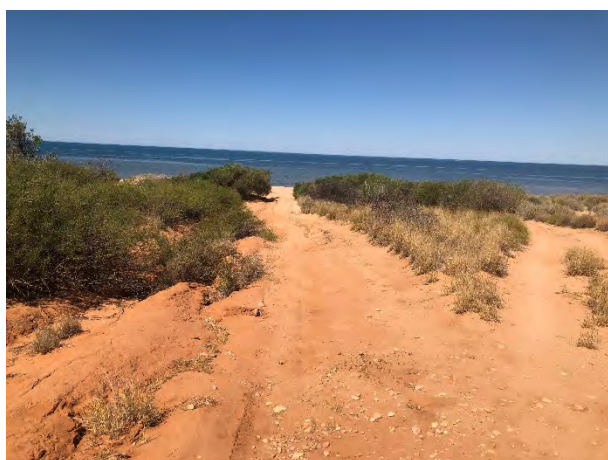


Plate 2-11: Northern existing beach access



Plate 2-12: Coastal vegetation to the north of the beach access track

2.7 Environmentally Significant Areas

2.7.1 Cape Range National Park

Cape Range National Park covers approximately 50,580 ha of the Cape Range feature near Exmouth. The park contains a dissected limestone range and fringing coastal plain directly adjacent to the northern part of the Ningaloo Marine Park (EPA, 1999).

The park contains an extensive karst hydrological system that supports an extremely diverse subterranean fauna of high biodiversity conservation significance including locally disjunct, endemic and relictual species.



The park also contains a particularly rich flora for an arid limestone environment and a rich and diverse vertebrate and invertebrate fauna population (DEC & Conservation Commission, 2010).

The park is located approximately 6km to the west of the site.

2.7.2 Exmouth Gulf

Exmouth Gulf lies between the North West Cape and the mainland coastline. The gulf is a rich marine environment. It is a nursery for humpback whales, dugong, and turtles. The mangrove systems on the eastern margins are areas of high primary productivity feeding and restocking both the Gulf and the nearby Ningaloo Reef.

The gulf waterbody is located to the east of the project site.

2.7.3 Ningaloo Coast National Heritage Listed Site

The Ningaloo Coast National heritage listed site (under the *Environment Protection and Biodiversity Conservation Act 1999*) extends over approximately 710,000 ha and includes the coastal strip from the North-West Cape to Red Bluff, including (amongst others) (DAWE, 2020b):

- Cape Range National Park
- Learmonth Air Weapons Range
- Northern and western parts of vacant Crown Land west of Learmonth town
- North-west part of Exmouth pastoral lease
- Northern part and western coastal strip of Ningaloo Pastoral Lease

This site does not extend into the Kailis Learmonth landholdings.

2.8 Land Uses

2.8.1 Onsite Land Uses

The landholdings were used from 1973 to 1999 to support the former MG Kailis Prawn Processing Facility with activities undertaken onsite including:

- Service and maintenance of commercial fishing vessels
- Processing seafood
- Providing on-site accommodation for workers (accommodation units and the caravan park)

In 1999, following the opening of Exmouth Marina, commercial fishing vessels ceased operating from this site. In 2011 seafood processing activities were also ceased at the site.

Some of the units and caravan park accommodation currently remain in operation for caretaker staff.

2.8.2 Surrounding Land Uses

The land uses surrounding the site include (TME, 2013):

- Exmouth Gulf to the east
- Minilya-Exmouth Road and pastoral lease (Exmouth Gulf Station) to the west
- Pastoral lease (Exmouth Gulf Station) to the south
- Crown reserve to the north

2.9 Contaminated Sites

A search of the DWER Contaminated Sites database did not identify any contaminated sites within or surrounding the landholdings.

Several previous site activities are listed by DWER (DER, 2014) as having the potential to result in contamination including boat building and maintenance and chemical storage activities. An assessment of the potential contamination status of the site has not been undertaken to date.

2.10 Bushfire Prone Areas

The entire site is mapped as a Bushfire Prone Area by the Department of Planning, Lands and Heritage (Landgate, 2020). This triggers the requirements for preparation of a Bushfire Management Plan to support town planning and development assessments.

2.11 Heritage

A search of the Department of Planning, Lands and Heritage (DPLH) Aboriginal Heritage Enquiry System did not identify any Registered Site or Other Heritage Places within or surrounding then landholdings (DPLH, 2020).

A search of the Heritage council InHerit database (Heritage Council, 2020) and the Shire of Exmouth Municipal Heritage Inventory (O'Brien Planning Consultants, 1998) did not identify any sites as European heritage significance within the landholdings. The closest municipal heritage site is Charles Knife Road which has historical transport and engineering design significance.

3 Potential Impacts and Proposed Management

3.1 Hydrology and Drainage

3.1.1 Drainage

The hydrological features of the site include the presence of three surface water drainage lines on the site. They are defined as ephemeral (non-perennial) minor watercourses. Only one of those watercourses provides a connection to a catchment outside the site. The two others originate within the site and discharge to the ocean. These areas convey stormwater after significant rainfall events within the drainage line.

There is one ephemeral major watercourse located outside the site boundary to the south of the site.

The Exmouth South Structure Plan (which extends over this site) notes that it would be impractical for the Structure Plan to seek to conserve all creek corridors in the Exmouth South Structure Plan area but it noted three substantial creeks that have conservation value. Those creeks identified (Mowbowra, Badjirrajirra and Wapet) are not within this site (TME, 2013). The Badjirrajirra is the closest of these three creeks to the site, being located approximately 800m north.

The proposed site development concept largely avoids significant earthworks and/or location of facilities within the onsite drainage lines so they can continue to convey flow during major storm events. During the detailed design phase, should any of the minor interval drainage lines be proposed for development, their drainage function will be replaced through provision of onsite drainage infrastructure if required.

As the development design is refined at the detailed design stage, further information will be provided in relation to:

- Drainage infrastructure and associated sizing details
- Floodplain extent
- Water quality treatment measures
- Clearance requirements

This is proposed to be provided in the form of a Drainage Management Plan to accompany the future Development Application.

3.1.2 Groundwater

As noted in Section 2.3.2, two groundwater licences are held by the proponent in relation to this site which provide an annual allocation of 130,000kL. The proposed site development will not require any changes to the existing groundwater abstraction program.

Dewatering has not been identified to be required to implement the proposed development at the site.

It is noted that the proposed roadhouse location is at an elevation of approximately 8mAHD. It is likely that the depth to groundwater would be greater than 6m below ground level. If fuel storage was proposed at this site it would likely be a small volume stored within an above ground storage tank.

If the option of having fuel storage at this site is progressed, a site-specific assessment of the depth to groundwater will be undertaken to accurately confirm the separation distance to groundwater and to inform their design and approvals.

3.2 Vegetation and Flora

As noted in Section 2.4 and shown on Figures 5 and 6, much of the proposed development footprint is cleared and the key features of the remaining vegetation onsite include:

- Vegetation condition is mostly ‘Completely Degraded’. Limited areas of ‘Good’ condition vegetation are located along the eastern side of the site. The largest area (to the north of the drainage line) is not within the proposed development footprint and would not be impacted by the proposed development.
- Vegetation onsite does not represent any Threatened Ecological Communities or Priority Ecological Communities.
- Two Priority 3 flora species were found onsite. As can be seen in Figure 2 of Appendix 2, the priority flora locations were within and north of the drainage line. These areas do not form part of the proposed development footprint and as such will not be disturbed.

Similar vegetation is present to the north and south of the site, as the coastal plain is generally undeveloped in this area.

Based on the values of the vegetation onsite, the presence of large areas of similar vegetation offsite and the containment of the development footprint south of the drainage line, unacceptable impacts to vegetation have not been identified.

It is noted that development of the site via a Development Application process will not trigger an exemption under the *Environmental Protection (Clearing of Native Vegetation) Regulations 2004*, therefore a clearing permit will be required to be lodged with DWER for assessment and approval prior to any clearing of vegetation. As such a clearing permit application will be prepared and lodged in conjunction with the future Development Application.

During construction, vegetation not proposed to be cleared within and surrounding the site will be clearly demarcated to ensure its protection.

3.3 Fauna

The proposed site activities are not proposed to alter sub-surface conditions at the site. Based on this, the location of the site at the edge of the Cape Range Subterranean Waterways zone and the geotechnical investigations not identifying potentially suitable sub-surface conditions for stygofauna habitat, impacts to stygofauna would not be anticipated.

The onsite vegetation is generally degraded and as such appears to hold limited fauna habitat value, particularly in comparison to surrounding areas. The northern drainage line within the site was noted to provide nesting opportunities for Rainbow Bee-eaters, which are common throughout Australia. This area is not proposed for development, so these habitat opportunities will remain available.

The osprey nest which is located close to the beach near the southern end of the site is not proposed to be removed as part of the future development onsite. The beaches in proximity to this site are not known to be used by marine turtles for nesting.

Based on the above, development of the site as proposed would appear unlikely to have a significant impact on fauna.

3.4 Coastal Management

SPP 2.6, provides guidance for decision-making within the coastal zone including managing development and land use change; establishment of foreshore reserves; and to protect, conserve and enhance coastal values (WAPC, 2003).

The proposed development retains similar coastal setbacks as to existing setbacks onsite. Prior to the detailed design stage for the project, specialist advice will be sought in relation to coastal hazards, climate change implications and associated setback requirements. This will be presented within the Foreshore Management Plan to accompany the Development Application.

3.5 Potential Contamination

Given that several previous site activities may have resulted in contamination, a Preliminary Site Investigation (PSI) is proposed prior to development. It is anticipated this would occur post-approval of the Development Application (i.e. as a condition of the DA) as the findings of such an assessment would be unlikely to alter the site design, but rather have potential construction and management implications.

3.6 Acid Sulfate Soils

Activities that have the potential to disturb ASS, either directly, or by affecting the elevation of the watertable, need to be managed appropriately to avoid environmental harm (DER, 2015).

The triggers for requiring an ASS assessment as identified by DWER include:

- Undertaking dewatering or drainage works (either temporary or permanent)
- Excavating 100 cubic metres or more of soil

It appears unlikely that development of the site as proposed would trigger the above criteria, but this will be assessed prior to development commencing. If required, an ASS investigation would be undertaken prior to development commencing (i.e. post DA approval).

3.7 Bushfire

A Bushfire Management Plan has been prepared by EcoLogical and will be submitted with the scheme amendment application documentation.

3.8 Heritage

No heritage sites are known to occur within the landholdings. As part of any pre-start construction programs the contractors working onsite will be advised of their obligations under the *Aboriginal Heritage Act 1972* that if any potential artefacts or sites of Aboriginal heritage significance are observed, work in this area must cease and Department of Planning, Lands and Heritage are to be contacted.

4 Summary and Conclusions

Lots 1, 101, 112 and 230 Minilya-Exmouth Road, Learmonth are proposed to be rezoned from 'General Industry' to 'Tourism' with a series of additional uses. The future uses are proposed to comprise:

- Caravan/camping/accommodation precincts
- Boat and trailer parking zone
- Community hub
- Roadhouse

The key environmental features of the site and surrounds are summarised as follows:

- The site lies on the coastal plain, which borders the Cape Range in this location.
- Topographic elevation within the landholdings range from 2 to 9mAHD, sloping towards the east.
- Areas to the south and east of the site are mapped as having a 'Moderate to Low' and a 'High to Moderate' risk of Acid Sulfate Soils. Soils within the site are not identified as having an ASS risk.
- An ephemeral watercourse passes from west to east through the northern portion of Lot 220, with a second watercourse also located to the south of the site. Two minor ephemeral drainage lines are mapped within the site. These watercourses assist to convey and disperse overland flow from the surrounding catchment area during high rainfall or extreme storm events.
- Regional description of the area's hydrology indicates that the water table is likely to lie a couple of metres above the present sea level near the coast, but is likely to have a thin freshwater lens.
- Shrubland vegetation is present in uncleared areas of the site. The condition of this vegetation is mostly Degraded and Completely Degraded. The vegetation was not identified to represent a TEC or PEC.
- Two Priority 3 flora species are located within the northern end of the site (3 plants).
- The type of fauna habitat found within the landholdings is not unique and is similar to those found within the Exmouth area that surrounds the subject land.
- Rainbow Bee-eaters (migratory bird) utilise the subject land for feeding and breeding, with burrows identified along the northern drainage line.
- An Osprey Nest was observed close to the beach near the southern end of the site during the site visit.
- Subterranean fauna are known to occur in the Cape Range area and the site is mapped partly within the Cape Range Subterranean Waterways zone.
- The Cape Range National Park covers approximately 50,580 ha and is located approximately 6km west of the site.
- Exmouth Gulf is located to the east of the site.
- Several previous site activities are listed as having the potential to result in contamination including boat building and maintenance and chemical storage activities.
- The entire site is mapped as a Bushfire Prone Area.
- No Aboriginal or European heritage sites are known to occur within the landholdings.

Potential impacts and associated design and management of the development as proposed include:

- The proposed site development concept avoids earthworks and location of facilities within the onsite drainage lines so they can continue to convey flow during major storm events. During the detailed



design phase, should either of the two minor interval drainage lines be proposed for development, their drainage function will be replaced through provision of onsite drainage infrastructure.

- During construction, vegetation not proposed to be cleared within and surrounding the site will be clearly demarcated to ensure its protection.
- Development of the site as proposed would appear unlikely to have a significant impact on fauna.
- The proposed development retains similar coastal setbacks as currently exist onsite. Prior to the detailed design stage for the project, specialist advice will be sought in relation to coastal hazards, climate change implications and associated setback requirements.
- If the option of having fuel storage at this site is progressed, a site-specific groundwater assessment will be undertaken to accurately confirm the depth to groundwater and to inform design and approvals.
- Given that a number of previous site activities have the potential to have contaminated the site, a PSI is proposed prior to site development.
- It appears unlikely that development of the site as proposed would trigger the ASS investigation criteria, but this will be assessed prior to development commencing. If required, an ASS investigation would be undertaken prior to development commencing.
- No heritage sites are known to occur within the landholdings. As part of any pre-start construction programs the contractors working onsite will be advised of their obligations under the *Aboriginal Heritage Act 1972* that if any potential artefacts or sites of Aboriginal heritage significance are observed, work in this area must cease and Department of Planning, Lands and Heritage are to be contacted

The environmental tasks and investigations which are proposed to be undertaken in relation to this site associated with future development stages are as follows:

- Preparation of a Drainage Management Plan for submission with the DA
- Preparation of a Foreshore Management Plan for submission with the DA
- Preparation of a Native Vegetation Clearing Permit application for approval prior to clearing commencing. This will likely be prepared and lodged at a similar time to the DA
- Undertake a PSI following the approval of the DA
- If identified as required, undertake an ASS investigation following approval of the DA

Based on the above, it is concluded that development of the site as proposed would be unlikely to result in any unacceptable environmental outcomes.

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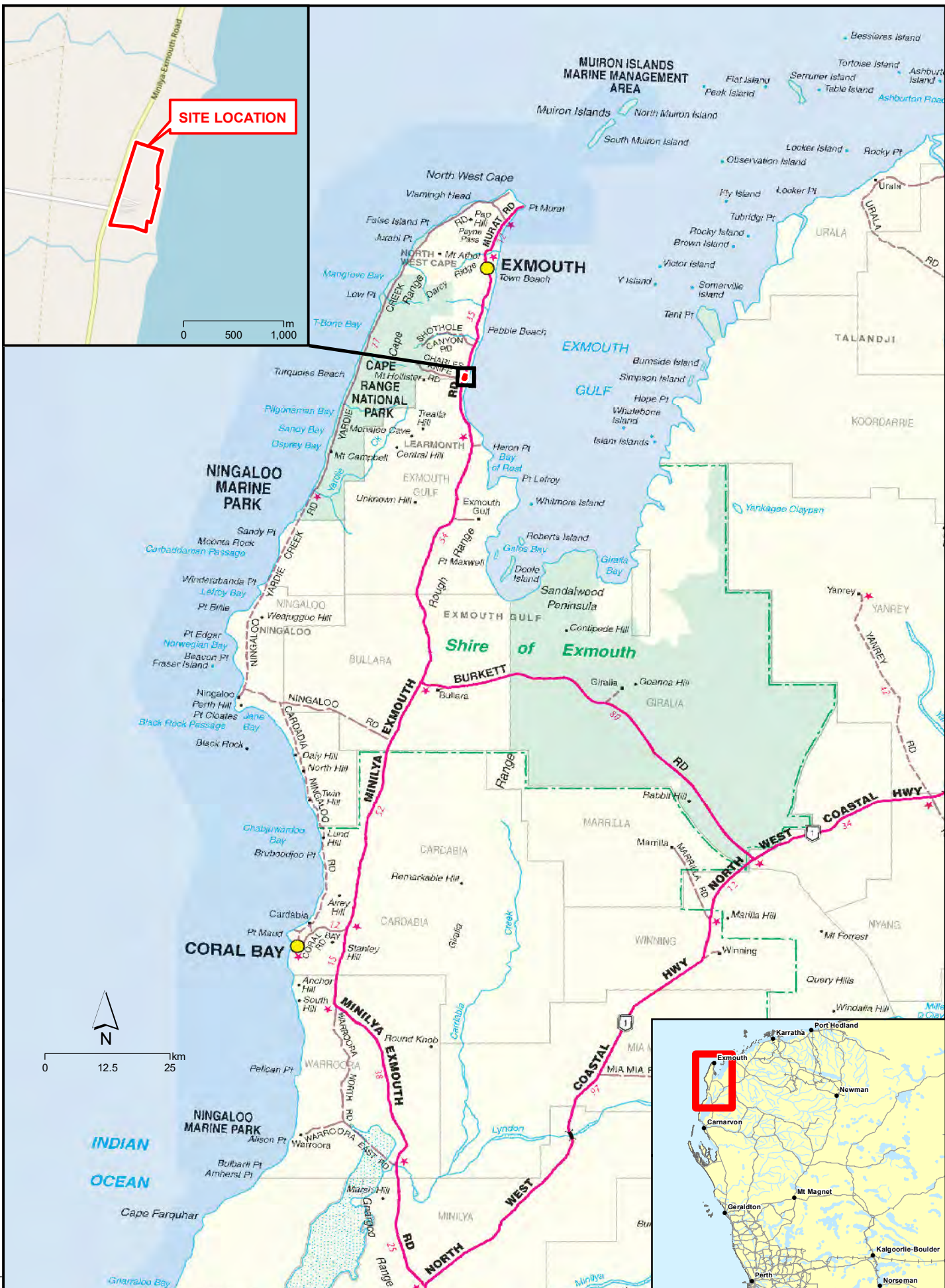
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Figures



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MG Kailis Group
ENVIRONMENTAL ASSESSMENT REPORT
LOTS 1, 101, 112 AND 220 MINILYA-EXMOUTH RD

SITE LOCATION

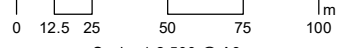
Figure 1

LEGEND

- Site Boundary
- Lots Of Interest
- Cadastre
- Contour (mAHD)



N



0 12.5 25 50 75 100 m

Scale: 1:2,500 @ A3
GDA 1994 MGA Zone 50



	Job: GRAEXM01 Doc: 002 Date: 1/10/2020 Ph: (08) 9381 5513 Fax: (08) 9381 5514 E: info@coterra.com.au	MG Kailis Group ENVIRONMENTAL ASSESSMENT REPORT LOTS 1, 101, 112 AND 220 MINILYA-EXMOUTH ROAD, LEARMONTH	TOPOGRAPHY	Figure 2
	Source: Cadastre - Landgate, 2020 Orthophoto - Open Source			

LEGEND


- Site Boundary
- Lots Of Interest
- Cadastre

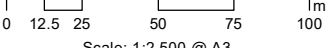
Regolith Geology

- _A-WCP: Alluvial/fluvial unit, WCP: Clay, silt, sand, and gravel in channels and on floodplains
- _B-k-WCP: Coastal (wave-dominated) unit, WCP: Carbonate-rich clay, silt and sand in coastal deposits
- _Wf-WCP: Sheetwash unit, WCP: Very gently inclined sheetflood plain (less than 1 degree slope); extremely low relief

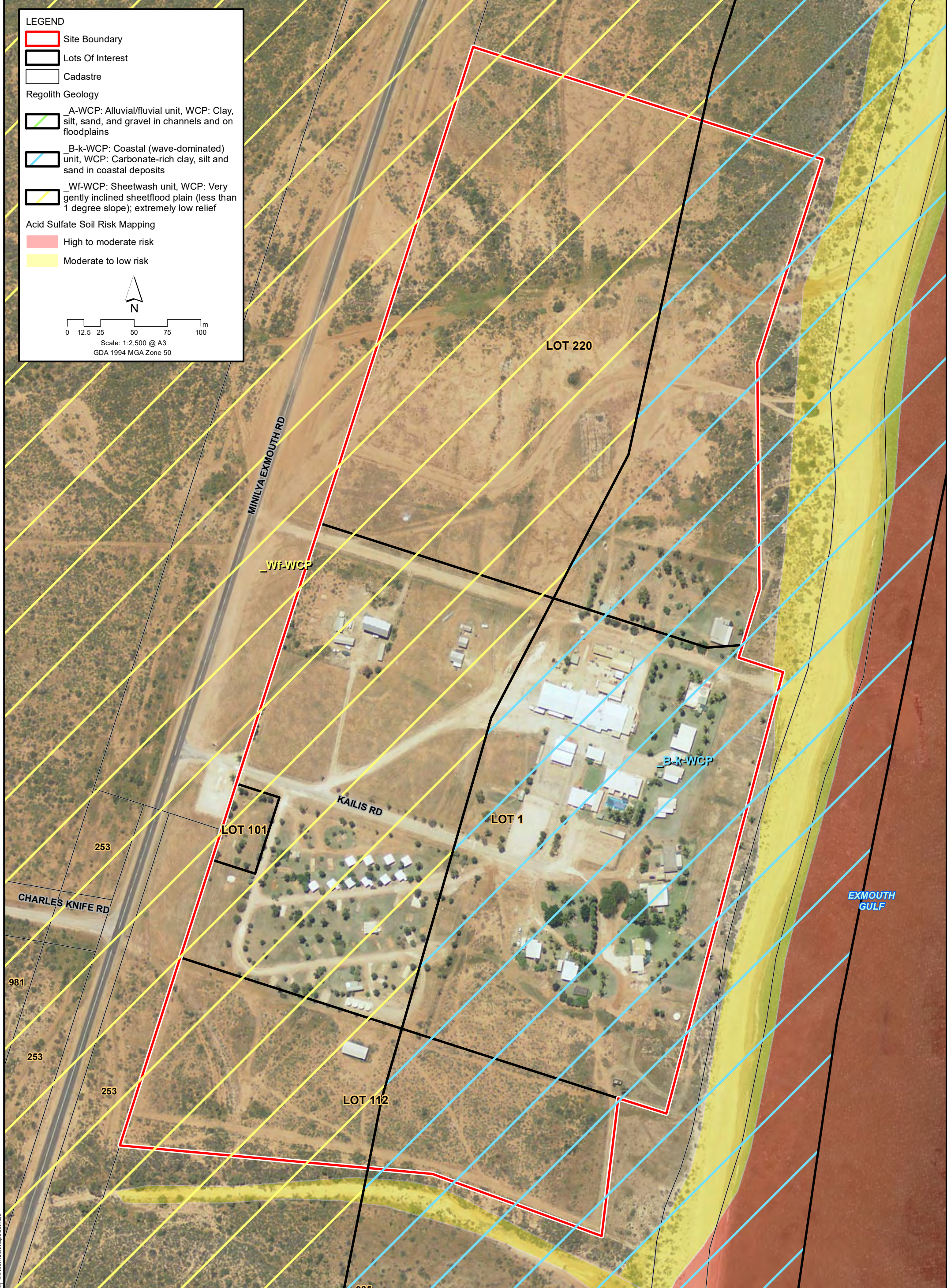
Acid Sulfate Soil Risk Mapping

- High to moderate risk
- Moderate to low risk





Scale: 1:2,500 @ A3
GDA 1994 MGA Zone 50



Source: Cadastre - Landgate, 2020
 Orthophoto - Open Source
 Acid Sulfate Soils - DWER
 Geology - 1:500,000 State Regolith Geology of WA








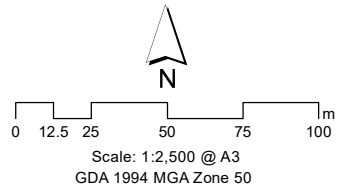
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 LOTS 1, 101, 112 AND 220 MINILYA-EXMOUTH ROAD, LEARMONTH
GEOLOGY AND SOILS

Figure 3

LEGEND

-  Site Boundary
-  Lots Of Interest
-  Cadastre
-  Watercourse - Major, Non-Perennial
-  Watercourse - Minor, Non-Perennial



Source: Cadastre - Landgate, 2020
Orthophoto - Open Source
Watercourse - Geoscience Australia



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





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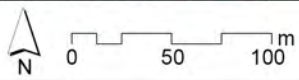
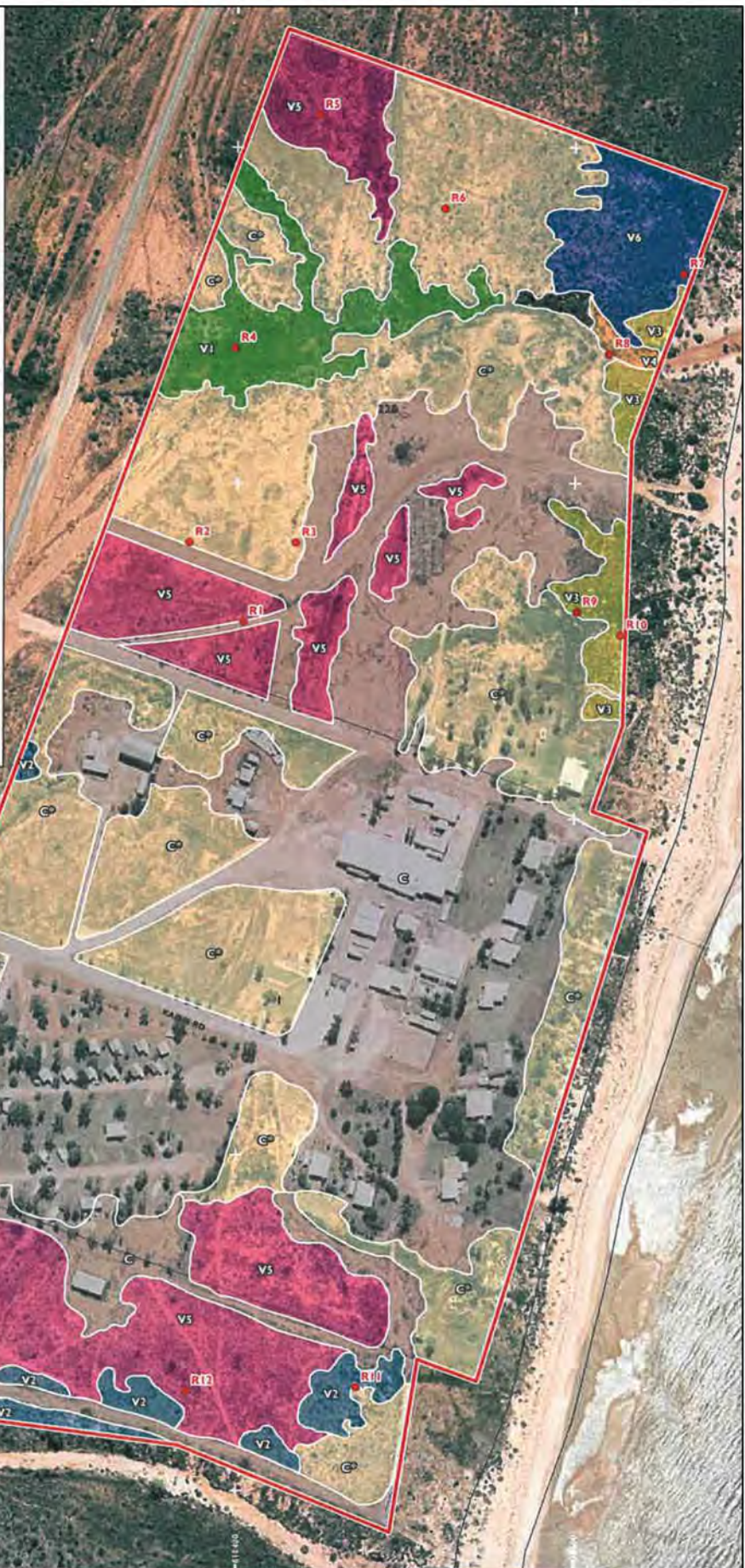
Figure 4

LEGEND

-  Site Boundary
-  Cadastre
-  Relieve Sites

Vegetation Units

-  **V1** Tall Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Low Open Shrubland of *Acacia synchronica*, *Acanthocarpus verticillatus* and *Jasminum didymum* subsp. *lineare* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* and *Cucumis maderaspatanus* over Tussock Grassland of **Cenchrus ciliaris* with Very Open Tussock Grassland of *Triodia epactia* on upland banks.
-  **V2** Tall Open Shrubland of *Acacia synchronica* over Low Shrubland of *Scaevola spinescens*, *Acacia tetragonophylla*, *Stylobasium spatulatum* and *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia epactia*.
-  **V3** Low Open Shrubland of *Acacia coriacea* subsp. *coriacea*, *Acacia xiphophylla* and *Santalum lanceolatum* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.
-  **V4** Low Open Shrubland of mixed *Chenopodiaceae* spp. and *Pittdosporum angustifolium* over Very Open Tussock Grassland of **Cenchrus ciliaris*.
-  **V5** Low Open Shrubland of *Acacia synchronica* and/or *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.
-  **V6** Tall Open Shrubland of *Acacia synchronica* over Low Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Tussock Grassland of *Triodia epactia*.
-  **C+** Cleared areas with pastoral weeds and/or planted species
-  **C** Cleared areas



Source: Flora, Vegetation and Fauna Assessment (RPS, 2012)

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MG Kailis Group
ENVIRONMENTAL ASSESSMENT REPORT
LOTS 1, 101, 112 & 220 MINILYA-EXMOUTH RD

VEGETATION TYPE

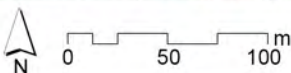
Figure 5

LEGEND

Site Boundary

Vegetation Condition

- Cleared Parkland (C)
- Completely Degraded (CD)
- Degraded - Completely Degraded (D - CD)
- Degraded (D)
- Good - Degraded (G - D)
- Good (G)



Source: Flora, Vegetation and Fauna Assessment (RPS, 2012)

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LOTS 1, 101, 112 & 220 MINILYA-EXMOUTH RD

VEGETATION CONDITION

Figure 6

ENVIRONMAPS t: 0406 590 006
 Environmental Mapping Solutions e: simoncrofts@environmaps.com.au

LEGEND

- Site Boundary
- Lots Of Interest
- Cadastre
- Cape Range Subterranean Waterways

Scale: 1:5,000 @ A3
GDA 1994 MGA Zone 50



Source: Geology - DIMRS
Cadastre - Landgate, 2020
Wetland - DBCA, 2020



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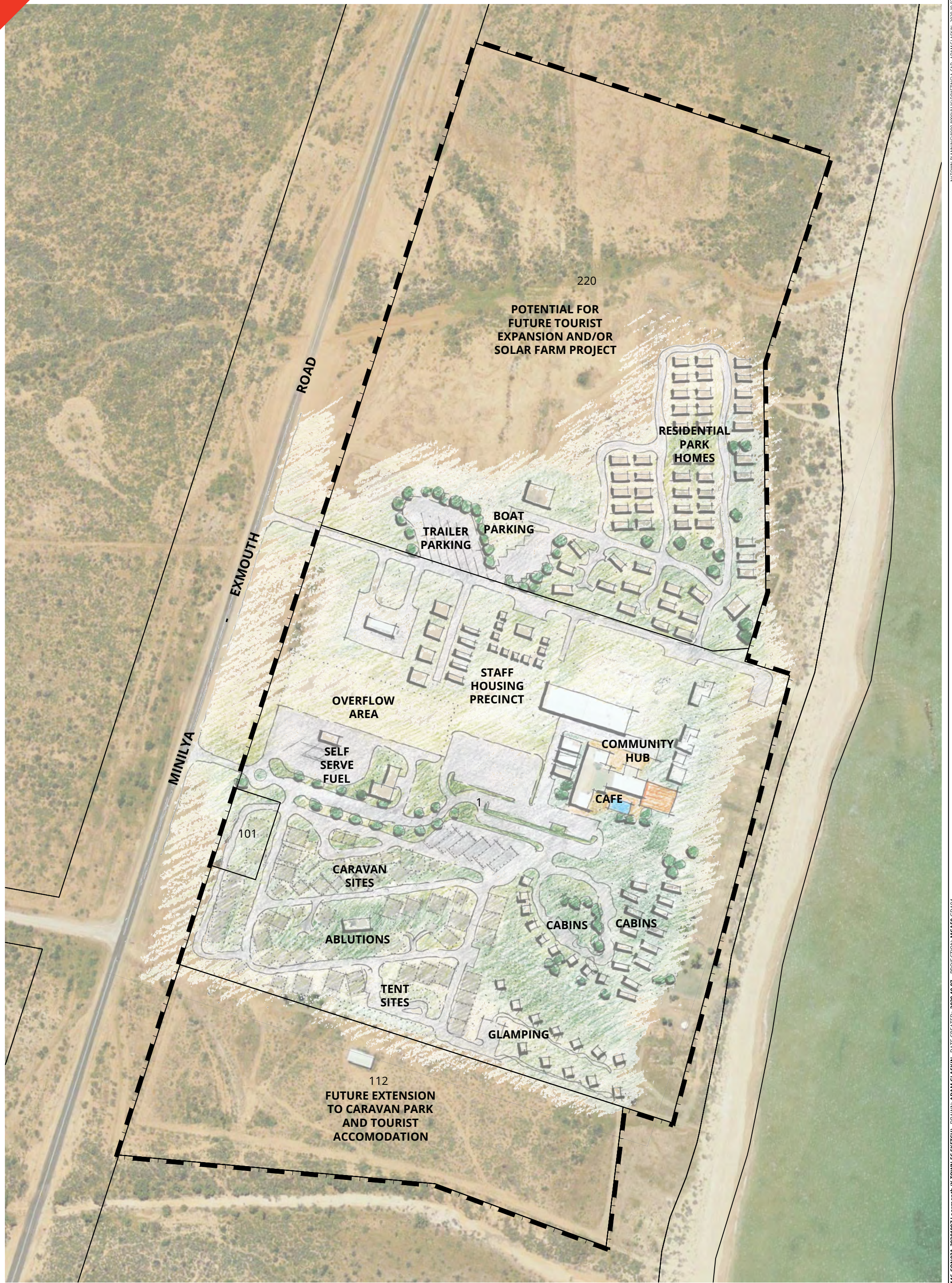
MG Kailis Group
ENVIRONMENTAL ASSESSMENT REPORT
LOTS 1, 101, 112 AND 220 MINILYA-EXMOUTH ROAD, LEARMONTH
CAPE RANGE SUBTERREANEAN WATERWAY AREA

Figure 7



Appendix 1 Draft Site Layout Plan

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18116_CON02A_20201007 Learmonth (K TOWN) FC SKETCH | DRAWN: ADAM GLASKIN | DATE CREATED: 2020.10.07 | PROJECTION: MGA50 GD94 | N:\TOWN PLANNING\8000-8999\8116\DRAWING\CA0 - ADAM GLASKIN - 2020.10.07

"K TOWN"
 CONCEPT PLAN - PROPOSED TOURIST DEVELOPMENT
 LEARMONTH



0 62.5 m
 SCALE @ A3: 1:2500
 8116-CON-02-A





Appendix 2 Flora, Vegetation and Fauna Report



**LEVEL I FLORA AND VEGETATION
SURVEY AND LEVEL I FAUNA
ASSESSMENT**

**Lots 1, 101, 112 and 220 Minilya-Exmouth
Road, Learmonth**

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SUMMARY

MG Kailis Group (Kailis) proposes that a Town Planning Scheme amendment of Lots 1, 101, 112 and 220 Minilya–Exmouth Road is undertaken. Initial discussions with government authorities revealed that site-specific investigations may be required to support the proposed Scheme Amendment. As a result of these discussions, RPS was commissioned by Kailis to undertake a Level I flora and vegetation assessment and a level I fauna assessment.

The main objective of the Level I Flora and Vegetation Survey and Level I Fauna Assessment is to assess the ecological values of the site and to assist in seeking environmental approvals to facilitate development of the landholding by Kailis.

The findings of the flora and vegetation survey and fauna assessment are summarised below:

Flora and Vegetation

- The vegetation of the subject land is considered to be representative of the Cape Range vegetation association (663); hummock grasslands, shrub steppe; waterwood over soft spinifex.
- Approximately 29, 016 hectares (95.65% of the pre European extent) of the Cape Range vegetation unit currently remains and approximately 22.5% of this vegetation type within the Carnarvon bioregion is in conservation reserves.
- The condition of the vegetation in the study area ranged from Good to Completely Degraded however a majority of the vegetation on the site was considered Degraded to Completely Degraded. A significant proportion of Lots 1, 101, 112 and 220 have been historically cleared of native vegetation during the construction of existing facilities associated with the prawn processing factory previously established on the site by Kailis.
- A total of 67 plant taxa (including subspecies and varieties) representing 52 genera and 26 plant families were recorded in the study area. This total is comprised of 64 native species and 3 introduced (exotic) species. The vegetation of the study area is considered to be of low diversity.
- No Threatened Rare Flora species listed by the DEC or species listed as matters of National Environmental Significance (NES) under the EPBC Act were recorded within the project area during the survey.
- Two Priority flora species were recorded during in the study area; *Corchorus congener* (P3) (two plants) and *Gymnanthera cunninghamii* (P3) (one plant). Both species are adequately represented at a local and regional scale. Proposed clearing of native vegetation on the site will not have a detrimental effect on the known populations of *Corchorus congener* (P3) and *Gymnanthera cunninghamii* (P3).

- Three introduced species (weeds) were recorded during the flora survey; **Cenchrus ciliaris*, **Cynodon dactylon* and **Aerva javonica*. None of these species are listed as Declared Plant species pursuant to section 37 of the *Agricultural and Related Resources Protection Act 1976* (WA). A majority of the site has been invaded by **Cenchrus ciliaris* (Buffel Grass).
- Six vegetation types were recorded during the flora and vegetation survey.
- There are no Threatened Ecological Communities (TECs) protected under the EPBC Act 1999 or TECs and Priority Ecological Communities (PECs) listed by the DEC (2011c/d) occurring on or in close proximity to the study area. None were recorded during the 2011 field survey.
- There are no wetlands located in the study area. One major ephemeral creek line dissects Lot 220 in the northern extent of the study area.
- A search of the DEC's Native Vegetation Viewer indicated that the entire extent of the study area is contained within an Environmentally Sensitive Area (ESA). This ESA is associated with the Cape Range Province and surrounding marine and coastal environment. It is unlikely that the proposed development of Lots 1, 101, 112 and 220 Minilya–Exmouth Road will negatively impact on the marine and coastal habitats adjacent to the site providing adequate environmental management plans are implemented by the proponent.
- It is highly unlikely that the proposed development of Lots 1, 101, 112 and 220 Minilya–Exmouth Road will impact on biodiversity values of the surrounding flora and vegetation.

Fauna

- Landform features and vegetation types which provide important fauna habitat on type include
 - ephemeral drainage lines (in particular the sandy banks which provides nesting habitat for rainbow bee eaters)
 - coastal dunes
 - man made infrastructure (which provides perching and nesting opportunities for species such as osprey)
 - stockpiles of cleared material
 - native vegetation, in particular trees and shrubs which provide perching opportunities for feeding birds (in particular vegetation types V3 and V5), low scrub and spinifex such as is present in vegetation type V6 provides important shelter for reptile species.
- Database searches identified 135 species potentially occurring on the site. Of these
 - a total of 83 bird species were identified of which 16 were identified on the site including the rainbow bee eater which is listed as Migratory under the EPBC Act.

- a total of 17 mammal species were identified as potentially occurring in the area, of which three were identified on site. Two of these, the sheep and rabbit, were introduced species. No significant mammal species were identified on site
- thirty one reptile species were identified as potentially occurring on site, of these two were identified on site (Bungarra (*Varanus gouldii*)) and the Long-nosed Dragon (*Amphibolurus longirostris*). No significant reptile species were identified on site
- four amphibian species were identified as potentially occurring on site, none of which were of conservation significance. No amphibian species were identified during the field surveys.

The rainbow bee-eater is listed as Migratory under the EPBC Act and under the Japan Australia Migratory Bird Agreement (JAMBA). Over ten individuals were seen on site at one time and it is considered likely that more were present. Mike Bamford (zoologist) confirmed that at least one of the burrows present along the drainage line had been created by rainbow bee eaters.

As breeding pairs usually excavate a new burrow for each breeding season (DSEWPC 2011b) and due to the mobile nature of the species and the presence of similar suitable habitat nearby, any impact on the rainbow bee eater due to proposed development of the site is not considered significant.

Based on the above, the following recommendations and general management guidelines are provided to minimise any potential adverse impacts to matters of environmental significance as a result of development:

- At the clearing stage of development, care should be taken to ensure that any fauna utilising the site is given every opportunity to relocate. To achieve this, clearing should be undertaken in a staged manner in the direction of vegetation to be retained and cleared vegetation should be left overnight in-situ to allow individuals further opportunity to disperse.
- The ephemeral creek line has been identified as a potential breeding site for rainbow bee eaters (as discussed above) and should preferably be retained and managed within any future development. Rainbow bee eaters are common through out the area, with similar habitat in surrounding areas. This combined with their mobile nature and the fact that they most often choose to excavate new burrow each season means that the proposed development is not likely to impact this species.

It is concluded that it is highly unlikely that any matters of environmental significance will be adversely impacted by the development, if undertaken in accordance with the above

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1.0 INTRODUCTION

1.1 Background

MG Kailis Group (Kailis) proposes to initiate a Town Planning Scheme amendment of Lots 1, 101, 112 and 220 Minilya–Exmouth Road. The site is currently zoned 'Special Use' with a list of approved uses. The acceptance of the Scheme Amendment by the Shire of Exmouth will permit Kailis undertake further development of the site, including activities such as Storage Facility, Depot and Laydown Area. Currently the site is being utilised by Kailis for seafood processing and the retail sale of seafood product.

Initial discussions with Government authorities revealed that site specific investigations may be required to support the proposed Scheme Amendment. As a result of these discussions, RPS was commissioned by Kailis to undertake a Level 1 flora and vegetation assessment and a Level 1 fauna assessment.

The site is located approximately 22 kilometres north-north-east of Exmouth and 10 kilometres south of Learmonth (Figure 1). The site abuts the Exmouth Gulf to the east and is situated opposite Charles Knife Road to the west. The total area of the site is 27.8 hectares.

1.2 Report Objectives

The main objective of this Level 1 Flora and Vegetation Survey and Level 1 Fauna Survey is to provide an initial investigation into the potential for the proposed development to impact on matters of environmental significance. No other environmental factors are considered as part of this report.

The flora and vegetation survey and fauna survey have been undertaken in accordance with the following Environmental Protection Authority (EPA) Guidance Statements:

- Position Statement 3 – Terrestrial Biological Surveys as an Element of Biodiversity Protection (EPA 2002)
- Guidance Statement 51 – Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia (EPA 2004a)
- Guidance Statement 56 – Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia (EPA 2004b).

This report presents the findings of the Level 1 Flora and Vegetation Survey and the Level 1 Fauna Survey.

The flora and vegetation survey involved the following components:

- a desktop review of all available reports and literature on the flora and vegetation of the site including significant flora species identified in the Department of Environment and Conservation (DEC) database search
- mapping of vegetation types (and vegetation condition using the Bush Forever condition rating scale) using a combination of interpretation of recent aerial photography and field survey
- a list of all native and non-native plant species recorded from low intensity sampling within representative vegetation types identified from the site and from a thorough site walkover
- the location of any conservation significant species (TRF and Priority) identified on site
- a description of the vegetation types and vegetation condition occurring on the site
- an assessment of the conservation significance of the flora and vegetation at a regional and local level

The fauna survey involved the following components:

- a comprehensive fauna database search and literature review to compile background information relevant to the project area
- compilation of an inventory of vertebrate fauna potentially occurring in the project area
- identification of vertebrate fauna of conservation significance potentially occurring in the project area
- identification of broad fauna habitats and sensitive fauna habitats that may be expected to occur over the project area (based on vegetation mapping and landform)
- an opportunistic terrestrial fauna reconnaissance survey of project area
- recommendations of general management guidelines to minimise impacts of the proposed development program on terrestrial fauna and habitat in the project area.

1.3 Relevant Legislation and Policies

1.3.1 Conservation Significant Vegetation, Threatened and Priority Ecological Communities

1.3.1.1 Threatened Ecological Communities

Within Western Australia, TECs are defined by the Department of Environment and Conservation (DEC) as those communities which are found to fit into one of the categories listed in Table I below. The categories 'Data Deficient' and 'Lower Risk' can be used to provide a list of communities not classified as threatened, but that require more information. Within Western Australia, TECs have limited protection under the current *Wildlife Conservation Act 1950* and the *Environmental Protection Act 1986* (as amended). TECs will be protected by the proposed Biodiversity Conservation Act (in preparation).

The Environment Protection and Biodiversity Act 1999 (EPBC Act) provides protection for TECs under federal legislation, which are defined as those communities which are:

- **Critically Endangered** (if, at that time, it is facing an extremely high risk of extinction in the wild in the immediate future)
- **Endangered** (if, at that time, it is not critically endangered and is facing a very high risk of extinction in the wild in the near future)
- **Vulnerable** (if, at that time, it is not critically endangered or endangered, and is facing a high risk of extinction in the wild in the medium term future).

Table I: Threatened Ecological Communities Category of Threat (English and Blyth 1997)

Category	Definition
Presumed Totally Destroyed (PD)	An ecological community will be listed as presumed totally destroyed if there are no recent records of the community being extant and either of the following applies: A) Records within the last 50 years have not been confirmed despite thorough searches or known or likely habitats or B) All occurrences recorded within the last 50 years have since been destroyed.

Category	Definition
Critically Endangered (CR)	<p>An ecological community will be listed as Critically Endangered when it has been adequately surveyed and is found to be facing an extremely high risk of total destruction in the immediate future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria:</p> <p>A) The estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 90% and either or both of the following apply:</p> <ul style="list-style-type: none"> ▪ geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is imminent (within approximately five years) ▪ modification throughout its range is continuing such that in the immediate future (within approximately five years) the community is unlikely to be capable of being substantially rehabilitated. <p>B) Current distribution is limited, and one or more of the following apply (i, ii or iii):</p> <ol style="list-style-type: none"> i. Geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the immediate future (within approximately five years). ii. There are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes. iii. There may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes. <p>C) The ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the immediate future (within approximately five years).</p>
Endangered (EN)	<p>An ecological community will be listed as Endangered when it has been adequately surveyed and is not Critically Endangered but is facing a very high risk of total destruction in the near future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (A, B or C):</p> <p>A) The estimated geographic range, and/or total area occupied, and/or number of discrete occurrences since European settlement have been reduced by at least 70% and either or both of the following apply (i or ii)</p> <ol style="list-style-type: none"> i. Geographic range, and/or total area occupied and/or number of discrete occurrences are continuing to decline such that total destruction of the community is likely in the short term (within approximately 10 years). ii. Modification throughout its range is continuing such that in the short term future (within approximately 10 years) the community is unlikely to be capable of being substantially restored or rehabilitated. <p>B) Current distribution is limited, and one or more of the following apply (i, ii or iii):</p> <ol style="list-style-type: none"> i. Geographic range and/or number of discrete occurrences, and/or area occupied is highly restricted and the community is currently subject to known threatening processes which are likely to result in total destruction throughout its range in the short term future (within approximately 10 years). ii. There are very few occurrences, each of which is small and/or isolated and extremely vulnerable to known threatening processes. iii. There may be many occurrences but total area is very small and each occurrence is small and/or isolated and extremely vulnerable to known threatening processes. <p>C) The ecological community exists only as highly modified occurrences which may be capable of being rehabilitated if such work begins in the short term future (within approximately 10 years).</p>

Category	Definition
Vulnerable (VU)	An ecological community will be listed as Vulnerable when it has been adequately surveyed and is not Critically Endangered or Endangered but is facing a high risk of total destruction in the medium to long term future. This will be determined on the basis of the best available information, by it meeting any one or more of the following criteria (A, B or C): A) The ecological community exists largely as modified occurrences which are likely to be capable of being substantially restored or rehabilitated. B) The ecological community can be modified or destroyed and would be vulnerable to threatening processes, is restricted in area and/or range and/or is only found at a few locations. C) The ecological community may still be widespread but is believed likely to move into a category of higher threat in the medium to long-term future because of existing or impending threatening processes.
Data Deficient (DD)	An ecological community which has not been adequately evaluated with respect to status or where there is currently insufficient information to assign it to a particular category. (An ecological community with poorly known distribution or biology that is suspected to belong to any of the above categories. These ecological communities have a high priority for survey and/or research.)
Lower Risk (LR)	An ecological community that has been adequately surveyed and does not qualify for any of the above categories of threat and appears unlikely to be under threat of significant modification or destruction in the short to medium term future.

1.3.1.2 Priority Ecological Communities

Possible TECs that do not meet survey criteria or have not been adequately defined are added to the DEC's Priority Ecological Community (PEC) List under Priorities 1, 2 and 3. These three categories are ranked in order of priority for survey and/or definition of the community, and evaluation of conservation status, so that consideration can be given to their declaration as TECs. Ecological communities that are adequately known and are rare, but not threatened or meet criteria for Near Threatened (P1, 2 or 3), or that have been recently removed from the threatened list, are placed in Priority 4. These ecological communities require regular monitoring. Conservation dependent ecological communities are placed in Priority 5.

1.3.2 **Conservation Significant Flora**

Commonwealth Legislation: species of significant flora are protected under both state and Commonwealth Acts. Any activities that are deemed to have a significant impact on species that are recognised by the EPBC Act and the *Wildlife Conservation Act 1950* can trigger referral to DSEWPC and/or the EPA. Descriptions of Conservation Categories delineated under the EPBC Act are detailed in Appendix I.

State Legislation: In addition to the EPBC Act, significant flora in Western Australia is protected by the *Wildlife Conservation Act 1950*. This Act, which is administered by the DEC, protects declared rare flora (DRF) species. The DEC also maintains a list of Priority listed flora species. Conservation codes for flora species are assigned by the DEC to define the level of conservation significance.

Priority Flora are not currently protected under the *Wildlife Conservation Act 1950*. Priority Flora may be rare or threatened, but cannot be considered for declaration as rare flora until adequate surveys have been undertaken of known sites and the degree of threat to these populations clarified. Special consideration is often given to sites that contain Priority Flora, despite them not having formal legislated protection. A description of the DEC's Conservation Codes that relate to flora species is provided in Appendix I.

1.3.3 Threatened Fauna

1.3.3.1 Commonwealth Legislation

The *Environment Protection and Biodiversity Act 1999* (EPBC Act) protects matters of national environmental significance, including threatened and migratory species protected under international agreements such as the Japan–Australia Migratory Bird Agreement (JAMBA), the China–Australia Migratory Bird Agreement (CAMBA), the Republic of Korea–Australia Migratory Bird Agreement (ROKAMBA) and the Convention on the Conservation of Migratory Species of Wild Animals (the Bonn Convention). The EPBC Act states the proponent must not take an action that is likely to have a significant impact on any matters of national environmental significance without approval.

1.3.3.2 State Legislation

There are four levels of conservation significance provided for fauna under the *Wildlife Conservation Act 1950*. Scheduled species are prioritised and listed as:

- Schedule 1 (S1): Fauna that is rare or likely to become extinct (also known as 'Threatened Species')
- Schedule 2 (S2): Fauna presumed to be extinct
- Schedule 3 (S3): Migratory birds protected under an international agreement
- Schedule 4 (S4): Other specially protected fauna.

The DEC has also produced a supplementary list of 'Priority' fauna, including species that are not considered 'Threatened' or scheduled under the *Wildlife Conservation Act 1950*, but for which the DEC considers require attention (DEC 2010). These include:

- Priority 1 (P1): Taxa with few, poorly known populations on threatened lands
- Priority 2 (P2): Taxa with few, poorly known populations on conservation lands

- Priority 3 (P3): Taxa with several, poorly known populations, some on conservation lands
- Priority 4 (P4): Taxa in need of monitoring
- Priority 5 (P5): Taxa that are conservation dependent (i.e. their conservation status is dependent on ongoing active management).

The DEC also classifies species into one of five categories developed by the International Union for Conservation of Nature (IUCN): extinct (EX), extinct in the wild (EW), critically endangered (CR), endangered (EN) or vulnerable (VU). These categories are determined by the total distribution of the species within Australia (and internationally where migratory species are concerned), not just within Western Australia.

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2.0 EXISTING ENVIRONMENT

2.1 Climate and Rainfall

The Gascoyne region experiences a dry warm Mediterranean climate characterised by cool, wet winters and hot, dry summers. More specifically, Exmouth frequently experiences seasonal extremes in weather from hot summer days when north-easterly winds arrive from the interior of Western Australia to cold, wet, windy winter days as cold fronts from the Southern Ocean move through the region. Mean maximum temperatures of 38 °C have been recorded at Learmonth in January while the mean minimum temperature is 11.3 °C during July (Bureau of Meteorology 2011).

The long-term average rainfall for Exmouth is approximately 300 mm per annum, which generally falls during either from January through to March or from May to July. Rainfall in summer is associated with thunderstorms and tropical lows, which can produce heavy localised falls over short periods of time. Most rain which occurs from May to July is brought to the region by tropical cloud bands originating in the north-west of the state (Bureau of Meteorology 2011).

Tropical cyclones causing strong winds, high seas and heavy rain affect the North West Cape about once every two years on average. Cyclones are most common in February and March (Bureau of Meteorology 2011).

2.2 Topography and Landform

The subject land is located on the North West Cape which is a northerly trending peninsula approximately 80 km long and 20 km wide. It has a rugged topography, reaching a maximum elevation of 314 m. The peninsula is bordered on the west by the Indian Ocean and to the east by the shallow Exmouth Gulf (Taylor Burrell 2003).

The sandy shore comprises a coastal barrier of beach, beachridge and dune between the alluvial plain and the shore platform. The dune extends as a single low dune ridge generally 8-12m high. Along parts of the shore where the dune is less developed, alluvial plain materials are exposed at the shore with dune sands forming only a thin veneer.

2.3 Geomorphology and Soils

Cape Range is situated within the Exmouth Sub-basin of the Carnarvon Basin. The rocks immediately underlying, and forming the core of the range are a sequence of carbonate rocks of Paleocene-Miocene age about 500m thick. Several different rocks units reflecting different age sedimentation are recognised within the Cape Range group, namely the Pilgramunna Formation, Trealla Limestone, Tulki Limestone and Mandu Limestone (Taylor Burrell 2003).

2.4 Watercourse and Wetlands

The study area is located adjacent to the Indian Ocean and the Exmouth Gulf. There are no wetlands located in the study area. One major ephemeral creek line dissects Lot 220 in the northern extent of the study area. Surface water from Cape Range and the surrounding plain are transported along this system and drain into the Exmouth Gulf (Figure 2).

2.5 Conservation Areas

The Cape Range National Park is located approximately seven kilometers to the west of the study area. The area is approximately 50,581 hectares and is managed by the Department of Environment and Conservation.

2.6 Environmentally Sensitive Areas

Environmentally Sensitive Areas (ESAs) are subject to definition under Section 51B of the *Environmental Protection Act 1986* and may include areas such as those requiring special management attention to protect important scenic values, fish and wildlife resources, historical and cultural values, and other natural systems or processes including Conservation Category wetlands and Threatened Flora.

A search of the DEC's Native Vegetation Viewer indicated that the study area is contained within an ESA associated with the Cape Range Province and surrounding marine and coastal environment.

2.7 Biological Context of the Study Area

2.7.1 Bioregional Context

Western Australia supports 53 biogeographical subregions (Thackway and Cresswell, 1995). The study area occurs in the Carnarvon I (CARI – Cape Range) subregion of the Carnarvon Bioregion. The Cape Range subregion is composed of rugged tertiary limestone ranges and extensive areas of red aeolian dunefield, quaternary coastal beach dunes and mud flats. The vegetation consists typically of *Acacia* shrublands (*Acacia stuartii* or *A. bivenosa*) over *Triodia* on limestone and red dunefields, and *Triodia* hummock grasslands with sparse *Eucalyptus* trees and shrubs on the Cape Range (Kendrick and Mau 2002).

2.7.2 Beard's Vegetation Mapping

The study area is located within the Carnarvon Botanical District of the Eremaean Botanical Province (Beard 1990). According to vegetation mapping by Beard (1990) the vegetation of the study area is representative of the Cape Range vegetation association (663); hummock grasslands, shrub steppe; waterwood over soft spinifex.

2.7.3 Vegetation Extent

Approximately 29, 016 hectares (95.65% of the pre European extent) of the Cape Range vegetation unit currently remains. The benchmark of 15% representation in conservation reserves (ANZECC, MCFFA 1997) has been met for Beard vegetation association 663, with approximately 22.5% of this vegetation type within the Carnarvon bioregion in conservation reserves (Shepherd et al 2002).

2.7.4 Threatened or Priority flora

A search of the EPBC Act Protected Matters Search Tool (DSEWPC, 2011a) based on a five kilometer radial buffer from the eastern boundary of the study area did not identify any federally protected flora species or species habitat potentially occurring in the area (Appendix 2).

Prior to conducting the field survey, a search of the DEC NatureMap database (2011b) was undertaken to identify significant flora that could potentially occur in the study area. This investigation used a search buffer of twenty kilometers from a central point of the study area and encompassed a review of the following databases:

- the Department's 'Declared Rare and Priority Flora List', which contains species that are Declared Rare (Conservation Code R or X for those presumed to be extinct), poorly known (Conservation Codes 1, 2 or 3), or require monitoring (Conservation Code 4)
- the 'Western Australian Herbarium Specimen' database
- the DEC's Threaten Flora database.

The search indicated that 13 Priority Flora species may potentially occur in the Project area. A review of the location records of the Priority Flora species generated from this search indicate that none of these species have been previously recorded within or in close proximity to the study area.

Table 2: Conservation Significant Flora Species Recorded in the Vicinity of the Study Area

Species	Conservation Category Code
<i>Abutilon</i> sp. Cape Range (A.S. George 1312)	P2
<i>Acacia alexandri</i>	P3

Species	Conservation Category Code
<i>Acacia startii</i>	P3
<i>Acanthocarpus rupestris</i>	P2
<i>Brachychiton obtusilobus</i>	P4
<i>Corchorus congener</i>	P3
<i>Eremophila forrestii</i> subsp. <i>capensis</i>	P3
<i>Eremophila occidens</i>	P2
<i>Grevillea calcicola</i>	P3
<i>Harnieria kempeana</i> subsp. <i>rhadinophylla</i>	P2
<i>Stackhousia umbellata</i>	P3
<i>Tinospora esiangkara</i>	P2
<i>Verticordia serotina</i>	P2

2.7.5 Threatened and Priority Fauna Species

A desktop search was undertaken by RPS in November 2011 within a 10 km radius of the site, including the DEC database, Naturemap and the EPBC matters of national environmental significance database. Species that potentially occur in the area and that are identified in the DEC searches as protected under the *Wildlife Conservation Act 1950* and those identified in the matters of national environmental significance search that are protected under the EPBC Act are listed in Table 1. These species and the likelihood of their occurrence on site are discussed in more detail in Section 4.2.

Table 3: Conservation Significant Fauna Species Potentially Occurring within the Survey Area

Species	Common Name	Conservation Status (State)	Conservation Status (EPBC)
Birds			
<i>Apus pacificus</i>	Fork-tailed Swift		Migratory
<i>Ardea alba</i>	Great Egret		Migratory
<i>Ardea ibis</i>	Cattle Egret		Migratory
<i>Charadrius veredus</i>	Oriental Plover, Oriental Dotterel		Migratory
<i>Glareola maldivarum</i>	Oriental Pratincole		Migratory
<i>Haliaeetus leucogaster</i>	White-bellied Sea Eagle		Migratory
<i>Hirundo rustica</i>	Barn Swallow		Migratory
<i>Macronectes giganteus</i>	Southern Giant Petrel		Endangered
<i>Merops ornatus</i>	Rainbow Bee-eater		Migratory
Mammals			
<i>Dasycercus cristicauda</i>	Mulgara		Vulnerable
<i>Petrogale lateralis</i> subs. <i>Lateralis</i>	Black-footed Rock Wallaby	T	Vulnerable
Reptiles			
<i>Diplodactylus</i> sp 'Cape Range	Cape Range Diplodactylus	P2	

3.0 FLORA AND VEGETATION SURVEY METHODOLOGY

3.1 Desktop Assessment

A desktop assessment was carried out prior to the field survey in order to consider all biological constraints in or adjoining the Survey area. The desktop assessment included:

- a review of existing reports conducted by other environmental consultants in the Exmouth region
- a review of the potential for Threatened Rare and Threatened Flora to be present within the study area. This included a review of Threatened Flora species listed under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), the *Western Australian Wildlife Conservation Act 1950* (WC Act) (Rare Flora Notice 2008) and Priority Flora listed by the DEC
- a review of EPBC Act listed Threatened Ecological Communities (TECs); the DEC's Threatened Ecological Communities (TEC) and Priority Ecological Communities (PEC) databases to determine the potential for TECs or PECs to be present within the study area
- a review of Conservation Estates and Reserves including Environmentally Sensitive Areas (ESAs) occurring within the Project area.

3.2 Field Assessment Methodology

Baden Sadlo, a senior botanist from RPS, conducted a Level I flora and vegetation survey on 7–8 December 2011. The survey was undertaken to provide a description of the dominant vegetation types present, vegetation condition and flora species present at the time of the survey within the areas proposed to be developed. Additionally, the survey was also conducted to determine whether any of the conservation significant species identified from the desktop review for the area actually occur or are likely to occur in the study area. This was based on a combination of sampling using relevés as well as intensively traversing the site. This method complies with RPS' interpretation of the EPA's guidelines for flora surveys as outlined in Guidance Statement No. 51 *Terrestrial Flora and Vegetation Surveys for Environmental Impact Assessment in Western Australia* (EPA 2004a) and *Terrestrial Biological Surveys as an Element of Biodiversity Protection*, Position Statement No. 3 (EPA 2002).

Twelve relevé sites were selected within representative vegetation types in the study area. Locations were selected to ensure that an adequate representation of the major vegetation types and flora present was sampled. This was done using recent colour aerial photography and by ground-truthing on foot. Relevés are often used in flora and vegetation surveys to ascertain vegetation types and boundaries by recording the

dominant plant species present including height and percentage. A targeted search by foot of the entire study area for any Threatened Rare Flora or Priority listed species was also undertaken.

3.2.1 Flora Identification

Species that were well known to the survey botanist were identified in the field, while species that were unknown were collected and assigned a unique number to facilitate tracking. All plant species collected during the field program were dried and fumigated in accordance with the requirements of the Western Australian Herbarium. Plant species were identified by the use of local and regional flora keys and by comparison with the named species held at the Western Australian Herbarium. Plant taxonomists who are considered to be an authority on a particular plant group were consulted, when necessary.

The conservation status of all recorded flora was compared against the current lists available on *FloraBase* (DEC 2011a).

3.2.2 Limitations

Complete flora and vegetation surveys can require multiple surveys, at different times of year, and over a period of a number of years, to enable observation of all species present. Some flora species, such as annuals, are only available for collection at certain times of the year, and others are only identifiable at certain times (such as when they are flowering). Additionally, climatic and stochastic events (such as fire) may affect the presence of plant species. Species that have a very low abundance in the area are more difficult to locate, due to above factors.

Flora composition changes over time, with flora species having specific growing periods, especially annuals and ephemerals (some plants lasting for a markedly brief time, some only a day or two). Therefore the results of future botanical surveys in this location may differ from the results of this survey. As the survey was conducted only once rather than several times over the course of a year some annual, ephemeral condition-specific species may be present that were not recorded in the survey. Species that were insufficiently mature or dead were identified in the field to genus or family level only (where possible).

The survey area covers approximately 27.8 hectares. The small scale of this survey meant that sampling was conducted using relevés and targeted searches by intensively traversing the site. The majority of species would have been identified using these techniques; however, it is possible that species with a low abundance in the study area were not observed.

The flora surveys were also restricted to predominantly flowering, vascular plants. Fungi and nonvascular plants (e.g. alga, mosses and liverworts) were not systematically searched for, as the information available on these plants is generally limited.

4.0 FAUNA SURVEY METHODOLOGY

4.1 Fauna Database Searches and Literature Review

Prior to the commencement of the field survey, a number of database searches were conducted to determine a list of terrestrial fauna species (mammals, birds, reptiles and amphibians) that potentially occur within the survey area.

The databases searched and the corresponding search areas are provided in Table 3.

Table 4: Fauna Databases Searched and Corresponding Search Areas

Database Name	Governing Organisation	Search Area Defined
NatureMap Database	DEC	Circle search within a 10 km radius of 114°05'12'E and 22°07'17'S.
Threatened and Priority Fauna Database	DEC	Exmouth region.
Protected Matters Search Tool	DSEWPC	Circle search within a 5 km radius of 114°05'12'E and 22°07'17'S.
Species Profile and Threats (SPRAT) Database	DSEWPC	Search conducted by species, not area.

A number of species present on regional species lists rely on specific habitat requirements. Whilst these habitats were present within the broader region, they were not present within the survey area and it is therefore unlikely that these species are present within the survey area. As such, these species were excluded from discussion. The general patterns of distribution of species known to potentially occur within the study area were further augmented with information derived from the following texts:

- Mammals
 - Menkhorst and Knight (2004)
- Birds
 - Pizzey and Knight (1997)
- Reptiles
 - Storr et al. (1981;1983; 1986; 1990).

4.1.1 Fauna Habitat Assessment

Important landform and vegetation features with value as fauna habitat were identified from the literature review, aerial photography and ground-truthing (vegetation survey). These include:

- ephemeral drainage lines

- coastal dunes
- man made infrastructure
- stockpiles of cleared material
- native vegetation.

4.2 Field Assessment Methodology

An opportunistic fauna survey was undertaken by an ecologist on 7-8 December 2011.

The Level 1 fauna assessment was conducted in accordance with EPA Guidance Statement No. 56 Assessment of Environmental Factors for Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia. The assessment included a desktop investigation and opportunistic fauna field survey and a habitat assessment, undertaken in conjunction with the vegetation and flora survey. The field assessment involved visual and aural surveys for any fauna species utilising the study area in addition to searches of the study area for any fauna signs, such as tracks, scats, bones, diggings and feeding signs. Species – specific search strategies were used to identify any protected species in the area or evidence that they utilize the study area. The fauna assessment did not involve any fauna trapping.

4.2.1 Limitations

The fauna assessment undertaken was a reconnaissance survey only and thus only sampled those species that can be easily seen, heard or have distinctive signs, such as tracks, scats, diggings etc. Some cryptic and nocturnal species would not have been identified during a reconnaissance survey. Extensive detailed fauna surveys, involving trapping surveys, are required to obtain a more comprehensive list of fauna species that may utilise the site.

This survey was carried out during only one season, and in one year. Complete faunal surveys often require multiple surveys, at different times of year, and over a period of a number of years, to enable full survey of all species present

5.0 FLORA AND VEGETATION SURVEY RESULTS

5.1 Vegetation

5.1.1 Vegetation Condition

The vegetation condition of the site was assessed using the vegetation condition rating scale developed by Keighery (1994) that recognises the intactness of vegetation, which is defined by the following:

- completeness of structural levels
- extent of weed invasion
- historical disturbance from tracks and other clearing or dumping
- the potential for natural or assisted regeneration.

The scale consists of six rating levels as outlined below in Table 4.

Table 5: Vegetation Condition Rating Scale (Keighery 1994)

Vegetation Condition Rating	Vegetation Condition	Description
1	Pristine or Nearly So.	No obvious signs of disturbance.
2	Excellent	Vegetation structure intact, disturbance affecting individual species, and weeds are non-aggressive species.
3	Very Good	Vegetation structure altered, obvious signs of disturbance.
4	Good	Vegetation structure significantly altered by very obvious signs of multiple disturbances retains basic vegetation structure or ability to regenerate it.
5	Degraded	Basic vegetation structure severely impacted by disturbance. Scope for regeneration but not in a state approaching good condition without intensive management.
6	Completely Degraded	The structure of the vegetation is no longer intact and the area is completely or almost without native species.

A significant proportion of Lots 1, 101, 112 and 220 have been historically cleared of native vegetation during the construction of facilities associated with the prawn processing factory previously established on the site by Kailis. The condition of the vegetation in the study area ranged from Good to Completely Degraded however a majority of the vegetation on the site was considered Degraded to Completely Degraded (Figure 3). Basic vegetation structure in the study area was observed to be severely impacted by earthworks, weed incursions and clearing activities and either incomplete or absent of native species.

Some areas of remnant vegetation, rated as Good to Good to Degraded, persisted in small isolated pockets in the study area and were associated with fore dune habitat and an ephemeral creek line located in the northern extent of the site. A small number of

grazing stock (sheep) was observed in the study area during the field survey. A majority of the site has been invaded by **Cenchrus ciliaris* (Buffel Grass). This species is a common pastoral weed in Northern Western Australia and appears to reduce native species abundance and diversity by aggressively competing with available plant resources (space, sunlight and water).




5.1.2 Vegetation Types



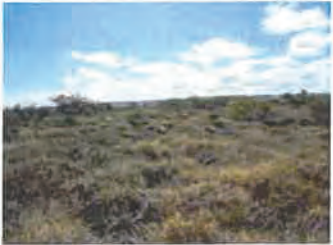
Six distinct vegetation types were recorded during the flora and vegetation survey. The vegetation types were described using Specht's (1970) Structural Formations in Australia. The vegetation types are described below Table 5 and mapped on Figure 4.

A large proportion of the study area was characterised by cleared areas either absent of vegetation or dominated by pastoral weeds (**Cenchrus ciliaris*) with introduced tree species (planted). These areas are not considered vegetation types but for the purpose of this report have been mapped as:

- C* Cleared areas with pastoral weeds and/or planted species
- C Cleared areas.

Table 6: Vegetation Types Recorded in the Study Area

Vegetation Type	Vegetation Description	Site Photo	Relevè
V1	Tall Open Shrubland of <i>Acacia bivenosa</i> and <i>Acacia tetragonophylla</i> over Low Open Shrubland of <i>Acacia synchronicia</i> , <i>Acanthocarpus verticillatus</i> and <i>Jasminum didymium</i> subsp. <i>lineare</i> over a Very Open Herbfield of <i>Cassythia aurea</i> var. <i>aurea</i> and <i>Cucumis maderaspatanus</i> over Tussock Grassland of <i>*Cenchrus ciliaris</i> with Very Open Tussock Grassland of <i>Triodia epactia</i> on upland banks		R4
V2	Tall Open Shrubland of <i>Acacia synchronicia</i> over Low Shrubland of <i>Scaevola spinescens</i> , <i>Acacia tetragonophylla</i> , <i>Stylobasium spathulatum</i> and <i>Maireana polypterygia</i> over Tussock Grassland of <i>*Cenchrus ciliaris</i> and <i>Triodia epactia</i>		R11/R12
V3	Low Open Shrubland of <i>Acacia coriacea</i> subsp. <i>coriacea</i> , <i>Acacia xiphophylla</i> and <i>Santalum lanceolatum</i> over a Very Open Herbfield of <i>Cassythia aurea</i> var. <i>aurea</i> over Tussock Grassland of <i>*Cenchrus ciliaris</i> and <i>Triodia pungens</i>		R9/R10

Vegetation Type	Vegetation Description	Site Photo	Relevè
V4	Low Open Shrubland of mixed <i>Chenopodiaceae</i> spp. and <i>Pittosporum angustifolium</i> over Very Open Tussock Grassland of * <i>Cenchrus ciliaris</i>		R8
V5	Low Open Shrubland of <i>Acacia synchronicia</i> and/or <i>Maireana polypterygia</i> over Tussock Grassland of * <i>Cenchrus ciliaris</i> and <i>Triodia pungens</i>		R1/R2/R3/R5
V6	Tall Open Shrubland of <i>Acacia synchronicia</i> over Low Open Shrubland of <i>Acacia bivenosa</i> and <i>Acacia tetragonophylla</i> over Tussock Grassland of <i>Triodia epactia</i>		R7

5.1.3 Conservation Significance of the Vegetation

There are no TECs protected under the EPBC Act or TECs and PECs listed by the DEC (2011c/d) occurring on or in close proximity to the study area.

A search of the EPBC Act Protected Matters Search Tool (DSEWPC, 2011a) based on a five kilometer radial buffer from the eastern boundary of the study area did not identify any federally listed Threatened Ecological Communities in or in close proximity to the study area.

There are two TEC communities known to occur on the Cape Range Peninsula; Cameron's Cave Troglotic Community and the Cape Range Remipede Community. None of these TECs occur in the study area.

5.2 Flora

5.2.1 Field Survey Results

A total of 67 plant taxa (including subspecies and varieties) representing 52 genera and 26 plant families were recorded in the study area. This total is comprised of 64 native species and 3 introduced (exotic) species. The vegetation of the study area is considered to be of low diversity.

All specimens, when considered necessary, were compared to all conservation significant species identified from the desktop TRF and Priority flora searches and contained within the morphological types held by the Western Australian Herbarium. A complete list of flora species recorded from the study area has been provided in Appendix 3.

5.2.2 Conservation Significant Flora

No Threatened Rare species listed by the DEC (2011a) or species of national conservation significance listed under the EPBC Act (DSEWPC 2011b) were recorded from the study area during the 2011 survey.

Two Priority flora species were recorded during in the study area; *Corchorus congener* (P3) (two plants) and *Gymnanthera cunninghamii* (P3) (one plant). The locations of these species have been plotted on Figure 2.

There are 16 collection records of *Corchorus congener* (P3) retained at the Western Australian Herbarium. The records indicate that this species is wide spread in the Cape Range area but also has been recorded on several off-shore islands (Barrow Island). The largest population referenced in the collection records is 1000+ plants and was recorded in the Cape Range National Park.

According to FloraBase (DEC 2011a) *Gymnanthera cunninghamii* (P3) has been recorded over an extensive range but not previously in the Cape Range area. There are fourteen records of this species retained in the collections housed at the Western Australian Herbarium. The largest documented population of *Gymnanthera cunninghamii* (P3) in the collection records is 100 plants.

5.2.3 Range Extensions

Three native taxa, *Acacia ramulosa* var. *linophylla*, *Lepidium phlebopetalum* and *Gymnanthera cunninghamii* (P3) were recorded in the study area exhibiting an extension to their known range. According to floristic records available on FloraBase (2011a) none of these species have been previously recorded in the Cape Range area.

Habitat for these species is not considered to be limited to the study area and is common in adjacent areas.

5.2.4 Introduced Flora

A total of three introduced species (weeds) were recorded during the flora survey; **Cenchrus ciliaris*, **Cynodon dactylon* and **Aerva javonica*. None of these species are listed as Declared Plant species pursuant to section 37 of the *Agricultural and Related Resources Protection Act 1976* (WA).

6.0 FAUNA SURVEY RESULTS

6.1 Vertebrate Fauna Habitats

Important landform and vegetation features with value as fauna habitat within the site include and are detailed further below:

- ephemeral drainage lines
- coastal dunes
- man made infrastructure
- stockpiles of cleared material
- native vegetation.

An abundance of leaf litter and fallen branches across the site also provides potential cover for small vertebrate species. Vegetation type V6 which is discussed in Table 5 provided important habitat and shelter to a number of reptile species. A number of burrows were identified within this substrate and under shrubs, likely constructed by a small mammal or reptile species.

A few burrows were also identified within the drainage lines on site, Mike Bamford has confirmed that these burrows are likely rainbow bee eater burrows.



Plate 1: Rainbow Bee Eater Nest

Large trees and shrubs were noted for their utilisation by bird species on site; in particular, being fed on or used as a perch for feeding honeyeater species, wrens, finches and rainbow bee eaters (Plate 2). Of the vegetation types provided in Table 5, V3 and V5 were observed being most utilised by bird species. Trees with structural complexity also provide essential roosting habitat for many bird species.



Plate 2: Perching Rainbow Bee Eater

Many areas on site had been cleared and provided little habitat for fauna species. However, stockpiles of cleared material are likely to provide habitat and shelter for reptile species and a number of bird species such as wrens which were observed utilising these stockpiles (Plate 3).



Plate 3: Stockpile of Cleared Material

Man made structures on site such as buildings and light poles were also utilised by species on site. Ospreys were also observed perching and nesting on light poles adjacent to the site (Plates 4 and 5).



Plate 4: Perching Osprey



Plate 5: Osprey Nest

6.2 Vertebrate Fauna

A list of potentially and actually occurring species within and surrounding the site is provided in Appendix 4. This information has been collected from the DEC Threatened Species database for the Exmouth region, DEC NatureMap, EPBC Protected Matters Search Tool database and the opportunistic field survey. The results from each of the database searches are included in Appendix 2.

A total of 135 known or previously recorded species potentially occur within the survey area. A description of each of the vertebrate groups in the region is given in the following section.

6.2.1 Birds

A total of 83 bird species have been historically recorded within or in close proximity to the survey area. Of these, there are nine species of conservation significance. These are discussed below.

6.2.1.1 Fork-tailed Swift (*Apus pacificus*)

The fork-tailed swift is listed as Migratory under the EPBC Act and is included in the JAMBA and the CAMBA. The fork-tailed swift breeds in Siberia and the Himalayas and migrates to Australia in October, before returning to the breeding grounds by May or June. Movements within Australia are in response to weather patterns, with this species often following thunderstorms. The species occurs year-around in the tropics, migrating southward in early spring. The birds then return north in autumn. When present, the fork-tailed swift is common and prominent in both natural and developed environments.

It is unlikely this species occurs within the survey area, except as a mobile species overflying the site, and as such is highly unlikely to be impacted by development.

6.2.1.2 Great Egret (*Ardea alba*) and Cattle Egret (*Ardea ibis*)

Both of these Australian waterbird species are listed as Migratory under the EPBC Act. Both egrets are also listed under the JAMBA and the CAMBA. They are widespread in southern and eastern Asia and Australasia and are highly mobile, rendering them less susceptible to population fragmentation. In Western Australia breeding colonies nest predominantly in *Melaleuca* swamps in November and December although breeding is dependent to some extent on rainfall (DSEWPC 2011b).

As waterbird species, the egrets are unlikely to inhabit the site for most of the year, though they may interact with it in a transitory capacity during the wetter months due to the drainage lines present on site. Consequently, due to their unlikely or infrequent use of the site, this species is considered unlikely to be impacted by development.

6.2.1.3 Oriental Plover (*Charadrius veredus*)

This species is listed as Migratory under the EPBC Act and under the JAMBA and ROKAMBA. It is a non-breeding visitor to Australia where it occurs in both coastal and inland areas, however it is mostly recorded along the north-western coast. When inland, the oriental plover generally inhabits flat, open, semi-arid or arid grasslands where areas of bare ground are prevalent (DSEWPC 2011b).

The oriental plover may occur within the survey area, but it is most likely to be present on the adjacent shoreline in a transitory capacity and is unlikely to be adversely impacted by development of the survey area, which covers only a small area of the extensive distribution of the species.

6.2.1.4 Oriental Pratincole (*Glareola maldivarum*)

This species is listed as Marine and Migratory under the EPBC Act, and occurs under the CAMBA, JAMBA and ROKAMBA. It is a medium-sized shorebird that occurs in small to very large flocks of thousands to millions of individuals. The oriental pratincole is widespread in the northern extent of Australia, particularly along the coastlines of Western Australia's Pilbara and Kimberley regions. The breeding season is spent in southern, south-eastern and eastern Asia, with the non-breeding season spent largely in Australia. During this time, the oriental pratincole preferably inhabits beaches, mudflats, islands, open plains, floodplains or short grassland, often with extensive areas of bare ground (DSEWPC 2011b).

This species may over fly the site, but it is most likely to be present on the adjacent shoreline in a transitory capacity and is unlikely to be adversely impacted by development of the survey area.

6.2.1.5 White-bellied Sea Eagle (*Haliaeetus leucogaster*)

Listed as Marine and Migratory under the EPBC Act and also listed under Appendix II of the CITES and under the China-Australia Migratory Bird Agreement (CAMBA), the white-bellied sea eagle is not globally threatened, but has been subject to population decline within Australia and South East Asia. In Australia, it is distributed along the coastline, and is restricted to a narrow band of coastline in south-western Australia. The population residing within Australia is estimated at 500 mating pairs. The sea eagle is found in coastal habitats and tends to occupy dunes, tidal flats, woodlands, forests and grasslands (generally in areas associated with large bodies of water). When not migrating, the home range of the sea eagle can be up to 100 square km, although breeding adult birds are generally sedentary (breeding season runs from June to January). The nests of these birds are large and conspicuous, generally constructed in large trees, cliffs, rocky outcrops, mangroves, caves or on artificial structures (DSEWPC 2011b).

This species was not identified on site, however the proximity to the coast and structures such as light poles and trees may provide suitable habitat for this species. However, although likely to occur in vicinity of the site, development of the site is not considered likely to impact this species.

6.2.1.6 Barn Swallow (*Hirundo rustica*)

Listed as Marine and Migratory under the EPBC Act, the barn swallow is also recognised under the CAMBA, JAMBA AND ROKAMBA agreements. It occurs in open land, such as agricultural pasture and plains, roosting or nesting in dead trees, banks, cliff cavities and rock shelves. It is a regular non-breeding summer migrant to northern Australia, where its range extends from the Kimberley region to north-eastern and south-eastern Queensland (Pizzey and Knight 1997).

There is minimal habitat suitable for this species within the site, and it is therefore unlikely to be impacted by the proposed development.

6.2.1.7 Rainbow Bee-eater (*Merops ornatus*)

The rainbow bee-eater is listed as Migratory under the EPBC Act and under the JAMBA. The population size of this species within Australia is not known, but it is assumed to be quite large. It is known to occur across the majority of the mainland. It migrates between Australia, Eastern Indonesia and Japan, and has formed a colony on Rottnest Island. The bee-eater tends to occupy open forests and woodlands, including cleared or semi-cleared areas and farmland, and prefers timbered landscapes. Their nests consist of an enlarged chamber at the end of a long burrow that is excavated by both the female and male bird from flat or sloping ground, cliff faces or mounds of gravel. They generally remain unlined (DSEWPC 2011b).

Over ten individuals were seen on site at one time and it is considered likely that more were present. Expert identification was also sought from Mike Bamford on a number of burrows that occurred along the drainage lines on site. Mike confirmed that at least one of these burrows had been created by rainbow bee eaters. Therefore, it is considered highly likely that the rainbow bee eater utilises the site for feeding and breeding and may be impacted by the proposed development.

Nesting areas are often reused and banding indicates that some birds return to the nest each year. However, pairs usually excavate a new burrow for each breeding season (DSEWPC 2011b). Therefore, as most pairs excavate new burrows each season and given the mobile nature of the species and the presence of similar suitable habitat nearby and in the greater region this impact is not considered great.

The following bird species were recorded during the field survey and are likely to occur frequently within the survey area and surrounds:

- Magpie-lark (*Grallina cyanoleuca*)
- Black-faced Cuckoo-shrike (*Coracina novaehollandiae*)
- Zebra Finch (*Taeniopygia guttata*)
- Welcome Swallow (*Hirundo neoxena*)
- Rainbow Bee Eater (*Merops ornatus*)
- Variegated Fairy-wren (*Malurus lamberti*)

- Little Button Quail (*Turnix velox*)
- Crested Pigeon (*Ocyphaps lophotes*)
- Yellow Throated Miner (*Manorina flacigula*)
- Singing Honeyeater (*Lichenostomus virescens*)
- White Plumed Honeyeater (*Lichenostomus penicillatus*)
- Osprey (*Pandion haliaetus*)
- Little Corella (*Cacatua sanguinea*) (fly over)
- Galah (*Eolophus roseicapilla*) (fly over)
- Red Capped Plover (*Charadrius ruficapillus*) (adjacent)
- Sooty Oystercatcher (*Haematopus fuliginosus*) (adjacent)

The aerial nature of the majority of the avifauna listed in Appendix 2 identifies these species as having an extremely broad range in comparison to other fauna species. Also, given that the size of the area proposed for development is relatively small, it is highly unlikely these species will be adversely affected by development.

6.2.2 Mammals

A total of 17 mammal species potentially occur within the survey area, and of these, four species are introduced. This list also includes 2 species of conservation significance, which are discussed below.

6.2.2.1 Black-flanked Rock Wallaby (*Petrogale lateralis lateralis*)

The Black-flanked Rock Wallaby is listed as Vulnerable under the EPBC Act and Threatened under the WC Act. Threatening processes to this species includes predation by foxes and feral cats and degradation of habitat due to grazing by sheep, goats and rabbits.

The habitat of this species varies between colonies, however always involves proximity to some form of cliff, rock pile, escarpment or talus for refuge in areas of hummock grassland. They feed on grasses, herbs leaves and fruits and do not require close proximity to water as they conserve water through sheltering from warm temperatures in caves or rock overhangs. Consequently there is not considered suitable habitat on site for the Black-flanked Rock Wallaby and no signs of this species were seen during the site survey. Therefore, the proposed development is not considered likely to impact this species.

6.2.2.2 Mulgara (*Dasycercus cristicauda*)

The Crest-tailed Mulgara is listed as Vulnerable under the EPBC Act and Schedule 1 under the WC Act. This species can tolerate moderate local reduction in land cover, however a more severe reduction will lead to population decline. The main threat to this species is predation from introduced species and habitat reduction through agriculture and mining.

Mulgara predominantly occur in hummock grasslands and shrublands on sandy soils, burrowing in flat areas between sand dunes or on the low side of sand dunes. They are predominantly nocturnal, emerging from their burrows at night to feed on insects and small reptiles.

Although the site contains suitable vegetation types and sandy dunes, the degraded nature of the majority of the site makes it unlikely for this species to occur on the site. No individuals were identified on site and due to the amount of similar habitat available nearby, the proposed development is not considered likely to have an impact on available habitat to the Mulgara.

During the field survey, a red kangaroo, a number of sheep and rabbits were recorded within the site, however no species of ecological significance were identified as occurring on site.

6.2.3 Reptiles

Thirty one reptile species are recorded as potentially occurring within the site. Of these, the Cape Range *Diplodactylus* (*Diptodactylus* sp 'Cape Range') and *Lerista allochira* are of conservation significance (Appendix 2), other species of significance are not discussed in this report due to the lack of required habitat within the site (all are marine species such as turtles and sea snakes).

The *L. allochira* has been recorded in habitats consisting of dissected limestone gorges and plateaus, preferring sparsely vegetated areas (IUCN 2012). There is very little information available on the preferred habitat of the Cape Range *Diplodactylus*, however similar species inhabit hard rocky limestone substrates. Consequently, these species are not considered likely to occur on the site.

Reptile species recorded whilst conducting the opportunistic fauna survey included Bungarra (*Varanus gouldii*) and the Long-nosed Dragon (*Amphibolurus longirostris*).

6.2.4 Amphibians

Four species of amphibian have been identified as potentially occurring on the site. Of these four species, none are of federal or state conservation significance.

No amphibian species were recorded whilst conducting the opportunistic fauna survey, although no formal trapping was carried out.

7.0 RECOMMENDATIONS AND CONCLUSIONS

Site investigations have identified that the majority of the site is Degraded to Completely Degraded. Surrounding areas contain vegetation in a better condition, in particular the Cape Range National Park (50,800 hectares). Therefore, as the vegetation and habitat types present on the site are better represented and protected elsewhere, further development of the site is not considered likely to have a major impact on matters of environmental significance. However, to reduce any potential impacts the following may be considered:

The following recommendations and general management guidelines are provided, in order to minimise adverse impacts to matters of environmental significance as a result of development:

- **Staged Clearing** - At the clearing stage of development, care should be taken to ensure that any fauna utilising the site is given every opportunity to relocate. To achieve this, clearing should be undertaken in a staged manner in the direction of vegetation to be retained and cleared vegetation should be left overnight in-situ to allow individuals further opportunity to disperse.
- The ephemeral creek line has been identified as a potential breeding site for rainbow bee eaters and should preferably be retained and managed within any future development. Rainbow bee eaters are common through out the area, with similar habitat in surrounding areas. This combined with their mobile nature and the fact that they most often choose to excavate new burrow each season means that the proposed development is not likely to impact this species.

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FIGURES







LEGEND

- Site Boundary
- Cadastre
- Releve Sites

Vegetation Units

V1 Tall Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Low Open Shrubland of *Acacia synchronica*, *Acanthocarpus verticillatus* and *Jasminum didymum* subsp. *lineare* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* and *Cucumis maderaspatanus* over Tussock Grassland of **Cenchrus ciliaris* with Very Open Tussock Grassland of *Triodia epactia* on upland banks.

V2 Tall Open Shrubland of *Acacia synchronica* over Low Shrubland of *Scaevola spinescens*, *Acacia tetragonophylla*, *Stylobasium spatulatum* and *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia epactia*.

V3 Low Open Shrubland of *Acacia coriacea* subsp. *coriacea*, *Acacia xiphophylla* and *Santalum lanceolatum* over a Very Open Herbfield of *Cassytha aurea* var. *aurea* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.

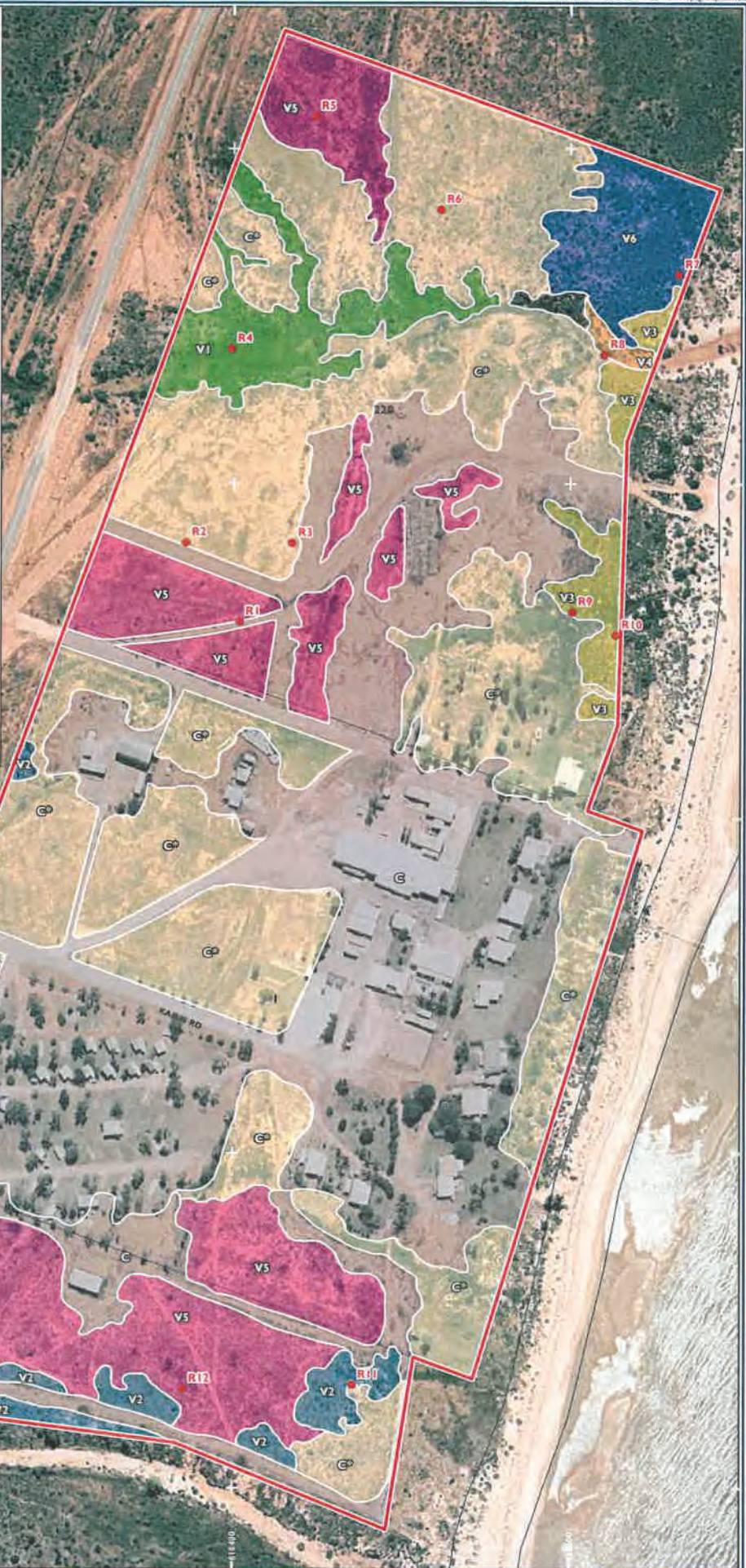
V4 Low Open Shrubland of mixed *Chenopodiaceae* spp. and *Pittosporum angustifolium* over Very Open Tussock Grassland of **Cenchrus ciliaris*.

V5 Low Open Shrubland of *Acacia synchronica* and/or *Maireana polypterygia* over Tussock Grassland of **Cenchrus ciliaris* and *Triodia pungens*.

V6 Tall Open Shrubland of *Acacia synchronica* over Low Open Shrubland of *Acacia bivenosa* and *Acacia tetragonophylla* over Tussock Grassland of *Triodia epactia*.

C* Cleared areas with pastoral weeds and/or planted species

C Cleared areas



APPENDIX I

Flora Conservation Codes

APPENDIX I: Flora Conservation Codes

Conservation Categories and Definitions for EPBC Act Listed Flora Species

Conservation Category	Definition
Extinct	Taxa not definitely located in the wild during the past 50 years
Extinct in the Wild	Taxa known to survive only in captivity
Critically Endangered	Taxa facing an extremely high risk of extinction in the wild in the immediate future
Endangered	Taxa facing a very high risk of extinction in the wild in the near future
Vulnerable	Taxa facing a high risk of extinction in the wild in the medium-term
Near Threatened	Taxa that risk becoming Vulnerable in the wild
Conservation Dependent	Taxa whose survival depends upon ongoing conservation measures. Without these measures, a conservation dependent taxon would be classified as Vulnerable or more severely threatened.
Data Deficient (Insufficiently Known)	Taxa suspected of being Rare, Vulnerable or Endangered, but whose true status cannot be determined without more information.
Least Concern	Taxa that are not considered Threatened

Conservation Codes and Descriptions for DEC Threatened Rare and Priority Flora Species

Conservation Code	Description
T: (Declared Rare Flora – Extant)	Taxa which have been adequately searched for and are deemed to be in the wild either rare, in danger of extinction, or otherwise in need of special protection, and have been gazetted as such.
P1: Priority One – Poorly Known Taxa	Taxa that are known from one or a few collections or sight records (generally less than five), all on lands not managed for conservation, e.g. agricultural or pastoral lands, urban areas, shire, Westrail and Main Roads WA road, gravel and soil reserves, and active mineral leases and under threat of habitat destruction or degradation. Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under immediate threat from known threatening processes
P2: Priority Two – Poorly Known Taxa	Taxa that are known from one or a few collections or sight records, some of which are on lands not under imminent threat of habitat destruction or degradation, e.g. national parks, conservation parks, nature reserves, state forest, vacant Crown land, water reserves, etc. Taxa may be included if they are comparatively well known from one or more localities but do not meet adequacy of survey requirements and appear to be under threat from known threatening processes
P3: Priority Three – Poorly Known Taxa	Taxa that are known from collections or sight records from several localities not under imminent threat, or from few but widespread localities with either large population size or significant remaining areas of apparently suitable habitat, much of it not under imminent threat. Taxa may be included if they are comparatively well known from several localities but do not meet adequacy of survey requirements and known threatening processes exist that could affect them.

Conservation Code	Description
P4: Priority Four – Rare, Near Threatened and other taxa in need of monitoring	<ol style="list-style-type: none">1. Rare. Taxa that are considered to have been adequately surveyed, or for which sufficient knowledge is available, and that are considered not currently threatened or in need of special protection, but could be if present circumstances change. These taxa are usually represented on conservation lands.2. Near Threatened. Taxa that are considered to have been adequately surveyed and that do not qualify for Conservation Dependent, but that are close to qualifying for Vulnerable.3. Taxa that have been removed from the list of threatened species during the past five years for reasons other than taxonomy
P5: Priority Five: Conservation Dependent Taxa	Taxa that are not threatened but are subject to a specific conservation program, the cessation of which would result in the taxon becoming threatened within five years

APPENDIX 2

Database Searches

NatureMap Species Report

Created By Guest user on 10/10/2011

Conservation Status Conservation Taxon (T, X, IA, S, P1-P5)

Current Names Only Yes

Method 'By Circle'

Centre 114°05' 09" E, 22°07' 23" S

Buffer 20km

Group By Kingdom

Kingdom	Species	Records
Animalia	26	88
Plantae	13	72
TOTAL	39	160

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
Animalia				
1.	24610 <i>Ardeotis australis</i> (Australian Bustard)		P4	
2.	33905 <i>Bamazomus subsolanus</i> (Eastern Cape Range Bamazomus)		T	Y
3.	33906 <i>Bamazomus vespertinus</i> (Western Cape Range Bamazomus)		T	
4.	34031 <i>Carcharodon carcharias</i> (Great White Shark)		T	
5.	33909 <i>Draculoides julianneae</i> (Western Cape Range Draculoides)		T	Y
6.	33915 <i>Draculoides vinei</i> (Cape Range Draculoides)		P4	
7.	24084 <i>Dugong dugon</i> (Dugong)		S	
8.	24043 <i>Eubalaena australis</i> (Southern Right Whale)		T	
9.	25624 <i>Falco peregrinus</i> (Peregrine Falcon)		S	
10.	24218 <i>Leporillus apicalis</i> (Lesser Stick-nest Rat)		X	
11.	25120 <i>Lenista allochira</i>		P3	
12.	24051 <i>Megaptera novaeangliae</i> (Humpback Whale)		T	
13.	24222 <i>Mesembnomys macrurus</i> (Golden-backed Tree-rat)		P4	
14.	34025 <i>Milyeringa ventus</i> (Blind Gudgeon)		T	
15.	33985 <i>Nocticola fiabella</i> (Cape Range Blind Cockroach)		P2	Y
16.	34038 <i>Ophisternon candidum</i> (Blind Cave Eel)		T	
17.	24142 <i>Petrogale lateralis</i> subsp. <i>lateralis</i> (Black-footed Rock-wallaby)		T	
18.	24098 <i>Phascogale calura</i> (Red-tailed Phascogale)		T	
19.	24236 <i>Pseudomys fieldi</i> (Shark Bay Mouse)		T	
20.	24115 <i>Sminthopsis longicaudata</i> (Long-tailed Dunnart)		P4	
21.	33964 <i>Stygocaris styliifera</i> (Spear-beaked Cave Shrimp)		P4	
22.	33968 <i>Stygiochiropus peculiaris</i> (Camerons Cave Millipede)		T	Y
23.	33969 <i>Stygiochiropus sympatncus</i>		T	Y
24.	34007 <i>Thalassarche chlororhynchos</i> (Atlantic Yellow-nosed Albatross)		T	
25.	25441 <i>Uperoleia marmorata</i> (Marbled Toadlet)		P1	Y
26.	24249 <i>Zyzomys pedunculatus</i> (Central Rock-rat)		T	Y
Plantae				
27.	14115 <i>Abutilon</i> sp. Cape Range (A.S. George 1312)		P2	
28.	13074 <i>Acacia alexandri</i>		P3	
29.	13076 <i>Acacia startii</i>		P3	
30.	1210 <i>Acanthocarpus rupestris</i>		P2	
31.	12714 <i>Brachychiton obtusilobus</i>		P4	
32.	18411 <i>Corchorus congener</i>		P3	
33.	29715 <i>Eremophila forrestii</i> subsp. <i>capensis</i>		P3	
34.	15032 <i>Eremophila occidentis</i>		P2	
35.	1972 <i>Grevillea calcicola</i>		P3	
36.	17327 <i>Hamieria kempeana</i> subsp. <i>rhadinophylla</i>		P2	
37.	4736 <i>Stackhousia umbellata</i>		P3	
38.	17345 <i>Tinospora esiangkara</i>		P2	
39.	12457 <i>Verticordia serotina</i>		P2	

Conservation Codes
T - Rare or likely to become extinct
X - Presumed extinct

Name ID	Species Name	Naturalised	Conservation Code	¹ Endemic To Query Area
<small> [A - Protected under international agreement S - Other specially protected tauna 1 - Priority 1 2 - Priority 2 3 - Priority 3 4 - Priority 4 5 - Priority 5 </small>				

¹ For NatureMap's purposes, species flagged as endemic are those whose records are wholly contained within the search area. Note that only those records complying with the search criterion are included in the calculation. For example, if you limit records to those from a specific datasource, only records from that datasource are used to determine if a species is restricted to the query area.



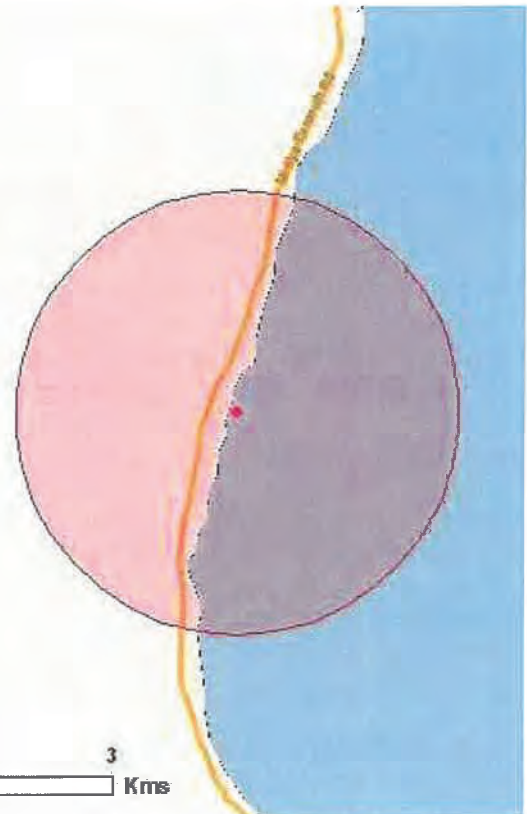
EPBC Act Protected Matters Report: Coordinates

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

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

Information about the EPBC Act including significance guidelines, forms and application process details can be found at <http://www.environment.gov.au/epbc/assessmentsapprovals/index.html>

Report created: 24/05/11 19:10:59



[Summary](#)

[Details](#)

[Matters of NES](#)

[Other matters protected by the EPBC Act](#)

[Extra Information](#)

[Caveat](#)

[Acknowledgements](#)

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

[Coordinates](#)

Buffer: 5.0Km

Summary

Matters of National Environmental Significance.

This part of the report summarises the matters of national environmental significance that may occur in, or may relate to, the area you nominated. Further information is available in the detail part of the report, which can be accessed by scrolling or following the links below. If you are proposing to undertake an activity that may have a significant impact on one or more matters of national environmental significance then you should consider the Administrative Guidelines on Significance - see <http://www.environment.gov.au/epbc/assessmentsapprovals/guidelines/index.html>.

<u>World Heritage Properties:</u>	None
<u>National Heritage Places:</u>	1
<u>Wetlands of International Significance (Ramsar Wetlands):</u>	None
<u>Great Barrier Reef Marine Park:</u>	None
<u>Commonwealth Marine Areas:</u>	None
<u>Threatened Ecological Communities:</u>	None
<u>Threatened Species:</u>	13
<u>Migratory Species:</u>	25

Other Matters Protected by the EPBC Act

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

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

Please note that the current dataset on Commonwealth land is not complete. Further information on Commonwealth land would need to be obtained from relevant sources including Commonwealth agencies, local agencies, and land tenure maps.

A permit may be required for activities in or on a Commonwealth area that may affect a member of a listed threatened species or ecological community, a member of a listed migratory species, whales and other cetaceans, or a member of a listed marine species. Information on EPBC Act permit requirements and application forms can be found at <http://www.environment.gov.au/epbc/permits/index.html>.

<u>Commonwealth Lands:</u>	None
<u>Commonwealth Heritage Places:</u>	None
<u>Listed Marine Species:</u>	52
<u>Whales and Other Cetaceans:</u>	13

Critical Habitats:	None
Commonwealth Reserves:	None

Report Summary for Extra Information

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

Place on the RNE:	3
State and Territory Reserves:	None
Regional Forest Agreements:	None
Invasive Species:	6
Nationally Important Wetlands:	None

Details

Matters of National Environmental Significance

National Heritage Places [\[Resource Information \]](#)

Name	Status
Natural	
The Ningaloo Coast WA	Listed place

Threatened Species [\[Resource Information \]](#)

Name	Status	Type of Presence
BIRDS		

Macronectes giganteus		
Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area

MAMMALS

Balaenoptera musculus		
Blue Whale [36]	Endangered	Species or species habitat may occur within area

Dasycercus cristicauda		
Mulgara [328]	Vulnerable	Species or species habitat likely to occur within area

Eubalaena australis		
Southern Right Whale [40]	Endangered	Species or species habitat may occur within area

Megaptera novaeangliae		
Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area

Petrogale lateralis lateralis		
Black-flanked Rock-wallaby [66647]	Vulnerable	Species or species habitat likely to occur within area

REPTILES

Caretta caretta		
Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area

Chelonia mydas		
Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area

Dermochelys coriacea		
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Leatherback Turtle, Leathery Turtle, Luth [1768] Eretmochelys imbricata	Endangered	Species or species habitat likely to occur within area
Hawksbill Turtle [1766] Natator depressus	Vulnerable	Species or species habitat likely to occur within area
Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

SHARKS

Pristis clavata Dwarf Sawfish, Queensland Sawfish [68447] Rhincodon typus Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
	Vulnerable	Species or species habitat may occur within area

Migratory Species

[Resource Information]

Name	Status	Type of Presence
------	--------	------------------

Migratory Marine Birds

Apus pacificus Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis Cattle Egret [59542]		Species or species habitat may occur within area
Macronectes giganteus Southern Giant-Petrel [1060]	Endangered	Species or species habitat may occur within area

Migratory Marine Species

Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
Dugong dugon Dugong [28]		Species or species habitat likely to occur within area
Eretmochelys imbricata Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Natator depressus		

Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area
Orcinus orca		
Killer Whale, Orca [46]		Species or species habitat may occur within area
Rhincodon typus		
Whale Shark [66680]	Vulnerable	Species or species habitat may occur within area
Sousa chinensis		
Indo-Pacific Humpback Dolphin [50]		Species or species habitat may occur within area
Tursiops aduncus (Arafura/Timor Sea populations)		
Spotted Bottlenose Dolphin (Arafura/Timor Sea populations) [78900]		Species or species habitat likely to occur within area

Migratory Terrestrial Species

Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area
Hirundo rustica		
Barn Swallow [662]		Species or species habitat may occur within area
Merops ornatus		
Rainbow Bee-eater [670]		Species or species habitat may occur within area

Migratory Wetlands Species

Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Glareola maldivarum		
Oriental Pratincole [840]		Species or species habitat may occur within area

Other Matters Protected by the EPBC Act

Listed Marine Species [Resource Information]

Name	Status	Type of Presence
Birds		
Apus pacificus		
Fork-tailed Swift [678]		Species or species habitat may occur within area
Ardea alba		
Great Egret, White Egret [59541]		Species or species habitat may occur within area
Ardea ibis		
Cattle Egret [59542]		Species or species habitat may occur within area
Charadrius veredus		
Oriental Plover, Oriental Dotterel [882]		Species or species habitat may occur within area
Glareola maldivarum		
Oriental Pratincole [840]		Species or species habitat may occur within area
Haliaeetus leucogaster		
White-bellied Sea-Eagle [943]		Species or species habitat likely to occur within area

[Hirundo rustica](#)

Barn Swallow [662]

Species or species habitat may occur within area

[Macronectes giganteus](#)

Southern Giant-Petrel [1060] Endangered

Species or species habitat may occur within area

[Merops ornatus](#)

Rainbow Bee-eater [670]

Species or species habitat may occur within area

Fish

[Bulbonaricus brauni](#)

Braun's Pughead Pipefish,
Pug-headed Pipefish [66189]

Species or species habitat may occur within area

[Campichthys tricarinatus](#)

Three-keel Pipefish [66192]

Species or species habitat may occur within area

[Choeroichthys brachysoma](#)

Pacific Short-bodied Pipefish,
Short-bodied Pipefish [66194]

Species or species habitat may occur within area

[Choeroichthys suillus](#)

Pig-snouted Pipefish [66198]

Species or species habitat may occur within area

[Doryrhamphus janssi](#)

Cleaner Pipefish, Janss' Pipefish
[66212]

Species or species habitat may occur within area

[Doryrhamphus negrosensis](#)

Flagtail Pipefish, Masthead
Island Pipefish [66213]

Species or species habitat may occur within area

[Festucalex scalaris](#)

Ladder Pipefish [66216]

Species or species habitat may occur within area

[Filicampus tigris](#)

Tiger Pipefish [66217]

Species or species habitat may occur within area

[Halicampus brocki](#)

Brock's Pipefish [66219]

Species or species habitat may occur within area

[Halicampus grayi](#)

Mud Pipefish, Gray's Pipefish
[66221]

Species or species habitat may occur within area

[Halicampus nitidus](#)

Glittering Pipefish [66224]

Species or species habitat may occur within area

[Halicampus spinirostris](#)

Spiny-snout Pipefish [66225]

Species or species habitat may occur within area

[Haliichthys taeniophorus](#)

Ribboned Pipehorse, Ribboned
Seadragon [66226]

Species or species habitat may occur within area

[Hippichthys penicillus](#)

Beady Pipefish, Steep-nosed
Pipefish [66231]

Species or species habitat may occur within area

[Hippocampus angustus](#)

Western Spiny Seahorse,
Narrow-bellied Seahorse
[66234]

Species or species habitat may occur within area

[Hippocampus histrix](#)

Spiny Seahorse, Thorny
Seahorse [66236]

Species or species habitat may occur within area

[Hippocampus kuda](#)

Spotted Seahorse, Yellow
Seahorse [66237]

Species or species habitat may occur within area

[Hippocampus planifrons](#)

Flat-face Seahorse [66238] Micrognathus micronotopterus		Species or species habitat may occur within area
Tidepool Pipefish [66255] Solegnathus hardwickii		Species or species habitat may occur within area
Pallid Pipehorse, Hardwick's Pipehorse [66272] Solegnathus lettiensis		Species or species habitat may occur within area
Gunther's Pipehorse, Indonesian Pipefish [66273] Solenostomus cyanopterus		Species or species habitat may occur within area
Robust Ghostpipefish, Blue-finned Ghost Pipefish, [66183] Solenostomus paegnius		Species or species habitat may occur within area
Rough-snout Ghost Pipefish [68425] Syngnathoides biaculeatus		Species or species habitat may occur within area
Double-end Pipehorse, Double-ended Pipehorse, Alligator Pipefish [66279] Trachyrhamphus bicoarctatus		Species or species habitat may occur within area
Bentstick Pipefish, Bend Stick Pipefish, Short-tailed Pipefish [66280] Trachyrhamphus longirostris		Species or species habitat may occur within area
Straightstick Pipefish, Long-nosed Pipefish, Straight Stick Pipefish [66281]		Species or species habitat may occur within area

Mammals

Dugong dugon Dugong [28]		Species or species habitat likely to occur within area
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Reptiles

Aipysurus apraefrontalis Short-nosed Seasnake [1115]		Species or species habitat known to occur within area
Aipysurus duboisii Dubois' Seasnake [1116]		Species or species habitat may occur within area
Aipysurus eydouxii Spine-tailed Seasnake [1117]		Species or species habitat may occur within area
Aipysurus laevis Olive Seasnake [1120]		Species or species habitat may occur within area
Astrotia stokesii Stokes' Seasnake [1122]		Species or species habitat may occur within area
Caretta caretta Loggerhead Turtle [1763]	Endangered	Species or species habitat likely to occur within area
Chelonia mydas Green Turtle [1765]	Vulnerable	Species or species habitat likely to occur within area
Dermochelys coriacea Leatherback Turtle, Leathery Turtle, Luth [1768]	Endangered	Species or species habitat likely to occur within area
Disteira kingii		

Spectacled Seasnake [1123] Disteira major		Species or species habitat may occur within area
Olive-headed Seasnake [1124] Emydocephalus annulatus		Species or species habitat may occur within area
Turtle-headed Seasnake [1125] Ephalophis greyi		Species or species habitat may occur within area
North-western Mangrove Seasnake [1127] Eretmochelys imbricata		Species or species habitat may occur within area
Hawksbill Turtle [1766]	Vulnerable	Species or species habitat likely to occur within area
Hydrophis elegans Elegant Seasnake [1104] Natator depressus		Species or species habitat may occur within area
Flatback Turtle [59257]	Vulnerable	Species or species habitat likely to occur within area

[Pelamis platurus](#)

Yellow-bellied Seasnake [1091] Species or species habitat may occur within area

Whales and Other Cetaceans

[Resource Information]

Name	Status	Type of Presence
Mammals		
Balaenoptera acutorostrata Minke Whale [33]		Species or species habitat may occur within area
Balaenoptera edeni Bryde's Whale [35]		Species or species habitat may occur within area
Balaenoptera musculus Blue Whale [36]	Endangered	Species or species habitat may occur within area
Delphinus delphis Common Dolphin, Short-beaked Common Dolphin [60]		Species or species habitat may occur within area
Eubalaena australis Southern Right Whale [40]	Endangered	Species or species habitat may occur within area
Grampus griseus Risso's Dolphin, Grampus [64]		Species or species habitat may occur within area
Megaptera novaeangliae Humpback Whale [38]	Vulnerable	Congregation or aggregation known to occur within area
Orcinus orca Killer Whale, Orca [46]		Species or species habitat may occur within area
Sousa chinensis Indo-Pacific Humpback Dolphin [50]		Species or species habitat may occur within area
Stenella attenuata Spotted Dolphin, Pantropical Spotted Dolphin [51]		Species or species habitat may occur within area
Tursiops aduncus Indian Ocean Bottlenose Dolphin, Spotted Bottlenose Dolphin [68418]		Species or species habitat likely to occur within area
Tursiops aduncus (Arafura/Timor Sea populations) Spotted Bottlenose Dolphin (Arafura/Timor Sea populations)		Species or species habitat likely to occur within area

[78900]

[Tursiops truncatus s. str.](#)

Bottlenose Dolphin [68417]

Species or species habitat may occur within area

Extra Information

Places on the RNE

[Resource Information]

Note that not all Indigenous sites may be listed.

Name	Status
Natural	
Cape Range Geological Site WA	Registered
Cape Range National Park and Surrounds WA	Registered
Cape Range and Adjacent Coastal Plain WA	Registered

Invasive Species

[Resource Information]

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

Name	Status	Type of Presence
Mammals		
Capra hircus		
Goat [2]		Species or species habitat likely to occur within area
Felis catus		
Cat, House Cat, Domestic Cat [19]		Species or species habitat likely to occur within area
Oryctolagus cuniculus		
Rabbit, European Rabbit [128]		Species or species habitat likely to occur within area
Vulpes vulpes		
Red Fox, Fox [18]		Species or species habitat likely to occur within area

Plants

Cenchrus ciliaris		
Buffel-grass, Black Buffel-grass [20213]		Species or species habitat likely to occur within area
Prosopis spp.		
Mesquite, Algaroba [68407]		Species or species habitat may occur within area

Caveat

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

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

Not all species listed under the EPBC Act have been mapped (see below) and therefore a report is a

general guide only. Where available data supports mapping, the type of presence that can be determined from the data is indicated in general terms. People using this information in making a referral may need to consider the qualifications below and may need to seek and consider other information sources.

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

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

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

- migratory and
- marine

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

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

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

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

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

Coordinates

-22.12391 114.08999

Acknowledgements

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

- [-Department of Environment, Climate Change and Water, New South Wales](#)
- [-Department of Sustainability and Environment, Victoria](#)
- [-Department of Primary Industries, Parks, Water and Environment, Tasmania](#)
- [-Department of Environment and Natural Resources, South Australia](#)
- [-Parks and Wildlife Service NT, NT Dept of Natural Resources, Environment and the Arts](#)
- [-Environmental and Resource Management, Queensland](#)
- [-Department of Environment and Conservation, Western Australia](#)
- [-Department of the Environment, Climate Change, Energy and Water](#)
- [-Birds Australia](#)
- [-Australian Bird and Bat Banding Scheme](#)
- [-Australian National Wildlife Collection](#)
- Natural history museums of Australia
- [-Museum Victoria](#)
- [-Australian Museum](#)

- [-SA Museum](#)
- [-Queensland Museum](#)
- [-Online Zoological Collections of Australian Museums](#)
- [-Queensland Herbarium](#)
- [-National Herbarium of NSW](#)
- [-Royal Botanic Gardens and National Herbarium of Victoria](#)
- [-Tasmanian Herbarium](#)
- [-State Herbarium of South Australia](#)
- [-Northern Territory Herbarium](#)
- [-Western Australian Herbarium](#)
- [-Australian National Herbarium, Atherton and Canberra](#)
- [-University of New England](#)
- [-Ocean Biogeographic Information System](#)
- [-Australian Government, Department of Defence](#)
- [-State Forests of NSW](#)
- Other groups and individuals

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

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APPENDIX 3

Flora Species List Inventory

APPENDIX 3: Flora Species List Inventory

Family	Species
Acanthaceae	<i>Dicladantha forrestii</i>
Amaranthaceae	* <i>Aerva javonica</i>
Amaranthaceae	<i>Ptilotus divaricatus</i> var. <i>divaricatus</i>
Amaranthaceae	<i>Ptilotus obovatus</i>
Apocynaceae	<i>Gymnanthera cunninghamii</i> (P3)
Apocynaceae	<i>Sarcostemma viminale</i> subsp. <i>australe</i>
Asparagaceae	<i>Acanthocarpus verticillatus</i>
Asteraceae	<i>Pterocaulon sphaeranthoides</i>
Asteraceae	<i>Streptoglossa decurrens</i>
Asteraceae	<i>Streptoglossa liatroides</i>
Brassicaceae	<i>Lepidium pedicellosum</i>
Brassicaceae	<i>Lepidium phlebopetalum</i>
Capparaceae	<i>Capparis lasiantha</i>
Chenopodiaceae	<i>Atriplex semilunaris</i>
Chenopodiaceae	<i>Enchylaena tomentosa</i>
Chenopodiaceae	<i>Maireana polypterygia</i>
Chenopodiaceae	<i>Maireana tomentosa</i> subsp. <i>tomentosa</i>
Chenopodiaceae	<i>Neobassia astrocarpa</i>
Chenopodiaceae	<i>Rhagodia eremaea</i>
Chenopodiaceae	<i>Salsola tragus</i> subsp. <i>tragus</i>
Chenopodiaceae	<i>Sclerolaena gardneri</i>
Chenopodiaceae	<i>Tecticornia</i> sp.
Convolvulaceae	<i>Ipomoea pes-caprae</i> subsp. <i>brasiliensis</i>
Cucurbitaceae	<i>Cucumis maderaspatanus</i>
Euphorbiaceae	<i>Adriana tomentosa</i> var. <i>tomentosa</i>
Euphorbiaceae	<i>Euphorbia tannensis</i> subsp. <i>eremophila</i>
Fabaceae	<i>Acacia ampliceps</i>
Fabaceae	<i>Acacia bivenosa</i>
Fabaceae	<i>Acacia coriacea</i> subsp. <i>coriacea</i>
Fabaceae	<i>Acacia pyrifolia</i>
Fabaceae	<i>Acacia ramulosa</i> var. <i>linophylla</i>
Fabaceae	<i>Acacia synchronicia</i>
Fabaceae	<i>Acacia tetragonophylla</i>
Fabaceae	<i>Acacia xiphophylla</i>
Fabaceae	<i>Indigofera monophylla</i>
Fabaceae	<i>Rhynchosia minima</i>

Family	Species
Fabaceae	<i>Senna artemisioides</i> subsp. <i>oligophylla</i> x ?
Goodeniaceae	<i>Goodenia microptera</i>
Goodeniaceae	<i>Scaevola spinescens</i>
Lauraceae	<i>Cassytha aurea</i> var. <i>aurea</i>
Loranthaceae	<i>Amyema preissii</i>
Malvaceae	<i>Abutilon cunninghamii</i>
Malvaceae	<i>Alyogyne cuneiformis</i>
Malvaceae	<i>Corchorus congener</i> (P3)
Malvaceae	<i>Hibiscus sturtii</i> var. ? <i>campylochlamys</i>
Malvaceae	<i>Melhania oblongifolia</i>
Malvaceae	<i>Sida fibulifera</i>
Myrtaceae	<i>Eucalyptus</i> sp. (cultivated)
Myrtaceae	<i>Eucalyptus xerothermica</i>
Oleaceae	<i>Jasminum didymum</i> subsp. <i>lineare</i>
Phyllanthaceae	<i>Notoleptopus decaisnei</i>
Pittosporaceae	<i>Pittosporum angustifolium</i>
Pittosporaceae	<i>Pittosporum phylliraeoides</i>
Poaceae	* <i>Cenchrus ciliaris</i>
Poaceae	* <i>Cynodon dactylon</i>
Poaceae	<i>Enneapogon caerulescens</i>
Poaceae	<i>Spinifex longifolius</i>
Poaceae	<i>Triodia epactia</i>
Poaceae	<i>Triodia pungens</i>
Santalaceae	<i>Exocarpos sparteus</i>
Santalaceae	<i>Santalum lanceolatum</i>
Sapindaceae	<i>Alectryon oleifolius</i> subsp. <i>oleifolius</i>
Sapindaceae	<i>Diplopeltis eriocarpa</i>
Scrophulariaceae	<i>Eremophila longifolia</i>
Scrophulariaceae	<i>Eremophila maculata</i> subsp. <i>brevifolia</i>
Solanaceae	<i>Solanum</i> sp.
Surianaceae	<i>Stylobasium spathulatum</i>

APPENDIX 4

Fauna Species List and Information Sources

APPENDIX 4: Fauna Species List and Information Sources

A = recorded on site
 B = DEC Threatened Fauna Database
 C = EPBC Protected Matters Search Tool
 D = DEC NatureMap Species Database
 * = introduced species
 ^ = tentative identification

Species	Common Name	Conservation Status (State)	Conservation Status (EPBC)	Source (indicated by X)			
				A	B	C	D
<i>Acanthagenys rufogularis</i>	Spiny-cheeked honeyeater						X
<i>Accipiter fasciatus</i>	Brown goshawk						X
<i>Aegothales cristatus</i>	Australian owl-nightjar						X
<i>Amytornis striatus</i>	Striated grasswren						X
<i>Anthus novaeseelandiae</i>	Australian pipit						X
<i>Aquila audax</i>	Wedge-tailed eagle						X
<i>Apus pacificus</i>	Fork tailed swift		Migratory			X	
<i>Ardea alba</i>	Great egret		Migratory			X	
<i>Ardea ibis</i>	Cattle egret		Migratory			X	
<i>Arenaria interpres</i>	Ruddy turnstone						X
<i>Artamus cinereus</i>	Black-faced woodswallow						X
<i>Artamus minor</i>	Little woodswallow						X
<i>Barnardius zonarius</i>	Australian ringneck						X
<i>Cacatua sanguinea</i>	Little corella				X		X
<i>Cacomantis pallidus</i>	Pallid cuckoo						X
<i>Calamanthus campestris</i>	Rufous fieldwren						X
<i>Calidris acuminata</i>	Sharp-tailed sandpiper						X
<i>Chalcites basalis</i>	Horsfield's bronze cuckoo						X
<i>Charadrius ruficapillus</i>	Red-capped plover						X
<i>Charadrius veredus</i>	Oriental plover		Migratory				X
<i>Cheramoeca leucosterna</i>	White-backed swallow					X	
<i>Chroicocephalus novaehollandiae</i>	Silver gull				X		X
<i>Cincloramphus cruralis</i>	Brown songlark						X
<i>Coracina novaehollandiae</i>	Black-faced cuckoo-shrike				X		X
<i>Corvus bennetti</i>	Little crow						X
<i>Corvus orru</i>	Torresian crow						X
<i>Corvus sp.</i>	Crow						X
<i>Cracticus nigrogularis</i>	Pied butcherbird						X

Species	Common Name	Conservation Status (State)	Conservation Status (EPBC)	Source (indicated by X)			
				A	B	C	D
<i>Cracticus torquatus</i>	Grey butcherbird						X
<i>Dicaeum hirundinaceum</i>	Mistletoebird						X
<i>Dromaius novaehollandiae</i>	Emu						X
<i>Egretta sacra</i>	Pacific reef heron						X
<i>Elanus axillaris</i>	Australian black-shouldered kite						X
<i>Emblema pictum</i>	Painted finch						X
<i>Eolophus roseicapillus</i>	Galah			X			X
<i>Epthianura tricolor</i>	Crimson chat						X
<i>Erodium botrys</i>	Long storksbill						X
<i>Erodiolium cygnorum</i>	Blue heronsbill						X
<i>Eremiornis carteri</i>	Spinifex-bird						X
<i>Falco berigora</i>	Brown falcon						X
<i>Falco cenchroides</i>	Australian kestrel						X
<i>Geopelia cuneata</i>	Diamond dove						X
<i>Glaucala maldivarum</i>	Oriental pratincole		Migratory			X	
<i>Gallina cyanoleuca</i>	Magpie-lark			X			X
<i>Haematopus fuliginosus</i>	Sooty oystercatcher						X
<i>Haematopus longirostris</i>	Pied oystercatcher						X
<i>Haliaeetus leucogaster</i>	White-bellied sea-eagle		Migratory			X	
<i>Haliastur indus</i>	Brahminy kite						X
<i>Haliastur sphenurus</i>	Whistling kite						X
<i>Hieraetus morphnoides</i>	Little eagle						X
<i>Hirundo neoxena</i>	Welcome swallow			X			X
<i>Hirundo rustica</i>	Barn swallow		Migratory			X	X
<i>Hydroprogne caspia</i>	Caspian tern						X
<i>Lalage sueurii</i>	White-winged triller						X
<i>Lichenostomus keartlandi</i>	Grey-headed honeyeater						X
<i>Lichenostomus penicillatus</i>	White-plumed honeyeater			X			X
<i>Lichenostomus virescens</i>	Singing honeyeater			X			X
<i>Lichmera indistincta</i>	Brown honeyeater						X
<i>Limosa lapponica</i>	Bar-tailed godwit						X
<i>Mocronectes giganteus</i>	Southern giant petrel		Endangered			X	
<i>Malurus lamberti</i>	Variegated fairy-wren			X			X
<i>Malurus leucopterus</i>	White-winged fairy-wren						X
<i>Manorina flavigula</i>	Yellow-throated miner			X			X
<i>Melospittacus undulatus</i>	Budgerigar						X
<i>Melanodryas cucullata</i>							X
<i>Merops ornatus</i>	Rainbow bee-eater		Migratory	X		X	X

Species	Common Name	Conservation Status (State)	Conservation Status (EPBC)	Source (indicated by X)			
				A	B	C	D
<i>Ocyphaps lophotes</i>	Crested pigeon			X			X
<i>Oreica gutturalis</i>	Crested bellbird						X
<i>Pachycephala rufiventris</i>	Rufous whistler						X
<i>Pandion cristatus</i>	Eastern osprey			X			X
<i>Pardalotus striatus</i>	Striated pardalote						X
<i>Pelecanus conspicillatus</i>	Australian pelican						X
<i>Petrochelidon nigricans</i>	Tree martin						X
<i>Phalacrocorax varius</i>	Pied cormorant						X
<i>Psophodes occidentalis</i>	Western wedgebill						X
<i>Ptilonorhynchus guttatus</i>							X
<i>Rhipidura albiscapa</i>	Grey fantail						X
<i>Taeniopygia guttata</i>	Zebra finch			X			X
<i>Thalasseus bengalensis</i>							X
<i>Thalasseus bergii</i>							X
<i>Todiramphus pyrrhopygius</i>	Red-backed kingfisher						X
<i>Turnix velox</i>	Little button-quail			X			X
<i>Zosterops luteus</i>	Yellow white-eye						X
Mammals							
<i>Capra hircus</i>	Goat						X
<i>Dasykerus cristicauda</i>	Mulgara		Vulnerable				X
<i>Dasykaluta rosamondae</i>	Little red kaluta						X
<i>Felis catus</i>	Cat					X	
<i>Macropus rufus</i>	Red kangaroo			X			
<i>Ningauai timealeyi</i>	Pilbara ningauai						X
<i>Oryctolagus cuniculus</i>	Rabbit			X			
<i>Ovis aries</i>	Sheep			X			
<i>Petrogale lateralis subs. Lateralis</i>	Black-footed rock wallaby						X
<i>Phascogale calura</i>	Red-tailed phascogale						X
<i>Pseudomys fieldi</i>	Shark bay mouse						X
<i>Pseudomys hermannsburgensis</i>	Sandy inland mouse						X
<i>Rattus rattus</i>	Black rat						X
<i>Sminthopsis macroura</i>	Stripe-faced dunnart						X
<i>Taphozous georgianus</i>	Common sheath-tail-bat						X
<i>Vespadelus finlaysoni</i>	Finlayson's cave bat						X
<i>Vulpes vulpes*</i>	Red fox						X

Species	Common Name	Conservation Status (State)	Conservation Status (EPBC)	Source (indicated by X)			
				A	B	C	D
Reptiles							
V	Pilbara death adder						X
<i>Aipysurus apraefrontalis</i>							X
<i>Aipysurus duboisii</i>							X
<i>Amphibolurus longirostris</i>				X			X
<i>Carlia munda</i>							X
<i>Crenadactylus ocellatus subsp. horni</i>							X
<i>Ctenophorus femoralis</i>	Dune dragon						X
<i>Ctenophorus isolepis subsp. isolepis</i>							X
<i>Ctenopus pantherinus subsp. ocellifer</i>							X
<i>Ctenopus saxatilis</i>	Rock ctenopus						X
<i>Cyclodomorphus melanops subsp. melanops</i>							X
<i>Delma tealei</i>							X
<i>Delma tincta</i>							X
<i>Diplodactylus conspicillatus</i>	Fat-tailed gecko						X
<i>Diplodactylus sp 'Cape Range</i>	Cape range diplodactylus	P2			X		X
<i>Disteira stokesii</i>							X
<i>Furina ornata</i>	Moon snake						X
<i>Gehyra pilbara</i>							X
<i>Gehyra variegata</i>							X
<i>Heteronotia binoei</i>	<i>Bynoe's gecko</i>						X
<i>Lerista allochira</i>		P3					X
<i>Lerista clara</i>							X
<i>Menetia greyii</i>	Common dwarf skink						X
<i>Menetia surda</i>							X
<i>Morethia ruficauda subsp. exquisita</i>							X
<i>Pseudechis australis</i>	Mulga snake						X
<i>Pygopus nigriceps</i>							X
<i>Ramphotylops ammodytes</i>							X
<i>Strophurus strophurus</i>							X
<i>Suta fasciata</i>	Rosen's snake						X
<i>Varanus gouldii</i>	Bungarra				X		X
Amphibians							
<i>Cyclorana maini</i>	Sheep frog						X
<i>Neobatrachus fulvus</i>	Tawny trilling frog						X
<i>Neobatrachus sutor</i>	Shoemaker frog						X
<i>Pseudophryne douglasi</i>	Gorge toadlet						X

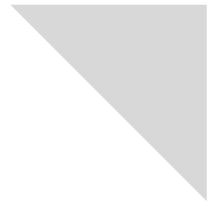
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ATTACHMENT 4

COASTAL HAZARD RISK MANAGEMENT ADAPTATION
PLANNING REPORT



ROWE
GROUP

R1534 Rev 0

June 2021

Rowe Group

**Kailis Properties
Coastal Hazard Risk Management Adaptation
Planning Report**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

estuaries

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K1850, Report R1534 Rev 0

Record of Document Revisions

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Form 035 18/06/2013

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1. Introduction

MG Kailis Group (Kailis) are looking to rezone four properties located on the coastline of Learmonth approximately 20 km south of Exmouth on the North West Cape (Figure 1.1). Rowe Group (Rowe), acting on behalf of Kailis, have lodged a scheme amendment request seeking to have the Kailis properties (Lots 1, 101, 112 and 220) rezoned from 'General Industry' to 'Special Use' Zone (to facilitate a tourism outcome)(Figure 1.2). In addition to rezoning the four Kailis properties Rowe are also seeking to convert Lot 112 from a leasehold lot to freehold ownership as one of the Kailis properties. This will allow Kailis to develop the properties into a tourism facility providing short term and limited long term accommodation.

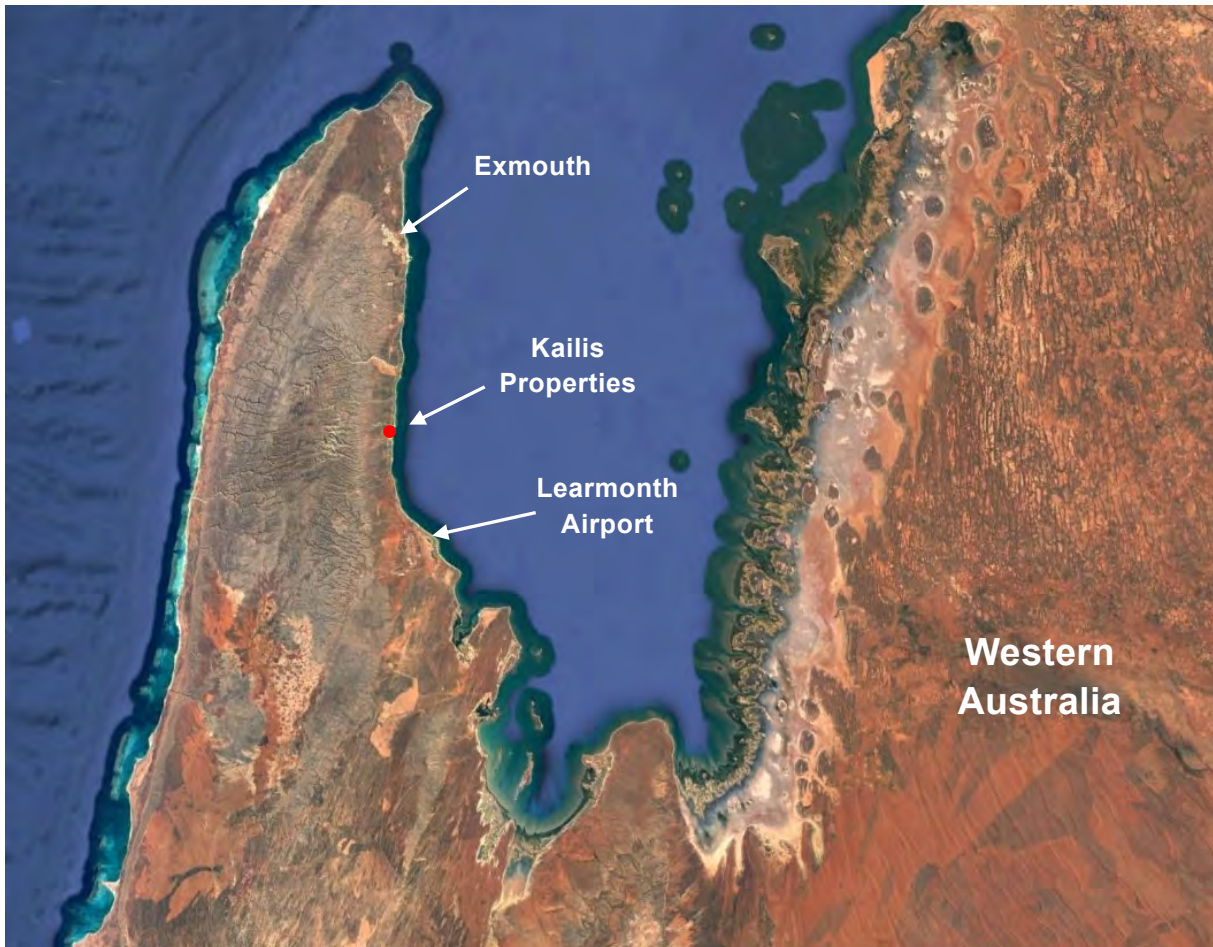


Figure 1.1 Site Location

It is understood that the Kailis Properties were rezoned from 'Special Use' Zone to 'Industrial' Zone under the Shire's former Town Planning Scheme No. 3 (TPS 3) in (circa) 2012. The 'Special Use' Zone applicable to the site (under TPS 3) limited the use of the site to 'fish processing', 'fish shop', 'café', caravan park', 'residential' and 'aquaculture'.



FIGURE 3
SITE PLAN

Figure 1.2 Kailis Properties Site Layout (Source: Rowe Group 2020)

As part of the rezoning/scheme amendment, freehold conversion and development process, there is a requirement to conduct a Coastal Hazard Risk Management Adaptation Planning (CHRMAP) assessment. Rowe has therefore engaged specialist coastal engineers M P Rogers & Associates Pty Ltd (MRA) to complete the CHRMAP assessment for the Kailis properties.

The requirements and framework for CHRMAP are outlined in State Planning Policy No. 2.6 - State Coastal Planning Policy (SPP2.6) and more specifically in the CHRMAP Guidelines (WAPC 2019). The CHRMAP for the Kailis Properties has been completed in accordance with those documents and covers the following key items:

- Establishment of the context.

- Coastal hazard assessment.
- Risk analysis and evaluation.
- Risk management and adaptation planning.
- Monitoring and review.

This report outlines the methods, data and outcomes of the CHRMAP assessment.

1.1 State Planning Policy 2.6

Within Western Australia, State Planning Policy 2.6: State Coastal Planning Policy (SPP2.6; WAPC 2019) provides guidance for land use and development decision-making within the coastal zone, including the establishment of coastal foreshore reserves to protect, conserve and enhance coastal values. SPP2.6 also provides guidance on the assessment of coastal hazard risks for assets located in close proximity to the coast.

The objectives of SPP2.6 are wide ranging, however a key component of the policy is the identification of appropriate areas for the sustainable use of the coast. This includes use for recreational, tourism and commercial purposes, which are relevant to the intended future development of the Kailis Properties.

The guidance on the assessment of coastal hazard risk is provided within SPP2.6 in the form of a methodology to assess the potential extent of coastal hazard impacts, as well as for the development of a CHRMAP report. Further details in this regard are also provided in the CHRMAP Guidelines (WAPC 2019).

The key requirement of CHRMAP is to develop a risk based adaptation framework for assets that could be at risk of impact by coastal hazards over the relevant planning timeframe. Importantly, the balance of these risks needs to be considered with reference to the expected lifetime of the relevant assets.

2. Context

2.1 Purpose

The potential vulnerability of the coastline and the subsequent risk to the community, economy and environment needs to be considered for any coastal development.

SPP2.6 requires that the responsible management authority completes CHRMAP where an existing or proposed development may be at risk from coastal hazards over the planning timeframe. The main purpose of the CHRMAP is to define areas of the coastline which could be vulnerable to coastal hazards and to outline the preferred approach to the monitoring and management of these hazards where required.

CHRMAP can be a powerful planning tool to help provide clarity to existing and future developers, users, managers or custodians of the coastline. This is done by defining levels of risk exposure, management practices and adaptation techniques that the management authority considers acceptable in response to the present and future risks posed by coastal hazards.

Specifically, the purpose of this CHRMAP is as follows:

- Determine the specific extent of coastal hazards in relation to the Kailis Properties and the proposed development.
- Determine the coastal hazard risks associated with the Kailis Properties and how these risks may change over time.
- Establish the basis for present and future risk management and adaptation.
- Provide guidance on appropriate management and adaptation planning for the future, including monitoring.

2.2 Objectives

The key objectives of this CHRMAP are as follows:

- Inform the rezoning/scheme amendment and freehold conversion process by providing appropriate guidance to Kailis, Rowe and key stakeholders with respect to the management of coastal hazards.
- Inform the development of a tourism facility on the Kailis Properties.
- Ensure that Kailis, Rowe and key stakeholders understand the potential likelihood of the Kailis properties being impacted by coastal hazards over the 100 year planning timeframe.
- Outline the required coastal adaptation approach in an Implementation Plan that is acceptable to Rowe and key stakeholders.

2.3 Scope

The CHRMAP Guidelines (WAPC 2019) provide a specific framework for the preparation of a CHRMAP. This is outlined in the flowchart presented in Figure 2.1 which shows the risk management process adapted to coastal planning.

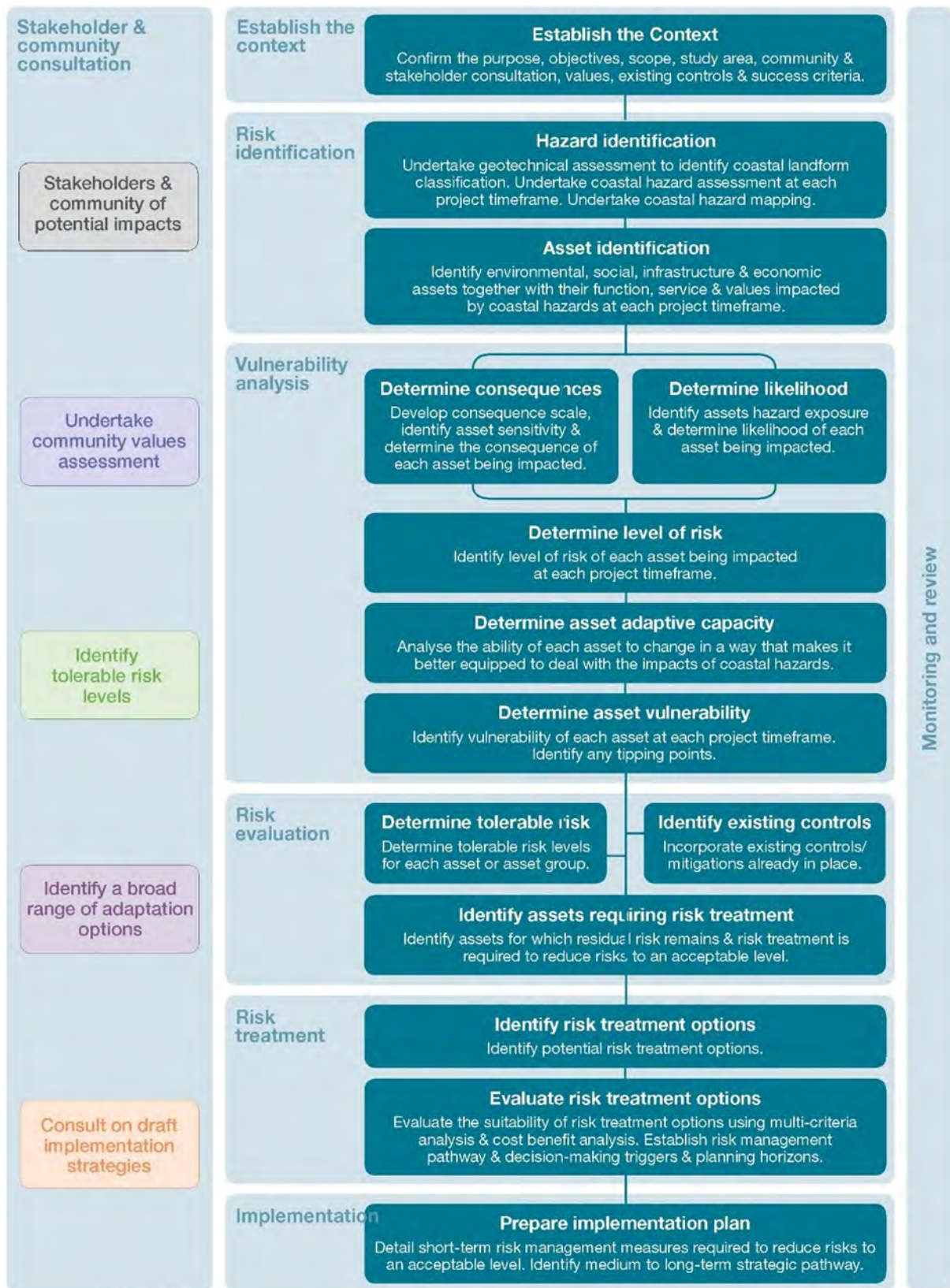


Figure 2.1 Risk Management & Adaptation Process Flow Chart (WAPC 2019)

As presented in the flowchart, the process for the development of a meaningful CHRMAP process requires a number of fundamental inputs. These inputs enable the assessment and analysis of

risk, which should ultimately be informed by input received from key stakeholders, to help shape the subsequent adaptation strategies.

The rezoning and development of the Kailis Properties will require an adaptation plan that is acceptable to all stakeholders. As a result, the approach that has been taken for this plan is to develop a management methodology that allows for flexibility into the future, given the inherent uncertainties associated with long term coastal behaviour.

The development of the adaptation plan will be informed by the assessment of the coastal erosion and inundation hazards at the site. The identification of the coastal erosion and inundation hazards for the Kailis Properties is presented within Section 3 of this report.

This CHRMAP will consider the potential risks posed by coastal hazards over a range of horizons covering the 100 year planning timeframe. This planning timeframe is required by SPP2.6 for development on the coast, though it is noted that the lifetime of a structure on the coastline is unlikely to span this 100 year planning horizon without requiring reconstruction.

Intermediate planning horizons will also be considered to assess how risk profiles may change in the future and to inform the requirement for adaptation strategies. The intermediate planning horizons that will be considered in this CHRMAP are listed below.

- Present day (2021).
- 25 years to 2046.
- 50 years to 2071.
- 75 years to 2096.
- 100 years to 2121.

Based on the results of the risk assessment, risk mitigation strategies will be developed, where required, in order to provide a framework for future management. However, it is important to realise that the risk assessment will be based on the outcomes of the coastal vulnerability assessment, which, by their nature, are justifiably conservative. This is due to the uncertainty around coastal dynamics when predicting impacts over long timeframes. As a result, the framework for future risk management strategies should be considered to be a guide of future requirements. The actual requirement for implementation of these management actions should ultimately be informed by a coastal monitoring regime.

The purpose of the coastal monitoring regime is to identify changes in the shoreline or sea level that could alter, either positively or negatively, the risk exposure of the proposed assets and infrastructure. A recommended coastal monitoring regime is included within the implementation plan, presented within Section 7 of this report.

2.4 The Site

In 2021 MRA completed a Coastal Hazard Assessment for the Kailis Properties. The methods, results and findings of this assessment are detailed in the report R1500 *Kailis Learmonth Coastal Hazard Assessment* which is included in Appendix A (MRA 2021). The report was completed to assess the coastal hazards over the 100 year planning timeframe in accordance with SPP2.6.

It is understood that the Kailis Properties were rezoned from 'Special Use' Zone to 'Industrial' Zone under the Shire's former Town Planning Scheme No. 3 (TPS 3) in (circa) 2012. The 'Special Use' Zone applicable to the site (under TPS 3) limited the use of the site to 'fish processing', 'fish shop', 'café', caravan park', 'residential' and 'aquaculture'. The rezoning to "Industrial Zone" has further limited the use of the site.

2.5 Key Assets

An initial concept plan for the development of the Kailis Properties, including the coastal erosion and inundation lines determined in MRA (2021), is presented in Figure 2.2. This initial concept plan has been included to show the types of assets that are expected on the site. It should be noted that the layout of the proposed development could change slightly from that shown in Figure 2.2. Nevertheless, any such changes to the layout would only be completed if the changes were consistent with the outcomes and recommendations of this CHRMAP.

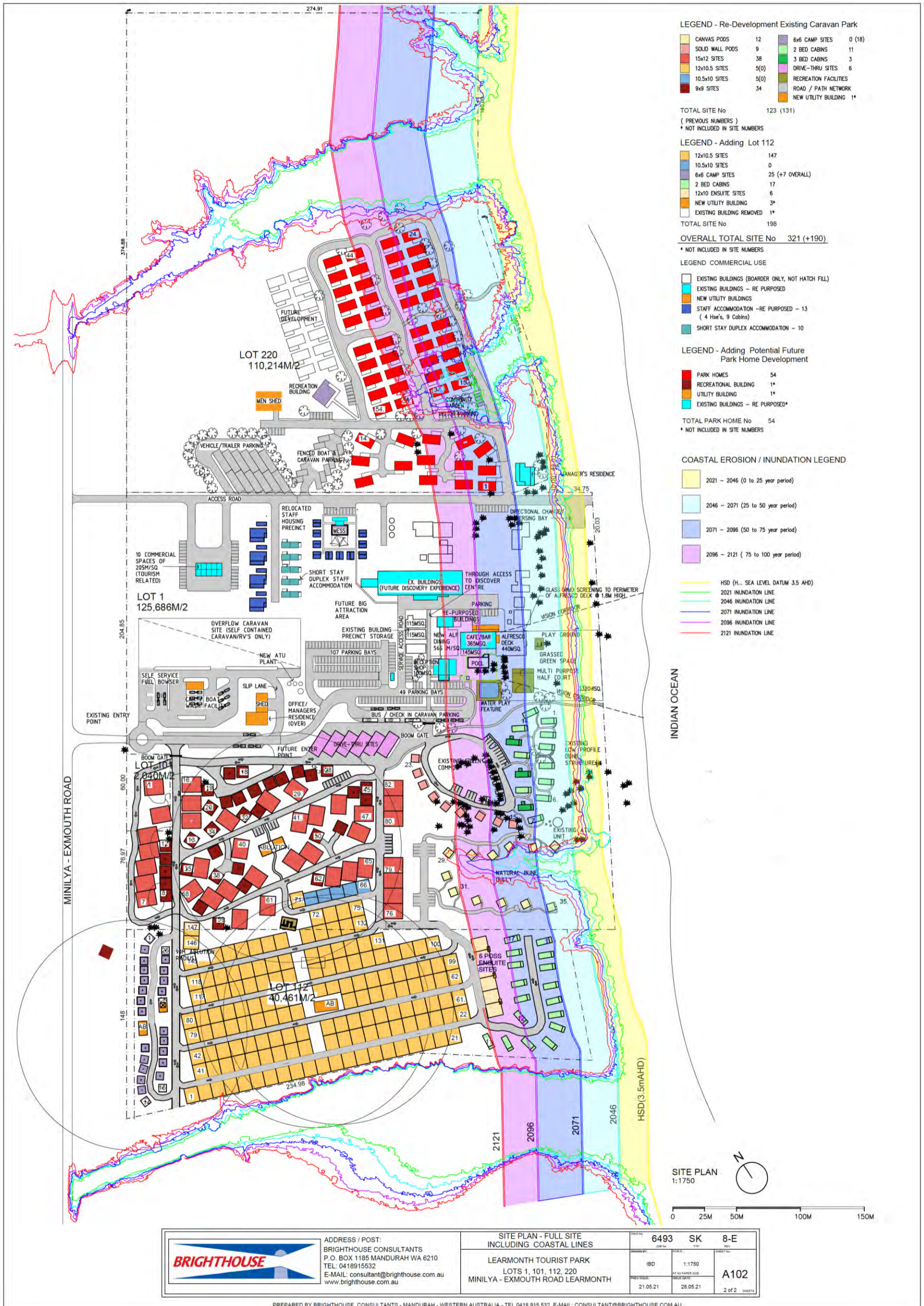


Figure 2.2 Kailis Properties Concept Development Plan (source Brighthouse 2021)

The key assets (existing and proposed) within the Kailis Properties have been summarised in Table 2.1. The purpose of this process is twofold. First to assist with the planning for the redevelopment of the properties, and second, to help inform risk management strategies where required.

Table 2.1 Key Assets within the Kailis Properties

Type	Asset
Economic	Relocatable Park Homes
	Managers Residence
	Camping / Caravan Sites
	Ensuite Sites
	Relocatable Tourist Cabins (Two & Three Bedroom Cabins)
	Glamping Tents (Canvas & Solid Wall Pods)
	Café / Bar (including Alfresco Deck and Alfresco Dining Area)
	Staff Housing
	Reception / Shop
	Ablutions Blocks
	Commercial Spaces (Tourism)
Social	Water Play Feature
	Play Ground
	Multi Purpose Half Court
	Discovery Experience Building

The key assets have been separated into two categories, namely “Economic Assets” and “Social Assets” based on the intended function of the asset. An assets category will be considered when determining the consequences of coastal erosion or inundation upon the asset.

2.6 Success Criteria

The success criteria for the CHRMAP will ultimately be as follows:

- Demonstrated understanding by the key stakeholders regarding the likelihood, consequence and subsequent risk of coastal hazards impacting identified assets over each planning horizon.
- Acceptance of a risk management and adaptation plan for the 100 year planning timeframe by key stakeholders.
- Evidence of the required changes to existing management controls being implemented.
- Adoption of the Implementation Plan by key stakeholders going forward.

The outcomes of the success criteria listed above are presented in later sections of this report.

3. Coastal Hazard Assessment

An understanding of the coastal hazards and subsequent risks is critical for the determination of management and adaptation actions.

MRA completed a detailed Coastal Hazard Assessment (MRA 2021) in accordance with SPP2.6, as introduced previously in Section 2, and provided in Appendix A. The assessment of coastal hazards is detailed in that report, however a summary is provided below as context for the following sections.

3.1 Coastal Erosion Hazard Allowances

As per the requirements of SPP2.6, consideration of the following items is required in order to assess the appropriate allowances for coastal processes and climate change over the relevant planning timeframes.

- Severe storm erosion (S1 Allowance).
- Historical shoreline movement (S2 Allowance).
- Climate change induced sea level rise (S3 Allowance).
- Storm surge inundation (S4 Allowance).

3.1.1 Storm Erosion (S1 Allowance)

The S1 allowance is determined by assessing the potential cross shore erosion that a storm with an average recurrence interval (ARI) of 100 years could cause at the site. Based on the recommendations of *Design Storms for Western Australia Coastal Planning: Tropical Cyclones* (Seashore 2018) an altered version of Tropical Cyclone Nicholas was used as the basis of the 100 year ARI event.

The extent of erosion is measured from the Horizontal Shoreline Datum (HSD) which represents the seaward shoreline contour corresponding with the highest steady water level during the 100 year ARI event. The SBEACH computer model was used to determine the HSD and the S1 allowance. The output from the SBEACH model is shown in Figure 3.1.

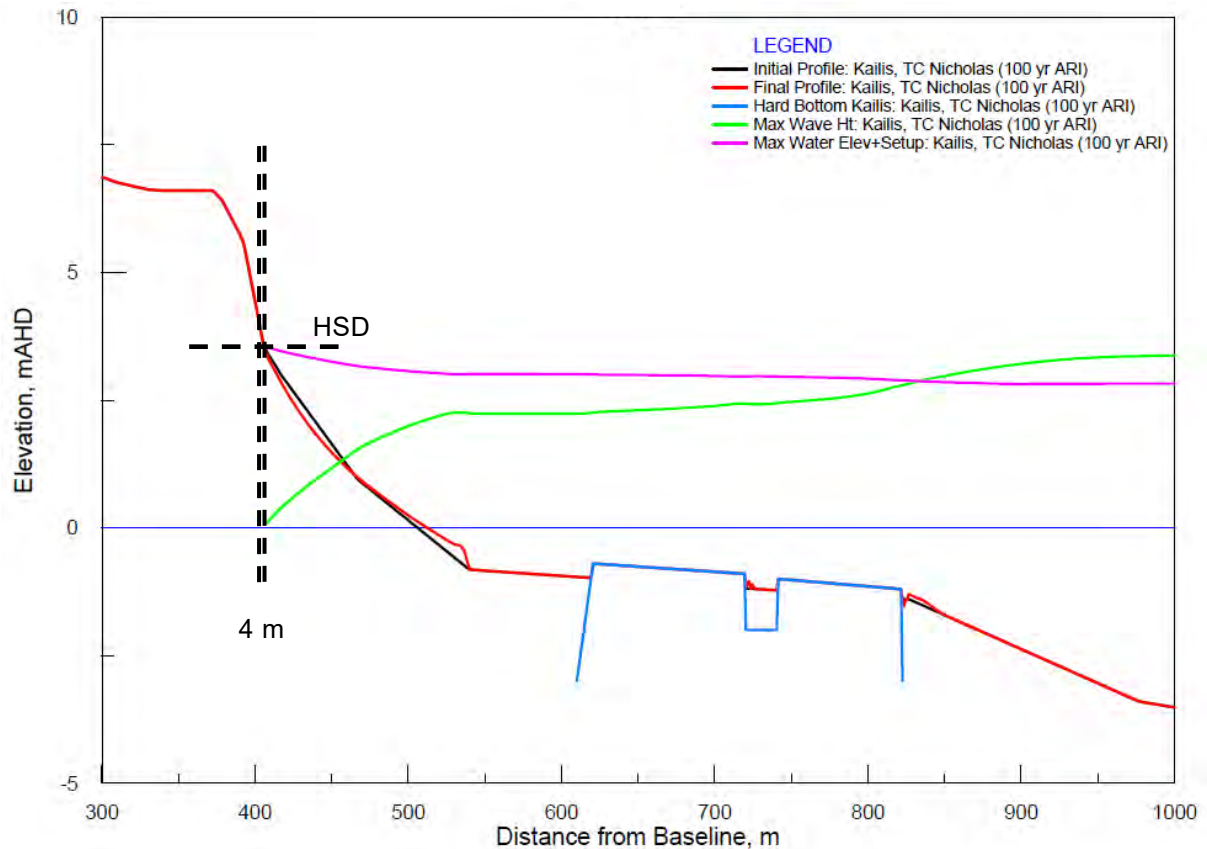


Figure 3.1 SBEACH Results

From analysis of the SBEACH results the HSD and S1 allowance were determined and are included in Table 3.1.

Table 3.1 Storm Erosion (S1) Allowance

Storm Event (ARI)	HSD (mAHD)	S1 Allowance (m)
100 year (TC Nicholas)	3.5	4

3.1.2 Shoreline Movement (S2 Allowance)

To determine the longer term trends of accretion and erosion an assessment of the long term shoreline movement was conducted. Historical aerial photos were procured from Landgate for a period of over 50 years in addition to orthorectified aerial photos of the site from February 2021. From these aerial photos vegetation lines were extracted and rates of shoreline movement were determined for the Kailis Properties and the surrounding area. The Kailis Properties are located between chainages 1,000 and 1,800 m (refer Figure 3.2).



Figure 3.2 Shoreline Movement Rates Relative to 1961, 1977, 1985, 1993 & 2000

These historical rates of shoreline movement were then used to determine the S2 allowance for long term shoreline movement as shown in Table 3.2.

Table 3.2 Shoreline Movement (S2) Allowances

Chainage	S2 Allowance (m/year)
1000 – 1200	0.25
1200 – 1300	0.25 – 0
1300 – 1800	0

3.1.3 Sea Level Rise (S3 Allowance)

The S3 allowance is determined using the recommendations of *Sea Level Change in Western Australia Application to Coastal Planning* (Department of Transport 2010) and SPP2.6 (2013) which provide estimations of the sea level rise over the coming century and the possible rate of shoreline recession per 1 m of sea level rise respectively. As such an erosion allowance of 100 times the predicted sea level rise for each planning horizon was utilised. The resulting S3 allowances are presented in Table 3.3.

Table 3.3 Sea Level Rise (S3) Allowance

Planning Horizon	Sea Level Rise (m)	S3 Erosion Allowance (m)
2046	0.14	14
2071	0.38	38
2096	0.68	68
2121	0.90	90

3.1.4 Total Coastal Erosion Allowances

The total coastal erosion allowances are determined by adding the S1, S2 and S3 allowances along with an allowance for uncertainty of 0.2 m/year. The resulting total coastal erosion allowances are displayed in Table 3.4.

Table 3.4 Total Coastal Erosion Allowances

Chainage	2046 Allowance (m)	2071 Allowance (m)	2096 Allowance (m)	2121 Allowance (m)
1000 - 1200	29	65	106	139
1200 – 1300	29 – 23	65 – 52	106 – 87	139 - 114
1300 - 1800	23	52	87	114

3.2 Coastal Inundation Hazard Allowances

In line with the recommendations of SPP2.6, the allowance for storm surge inundation was calculated using the 500 year ARI event. The 500 year ARI event was selected based on the recommendations of Seashore (2018) as an altered version of Tropical Cyclone Nicholas. Peak steady Water levels during the 500 year ARI event were determined just offshore from the Kailis Properties using the Delft3D model. An additional allowance for wave setup was then determined using SBEACH with the resulting wave setup allowance included in the overall estimate of the inundation level. The inundation level is expected to change over time due to sea level rise, as such the sea level rise allowances determined previously were added to the present day inundation level to determine the inundation level at the end of each planning horizon.

The inundation levels over the 100 year planning timeframe are presented in Table 3.5 below.

Table 3.5 Total Inundation Allowances

Year	Inundation Allowance (mAHD)
2021	4.3
2046	4.4
2071	4.7
2096	5.0
2121	5.2

4. Risk Analysis

In accordance with WAPC (2019), a risk based approach will be used to assess the hazards and required mitigation and adaptation options for the Kailis Properties. As coastal hazards are the focus of this assessment, it is the likelihood and consequences of these coastal hazards that need to be considered.

4.1 Likelihood

Likelihood is defined as the chance of something happening (AS/NZS ISO 31000:2009). WAPC (2019) defines the likelihood as the chance of erosion or storm surge inundation occurring or how often they impact on existing and future assets and values. This requires consideration of the frequency and probability of the event occurring over a given planning timeframe.

The probability of an event occurring is often related to the Average Exceedance Probability (AEP) or the ARI. The use of the AEP to define impacts of coastal hazards over the planning timeframe assumes that events have the same probability of occurring each year. In the case of climate change and sea level rise, which has a large influence on the assessed coastal hazard risk, this is not true. In addition, there is insufficient data available to properly quantify the probability of occurrence. A scale of likelihood has therefore been developed.

A scale of likelihood has therefore been developed, which follows the Australian Standard Risk Management Principles and Guidelines (AS/NZS ISO 31000:2009). This is presented in Table 4.1.

Table 4.1 Scale of Likelihood

Rating	Description/Frequency
Almost certain	There is a high possibility the event will occur as there is a history of frequent occurrence. 90 – 100% probability of occurring over the timeframe.
Likely	It is likely the event will occur as there is a history of casual occurrence. 60 – 90% probability of occurring over the timeframe.
Possible	The event may occur. 40 – 60% probability of occurring over the timeframe.
Unlikely	There is a low possibility that the event will occur. 10 – 40% probability of occurring over the timeframe.
Rare	It is highly unlikely that the event will occur, except in extreme/exceptional circumstances. 0 – 10% probability of occurring over the timeframe.

The likelihood and consequences of coastal hazards are different for erosion and inundation. As such the likelihood and consequence for erosion and inundation have been considered separately. The likelihood of the coastal hazard impacts are discussed in the following sections.

4.1.1 Coastal Erosion

An assessment of the relative likelihood of each of the identified key assets being impacted by coastal erosion hazards has been completed and is presented in Table 4.2. The assessment was completed using the coastal hazard lines presented in Figure 2.2.

It is important to note that the hazard lines reaching a particular asset at the end of the planning timeframe do not necessarily mean this will occur. This is due to the fact that it requires all of the following to occur.

- Continuation of the shoreline erosion trend into the future.
- The upper limit of erosion caused by sea level rise.
- The severe storm event to be experienced at the end of the planning timeframe (ie when the other allowances have been lost).

Only if all of these occur will the erosion hazard lines be realised. This has been considered in the assessment of likelihood.

Table 4.2 Assessment of Likelihood of Coastal Erosion Impact

Key Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes ¹	Rare	Rare	Rare	Likely	Almost Certain
Managers Residence	Rare	Rare	Likely	Almost Certain	Almost Certain
Camping / Caravan Sites ¹	Rare	Rare	Rare	Rare	Rare
Ensuite Sites	Rare	Rare	Rare	Rare	Possible
Relocatable Tourist Cabins ¹	Rare	Rare	Possible	Almost Certain	Almost Certain
Glamping Tents ¹	Rare	Rare	Possible	Almost Certain	Almost Certain
Café / Bar	Rare	Rare	Unlikely	Likely	Almost Certain
Staff Housing ¹	Rare	Rare	Rare	Rare	Rare
Reception / Shop	Rare	Rare	Rare	Rare	Possible
Ablutions Blocks ¹	Rare	Rare	Rare	Rare	Rare
Commercial Spaces (Tourism)	Rare	Rare	Rare	Rare	Rare
Water Play Feature	Rare	Rare	Rare	Possible	Almost Certain
Play Ground	Rare	Rare	Likely	Almost Certain	Almost Certain
Multi Purpose Half Court	Rare	Rare	Unlikely	Likely	Almost Certain
Discovery Experience Building	Rare	Rare	Rare	Rare	Possible

Notes: 1. Based on most exposed location.

The assessment of likelihood of coastal erosion impact shows the following.

- None of the assets have a high likelihood of being impacted by coastal erosion in the 25 year planning horizon to 2046.

- It is almost certain that coastal erosion impacts will effect a number of assets over the 100 year planning horizon to 2121.
- A number of assets including the Caravan / Camping sites, Staff Housing and Commercial Spaces are very unlikely to be impacted by coastal erosion over the planning horizon to 2121.

4.1.2 Coastal Inundation

An assessment of the relative likelihood of each of the identified key assets being impacted by coastal inundation hazards has been completed and is presented in Table 4.3. The assessment was completed using the coastal hazard lines presented in Figure 2.2.

Assessment of the likelihood of coastal inundation is slightly different to that for coastal erosion. This is due to the fact that the potential for coastal inundation will change in the future as the sea level rises. This means that an area that would only be inundated during a very severe event in the present day could potentially be inundated by a much less severe event in the future. Assessment of the probability of an area being inundated within a given planning horizon therefore needs to consider the changing probability of event occurrence throughout that planning timeframe.

An assessment of the probability of coastal inundation reaching various elevations over the various planning horizons was completed. The results of this assessment were then combined with the scale of likelihood presented in Table 4.1 to determine the likelihood of coastal inundation for each asset. The results of the assessment of likelihood of coastal inundation for each of the key assets over each of the planning horizons are presented in Table 4.3.

Table 4.3 Assessment of Likelihood of Coastal Inundation Impact

Key Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes ¹	Rare	Rare	Rare	Unlikely	Unlikely
Managers Residence	Rare	Rare	Rare	Rare	Rare
Camping / Caravan Sites ¹	Rare	Rare	Rare	Rare	Rare
Ensuite Sites	Rare	Rare	Rare	Rare	Rare
Relocatable Tourist Cabins ¹	Rare	Rare	Rare	Rare	Rare
Glamping Tents ¹	Rare	Rare	Rare	Unlikely	Unlikely
Café / Bar	Rare	Rare	Rare	Rare	Rare
Staff Housing ¹	Rare	Rare	Rare	Rare	Rare
Reception / Shop	Rare	Rare	Rare	Rare	Rare
Ablutions Blocks ¹	Rare	Rare	Rare	Rare	Rare
Commercial Spaces (Tourism)	Rare	Rare	Rare	Rare	Rare
Water Play Feature	Rare	Rare	Rare	Rare	Rare
Play Ground	Rare	Rare	Rare	Rare	Rare
Multi Purpose Half Court	Rare	Rare	Rare	Rare	Rare
Discovery Experience Building	Rare	Rare	Rare	Rare	Rare

Notes: 1. Based on most exposed location.

The assessment of likelihood of coastal erosion impact shows the following.

- The potential likelihood for coastal inundation to impact any of the assets over a 50 year planning horizon to 2071 is Rare.
- The potential likelihood for coastal inundation to impact the Relocatable Park Homes and Glamping Tents over a 100 year planning horizon to 2121 is Unlikely.
- The potential likelihood for coastal inundation to impact the remaining assets over a 100 year planning horizon to 2121 is Rare.

4.2 Consequence

Consequence is the impact of erosion and storm surge inundation on existing and future assets and the value assigned to that asset (WAPC 2019). Within the context of the vulnerability assessment, consequence is used to consider the sensitivity of an asset to coastal erosion and inundation hazards over the 100 year planning timeframe.

A scale of consequence has been developed which provides a range of impacts and is generally consistent with the Australian Standard Risk Management Principles and Guidelines (ISO 31000:2009) and the Coastal Hazard Risk Management and Adaptation Planning Guidelines (WAPC 2019). The consequence scale is presented in Table 4.4.

Table 4.4 Scale of Consequence

Rating	Social	Economic	Environment	Infrastructure	Safety
Catastrophic	Loss of life and serious injury. Large long term or permanent (~1 yr) loss of services, public access/amenity, employment, wellbeing or culture. No suitable alternative sites exist within close proximity.	Permanent and/or entire loss or damage to property, plant and equipment, finances >\$10 million. Regional economic decline, widespread business failure and impacts on state economy.	Permanent and entire loss of flora, fauna conservation or heritage area (no chance of recovery).	Damage to majority or all of infrastructure (Greater than 75%). Asset with step change sensitivity and no adaptive capacity.	Death or permanent disabilities.
Major	Serious injury. Medium term (~1 month) disruption to services, employment wellbeing, or culture. Very limited suitable alternative sites exist within close proximity.	Permanent and/or large scale loss or damage to property, plant and equipment, finances > \$2 - \$10 million. Lasting downturn of local economy with isolated business failures and major impacts in regional economy.	Long-term and/or large scale loss of flora, fauna or heritage area (limited chance of recovery) with local impact.	Damage to significant portion (50% - 75%) or asset with step change sensitivity. Asset with step change sensitivity and some adaptive capacity	Extensive injuries or disabilities.
Moderate	Minor injury. Major short term or minor long-term (~1 week) disruption to services, public access/amenity, employment, wellbeing, or culture. Limited suitable alternative sites exist within close proximity.	Permanent and/or medium scale loss or damage to property, plant and equipment, finances > \$100,000 - \$2 million. Significant impacts on local economy and minor impacts on regional economy.	Medium-term and/or medium scale loss of flora, fauna or heritage area (recovery likely) with local impact.	Damage to no more than half of the infrastructure (25% - 50%). Asset with step change sensitivity with adaptive capacity.	Medical treatment.
Minor	Small to medium short-term (~1 day) disruption to services, public access/amenity, employment, wellbeing, or culture. Many suitable alternative sites exist within close proximity.	Permanent and/or small scale loss or damage to property, plant and equipment, finances > \$10,000 - \$100,000. Individually significant but isolated impact on local economy.	Short-term and/or small scale loss of flora, fauna or heritage area (strong recovery) with local impact.	Minor damage to infrastructure (10% - 25%).	First aid treatment.
Insignificant	Minimal short-term (~1 hr) inconveniences to services, public access/amenity, employment, wellbeing, or culture. Many suitable alternative sites exist within close proximity.	Permanent loss or damage to property, plant and equipment, finances < \$10,000. Minor short-term impacts on local economy.	Negligible to no loss of flora, fauna or heritage area (strong recovery) with local impact.	Little or no damage to infrastructure (Less than 10%).	No injuries or illness.

Similar to the assessment of likelihood, the consequence rating has been completed separately for coastal erosion and coastal inundation. Typically for infrastructure and assets, the consequences associated with coastal erosion are more significant than those associated with coastal inundation. This arises due to the fact that coastal erosion is generally more permanent and more difficult to overcome than coastal inundation. For instance, if the foundations of a house were undermined by erosion it is likely that the house would fall. However, if a house was inundated, while there may be some damage, structural failure would be less likely.

The consequence ratings for coastal erosion and inundation are outlined in the following sections.

4.2.1 Coastal Erosion

The assessed consequences of coastal erosion for each of the planning timeframes are outlined in Table 4.5. As shown in the table, the consequences of erosion vary for some key assets over different timeframes due to the potential effects of increased erosion. For instance, a small amount of erosion could expose the foundation of a house but not cause any significant damage, and would therefore be insignificant, however a larger amount of erosion could undermine this foundation, with the effect being far more severe.

Table 4.5 Assessment of Consequence of Coastal Erosion Impact

Key Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Insignificant	Insignificant	Insignificant	Major	Major
Managers Residence	Insignificant	Insignificant	Moderate	Moderate	Moderate
Camping / Caravan Sites	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Ensuite Sites	Insignificant	Insignificant	Insignificant	Insignificant	Minor
Relocatable Tourist Cabins	Insignificant	Insignificant	Moderate	Major	Major
Glamping Tents	Insignificant	Insignificant	Minor	Minor	Minor
Café / Bar	Insignificant	Insignificant	Insignificant	Moderate	Moderate
Staff Housing	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Reception / Shop	Insignificant	Insignificant	Insignificant	Insignificant	Minor
Ablutions Blocks	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Commercial Spaces (Tourism)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Water Play Feature	Insignificant	Insignificant	Insignificant	Moderate	Moderate
Play Ground	Insignificant	Insignificant	Minor	Minor	Minor
Multi Purpose Half Court	Insignificant	Insignificant	Minor	Minor	Minor
Discovery Experience Building	Insignificant	Insignificant	Insignificant	Insignificant	Moderate

The rationale behind the coastal erosion ratings for the key assets are provided below.

- Erosion is deemed to have an Insignificant consequence on an asset if the asset is landward of the coastal hazard line for the assessed planning horizon.
- The consequence ratings have been determined assuming that the full extent of coastal erosion is realised for each of the planning horizons.

The consequences of erosion for all assets are Insignificant over a 25 year planning horizon to 2046. However, by 2121 a number of the key assets have consequences of Major or Moderate.

4.2.2 Coastal Inundation

The assessed consequence of coastal inundation for each of the key assets and each of the planning timeframes is outlined in Table 4.6. Importantly, this assessment of the consequence of coastal inundation has been completed on the basis that the public safety risk is managed for inundation events. Given that the major inundation events are likely to be associated with the passage of tropical cyclone events, management of public safety is something that will occur through the Kailis Properties own emergency management plan and the emergency management procedures of the Department of Fire and Emergency Services (DFER). This is discussed further in Section 6.

Table 4.6 Assessment of Consequence of Coastal Inundation Impact

Key Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Insignificant	Insignificant	Insignificant	Minor	Minor
Managers Residence	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Camping / Caravan Sites	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Ensuite Sites	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Relocatable Tourist Cabins	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Glamping Tents	Insignificant	Insignificant	Insignificant	Insignificant	Minor
Café / Bar	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Staff Housing	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Reception / Shop	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Ablutions Blocks	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Commercial Spaces (Tourism)	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Water Play Feature	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Play Ground	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Multi Purpose Half Court	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant
Discovery Experience Building	Insignificant	Insignificant	Insignificant	Insignificant	Insignificant

The impacts of inundation are assessed to be Insignificant to Minor for all assets. This is due to the fact that the cost for the repair of each of the assets after an inundation event is expected to be less than \$100,000.

Again it is noted that this assessment is on the basis that public safety would already be managed by DFES initiatives, as discussed in detail in Section 6.

5. Risk Evaluation

5.1 Risk Evaluation Matrix

The risk rating from a risk assessment is defined as “likelihood” x “consequence.” A risk matrix defining the levels of risk from combinations of likelihood and consequence has therefore been developed for the coastal hazards. This risk matrix is generally consistent with WAPC (2019).

Table 5.1 Risk Matrix

RISK LEVELS		CONSEQUENCE				
		Insignificant	Minor	Moderate	Major	Catastrophic
LIKELIHOOD	Almost Certain	Low	Medium	High	Extreme	Extreme
	Likely	Low	Medium	Medium	High	Extreme
	Possible	Low	Medium	Medium	Medium	High
	Unlikely	Low	Low	Medium	Medium	Medium
	Rare	Low	Low	Low	Low	Low

A risk tolerance scale assists in determining which risks are acceptable, tolerable and unacceptable. The risk tolerance scale used for the assessment is presented in Table 5.2.

Table 5.2 Risk Tolerance Scale

Risk Level	Action Required	Tolerance
Extreme	Immediate action required to eliminate or reduce the risk to acceptable levels	Intolerable
High	Immediate to short term action required to eliminate or reduce risk to acceptable levels	Intolerable
Medium	Reduce the risk or accept the risk provided residual risk level is understood	Tolerable
Low	Accept the risk	Acceptable

The risk tolerance scale has been reviewed and accepted for use by the proponent. It shows that the extreme and high risks need to be managed.

5.2 Risk Assessment

The risk assessment for the study has been prepared in accordance with the recommendations of AS5334 (2013), which requires a detailed risk analysis to include a vulnerability analysis to thoroughly examine how coastal hazards and climate change may affect the assets. This includes consideration of the adaptive capacity and vulnerability of the relevant assets.

Based on the results of the risk analysis completed previously, Table 5.3 and Table 5.4 present the coastal inundation risk levels for the Kailis Properties over the 100 year planning timeframe.

5.2.1 Coastal Erosion

Based on the results of the likelihood and consequence analyses completed previously, Table 5.3 presents the coastal erosion risk level for each of the identified key assets.

Table 5.3 Assessment of Risk of Coastal Erosion Impact

Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Low	Low	Low	High	Extreme
Managers Residence	Low	Low	Medium	High	High
Camping / Caravan Sites	Low	Low	Low	Low	Low
Ensuite Sites	Low	Low	Low	Low	Medium
Relocatable Tourist Cabins	Low	Low	Medium	Extreme	Extreme
Glamping Tents	Low	Low	Medium	Medium	Medium
Café / Bar	Low	Low	Low	Medium	High
Staff Housing	Low	Low	Low	Low	Low
Reception / Shop	Low	Low	Low	Low	Medium
Ablutions Blocks	Low	Low	Low	Low	Low
Commercial Spaces (Tourism)	Low	Low	Low	Low	Low
Water Play Feature	Low	Low	Low	Medium	High
Play Ground	Low	Low	Medium	Medium	Medium
Multi Purpose Half Court	Low	Low	Low	Medium	Medium
Discovery Experience Building	Low	Low	Low	Low	Medium

The results of the assessment show that all assets have a Low risk of being impacted by erosion over the 25 year planning horizon to 2046. By 2121 several of the key assets have High or Extreme risks of coastal erosion which will need to be managed.

5.2.2 Coastal Inundation

Based on the results of the likelihood and consequence analyses completed previously, Table 5.4 presents the coastal inundation risk level for each of the identified key assets.

Table 5.4 Assessment of Risk of Coastal Inundation Impact

Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Low	Low	Low	Low	Low
Managers Residence	Low	Low	Low	Low	Low
Camping / Caravan Sites	Low	Low	Low	Low	Low
Ensuite Sites	Low	Low	Low	Low	Low
Relocatable Tourist Cabins	Low	Low	Low	Low	Low
Glamping Tents	Low	Low	Low	Low	Low
Café / Bar (including Alfresco Deck)	Low	Low	Low	Low	Low
Staff Housing	Low	Low	Low	Low	Low
Reception / Shop	Low	Low	Low	Low	Low
Ablutions Blocks	Low	Low	Low	Low	Low
Commercial Spaces (Tourism)	Low	Low	Low	Low	Low
Water Play Feature	Low	Low	Low	Low	Low
Play Ground	Low	Low	Low	Low	Low
Multi Purpose Half Court	Low	Low	Low	Low	Low
Discovery Experience Building	Low	Low	Low	Low	Low

5.3 Vulnerability

As per the recommendations of AS 5334 Climate change adaptation for settlements and infrastructure, a detailed risk analysis should include a vulnerability analysis to thoroughly examine how coastal hazards and climate change may affect the assets. This includes consideration of the adaptive capacity and vulnerability of the assets previously assessed for coastal hazard risk.

The vulnerability of the Kailis Properties is related to the risk from coastal hazards, as well as the sensitivity to the impacts caused by these hazards and the ability to respond to them (termed adaptive capacity). This is demonstrated in the CHRMAP Guidelines (WAPC 2019) by the following Figure 5.1.

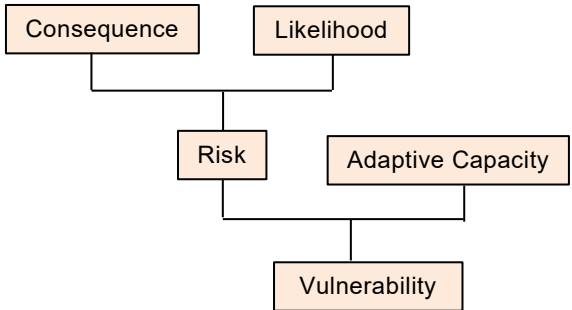


Figure 5.1 Vulnerability Assessment Flowchart (WAPC 2019)

5.3.1 Adaptive Capacity

Adaptive capacity is defined in AS5334 (2013) as the ability to respond to climate change to moderate potential damages, to take advantage of opportunities, or to cope with the consequences.

This should be considered in conjunction with any changes to the current risk factors over time which may influence an assets future adaptive capacity. A scale of adaptive capacity has been developed for this assessment and is presented in Table 5.5.

Table 5.5 Adaptive Capacity Ratings

Adaptive Capacity Rating	Description
Low	Little or no adaptive capacity. Asset cannot respond to coastal hazard impact and functionality cannot be restored. For example, roads, carparks or buildings that once impacted will require significant modifications to restore functionality.
Moderate	Some adaptive capacity. Asset can partially adapt to coastal hazard impact and functionality can be somewhat restored. For example, parks or undeveloped lots that once impacted can be modified to restore partial functionality.
High	Good adaptive capacity. Asset can respond to coastal hazard impact and functionality can be restored. For example, drink fountains, furniture or shelters that once impacted can be modified relatively easily to restore original functionality.

5.3.2 Vulnerability

To determine the vulnerability of the Kailis Properties, the following matrix was developed for this assessment. Essentially, the vulnerability to the asset increases or decreases where the asset has a low or high adaptive capacity respectively.

Table 5.6 Vulnerability Matrix

Vulnerability Levels		Risk			
		Low	Medium	High	Very High
ADAPTIVE CAPACITY	Low	Medium	High	Extreme	Extreme
	Moderate	Low	Medium	High	Extreme
	High	Low	Low	Medium	High

A vulnerability tolerance scale is important to define the level at which adaptive capacity is deemed acceptable, tolerable or intolerable/unacceptable. The following tolerance scale has been adopted for this assessment.

Table 5.7 Vulnerability Tolerance Scale

Vulnerability Level	Vulnerability Tolerance	Further Action Required
Extreme	Unacceptable/ Intolerable	Asset has minimal capacity to cope with the impacts of coastal hazards without additional action. Adaptation needs to be considered as a priority.
High	Tolerable, if as low as possible	Asset has limited ability to cope with the impacts of coastal hazards. Adaptation should be considered to reduce vulnerability to acceptable levels.
Medium	Tolerable/ Acceptable	Asset has some ability to cope with the impacts of coastal hazards. Actions should be considered to reduce vulnerability as low as reasonably practical (ALARP).
Low	Acceptable	Asset has high resilience and is able to cope with the impacts of coastal hazards without additional action.

The vulnerability tolerance scale shows that assets with **High** and **Extreme** vulnerability need to be managed to reduce vulnerability levels to **Medium** or **Low**. Despite being considered acceptable, assets with **Medium** or **Low** vulnerabilities should also be considered and adaptation measures should be implemented to reduce vulnerability levels as low as reasonably practical (ALARP). This is discussed in Section 6 of this CHRMAP.

The vulnerability of the identified assets has been calculated based on the guidelines outlined in Table 5.7 in addition to the completed risk assessment and are shown in Table 5.8 and Table 5.9.

Table 5.8 Assessment of Vulnerability of Coastal Erosion Impact

Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Medium	Medium	Medium	Extreme	Extreme
Managers Residence	Medium	Medium	High	Extreme	Extreme
Camping / Caravan Sites	Low	Low	Low	Low	Low
Ensuite Sites	Low	Low	Low	Low	Medium
Relocatable Tourist Cabins	Low	Low	Medium	Extreme	Extreme
Glamping Tents	Low	Low	Low	Low	Low
Café / Bar (including Alfresco Deck)	Medium	Medium	Medium	High	Extreme
Staff Housing	Medium	Medium	Medium	Medium	Medium
Reception / Shop	Medium	Medium	Medium	Medium	High
Ablutions Blocks	Medium	Medium	Medium	Medium	Medium
Commercial Spaces (Tourism)	Medium	Medium	Medium	Medium	Medium
Water Play Feature	Medium	Medium	Medium	High	Extreme
Play Ground	Low	Low	Medium	Medium	Medium
Multi-Purpose Half Court	Medium	Medium	Medium	High	High
Discovery Experience Building	Medium	Medium	Medium	Medium	High

As can be seen in Table 5.8 all of the assets have a Low or Medium Vulnerability to coastal erosion over the 25 year planning horizon to 2046. By 2121 around half of the assets have High or Extreme Vulnerabilities and as such will require risk mitigation adaptation. The assets which will require risk mitigation adaptation for the coastal erosion hazard include.

- Relocatable Park Homes.
- Managers Residence.
- Relocatable Tourist Cabins.

- Café / Bar.
- Reception / Shop
- Water Play Feature
- Multi-Purpose Half Court.
- Discovery Experience Building.

Whilst the other assets may not require adaptation it is still recommended that adaptation of the assets be considered to reduce the coastal hazard risks as low as possible.

Table 5.9 Assessment of Vulnerability of Coastal Inundation Impact

Asset	Present Day	2046	2071	2096	2121
Relocatable Park Homes	Medium	Medium	Medium	Medium	Medium
Managers Residence	Medium	Medium	Medium	Medium	Medium
Camping / Caravan Sites	Low	Low	Low	Low	Low
Ensuite Sites	Medium	Medium	Medium	Medium	Medium
Relocatable Tourist Cabins	Medium	Medium	Medium	Medium	Medium
Glamping Tents	Low	Low	Low	Low	Low
Café / Bar (including Alfresco Deck)	Medium	Medium	Medium	Medium	Medium
Staff Housing	Medium	Medium	Medium	Medium	Medium
Reception / Shop	Medium	Medium	Medium	Medium	Medium
Ablutions Blocks	Medium	Medium	Medium	Medium	Medium
Commercial Spaces (Tourism)	Medium	Medium	Medium	Medium	Medium
Water Play Feature	Low	Low	Low	Low	Low
Play Ground	Low	Low	Low	Low	Low
Multi Purpose Half Court	Low	Low	Low	Low	Low
Discovery Experience Building	Medium	Medium	Medium	Medium	Medium

All of the assets have Low or Medium vulnerability to coastal inundation throughout the 100 year planning horizon. As such these assets do not require adaptation, however adaptation planning is still recommended to reduce the risks as low as reasonably practical

It should be noted that several of the assets with Medium Vulnerabilities at 2121 for both erosion and inundation are located at the rear of the site, well away from any coastal hazard areas. As such adaptation of these assets has been considered unnecessary and they have been excluded from the adaptation planning portion of the CHRMAP.

6. Risk Adaptation & Mitigation Strategies

6.1 Available Risk Mitigation Strategies

Risk adaptation and mitigation strategies are required for Kailis to address the coastal hazard risks and asset vulnerabilities identified in Section 5. SPP2.6 outlines a hierarchy of risk adaptation and mitigation options, where options that allow for a wide range of future strategies are considered more favourably. This hierarchy of options is reproduced in Figure 6.1.



Figure 6.1 Risk Management & Adaptation Hierarchy

These four broad option categories are generally outlined below.

- Avoid – avoid new development within the area impacted by coastal hazards.
- Retreat – the relocation or removal of assets within an area identified as likely to be subject to intolerable risk of damage from coastal hazards.
- Accommodation – measures which suitably address the identified risks.
- Protect – used to preserve the foreshore reserve, public access and public safety, property and infrastructure.

The assessment of these options is generally done in a progressive manner, moving through the various options until an appropriate mitigation strategy is found. Adaptation options can vary depending on the type of asset, and often a range of complementary strategies may be required to mitigate coastal hazard risks.

6.2 Proposed Strategy

The overarching strategy for the Kailis Properties is the use of the Avoid and Planned or Managed Retreat risk management options. Wherever possible assets have been located outside of the coastal hazard areas. In addition, it is recommended that where new assets are proposed to be built in inundation risk areas, these areas be filled to raise the ground level, minimising the risk of inundation.

A key element of this adaptation planning is the response to potentially increasing risks of coastal erosion. The results of the Coastal Hazard Assessment (MRA 2021) indicate that the level of risk posed to the majority of the assets is at a tolerable level within their design lives. However, beyond the initial design life, a decision will need to be made as to whether the assets are relocated to an area further landward, or are removed. Further details on the design lives associated with the various assets are provided in Section 7.

The proposed approach essentially adopts a Retreat or Abandon management methodology, with the future decisions to be informed through the completion of an updated coastal hazard risk assessment at the time of asset replacement. Any assets that have an untenable coastal hazard risk within their design lives will adopt a planned or managed retreat management approach will be adopted with the retreat timeframe informed by monitoring of the coastal hazards.

Despite the risks over the design lives of the structures generally being tolerable, the As Low As Reasonably Practical (ALARP) approach has been adopted for the planning to reduce the extent of impacts should a severe event occur.

It is important to note that monitoring of the shoreline will form a key part of the adaptation planning response. Monitoring of the shoreline is discussed in detail in Section 7.4. One of the main purposes of this monitoring is to provide an early indication of shoreline change that can be used to prompt adaptation measures such as planned or managed retreat of certain assets.

The trigger for these management actions need to be related to the movement of the shoreline. For instance, if sustained erosion of the shoreline, observed over a period of years, results in shoreline retreat to the point where the shoreline (defined in this instance as the HSD) is within 20 m of an asset, then specialist coastal engineering advice should be sought regarding the risk and the required timeframe for relocation/removal of the assets. If the shoreline comes within 10 m of an asset, then the asset should be relocated/removed.

If, on the other hand, the position of the shoreline (HSD) recedes to the point where these triggers are reached as a result of the passage of a storm/cyclone event, then specialist coastal engineering advice should be sought to ascertain the potential for recovery of the shoreline before any relocation is completed. The basis for this difference in response between erosion caused by chronic or acute events is driven by the different mechanisms that lead to the erosion in both cases.

6.2.1 Public Safety

As outlined previously, the risk ratings that were determined for inundation hazards, and consequently the risk mitigation strategies outlined above, are provided on the basis that public safety is already managed by both Kailis and DFES. DFES's management occurs along the entire coastline of Western Australia in response to cyclone events, which are the key contributor to inundation hazards at the site (refer Section 3 or Appendix A).

Essentially, to manage risks associated with cyclone inundation, DFES communicate with the Bureau of Meteorology to receive updates on the potential cyclone tracks and associated storm surge and areas of inundation. Evacuations are then completed as required in order to manage public safety prior to event impact.

As a result of the evacuation policies that are already in place, as well as any further development of these policies that may be required specifically for the Kailis Properties, the management of public safety due to coastal hazards is assured.

7. Implementation Plan

The risk mitigation and adaptation strategies outlined in Section 6 set out the general proposed coastal management approach for the development. Direct guidance on when, what, how and by who these processes will be completed is provided within this implementation plan. For ease of reference, these details have been broken down to outline the requirements for each stage of the project and / or asset life.

7.1 Planning & Initial Construction

Coastal planning for this development, largely informed by the findings of the Coastal Hazard Assessment (MRA 2021) has been included as part of the development concept planning process. As such where possible the new assets have been located in areas outside of the identified coastal hazard areas. In particular no assets have been located within the major floodway that passes through the middle of Lot 220.

Where assets either previously existed or have been placed within coastal hazard areas, a managed retreat strategy will be implemented. In addition, each of the individual new assets are to be appropriate to respond to the potential impacts of coastal hazards. As such a readily relocatable modular building strategy has been adopted for the assets most exposed to the coastal hazards (Relocatable Tourist Cabins, Glamping Tents and Relocatable Park Homes).

A number of the Relocatable Park Homes have been located in an area susceptible to coastal inundation. Whilst the risk of inundation remains low throughout the 100 year planning timeframe, it is recommended that this area be filled up to an elevation of at least 4.5 mAHD to minimise the risk of inundation.

Table 7.1 Implementation Plan Summary – Planning & Initial Construction stage

Requirement	Timing	Responsibility
Acceptance of coastal hazard risks where avoidance was not possible.	Planning Stage	Kailis
Appropriate design of assets to ensure that risks are managed as best as possible.	Planning & Construction Phase	Kailis (supported by engaged design team)

7.2 Operation over the Infrastructure Design Life

Over the design life of each of the assets there will be a requirement to monitor the shoreline to ascertain whether the risk to assets is increasing. Further details of the monitoring requirements are outlined in Section 7.4. This monitoring will be the responsibility of Kailis.

The existing structures located on the Kailis properties (including the Managers Residence, Café / Bar, Reception / Shop and Future Discovery Experience Building) will all reach the end of their design lives before the risk level becomes untenable. The Glamping Tents and the Relocatable Tourist Cabins both have design lives of 20 years or less and the residential Relocatable Park Homes have an expected design life of less than 50 years, as such these assets will reach the end of their design lives before the risk level becomes untenable. Once these assets reach the end of their design lives they will likely be replaced with new assets in an area

where the risk to the asset over its design life is considered to be acceptable. This is further discussed in Section 7.3.

The remaining assets will be monitored over their design lives and if, at some stage the risk from coastal hazards becomes untenable the assets will be relocated in accordance with the planned or managed retreat adaptation strategy. If this is not possible the asset will be removed, and the site abandoned. In this way a foreshore reserve will always be maintained fronting the site.

Table 7.2 Implementation Plan Summary – Operation over the Infrastructure Design Life

Requirement	Timing	Responsibility
Monitoring coastal hazard risk to assess if risk becomes untenable and assets need to be relocated. (Refer Section 7.4)	Operation over design life	Kailis
Asset relocation / retreat as required in accordance with the requirement outlined in Section 7.3	When the risk level becomes untenable	Kailis
Evacuation and Emergency Management (including shut off of services etc to manage environmental risks as required)	During extreme events over the design life	Kailis (will be informed by DFES advice prior to / during events)

7.3 Asset Replacement

Replacement of assets after their design life requires that they be relocated to an area where the risk to that asset over its design life is considered to be acceptable. To do this will require a revised coastal hazard risk assessment to be completed in accordance with the requirements at that time. The appropriate location for the replacement assets can then be chosen based on the acceptable risk level. Alternatively, that particular asset could be removed and not replaced, which is essentially an “abandon” management approach. The responsibility for these actions would rest with Kailis.

At present the plan is for the Relocatable Tourist Cabins and Relocatable Park Homes to be rebuilt at the end of their design lives. Once the coastal hazard risks over the design life becomes untenable these cabins will be rebuilt on the Camping / Caravan Sites. To do this will require a revised coastal hazard risk assessment to be completed in accordance with the requirements at that time.

Table 7.3 Implementation Plan – Asset Replacement

Requirement	Timing	Responsibility
Complete a revised coastal hazard risk assessment to quantify the risk level at that time.	Planning for asset replacement	Kailis
Determine appropriate retreat location for replacement assets based on acceptable risk level OR Remove infrastructure and abandon for that particular asset.	Planning for asset replacement	Kailis

7.4 Monitoring & Review

Coastal monitoring and review are essential in order to track changes to the shoreline over time. Whilst the results of Section 3 provide an indication of the potential changes to the shoreline (and incorporate a justifiable level of conservatism), the system is inherently complex and the actual shoreline response could be different to that presented. Monitoring should therefore be completed to track changes over time and indicate whether the timing for risk mitigation should be adjusted. As a result, the following have been suggested.

- Retreat of the shoreline (defined in this instance as the HSD) to within 20 m of the proposed infrastructure as a result of chronic erosion will prompt review by a specialist coastal engineer to commence planning for managed retreat or abandonment of assets (with removal)
- Retreat of the shoreline (HSD) to within 10 m of the proposed infrastructure caused by chronic erosion will prompt managed retreat or abandonment of assets (with removal)
- Retreat of the shoreline (HSD) to within 20 m of the proposed infrastructure caused by acute erosion will prompt review by a specialist coastal engineering to ascertain the potential for recovery of the shoreline before any relocation is completed.

The shoreline monitoring should be completed using a combination of onsite measurements and photo-monitoring as well as review of aerial photography captured by Landgate. The monitoring plan for the site is presented in Table 7.4 below.

Table 7.4 Monitoring Plan

Monitoring Event	Timing	Responsibility
Photo monitoring	Yearly	Kailis
Review of aerial imagery	Every 5 years	Kailis
Detailed survey of the shoreline and Kailis Properties	Following severe erosion events. OR Following retreat of the shoreline (HSD) to within 20 m of an asset	Kailis

If the rate of change in shoreline position observed during the monitoring is materially different from that allowed for in the erosion hazard assessment, it would be recommended that this CHRMAP be updated to quantify any changes to the risks posed by coastal hazards.

A summary of the requirements for the monitoring and review is presented in Table 7.5.

Table 7.5 Implementation Plan Summary – Monitoring and Review

Requirement	Timing	Responsibility
Shoreline monitoring	Ongoing throughout the development – to be assessed on a yearly basis or as required based on the triggers being met or exceeded (as per the Monitoring Plan).	Kailis
Revision of the CHRMAP	If shoreline behaviour changes substantially from that identified within this CHRMAP.	Kailis

7.5 Review of CHRMAP Guidelines

Should the State Government guidance for the determination of the required coastal hazard allowances change as a result of new information becoming available, the Coastal Hazard Assessment and this CHRMAP should also be updated. This is especially the case for information regarding climate change and projected sea level rise, however this may also apply for the calculation of inundation allowances. The responsibility for both of these actions would rest with Kailis.

8. Summary

This CHRMAP has been completed to provide guidance on required adaptation and management actions associated with existing and proposed assets within the Kailis Properties. It has been completed in line with the recommendations of SPP2.6 and WAPC (2019).

The completion of the coastal hazard risk assessment for this site has shown that there is a risk of coastal hazards adversely impacting the site, however over the 50 year planning horizon to 2071 the risk is deemed to be at a tolerable level. Despite the level of risk being tolerable, the ALARP approach has been adopted for the development and additional risk mitigation strategies have been proposed. This includes both a built form response for newly constructed assets as well as an overall management approach. Beyond the initial planning horizons, a risk mitigation strategy of planned or managed retreat informed by coastline monitoring and revised coastal hazard assessments will be implemented.

Finally this plan was developed on the basis that the risk to public safety as a result of cyclone inundation is already managed within the Kailis Properties and by DFES. It is recommended that Kailis review its existing evacuation and cyclone event management plan for appropriateness for the development.

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10. Appendices

Appendix A Kailis Properties CHA Report

Appendix A Kailis Properties CHA Report

R1500 Rev 1

March 2021

Rowe Group

**Kailis Learmonth
Coastal Hazard Assessment**

marinas

boat harbours

canals

breakwaters

jetties

seawalls

dredging

reclamation

climate change

waves

currents

tides

flood levels

water quality

siltation

erosion

rivers

beaches

estuaries

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creating better coasts and ports

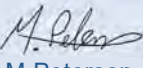
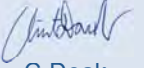
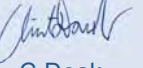
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K1850, Report R1500 Rev 1 Record of Document Revisions

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0	Issued to Client	M Peterson	C Doak	C Doak	10/3/21
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Form 035 18/06/2013

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1. Introduction

MG Kailis Group (Kailis) are looking to rezone four properties located on the coastline of Learmonth approximately 20 km south of Exmouth on the North West Cape (Figure 1.1). Rowe Group (Rowe), acting on behalf of Kailis, have lodged a scheme amendment request seeking to have the Kailis properties (Lots 1, 101, 112 and 220) rezoned from 'General Industry' to 'Special Use' Zone (to facilitate a tourism outcome)(Figure 1.2). In addition to rezoning the four Kailis properties Rowe are also seeking to convert Lot 112 from a leasehold lot to freehold ownership as one of the Kailis properties.

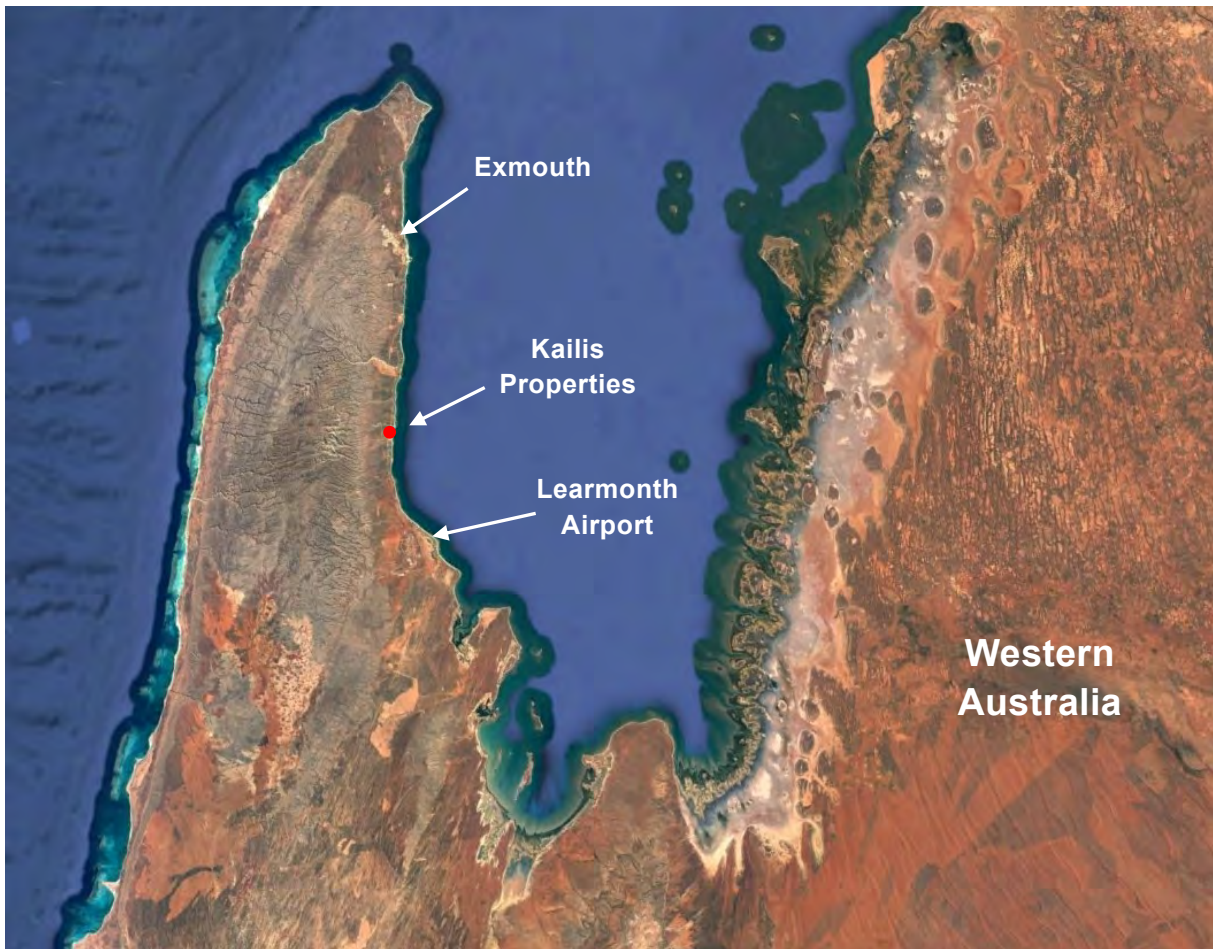


Figure 1.1 Site Location

It is understood that the Kailis Properties were rezoned from 'Special Use' Zone to 'Industrial' Zone under the Shire's former Town Planning Scheme No. 3 (TPS 3) in (circa) 2012. The 'Special Use' Zone applicable to the site (under TPS 3) limited the use of the site to 'fish processing', 'fish shop', 'café', caravan park', 'residential' and 'aquaculture'.



Figure 1.2 Kailis Properties Site Layout (Source: Rowe Group 2020)

As part of the rezoning/scheme amendment and freehold conversion process, there is a requirement to assess the risks to the properties from coastal hazards. Rowe has therefore engaged specialist coastal engineers M P Rogers & Associates Pty Ltd (MRA) to complete a Coastal Hazard Assessment for the Kailis properties. This assessment has been completed for four planning horizons, consisting of 25 years (2046), 50 years (2071), 75 years (2096) and 100 years (2121).

1.1 The Site

The Kailis properties are located on the eastern coastline of the North West Cape in the Exmouth Gulf between Learmonth Airport and Exmouth (refer Figure 1.1). Short (2006) defines this section

of coast as composed of a sandy beach containing coarse material from the creek mouths in the area. The beach is paralleled by sand flats approximately 100 m wide with patchy fringing reefs extending up to 500 m offshore. There is a small offshore breakwater located directly offshore from the Kailis properties which previously sheltered a jetty that has subsequently been removed (Figure 1.3).



Figure 1.3 Site Coastal Structures in 2006 (left) and 2011 (right)

Approximately 1,300 m to the north of the Kailis properties lies the river mouth of Badijirrajirra Creek and directly to the south of the properties are the river mouths of another two small creeks.

2. State Coastal Planning Policy (WAPC 2013)

This coastal hazard assessment has been completed in line with the recommendations of the State Coastal Planning Policy (SPP2.6, WAPC 2013). SPP2.6 provides the methodology for completing an assessment of the potential impacts of coastal processes on development in Western Australia. For sandy coasts, this methodology calculates the following hazard allowances to accommodate the impacts of coastal processes over the 100 year planning horizon.

- The potential coastal erosion impacts of a 100 year average recurrence interval (ARI) storm event. This is termed the S1 Allowance.
- Allowance for future shoreline change based on an analysis of historical shoreline movement. This is termed the S2 Allowance.
- Allowance for erosion caused by future sea level rise. This is termed the S3 Allowance.
- An additional allowance of 0.2m per year to account for uncertainty.
- Allowance for potential inundation associated with the 500 year ARI storm event. This is termed the S4 Allowance.

Each of these allowances have been investigated for the Kailis properties in accordance with the current requirements of SPP2.6. The results of these investigations are presented in the following sections of this report.

2.1 Design Storms

SPP2.6 requires that the storm event used to determine the S1 allowance be representative of an event with an exceedance probability of 1% (equivalent to an ARI of 100 years) and should be based on a recorded storm event for the area. The coastal inundation hazards require consideration of an inundation event with an ARI of 500 years. The Kailis properties are located in Coastal Area 2 as defined in Figure 2.1 and as such the design storms for both erosion and inundation will be tropical cyclone events.

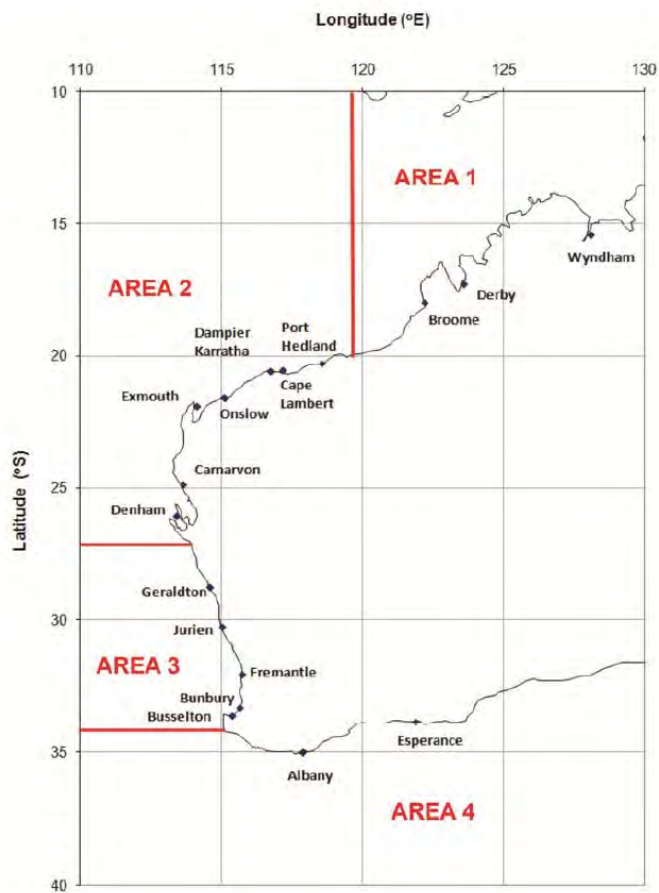


Figure 2.1 Coastal Areas (WAPC 2013)

Due to the short availability of water level data within the study region (water levels are only reliably available for a period totalling approximately 30 years between 1990 and 2020) compared to the required recurrence intervals for prediction, the approach adopted for this study utilises numerical modelling techniques. The method for estimating the 100 and 500 year ARI events is based on the recommendations of *Design Storms for Western Australia Coastal Planning: Tropical Cyclones* (Seashore 2018). This report, prepared for the Department of Transport (DoT), provides a simplified approach to define inundation and erosion hazards associated with tropical cyclones and also provides design cyclone events for a number of town sites.

The Exmouth Gulf was previously modelled by MRA using the Delft3D suite and the recommendations of Seashore (2018). Tropical Cyclone Nicholas was utilised as the base for the design storms, which had altered tracks, central pressures, and radii to the maximum winds. The methods, assumptions and results of MRA's previous modelling for the Exmouth Gulf are detailed in *Learmonth Pipeline Fabrication Facility Coastal Processes Monitoring & Management Report* (MRA 2019).

3. Storm Erosion (S1 Allowance)

3.1 Background

Severe storm events have the potential to cause increased erosion to a shoreline through the combination of higher, steeper waves generated by sustained strong winds, and increased water levels. These two factors acting in concert allow waves to erode the upper parts of the beach not normally vulnerable to wave attack.

If the initial width of the surf zone is insufficient to dissipate the increased wave energy, this energy is often spent eroding the beach face, beach berm and sometimes the dunes. The eroded sand is transported offshore with the return water flow to form offshore bars. As these bars grow, they can cause incoming waves to break further offshore, decreasing the wave energy available to attack the beach. This is shown diagrammatically in Figure 3.1 for a sandy coastline.

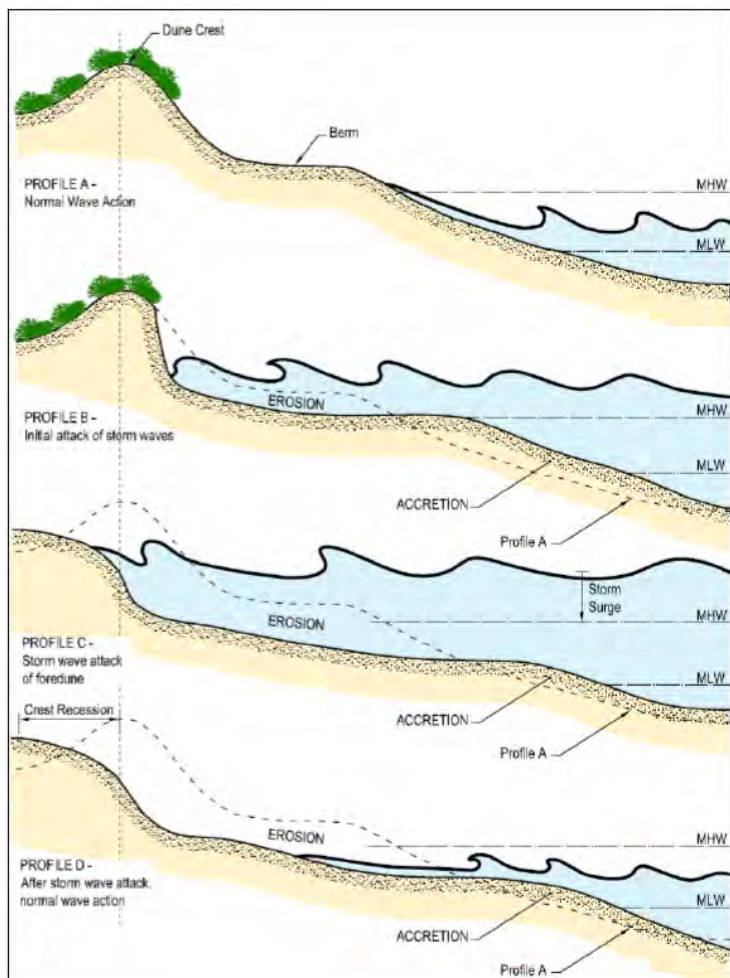


Figure 3.1 Storm Erosion Process (CERC 1984)

SPP2.6 recommends that the potential cross shore erosion be determined by modelling the impact of an appropriate storm sequence using acceptable models such as SBEACH (WAPC 2013). The results from the previous Delft3D modelling of the 100 year ARI event were extracted at a point offshore from the Kailis properties at a depth of approximately -10.3 mAHD and used as the inputs for the SBEACH analysis.

3.2 SBEACH Modelling

The SBEACH computer model was developed by the Coastal Engineering Research Centre to simulate beach profile evolution in response to storm events. It is described in detail by Larson & Kraus (1989). Since this time, the model has been further developed, updated and verified based on field measurements (Wise et al 1996).

The profile for the SBEACH analysis of the 100 year ARI event (TC Nicholas) was positioned to pass roughly through the centre of the existing buildings and extend out to approximately -10 m AHD (Figure 3.2). A hard bottom was added to the model to approximately represent the rock platform that is present a few hundred meters offshore along this stretch of coast.

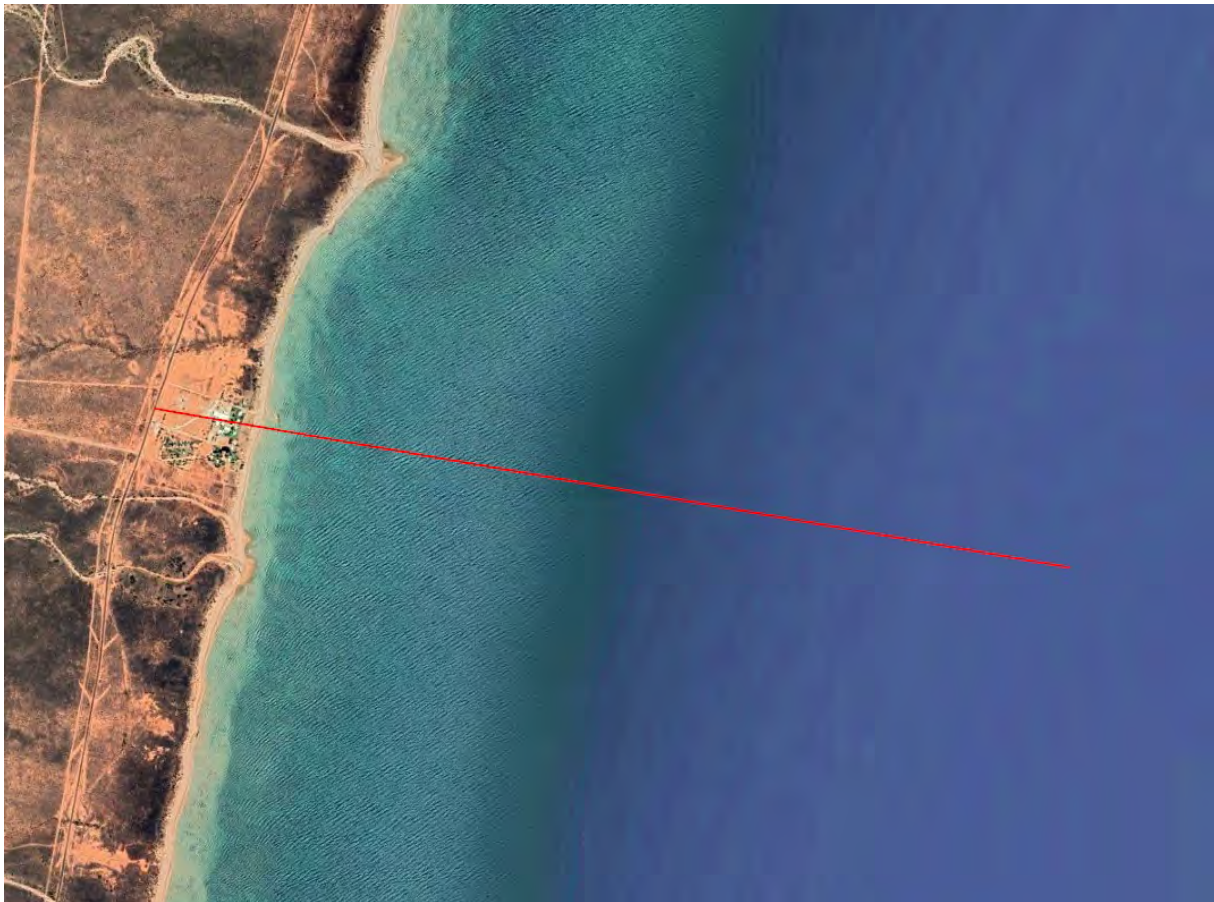


Figure 3.2 SBEACH Profile

Wave heights, periods and water levels were extracted from MRA's existing Delft3D model for the Exmouth Gulf at a depth of approximately 10 m. The extracted wave heights, periods and water levels are displayed in Figure 3.3, where the water levels do not include wave setup inshore from the -10 m AHD contour. To ensure a conservative assessment three consecutive simulations of the design event were run in the SBEACH model (as shown in Figure 3.3).

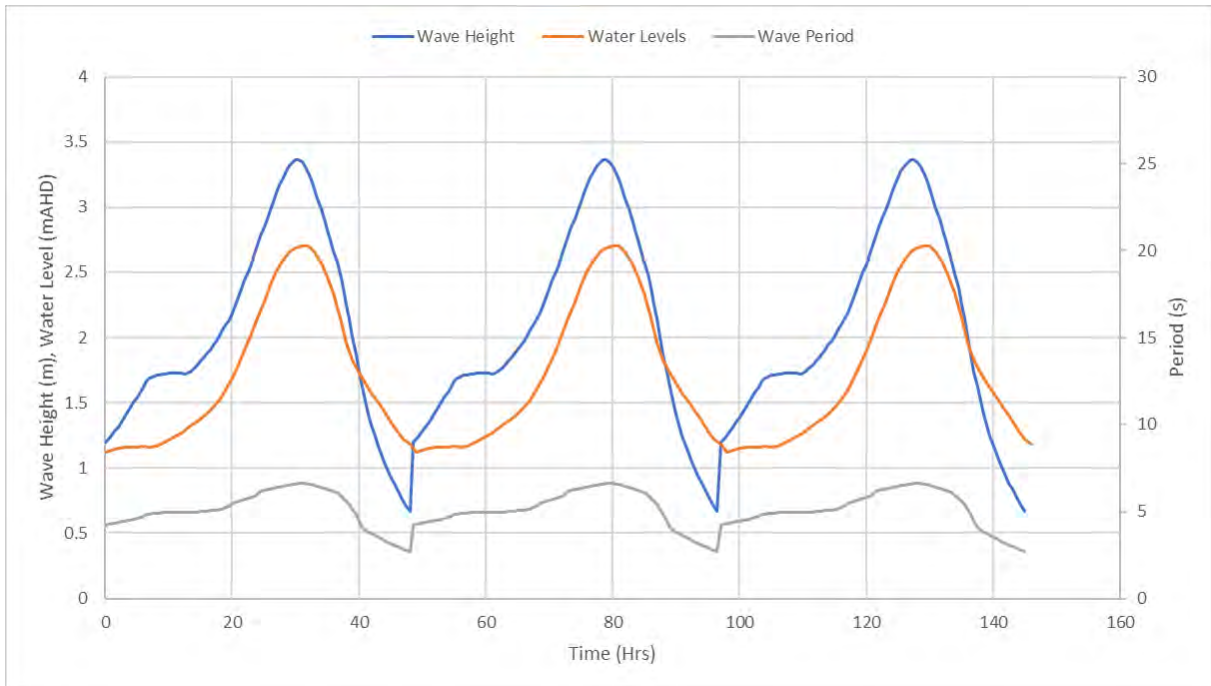


Figure 3.3 Wave Heights, Periods & Water Levels Extracted from Delft3D

These were then used as the input parameters for the SBEACH Analysis. The results of the SBEACH Analysis are displayed in Figure 3.4.

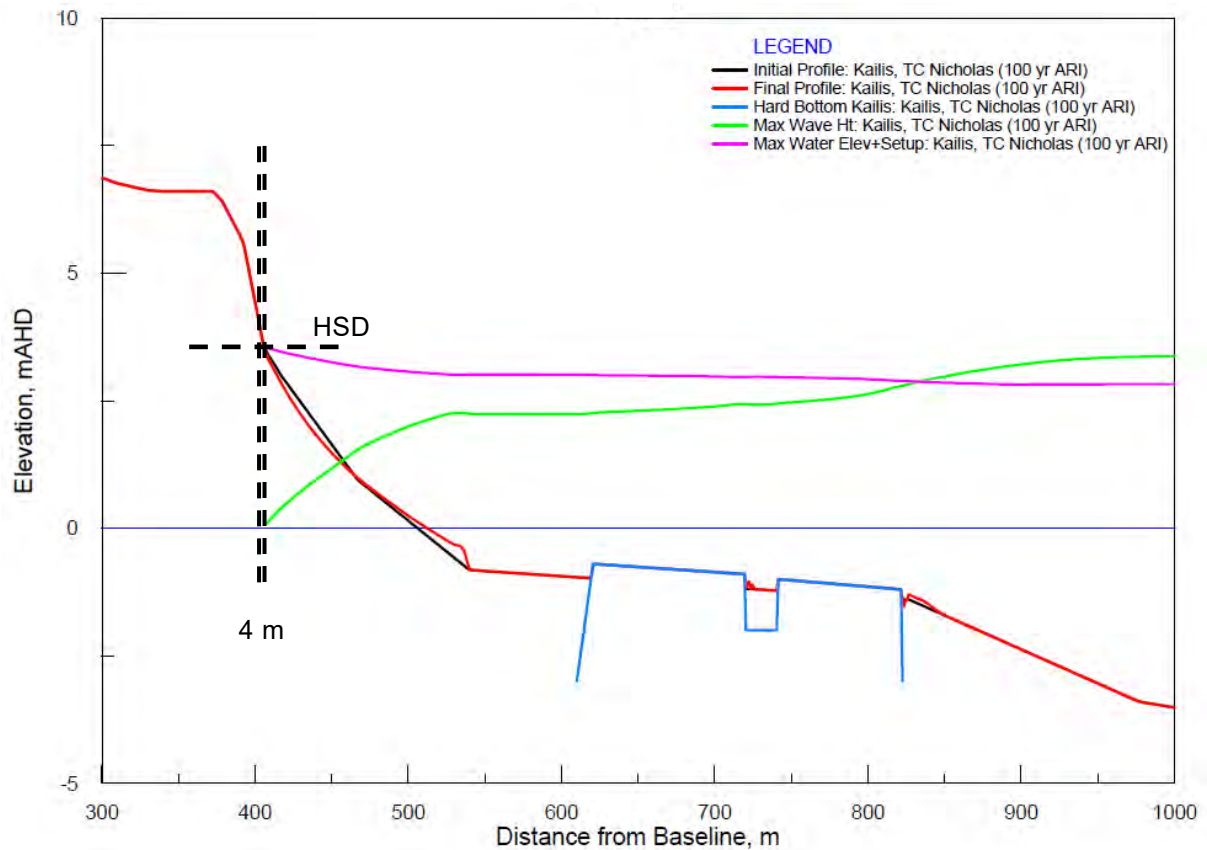


Figure 3.4 SBEACH Results

SPP2.6 requires that the erosion allowance for S1 be taken as the extent of the erosion behind the Horizontal Shoreline Datum (HSD). Where the HSD is the highest elevation that the water level reaches at the shoreline during the design storm event. SPP2.6 also requires that the slope of the final profile should be flatter than 30° to ensure a stable post storm shoreline slope. The SBEACH final profile was reviewed and found to satisfy this criterion. The values of the HSD and associated S1 allowance from the SBEACH analysis are displayed in Table 3.1 below.

Table 3.1 Storm Erosion (S1) Allowance

Storm Event (ARI)	HSD (mAHD)	S1 Allowance (m)
100 year (TC Nicholas)	3.5	4

The high water levels and predominantly gentle slope of the beach and dunes have resulted in the majority of erosion occurring below the HSD. This has led to the small S1 allowance of 4 m, when in reality a large portion of the profile would have been impacted.

4. Shoreline Movement (S2 Allowance)

Historically shoreline changes occur over varying time scales from storm to post storm, to seasonal and longer (Short 1999). Whilst the S1 allowance accounts for changes in the shoreline over the short term storm to post storm timescale, the S2 allowance is intended to account for the longer term movement of the shoreline. To determine the S2 allowance the historical movement trends of the shoreline are analysed and likely future shoreline movements predicted.

4.1.1 Shoreline Movement Analysis

SPP2.6 recommends that shoreline movement trends be based on the review of available shoreline records. Orthorectified aerial photos were procured from Landgate for the years 2000, 2003, 2004, 2007 and 2013. In addition, non-rectified historical aerial photos were procured from Landgate for the years 1961, 1977, 1985 and 1993 and subsequently orthorectified. Vegetation lines were then extracted from the orthorectified aerial photos using the methodology outlined in DoT (2009). Orthorectified aerial photos of the site from February 2021 were procured by Platinum Surveys and the 2021 vegetation line was extracted from these photos by MRA.

The resultant Shoreline Movement Plan is included in Appendix A. From the shoreline movement plan a plot of the shoreline position relative to 1961 was created and is shown in Figure 4.1. Additionally, the shoreline movement rates relative to 1961, 1977, 1985, 1993 and 2000 were determined and are displayed in Figure 4.2.

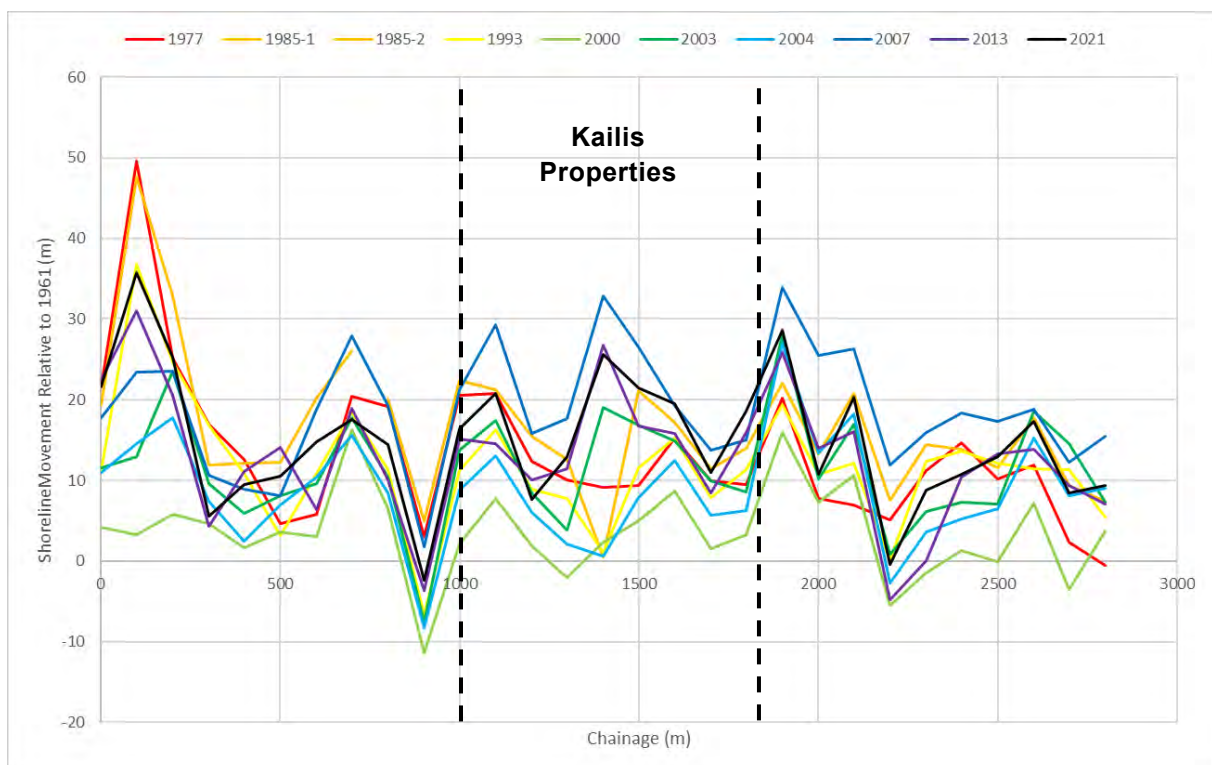


Figure 4.1 Shoreline Movement Relative to 1961



Figure 4.2 Shoreline Movement Rates Relative to 1961, 1977, 1985, 1993 & 2000

Over the 60 year period for which shoreline records were assessed at this site there have been several minor trends of erosion and accretion. This is shown by the variability in the shoreline movement rates seen in Figure 4.2. The shoreline movement assessment needs to consider a significant period of time (eg at least 40 years) and as such all of the shoreline movement rates were considered in this assessment.

From the rates of shoreline movement, the trends in shoreline movement and recommended allowances for future shoreline movement were determined. SPP2.6 notes the following for the calculation of the S2 allowance on sandy coasts.

The allowance for historic shoreline movement trends should generally be calculated as 100 times the historic annual rate of erosion.

On the basis of this and the assessment of the shoreline movement rates determined above, Table 3.2 presents the shoreline movement allowances for the study area.

Table 4.1 Shoreline Movement (S2) Allowances

Chainage	S2 Allowance (m/year)	S2 Allowance for 2121 (m)
0 – 400	0.4	40
400 – 500	0.4 - 0.25	40 – 25
500 – 1200	0.25	25
1200 – 1300	0.25 – 0	25 – 0
1300 – 1900	0	0
1900 – 2000	0 - 0.25	0 – 25
2000 – 2800	0.25	25

The Kailis properties are located between chainages 1000 and 1800 (Figure 3.6). The S2 allowance has been taken as 0 m/year for most of the Kailis properties, with the northern portion of the site having an allowance of 0.25 m/year.

5. Sea Level Rise (S3 Allowance)

The Intergovernmental Panel on Climate Change (IPCC) has presented various scenarios for possible climate change and the resultant sea level rise in the coming century. The range of these projections is shown in Figure 5.1 (IPCC 2013)

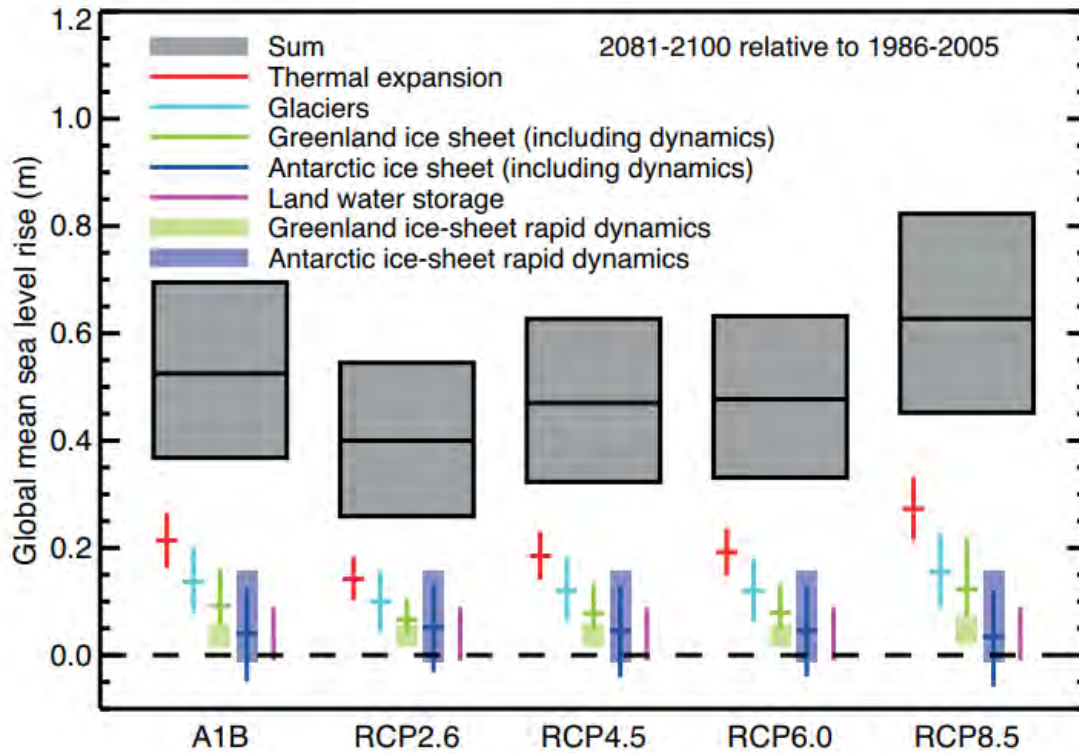


Figure 5.1 IPCC Scenarios for Sea Level Rise (IPCC 2013)

The results of the on-going increase in sea level and the anticipated impacts of accelerated increases are difficult to predict. However, increases in global sea level are likely to lead to beach erosion and recession as a result of the deepening of nearshore waters allowing larger and more powerful waves to reach the shore and erode the beach face.

Komar (1998) provides a reasonable treatment for sandy shores, including examination of the Bruun Rule (Bruun 1962). The Bruun Rule relates the recession of the shoreline to the sea level rise and slope of the nearshore sediment bed:

$$R = \frac{1}{\tan(\theta)} S$$

Where: R = recession of the shore

θ = average slope of the nearshore sediment bed

S = sea level rise

Based on analysis of the Bruun Rule for Western Australia, SPP2.6 states that the allowance for erosion caused by future sea level rise should be calculated as 100 times the adopted level of sea level rise.

DoT (2010) completed an assessment of the potential increase in sea level that could be experienced on the Western Australian coast in the coming 100 years. This assessment extrapolated work by Hunter (2009) to provide sea level rise values based on the IPCC (2007) A1FI climate change scenario projections to the year 2110. The derived sea level rise scenario was subsequently adopted by SPP2.6 for use in coastal planning along the Western Australian coast. This sea level rise scenario was adopted for this assessment and is presented in Figure 5.2.

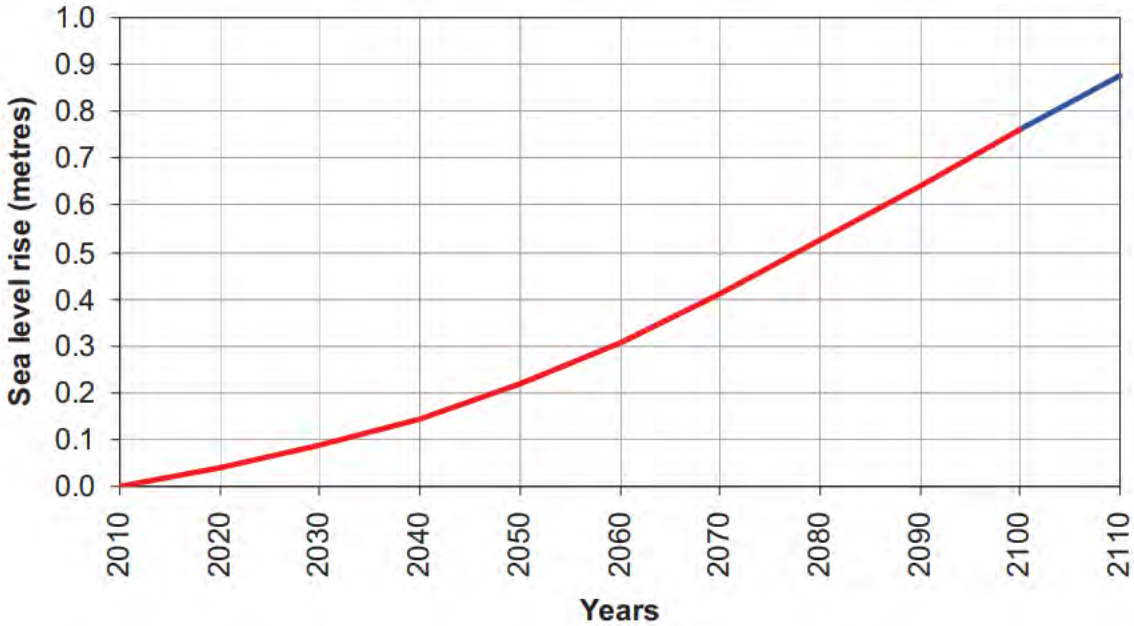


Figure 5.2 Recommended Sea Level Rise Allowances for Western Australia (DoT 2010)

Based on the work by DoT (2010) SPP2.6 states that a sea level rise of 0.9 m over a 100 year timeframe should be adopted. This results in a S3 allowance of 90 m over the 100 year planning timeframe. The S3 allowances for each of the four planning horizons are summarised in Table 5.1.

Table 5.1 Sea Level Rise (S3) Allowance

Planning Horizon	Sea Level Rise (m)	S3 Erosion Allowance (m)
2046	0.14	14
2071	0.38	38
2096	0.68	68
2121	0.90	90

6. Coastal Inundation Hazard Allowance

With respect to inundation, SPP2.6 requires that development consider the potential effects of an event with an ARI of 500 years.

Accurate and statistically relevant predictions of the 500 year ARI event cannot be made solely using the available historical water level measurements along the Western Australian coastline due to the relatively short durations of the records. This is due to the fact that a continual water level record of about a third (167 years) of the recurrence interval in question (500 years) is required to ensure statistical relevance of the prediction. This is significantly longer than the length of the observed record at the nearest tide gauge to the site located at Exmouth. Thus, in the absence of sufficient water level data other methodologies must be considered to provide meaningful predictions of the 500 year event.

For the Kailis properties the 500 year ARI water level event will be caused by a tropical cyclone generating extreme onshore winds and storm surge. Therefore, recommendations provided in Seashore (2018) have been used to synthesize the 500 year ARI cyclone event. The storm track is based on Tropical Cyclone Nicholas and the central pressure and radius to maximum winds were scaled based on a statistical interrogation of the observed record completed by Seashore (2018). The modelling of the 500 year ARI event was previously completed for the Exmouth Gulf by MRA in 2019. The methodology and results of this modelling is detailed in MRA (2019).

Water levels during the 500 year ARI tropical cyclone event were extracted from the Delft3D model at a point just offshore from the Kailis properties having a value of 3.2 mAHD. It should be noted that this water level represents a peak steady water level and thus excludes the impacts of nearshore wave setup processes that occur on a finer scale than used in the model simulation. Wave setup can result in a significant increase to water level, which will vary based on the local bathymetry and incident waves.

To simulate the changes in nearshore water levels as a result of wave setup the SBEACH model was used. Using SBEACH, it was established that the additional wave setup could be in the order of 1.1 m during the 500 year ARI event.

This allowance for wave setup has been included in the estimate of the inundation level, as presented in Table 6.1 below.

Table 6.1 Inundation Level

	500 Year ARI Steady Water Level (mAHD)	Allowance for Nearshore Wave Setup (m)	Total Allowance (mAHD)
Inundation Allowance	3.2	1.1	4.3

7. Assessment of Coastal Hazards

7.1 Erosion Hazard

This Coastal Hazard Assessment has been completed to consider the coastal erosion and inundation hazards to the sandy shoreline of the Kailis properties. The coastal erosion allowances for the Kailis Properties have been determined for four planning horizons including:

- 25 year time frame to 2046,
- 50 year timeframe to 2071,
- 75 year timeframe to 2096, and
- 100 year timeframe to 2121 as required by SPP2.6.

The coastal erosion allowances for each timeframe are displayed in Tables 7.1 to 7.4. As required by SPP2.6, an additional 0.2 m/year allowance for uncertainty has also been included. The total coastal erosion hazard allowances for each of the planning horizons are presented in Tables 7.1 to 7.4 and should be measured from the horizontal shoreline datum (HSD). These coastal erosion allowances were used to create Coastal Erosion Hazard maps which are presented in Appendix B.

Table 7.1 2046 Total Coastal Erosion Allowances

Chainage	S1 Allowance (m)	S2 Allowance (m)	S3 Allowance (m)	Uncertainty Allowance (m)	Total Allowance (m)
1000 – 1200	4	6.25	14	5	29
1200 - 1300	4	6.25 – 0	14	5	29 – 23
1300 - 1800	4	0	14	5	23

Table 7.2 2071 Total Coastal Erosion Allowances

Chainage	S1 Allowance (m)	S2 Allowance (m)	S3 Allowance (m)	Uncertainty Allowance (m)	Total Allowance (m)
1000 – 1200	4	12.5	38	10	65
1200 - 1300	4	12.5 – 0	38	10	65 – 52
1300 - 1800	4	0	38	10	52

Table 7.3 2096 Total Coastal Erosion Allowances

Chainage	S1 Allowance (m)	S2 Allowance (m)	S3 Allowance (m)	Uncertainty Allowance (m)	Total Allowance (m)
1000 – 1200	4	18.75	68	15	106
1200 - 1300	4	18.75 – 0	68	15	106 – 87
1300 - 1800	4	0	68	15	87

Table 7.4 2121 Total Coastal Erosion Allowances

Chainage	S1 Allowance (m)	S2 Allowance (m)	S3 Allowance (m)	Uncertainty Allowance (m)	Total Allowance (m)
1000 – 1200	4	25	90	20	139
1200 - 1300	4	25 – 0	90	20	189 – 114
1300 - 1800	4	0	90	20	114

7.2 Inundation Hazard

The inundation allowances for each of the four planning horizons have been determined using the sea level rise allowances discussed in Section 5.

Table 7.5 Inundation Allowances

Planning Horizon	500 Year ARI Steady Water Level (mAHD)	Allowance for Nearshore Wave Setup (m)	Sea Level Rise Allowance (m)	Total Allowance (m)
2046	3.2	1.1	0.1	4.4
2071	3.2	1.1	0.4	4.7
2096	3.2	1.1	0.7	5.0
2121	3.2	1.1	0.9	5.2

These potential inundation levels were used to create coastal inundation hazard maps for the Kailis properties which have been included in Appendix C.

8. Summary

MRA were engaged by Rowe to conduct a Coastal Hazard Assessment for the Kailis Properties to the requirements of the current State Coastal Planning Policy (SPP2.6, WAPC 2013). Coastal Erosion and Inundation Allowances maps are included in Appendices B and C, and show the risk of erosion and inundation across the study area over four planning horizons up to and including 100 years.

The coastal erosion hazards were assessed in line with SPP2.6 considering allowances for sandy shorelines. As the 100 year coastal erosion hazard allowance is located behind a number of the existing buildings and assets a Coastal Hazard Risk Management Adaptation Planning process is recommended. This will result in the creation of strategies for the future use and management of these assets. Whilst the inundation hazard is no less severe, the majority of the affected area is currently empty land and as such there is a lower risk to assets on the Kailis properties from this hazard.

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10. Appendices

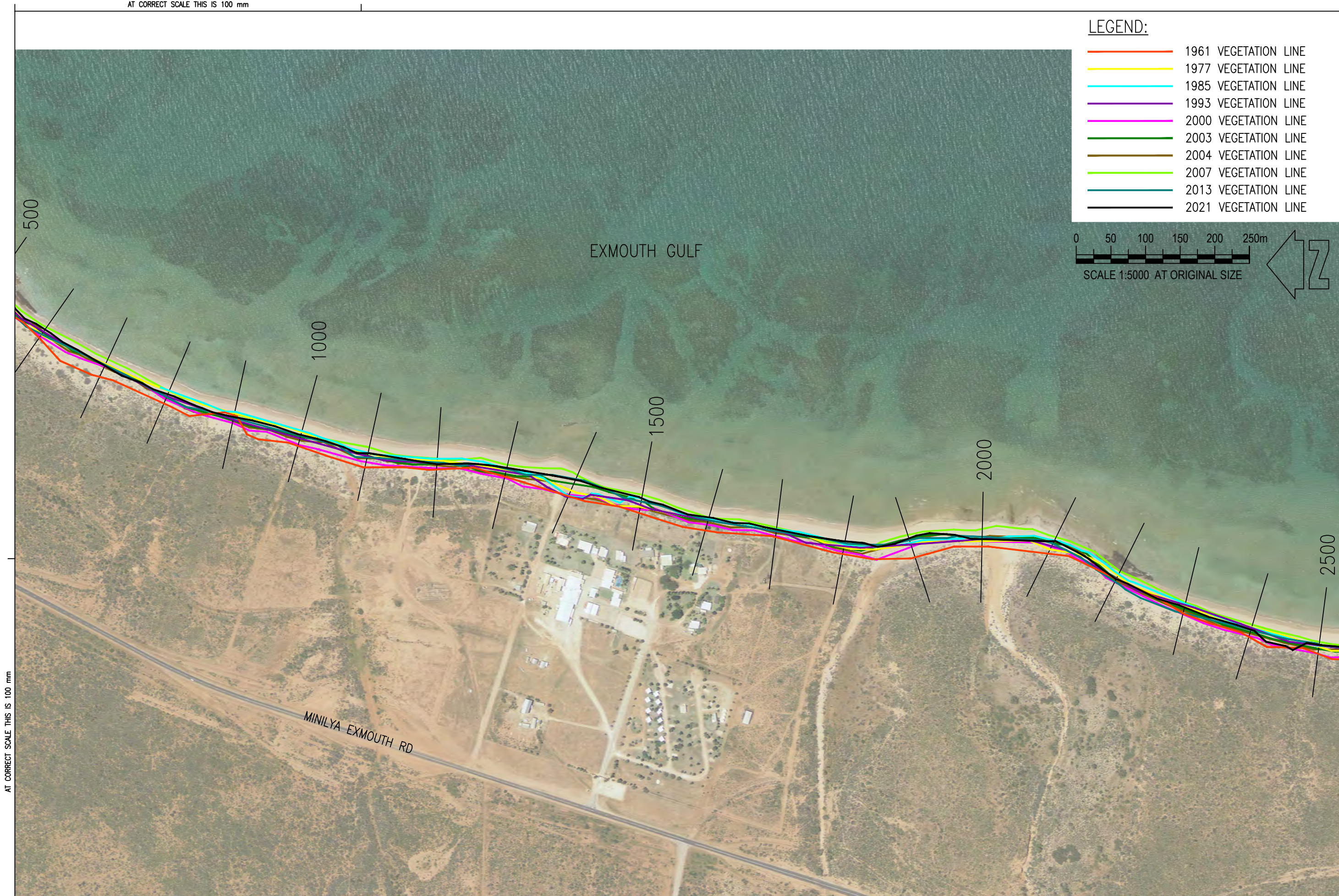
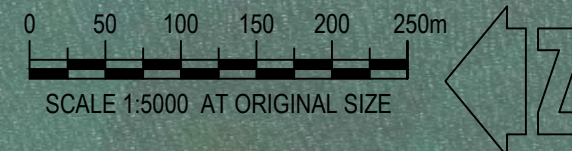
- Appendix A Shoreline Movement Plan**
- Appendix B Coastal Erosion Allowances Map**
- Appendix C Coastal Inundation Allowances Map**

Appendix A Shoreline Movement Plan

AT CORRECT SCALE THIS IS 100 mm

LEGEND:

- 1961 VEGETATION LINE
- 1977 VEGETATION LINE
- 1985 VEGETATION LINE
- 1993 VEGETATION LINE
- 2000 VEGETATION LINE
- 2003 VEGETATION LINE
- 2004 VEGETATION LINE
- 2007 VEGETATION LINE
- 2013 VEGETATION LINE
- 2021 VEGETATION LINE



AT CORRECT SCALE THIS IS 100 mm

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SHORELINE MOVEMENT PLAN
 LEARMOUTH – KAILIS PROPERTIES

SCALE
 AT A3 1:5,000

MARCH 2021
 SK1850-01A

Appendix B Coastal Erosion Allowances Map

AT CORRECT SCALE THIS IS 100 mm

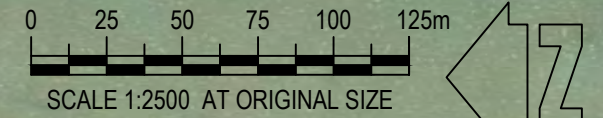
EXMOUTH GULF

1000

1500

LEGEND:

- 2046 EROSION ALLOWANCE
- 2071 EROSION ALLOWANCE
- 2096 EROSION ALLOWANCE
- 2121 EROSION ALLOWANCE



AT CORRECT SCALE THIS IS 100 mm

NOTES:

1. COASTAL EROSION ALLOWANCES MEASURED FROM HSD (=3.5 mAHd).
2. AERIAL PHOTO FROM LANDGATE TAKEN SEPTEMBER 2013.

MINILYA EXMOUTH RD

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COASTAL EROSION ALLOWANCES
 LEARMOUTH – KAILIS PROPERTIES

SCALE AT A3 1:2,500

MARCH 2021
 SK1850-02B

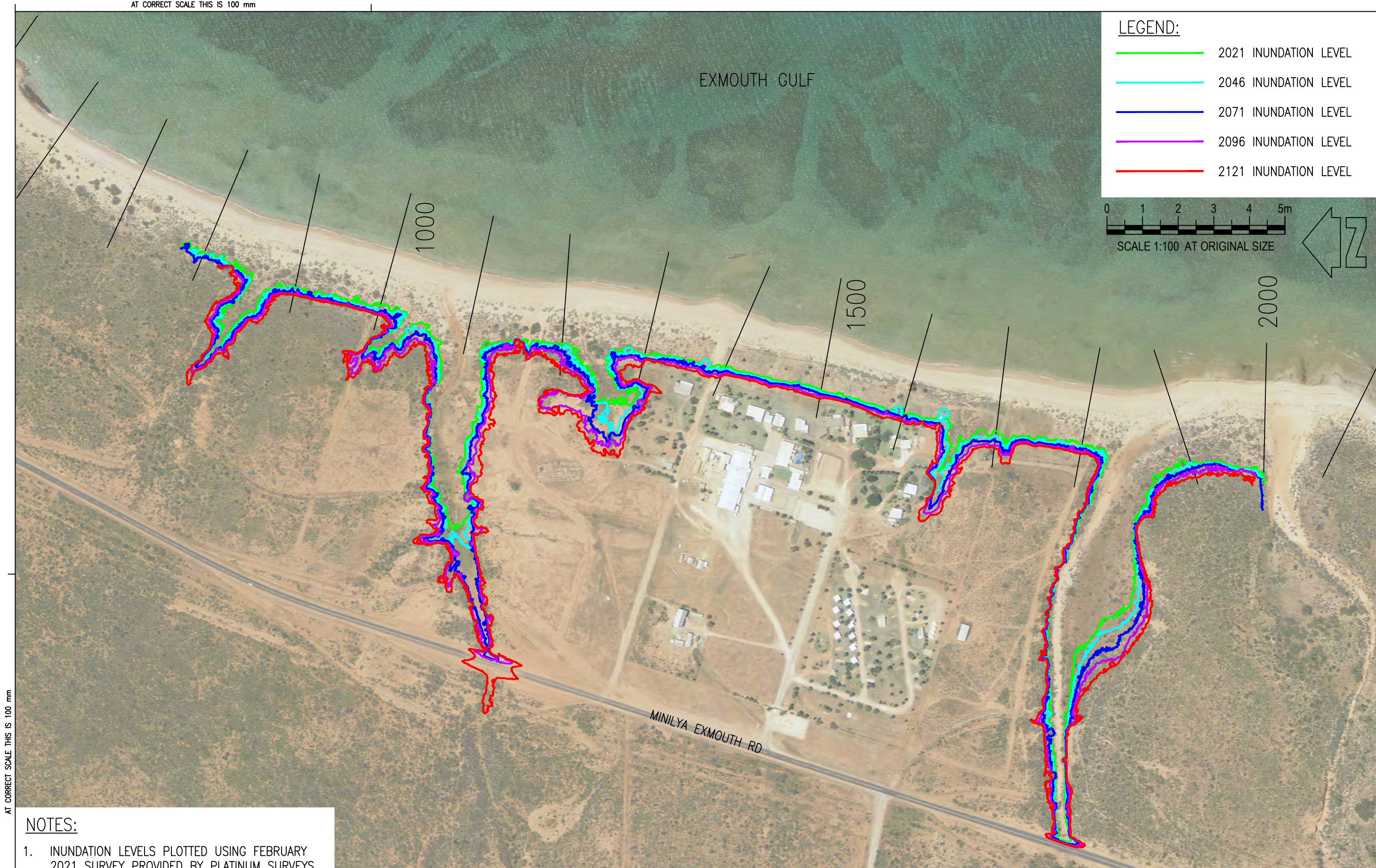
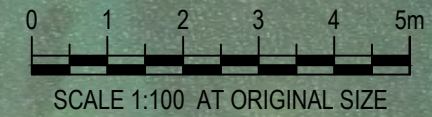
Appendix C Coastal Inundation Allowances Map

AT CORRECT SCALE THIS IS 100 mm

EXMOUTH GULF

LEGEND:

- 2021 INUNDATION LEVEL
- 2046 INUNDATION LEVEL
- 2071 INUNDATION LEVEL
- 2096 INUNDATION LEVEL
- 2121 INUNDATION LEVEL



NOTES:

1. INUNDATION LEVELS PLOTTED USING FEBRUARY 2021 SURVEY PROVIDED BY PLATINUM SURVEYS.
2. AERIAL PHOTO FROM LANDGATE TAKEN SEPTEMBER 2013.

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COASTAL INUNDATION ALLOWANCES
LEARMONTH – KAILIS PROPERTIES

SCALE AT A3 1:4,000

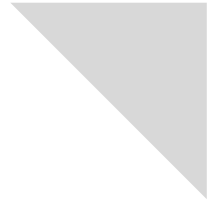
MARCH 2021
SK1850-03B

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ATTACHMENT 5

TRANSPORT IMPACT STATEMENT



ROWE
GROUP



October 2020
Final

K Town, Learmonth

Prepared For:
MG Kailis



DOCUMENT ISSUE AUTHORISATION

Issue	Rev	Date	Description	Prepared by	Checked by	Approved by
0	0	8/09/2020	Initial Draft Report	KPL	GTT	DNV
0	1	9/09/2020	Draft Report	KPL	DNV	DNV
1	0	9/10/2020	Final Report	KPL	DNV	DNV

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Donald Veal Consultants Pty Ltd

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1. INTRODUCTION

1.1 Background

MG Kailis has commissioned Donald Veal Consultants to prepare this report to support the local planning scheme amendment of Lot 1 Kailis Road and Lots 101,112 and 220 Minilya-Exmouth Road, Learmonth. The proposal is to rezone the site from “General Industry” to “Tourism” with a series of “Additional Uses”. The proposed development is known as “K Town” and has been referred to as such throughout this report.

The Shire of Exmouth requires a Transport Impact Statement (TIS) to demonstrate the capability of the site and surrounding road network to accommodate the anticipated tourism uses that would be capable of approval if the local planning scheme amendment is successful.

1.2 Scope of this Report

The TIS has been prepared with reference to the Western Australia Planning Commission (WAPC) guidelines and includes the following items:

- Description of the planned development;
- Consideration of existing traffic conditions;
- Forecasting of traffic generated by the planned development;
- Consideration of expected operation of the road network at the design year; and
- Consideration of parking and facilities for pedestrians, cyclists and public transport users.

1.3 Structure of this Report

Following this section, Section 2 contains details of the existing conditions, Section 3 reports on the details of the proposed development, the traffic assessment aspects and other relevant issues and Section 4 contains the summary and conclusion.

2. EXISTING CONDITIONS

2.1 Site Location

The proposed development site is located in Learmonth, on the North West Cape, approximately 23km to the south of Exmouth. **Figure 2.1** shows the site in relation to the surrounding road network. The site is located 195km to the north of the North West Coastal Highway / Minilya-Exmouth Road intersection.

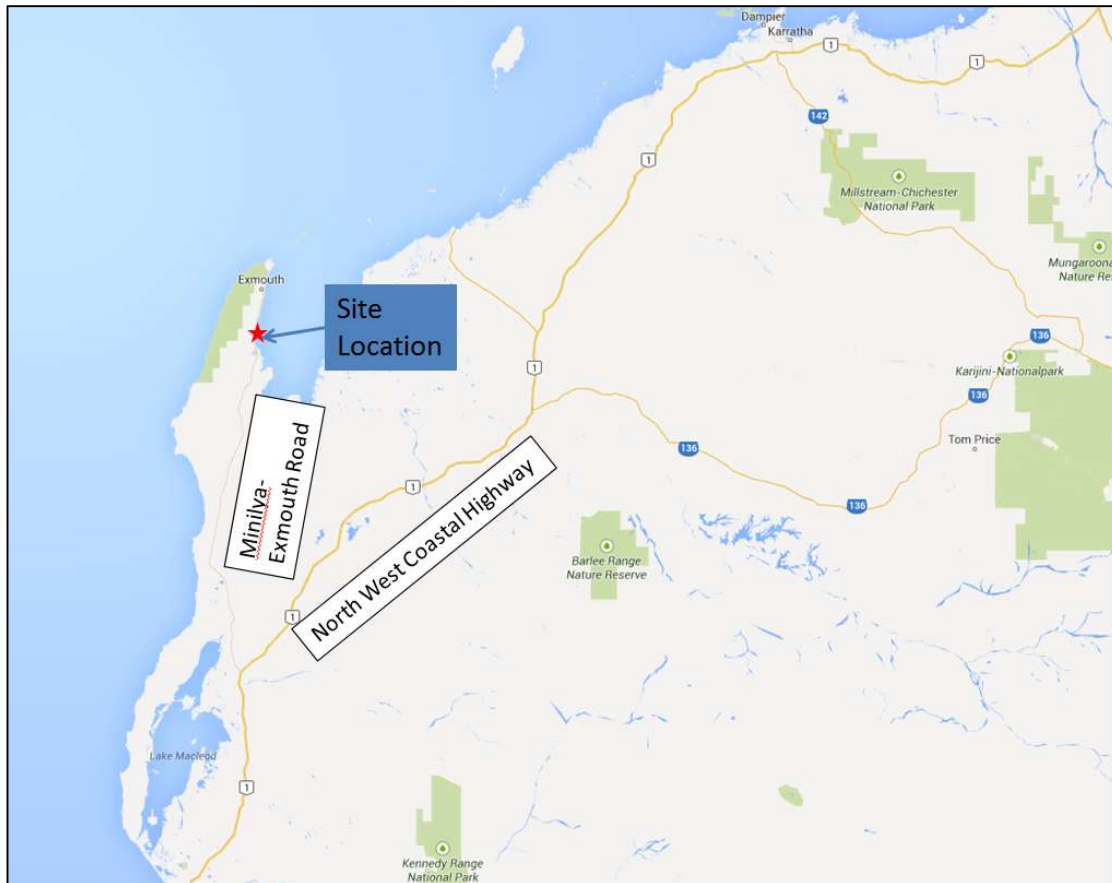


Figure 2.1: General Locality Plan

(Source: Google Maps)

The local road network in the immediate vicinity of the site is shown in **Figure 2.2**, with Minilya-Exmouth Road along the east coast line of the North West Cape. Charles Knife Road, runs west of Minilya-Exmouth Road and is located approximately 150m south of the intersection of Kailis Road with Minilya-Exmouth Road.

2.2 Existing Land Uses

The application site has an area of approximately 27.85 hectares (ha) and consists of:

- Lot 1 Kailis Road, which was previously used predominantly for seafood processing and currently contains the former processing plant infrastructure, accommodation units and a caravan park that were previously used by seasonal workers involved in seafood processing, as well as by the site caretakers and others; and

- Lot 101, Lot 112 and Lot 220, all presently vacant land.

The application site is bounded by vacant land to the north and south, the Indian Ocean to the east, and Minilya-Exmouth Road to the west. Refer to **Figure 3.1** for the aerial of the site.



Figure 2.2: Site Location

(Source: Rowe Group)

2.3 Local Road Network

2.3.1 Minilya-Exmouth Road

Minilya-Exmouth Road is classified as a Primary Distributor under MRWA's Road Hierarchy and connects to North West Coastal Highway to the south. The road comprises one lane per direction and has a sealed carriageway width of approximately 6.5m. The road is the primary route providing access to the North West Cape, including Learmonth and Exmouth. The posted speed limit of the route in the vicinity of the site is 110km/h.

MRWA's RAV (Restrict Access Vehicle) Mapping tool shows that the road can carry RAV Network 10 heavy vehicles in the vicinity of the development site. The RAV 10 Network allows for vehicles up to 53.5m in length.

Minilya-Exmouth Road at the driveway to Lot 1 Kailis Road is shown in **Photo 1**, indicating one lane per direction. Visibility along the road at the driveway is good as a result of its fairly flat vertical alignment and the lack of obstructions.



Photo 1: Minilya-Exmouth Road – looking north from driveway to Lot 1 Kailis Road (taken in 2014)

The intersection of Minilya – Exmouth Road and Kailis Road is shown in **Photo 2**.



Photo 2: Minilya-Exmouth Road / Kailis Road Intersection (taken in 2014)

2.3.2 Charles Knife Road

Charles Knife Road, classified as an Access Road under MRWA's Road Hierarchy, intersects Minilya-Exmouth Road and provides a link to areas to the west including the Cape Range National Park. The road comprises one lane per direction and has a sealed carriageway width of approximately 6.0m. The posted speed limit on Charles Knife Road is 110km/h just west of Minilya-Exmouth Road.

2.3.3 Kailis Road

Kailis Road is classified as an Access Road under MRWA's Road Hierarchy and links the development site to Minilya-Exmouth Road. However, we understand that Kailis Road is a private road and therefore should not feature on the Road Hierarchy system. It comprises one lane per direction, with a total sealed carriageway width of approximately 7.0m (refer **Photo 3**). The posted speed limit on Kailis Road according to the MRWA website is 80km/h, however, we understand that this is an error as the road is a private road.

Figure 2.3 shows the MRWA's Road Hierarchy whereas **Figure 2.4** shows the posted speed limits in the vicinity of the development site. **Figure 2.5** shows the RAV network in the vicinity of the site.



Photo 3: Kailis Road – looking west towards Minilya-Exmouth Road (taken in 2014)

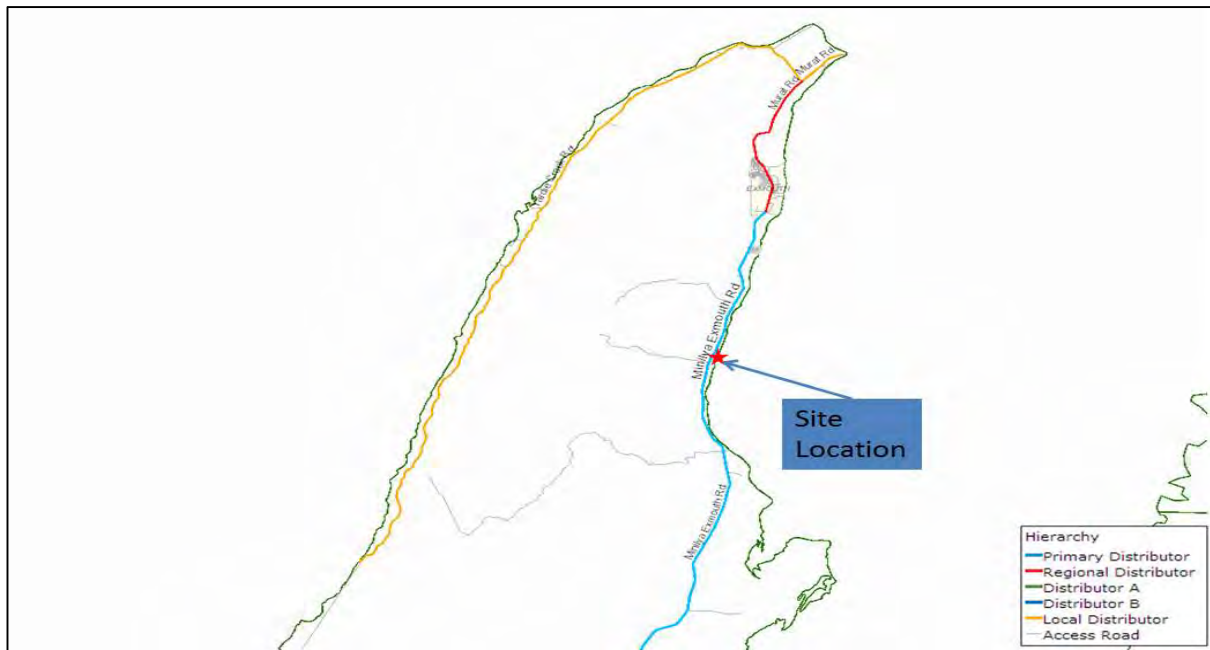


Figure 2.3: MRWA Road Hierarchy

(Source: MRWA Road Info Mapping)



Figure 2.4: Road Speed Limit (Source: MRWA Road Info Mapping)



Figure 2.5: RAV Network (Source: MRWA RAV Mapping Tool)

2.4 Existing Traffic Volumes and Operation

The latest traffic data (2019/20) for Mynyra-Exmouth Road was sourced from MRWA’s TrafficMap and is shown in **Figure 2.6**. It is seen that the traffic flows in the vicinity of the development are low and in the region of 1,278 vehicles per day on an average day (ADT) with 16.7% heavy vehicles. The

AM peak is between 9:00 and 10:00 with 151 vehicles per hour (vph) and the PM peak between 14:00 and 15:00 with 127 vph.

There is no traffic volumes recorded on Charles Knife Road, however it is understood that traffic volumes on this road is currently extremely low.

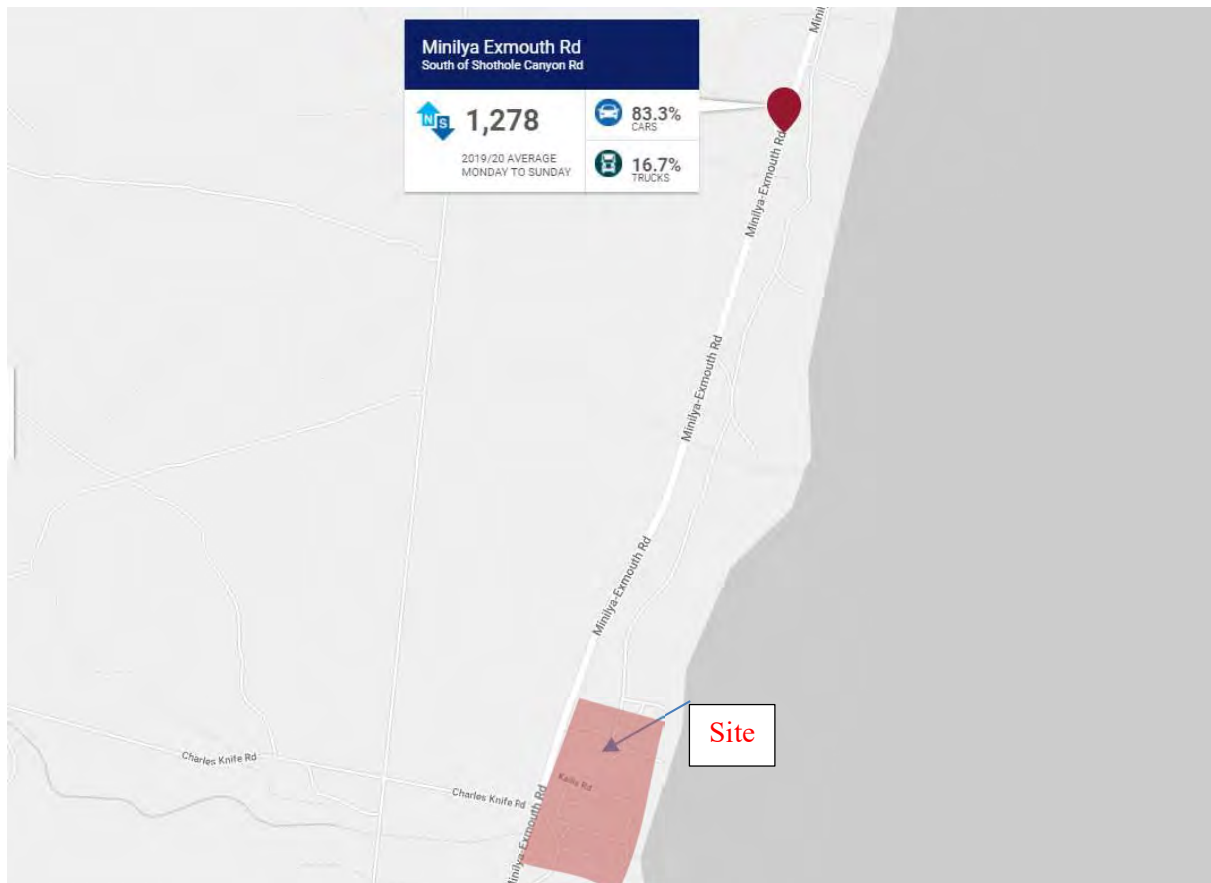


Figure 2.6: Existing Traffic Flows on Minilya-Exmouth Road (ADT) *Source: MRWA Traffic Map*

The road network currently operates with an acceptable level of service during peak periods, with no excessive delay or congestion. The current traffic volumes on Minilya-Exmouth Road are well within its capacity, being only a small fraction of the indicative capacity of the road.

2.5 Crash History

The crash history on Minilya-Exmouth Road in the vicinity of the site has been investigated, namely between Charles Knife Road and Kailis Road. According to the MRWA CARS, for the assessment period five years 2015 to 2019 inclusive, there has been one reported crash at the intersection with Charles Knife Road, which was a rear end crash type resulting in minor property damage.

This indicates that there are no significant existing safety concerns with the existing road network under assessment.

2.6 Planned Modifications to the Road Network

We are not aware of any planned modifications to the road network in the vicinity of the planned development.

3. PROPOSED DEVELOPMENT

3.1 Description of Proposed Development

The proposal is to rezone four lots, comprising Lot 1 Kailis Road; Lot 101, 112, and 220 Minilya-Exmouth Road, Learmonth, from “General Industry Zone” to “Tourism Zone” with a series of additional uses. The rezoning will facilitate a future development which is referred to as “K Town” with the site boundaries shown in **Figure 3.1**.

The development site is owned by MG Kailis who has engaged Rowe Group to propose an indicative “Tourism/Commercial Concept Plan”, with an indicative layout shown in **Figure 3.1**.



Figure 3.1 K Town Site Boundary

Source: Rowe Group



Figure 3.2 K Town Concept Plan Source: Rowe Group

The proposed development concept is planned in two stages. The first stage will include the Community Hub Precinct with a café, a staff housing precinct, residential park homes, cabins, areas for caravans, tents and ‘Glamping’ (premium tent facilities), a self-service fuel station and boat and trailer parking

zones. Further development (second stage) will be to extend the freehold land to increase the Caravan Park area and additional tourist accommodation and possibly a solar farm project on part of the land.

For the purposes of an initial analysis we have assumed the following accommodation uses on the site, whilst noting that these are indicative numbers at this stage and may alter:

1. 150 Caravans;
2. 40 Tents;
3. 30 Holiday Cabins; and
4. 50 semi-permanent Cabins/Residential Park Homes.

Since the proposed development site is located in a remote area, it can be assumed that the most of visitors will come from the south. They are likely to base themselves on the site and visit various tourism areas such as Exmouth and the Ningaloo Reef or go fishing via the various beach accesses. Some vehicles might be towing a boat trailer and provision has been made for these to be parked on site.

Visitors are likely to stay for a period of between two to seven days and we have taken an average of four days for analysis purposes. Peak use of the site would most likely be during weekends and public holidays.

We understand that staff will be present 24-hours a day, seven days a week, with more staff on-site during “standard” hours and peak holiday season than at other times. It is forecast that there may be up to 10 staff at peak times working on the site.

Each of the accommodation facilities will be expected to require parking for one vehicle, hence, with the addition of 10 staff bays, the site will require parking for about 250 vehicles.

3.2 Traffic Generation, Distribution and Assignment

3.2.1 Traffic Generation

The traffic generation associated with the camp ground element for AM and PM peaks are shown in **Table 3.1**, with the trip generation rates taken from the Institute of Transportation Engineers (ITE) “Trip Generation” 8th Edition.

Table 3.1: Generated Traffic for Camp grounds

Description	ITE Code	Unit of Measure	Number of units	Trip rate per unit	Peak Hour Trips (PCU/h)		
					Inbound	Outbound	Total
Camp ground	416	Ha	27.64	AM 1.89	22 (42%)	30 (58%)	52
				PM 2.42	47 (69%)	20 (31%)	67

If we assume that the peak hour represents in the order of 10% of daily traffic, this would suggest the camping activity may generate some 600 trips per day, 300 inbound and 300 outbound.

For the trip analysis exercise, the self-service fuel station element has been assumed to be 10% of passing traffic, which may well be over-optimistic. However, this would suggest 128 trips per day with 15 in the AM peak hour and 13 in the PM peak hour.

The majority of staff for the development are likely to reside on site, although some may reside in Exmouth.

No significant additional traffic generation has been assumed for the café, which is expected to be patronised by those staying at the K Town resort.

Overall, the daily trips of proposed development site, at peak season, are anticipated to be in the order of 728 vehicles per day with 67 in the AM peak and 80 in the PM peak hour.

3.2.2 Trip Distribution

The majority of vehicles will access the development site via Minilya-Exmouth Road onto Kailis Road with some roadhouse traffic using the additional direct access onto Minilya-Exmouth Road. For analysis purposes, we have assumed as a worst case scenario that all roadhouse traffic enters and exits via Kailis Road. The anticipated turning movements into and out of the site are shown in **Table 3.2**. Trip attractors are located to the north of the development, and hence the expected distribution for outbound trips would be 80/20 to the north/south and similarly inbound trips 80/20 to the north/south. In the PM peak, it is expected that 70% of the trips would be inbound with 30% outbound. For the daily trips, inbound and outbound splits would be 50/50.

It is expected that the self-service fuel station would take up to 10% of passing traffic, likely to be split 50/50 from each direction.

Table 3.2: Forecast Development Traffic at Minilya-Exmouth Road/Kailis Road Intersection

Description	Inbound from Minilya-Exmouth Rd		Outbound from Kailis Rd		Total
	Left turn in	Right turn in	Left turn out	Right turn out	
Daily	76	288	76	288	728
AM peak	10	19	11	26	67
PM peak	11	43	6	21	80

According to MRWA’s TrafficMap (see **Appendix A**) the peak traffic volume on Minilya-Exmouth Road in the vicinity of the development site is between 10am and 1pm when up to 151 vph were recorded. The site is estimated to generate an additional 80 trips in the PM peak hour with possibly 20% being passing trade for the roadhouse element.

Daily volumes on Minilya–Exmouth Road are estimated to increase by 600 vehicles per day from around 1,300 vpd to about 1,900 vpd. These traffic volumes indicate that there will be no capacity issues with the intersection as a result of the forecast generated traffic.

3.3 Development Accesses

The proposed concept plan, shown in **Figure 3.2**, indicates the main access to the site will be on Kailis Road via Minilya-Exmouth Road with a possible additional access further north. Sight distance is good from Kailis Road from Minilya-Exmouth Road in both directions. At the development application stage, the layout should be checked to ensure that it caters for the swept paths of the appropriate design vehicles including vehicles towing boat trailers.

Confirmation of the geometry of the Kailis Road/ Minilya-Exmouth Road T-intersection layout to enable northbound traffic to pass right turn in vehicles would be assessed once there is more certainty of the traffic generation potential of the proposal. There may be a warrant to upgrade the intersection to enable right turn in vehicles waiting on Minilya-Exmouth Road to be passed by northbound through traffic.

A second access off Minilya-Exmouth Road is being considered and is shown on the concept plan. This maybe or may not be pursued and in any case, access will need to be designed to the appropriate road authority requirements at the development application stage.

A review of the posted speed limit should be carried out at the development application stage as there may be a case to lower the 110 km/h speed limit on Minilya-Exmouth Road due to the increased turning movement activity involving vehicles towing caravans and boat trailers.

3.4 Parking Provision

Camp ground users would generally park their vehicles within their designated camp sites. Caravan sites will be marked and allocated individually to bookings. Parking is likely to be allocated for each cabin. Parking for the tent precinct has yet to be detailed, but likely to be segregated from the tent pitch areas for safety reasons. Reception area parking for arrivals and departures will be provided. Boat trailer parking is shown in the concept design. Provision for staff parking and some visitors will be provided.

3.5 Service Deliveries

Service vehicle deliveries to the site will be detailed at the development application stage for both the camp grounds and café, plus fuel tanker deliveries at the self-service fuel station.

3.6 Waste Collection

Waste collection arrangements will comprise collection from commercial waste bins located within the site and arrangements made for them to be regularly emptied. Details regarding waste collection and management will be provided at the development application stage.

3.7 Pedestrians and Cyclists

There are no pedestrian or cycling facilities on Minilya-Exmouth Road in the vicinity of the development site as there are no immediate destinations within walking distance. There may be occasional touring cyclists that stop off at the site.

It is envisaged however, that K-Town will be designed for a slow speed environment conducive to pedestrians and cyclists.

3.8 Public Transport

There is no public transport service operating within the immediate vicinity of the development site.

4. SUMMARY AND CONCLUSION

4.1 Summary

MG Kailis has commissioned Donald Veal Consultants to prepare this report to support the local planning scheme amendment of Lot 1 Kailis Road and Lots 101,112 and 220 Minilya-Exmouth Road, Learmonth, referred to as “K Town”. The proposal is to rezone the site from “General Industry” to “Tourism” with a series of “Additional Uses”.

The Shire of Exmouth requires a Transport Impact Statement (TIS) to demonstrate the capability of the site and surrounding road network to accommodate the anticipated tourism uses that would be capable of approval if the local planning scheme amendment is successful.

The proposed development is anticipated to accommodate up to 240 visitor groups staying in some 150 caravans, 50 cabins and 40 tents plus possibly 50 residential park homes and staff housing. These are indicative numbers at this stage and may alter. No significant additional traffic generation has been assumed for the café, which is expected to be patronised by those staying at the K Town resort.

The development is expected to generate in the order of 728 vpd including the roadhouse element. During the peak hour, some 80 trips may occur. Minilya-Exmouth Road carries about 1,300 vpd and has recorded a peak hour volume of 151.

The 27.85 Ha development is located on the east side of Minilya-Exmouth Road, approximately 23km south of Exmouth. The main site access will be via Kailis Road off Minilya-Exmouth Road, which is located about 145m to the north of the intersection with Charles Knife Road. Sight distance from Kailis Road along Minilya-Exmouth Road is good. There would also be a driveway access onto Minilya-Exmouth Road for the proposed Roadhouse, which would be designed to MRWA requirements.

Confirmation of the geometry of the Kailis Road/ Minilya-Exmouth Road T-intersection layout to accommodate design vehicles would be carried out at the design stage. There may be a warrant to upgrade the intersection to enable right turn in vehicles to be passed by northbound through traffic.

A review of the posted speed limit on Minilya-Exmouth Road (currently posted at 110km/h) should be carried out at the development application stage.

Sufficient parking would be provided on site. Camp ground users would park in the designated camp sites. Parking for staff would be provided as per the Shire’s requirements.

There is no dedicated pedestrian or cycling facilities on Minilya-Exmouth Road in the vicinity of the site. There is no public transport service operating within the immediate vicinity of the development site.

Service deliveries would be accommodated and detailed at the development application stage. Waste collection arrangements will comprise collection from commercial waste bins located within the site and arrangements made for them to be regularly emptied.

4.2 Conclusion

We conclude that the proposed rezoning may warrant an upgrade to the Kailis Road/ Minilya-Exmouth Road T-intersection to safely accommodate the increased demand for turning movements and a review of posted speed limit on Minilya-Exmouth Road at the (detailed) development application stage. Otherwise, no significant adverse impact on the capacity or safety of the surrounding road network is envisaged.

Donald Veal Consultants therefore fully support the rezoning application in terms of its traffic and road safety impact and recommend its approval provided any requirements to upgrade Minilya-Exmouth Road to accommodate the Kailis Road T-intersection and any other accesses are addressed and a review of speed limit along this section of Minilya-Exmouth Road is undertaken at the appropriate stage.

APPENDIX A: TRAFFIC DATA



SITE 50517

Hourly Volume

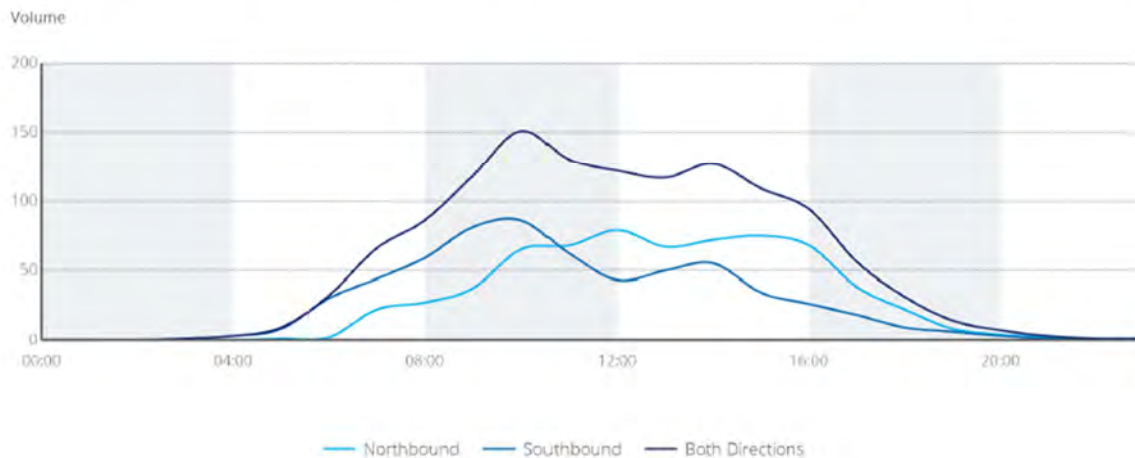
Minilya Exmouth Rd (H048)

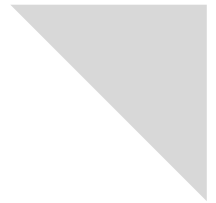
2019/20
 Monday to Sunday

South of Shothole Canyon Rd (SLK 197.00)

	All Vehicles				Heavy Vehicles					
	NB	SB	Both	%	NB	SB	Both	%		
00:00	0	0	0	0.0	0	0	0	0.0		
01:00	0	0	0	0.0	0	0	0	0.0		
02:00	0	0	0	0.0	0	0	0	0.0		
03:00	0	1	1	0.0	0	0	0	0.0		
04:00	0	3	3	33.3	0	1	1	33.3		
05:00	1	8	9	22.2	0	2	2	22.2		
06:00	2	30	32	28.1	0	9	9	28.1		
07:00	22	44	66	19.7	3	10	13	19.7		
08:00	27	59	86	24.4	5	16	21	24.4		
09:00	37	81	118	17.8	5	16	21	17.8		
10:00	65	86	151	18.5	9	19	28	18.5		
11:00	68	62	130	18.5	8	16	24	18.5		
12:00	79	43	122	15.6	9	10	19	15.6		
13:00	67	50	117	13.7	4	12	16	13.7		
14:00	72	55	127	16.5	9	12	21	16.5		
15:00	75	34	109	13.8	6	9	15	13.8		
16:00	68	26	94	11.7	5	6	11	11.7		
17:00	38	18	56	10.7	3	3	6	10.7		
18:00	22	9	31	9.7	2	1	3	9.7		
19:00	8	6	14	14.3	0	2	2	14.3		
20:00	4	3	7	14.3	0	1	1	14.3		
21:00	2	1	3	0.0	0	0	0	0.0		
22:00	1	0	1	0.0	0	0	0	0.0		
23:00	1	0	1	0.0	0	0	0	0.0		
TOTAL	659	619	1278	16.7	68	145	213	16.7		

		AM			PM		
TIME	VOL	10:30	09:30	09:45	14:15	13:30	13:45
		71	55	154	11	16	22





ATTACHMENT 6

BUSHFIRE HAZARD LEVEL ASSESSMENT



ROWE
GROUP



Bushfire Hazard Level Assessment:
Scheme Amendment: Lot 1 Kailis Road, Lot 101, 112
and 220 Minilya-Exmouth Road, Learmonth

MG Kailis Pty Ltd

DOCUMENT TRACKING

Project Name	Bushfire Hazard Level Assessment: Scheme Amendment: Lot 1 Kailis Road, Lot 101, 112 and 220 Minilya- Exmouth Road, Learmonth
Project Number	20PER-16629
Project Manager	James Leonard
Prepared by	Alex Aitken (BPAD Level 2 – 37739)
Reviewed by	Daniel Panickar (BPAD Level 3 – 37802)
Approved by	Daniel Panickar (BPAD Level 3 – 37802)
Status	Draft
Version Number	v2
Last saved on	15 October 2020

This report should be cited as 'Eco Logical Australia 2020. *Bushfire Hazard Level Assessment: Scheme Amendment: Lot 1 Kailis Road, Lot 101, 112 and 220 Minilya-Exmouth Road, Learmonth* . Prepared for MG Kailis Pty Ltd.

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This document has been prepared by Eco Logical Australia Pty Ltd with support from MG Kailis Pty Ltd (the client).

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Template 2.8.1

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1. Introduction

1.1 Proposal details

Eco Logical Australia (ELA) was commissioned by MG Kailis Pty Ltd to prepare a Bushfire Hazard Level (BHL) assessment to support a scheme amendment for Lot 1 Kailis Road, Lot 101, 112 and 220 Minilya-Exmouth Road, Learmonth (hereafter referred to as the subject site, Figure 1 and Figure 2). The scheme amendment is proposed to change the existing zoning of 'General Industry' to 'Tourism' with a series of 'Additional Uses'.

The subject site is within a designated bushfire prone area as per the *Western Australia State Map of Bush Fire Prone Areas* (DFES 2019; Figure 3), which triggers bushfire planning requirements *under State Planning Policy 3.7 Planning in Bushfire Prone Areas* (SPP 3.7; Western Australian Planning Commission (WAPC) 2015) and reporting to accompany submission of the planning application in accordance with the associated *Guidelines for Planning in Bushfire Prone Areas v 1.3* (the Guidelines; WAPC 2017).

The subject site is located in the Shire of Exmouth and was previously being operated by MG Kailis as a prawn processing facility. The proposed scheme amendment application under the Shire of Exmouth Local Planning Scheme No. 4 (LPS 4) seeks to rezone the subject site from 'General Industry' Zone to 'Tourism' Zone and assigning a series of 'Additional Use' provisions as 'Permitted' (P) uses (in Schedule 2 – Additional Uses) at the subject site. The scheme amendment also seeks to remove 'Special Control Area 6 – Minilya Exmouth Road' from the western portion of the subject site.

Given the remote nature of the site, this assessment has been undertaken using desktop information only.

This assessment has been prepared by ELA Senior Bushfire Consultant Alex Aitken (FPAA BPAD Level 2 Certified Practitioner No. BPAD37739) with quality assurance undertaken by Senior Bushfire Consultant Daniel Panickar (FPAA BPAD Level 3 Certified Practitioner No. BPAD37802).

1.2 Purpose and application of the plan

The primary purpose of this BHL assessment is to act as a technical supporting document to inform development design. This BHL assessment is also designed to provide guidance on how to plan for and manage the bushfire risk to the subject site through the future implementation of a range of bushfire management measures (to be documented in a Bushfire Management Plan) in accordance with the Guidelines.

The subject site and possible future tourism/service station land uses may be categorised as a vulnerable and high-risk land uses. A Bushfire Emergency Evacuation Plan (BEEP) and a Bushfire Risk Management Plan (BRMP) may be required to be submitted with future development applications (DA) addressing these land uses in regards to bushfire risk.

1.3 Environmental considerations

SPP 3.7 policy objective 5.4 recognises the need to consider bushfire risk management measures alongside environmental, biodiversity and conservation values.

Aerial imagery indicates that the subject site has been previously cleared within the subject site, resulting in no existing vegetation on site. As no site assessment has been undertaken, this assessment of environmental values may be required to be updated to support future planning approvals.

Figure 1: Site Overview



Figure 1: Site overview

Figure 2: Site Plan



Figure 2: Site Plan

Figure 3: Bushfire Prone Areas

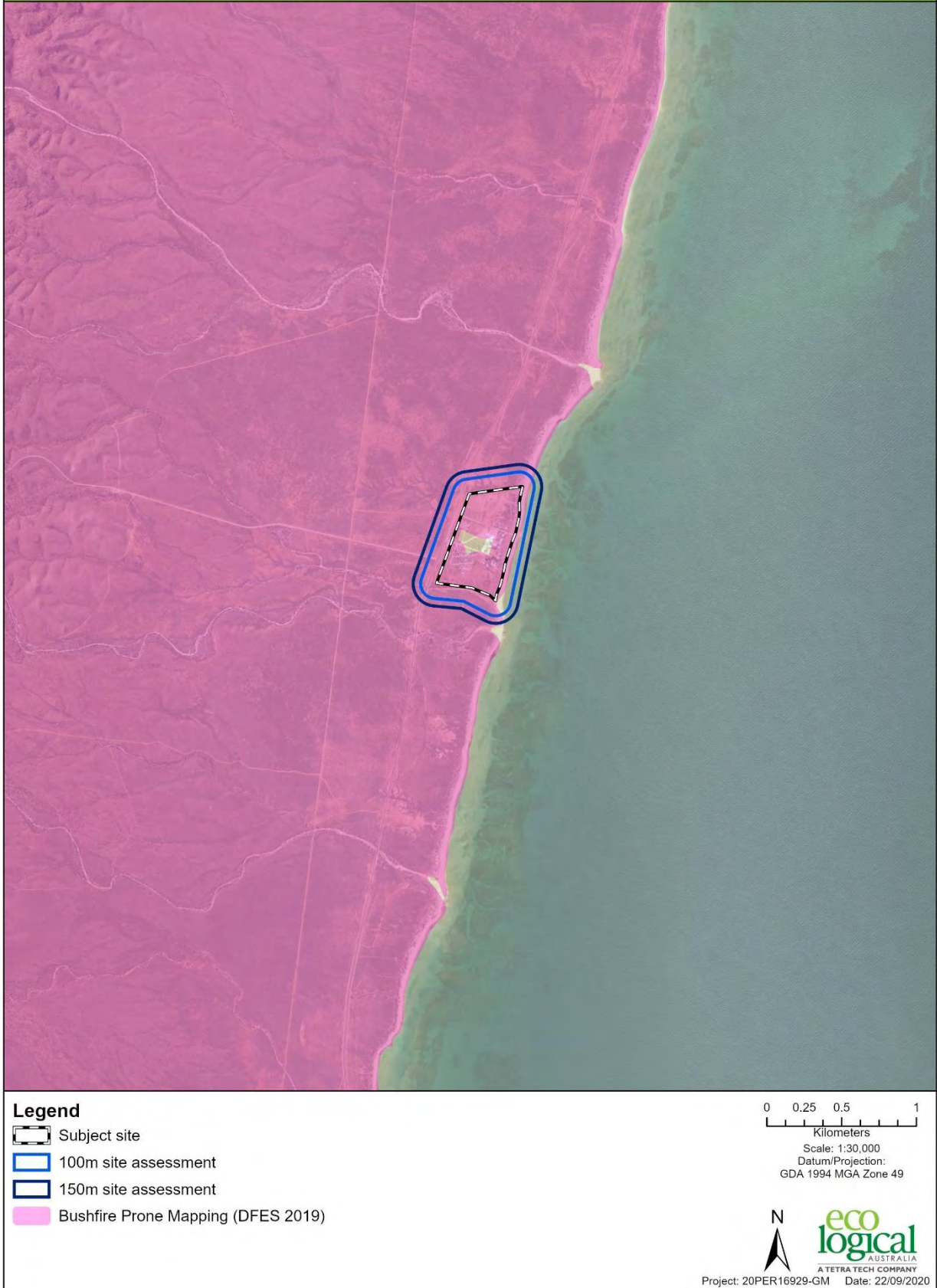


Figure 3: Bushfire Prone Areas

2. Bushfire assessment results

2.1 Bushfire assessment inputs

The following section is a consideration of spatial bushfire risk and has been used to inform the bushfire assessment in this report.

2.1.1 Fire Danger Index

A blanket rating of FDI 80 is adopted for Western Australia, as outlined in Australian Standard (AS) 3959–2018 and endorsed by Australasian Fire and Emergency Service Authorities Council (AFAC).

2.1.2 Vegetation classification

Vegetation within the subject site and surrounding 150 m (the assessment area) was assessed in accordance with the Guidelines and AS 3959-2018 *Construction of Buildings in Bushfire Prone Areas* (SA 2018) with regard given to the *Visual guide for bushfire risk assessment in Western Australia* (DoP 2016).

The classified vegetation for the site from each of the identified vegetation plots are identified below, Table 1 and Figure 4.

Table 1: Classified vegetation as per AS 3959-2018

Plot	Vegetation Classification	Effective Slope
1	Class C Shrubland	All upslopes and flat land (0 degrees)
2	Class C Shrubland	All upslopes and flat land (0 degrees)
3	Class C Shrubland	All upslopes and flat land (0 degrees)
4	Class G Grassland	All upslopes and flat land (0 degrees)
5	Excluded AS 3959-2018 2.2.3.2 (e)	-

Note the classified vegetation assessment has been conducted as a desktop exercise with the use of aerial imagery, publicly available height contours and previous knowledge of the regional area. The accredited bushfire practitioner completing this assessment has not visited the subject site.

2.1.3 Topography and slope under vegetation

Effective slope under vegetation was assessed for a distance of 150 m from the subject site in accordance with the Guidelines and AS 3959-2018 and is depicted in Figure 4. Slope under classified vegetation was assessed and is shown in Table 1.

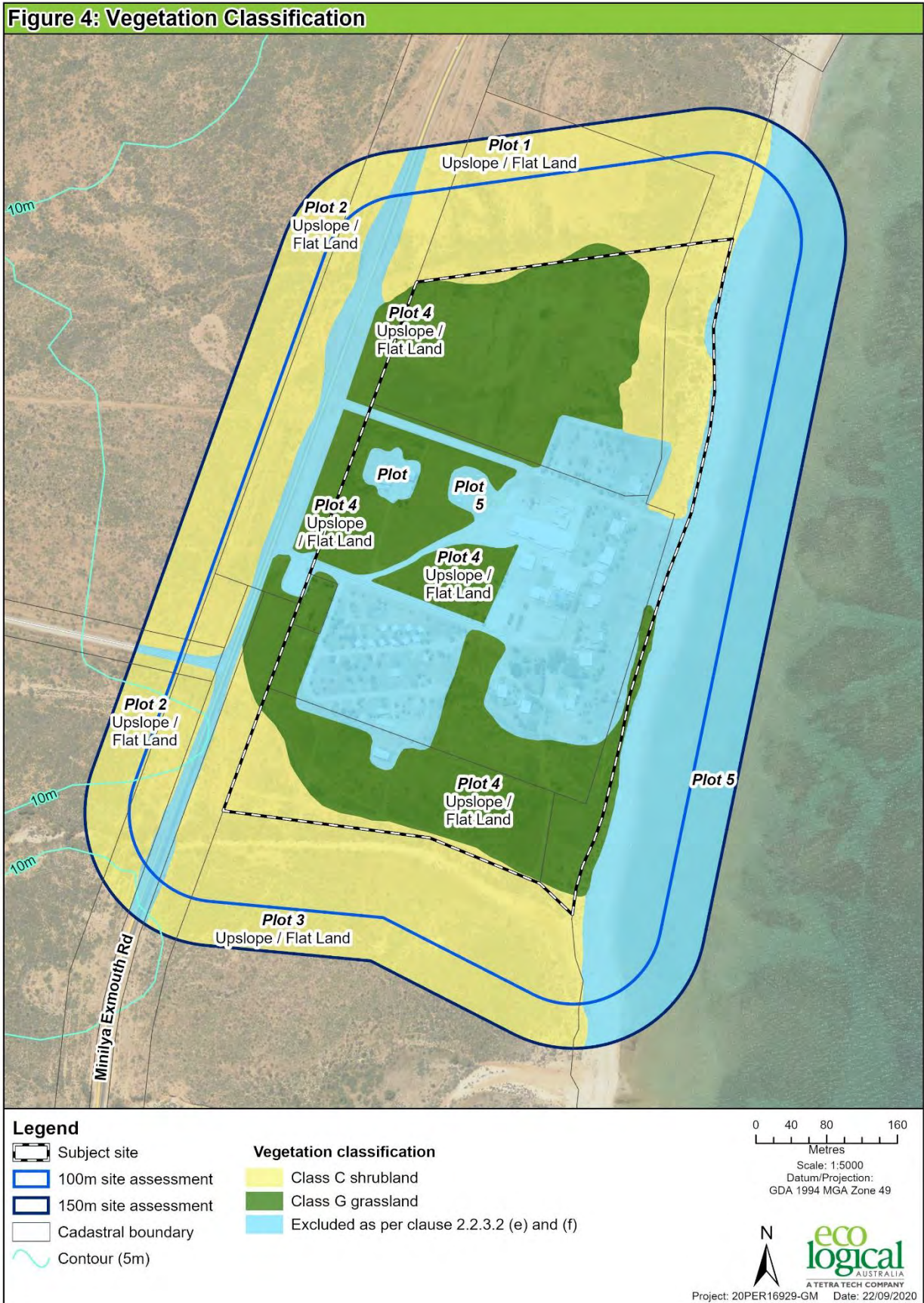


Figure 4: Vegetation classification

2.2 Bushfire assessment outputs

A Bushfire Hazard level (BHL) assessment has been undertaken in accordance with SPP 3.7, the Guidelines and the bushfire assessment inputs in Section 2.1.

2.2.1 BHL assessment

All land located within 150 m of the classified vegetation depicted in Figure 4 is considered bushfire prone and is subject to a BHL assessment in accordance with Guidelines.

A bushfire hazard level assessment (as outlined in the Guidelines) has been completed for the subject site and incorporates the following factors:

- Vegetation class; and
- Slope under classified vegetation.

The BHL is a broad brush means of determining the potential intensity of a bushfire that may impact on the subject site. The BHL can be utilised for the pre development assessment of proposals such as scheme amendments and strategic planning approvals.

2.2.2 Bushfire Hazard Level Assessment

Table 2 contains a summary of the BHL assessment for each vegetation plot depicted in Figure 4. All land within 100 m of Extreme and Moderate BHLs has also been mapped as a Moderate hazard as per the Guidelines, and the final result is depicted in Figure 5 .

Table 2: Bushfire Hazard level assessment

Plot	Vegetation Classification	Bushfire Hazard Level
1	Class C Shrubland	Moderate
2	Class C Shrubland	Moderate
3	Class C Shrubland	Moderate
4	Class G Grassland	Moderate
5	Excluded AS 3959-2018 2.2.3.2 (e)	Low

2.3 Identification of issues arising from the BHL assessment

As the BHL assessment has been based on a desktop review of the vegetation and effective slope, the mapped BHLs are indicative in nature and may be required to be updated once a site assessment has been completed by an accredited bushfire consultant.

Clearing will be undertaken within the subject site for development purposes, and consequently the pre-development BHLs are subject to change. A post-development BHL assessment is provided in Figure 6 based on expected changes to vegetation within the subject site.

Should there be any changes in subject site or vegetation/hazard extent that requires a modified bushfire management response, then the above BHL ratings will need to be reassessed for the affected areas and documented.

Figure 5: Pre-Development Bushfire Hazard Level (BHL) Assessment

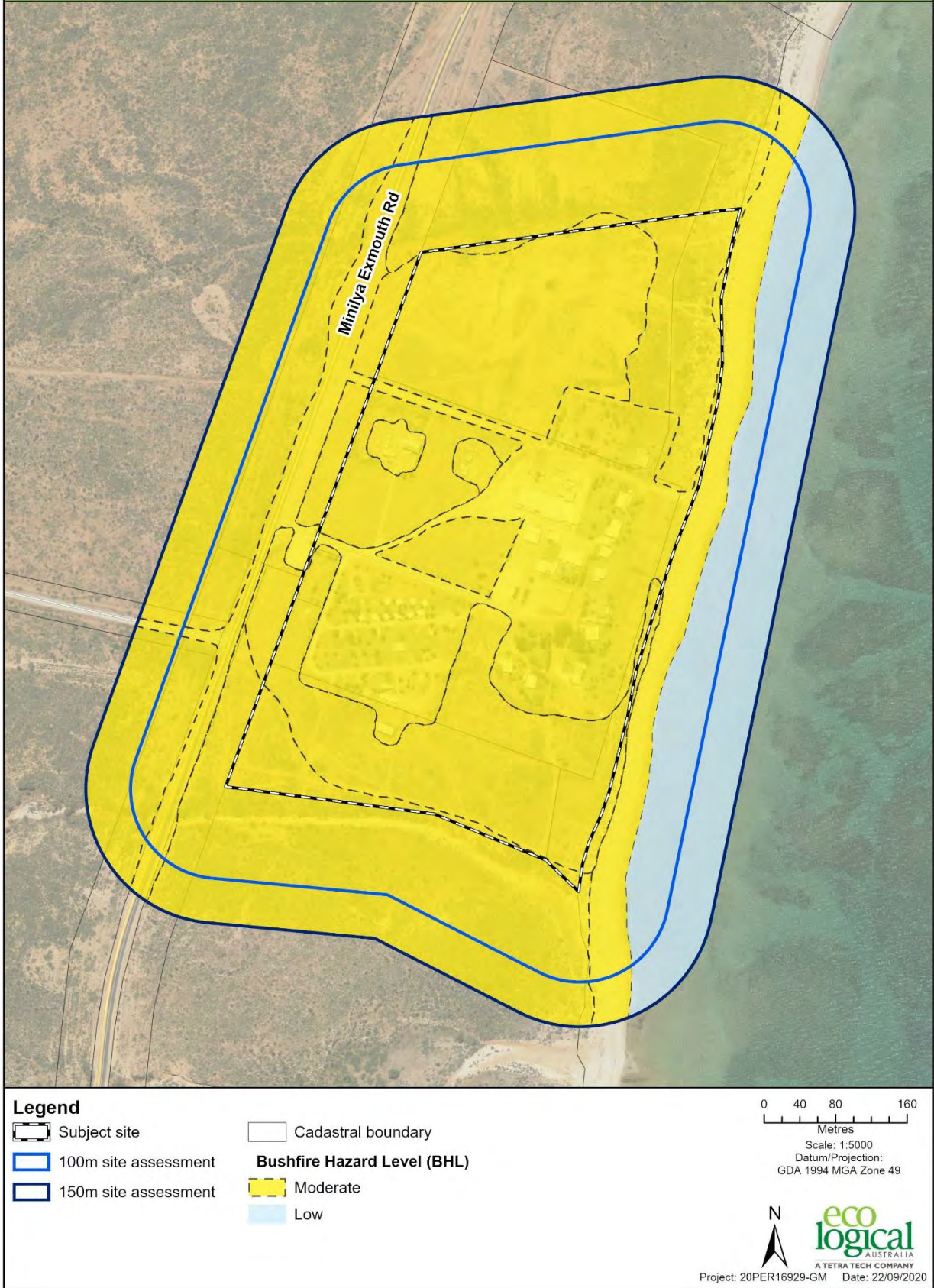


Figure 5: Bushfire Hazard Level Assessment- Pre Development

Figure 6: Pre-Development Bushfire Hazard Level (BHL) Assessment

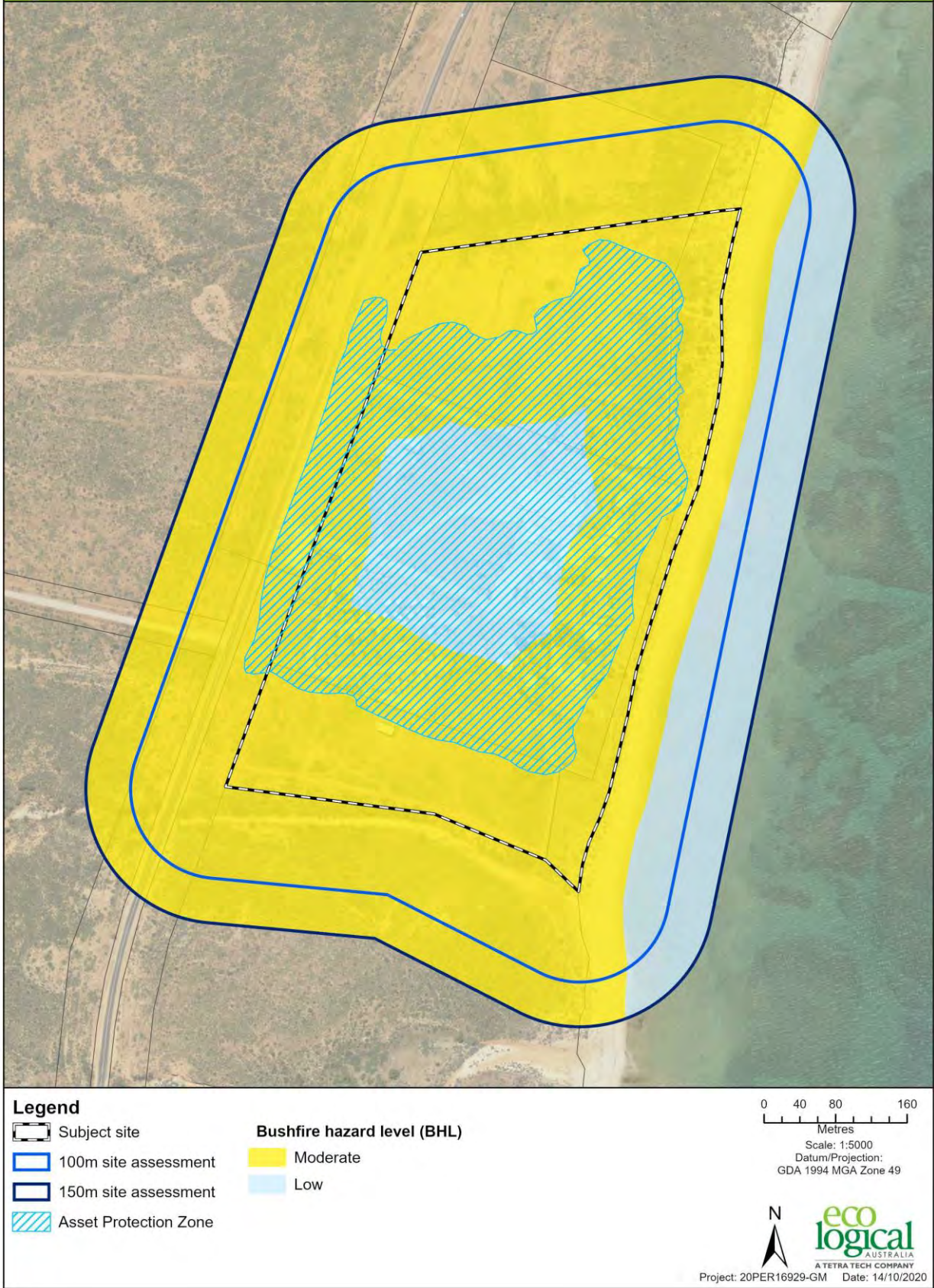


Figure 6: Bushfire Hazard Level Assessment- Post Development

3. Conclusion

In the author's professional opinion, the bushfire hazard level assessment undertaken demonstrates that following clearing for development, the subject site will be exposed to BHLs of moderate and low that can be maintained through the implementation of bushfire management measures documented in bushfire management plans supporting future planning applications.

4. References

Department of Fire and Emergency Services, 2019, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <http://www.dfes.wa.gov.au/regulationandcompliance/bushfireproneareas/Pages/default.aspx>

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Western Australian Planning Commission, 2017, *Guidelines for Planning in Bushfire Prone Areas Version 1.3 (including appendices)*, WAPC, Perth.

Western Australian Planning Commission, 2019, *A guide to developing a Bushfire Emergency Evacuation Plan, October 2019*.



Special Control Area 6

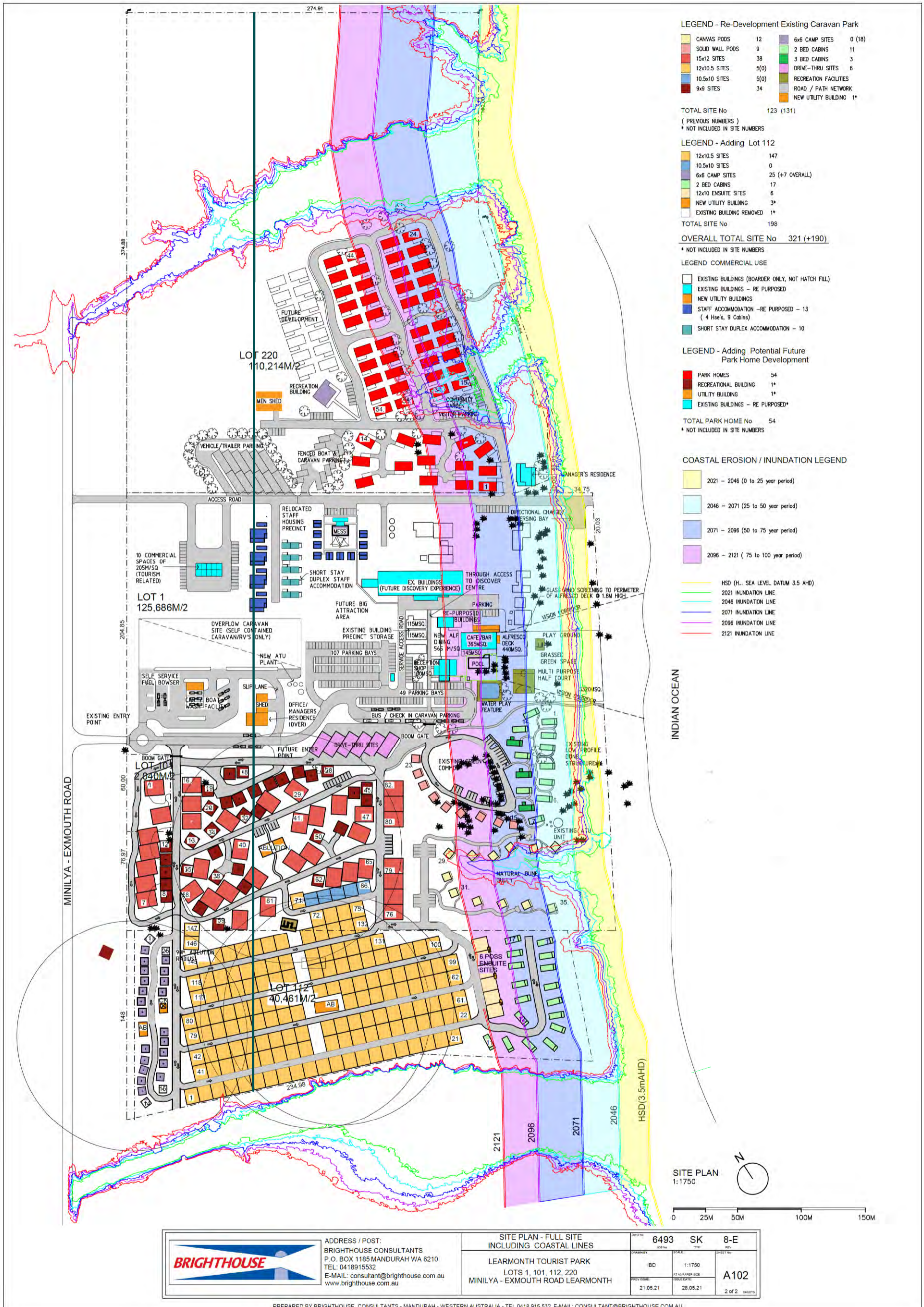


Figure 2.2 Kailis Properties Concept Development Plan (source Brighthouse 2021)

- (b) if the building is used for purposes other than residential purposes, means the vertical distance from the natural ground level of the boundary of the property that is closest to the wall to the point where the wall meets the roof or parapet;

wholesale means the sale of goods or materials to be sold by others.

2. A word or expression that is not defined in this Scheme —

- (a) has the meaning it has in the *Planning and Development Act 2005*; or
 (b) if it is not defined in that Act — has the same meaning as it has in the R-Codes.

3. Land use terms used

If this Scheme refers to a category of land use that is listed in this provision the meaning of that land use is as follows —

abattoir means premises used commercially for the slaughtering of animals for the purposes of consumption as food products.

airfield means land and buildings used in connection with the operation of aeroplanes and other aircraft, including airstrips, a public passenger terminal, ancillary offices, car parking, parking, maintenance and servicing of aircraft, but does not include a private airstrip incidental to farming operations.

agriculture - extensive means premises used for the raising of stock or crops including outbuildings and earthworks, but does not include agriculture - intensive or animal husbandry - intensive.

agriculture - intensive means premises used for commercial production purposes, including outbuildings and earthworks, associated with any of the following —

- (a) the production of grapes, vegetables, flowers, exotic or native plants, or fruit or nuts;
 (b) the establishment and operation of plant or fruit nurseries;
 (c) the development of land for irrigated fodder production or irrigated pasture (including turf farms);
 (d) aquaculture.

amusement parlour means premises —

- (a) that are open to the public; and
 (b) that are used predominately for amusement by means of amusement machines including computers; and
 (c) where there are 2 or more amusement machines;

animal establishment means premises used for the breeding, boarding, training or caring of animals for commercial purposes but does not include animal husbandry - intensive or veterinary centre.

animal husbandry - intensive means premises used for keeping, rearing or fattening of alpacas, beef and dairy cattle, goats, pigs, poultry (for either egg or meat production), rabbits (for either meat or fur production) or other livestock in feedlots, sheds or rotational pens.

bed and breakfast means a dwelling —

- (a) used by a resident of the dwelling to provide short-term accommodation, including breakfast, on a commercial basis for not more than 4 adult persons or one family; and
- (b) containing not more than 2 guest bedrooms.

betting agency means an office or totalisator agency established under the *Racing and Wagering Western Australia Act 2003*.

brewery means premises the subject of a producer's licence authorising the production of beer, cider or spirits granted under the *Liquor Control Act 1988*.

bulky goods showroom means premises —

- (a) used to sell by retail any of the goods and accessories of the following types that are principally used for domestic purposes —
 - (i) automotive parts and accessories;
 - (ii) camping, outdoor and recreation goods;
 - (iii) electric light fittings;
 - (iv) animal supplies including equestrian and pet goods;
 - (v) floor and window coverings;
 - (vi) furniture, bedding, furnishings, fabrics, manchester and homewares;
 - (vii) household appliances, electrical goods and home entertainment goods;
 - (viii) party supplies;
 - (ix) office equipment and supplies;
 - (x) babies' and childrens' goods, including play equipment and accessories;
 - (xi) sporting, cycling, leisure, fitness goods and accessories;
 - (xii) swimming pools,

and

- (b) used to sell by retail goods and accessories by retail if —
 - (i) a large area is required for the handling, display or storage of the goods;
or
 - (ii) vehicular access is required to the premises for the purpose of collection of purchased goods.

camping ground has the meaning given in the *Caravan Parks and Camping Grounds Act 1995* section 5 (1).

car park means premises used primarily for parking vehicles whether open to the public or not but does not include —

- (a) any part of a public road used for parking or for a taxi rank; or
- (b) any premises in which cars are displayed for sale.

caravan park means premises that are a caravan park as defined in the *Caravan Parks and Camping Grounds Act 1995* section 5 (1).

caretaker's dwelling means a dwelling on the same site as a building, operation or plant used for industry, and occupied by a supervisor of that building, operation or plant.

child care premises means premises where —

- (a) an education and care service as defined in the *Education and Care Services National Law (Western Australia)* section 5(1), other than a family day care service as defined in that section, is provided; or
- (b) a child care service as defined in the *Child Care Services Act 2007* section 4 is provided.

cinema / theatre means premises where the public may view a motion picture or theatrical production.

civic use means premises used by a government department, an instrumentality of the State or the local government for administrative, recreational or other purposes.

club premises means premises used by a legally constituted club or association or other body of persons united by a common interest.

community purpose means premises designed or adapted primarily for the provision of educational, social or recreational facilities or services by organisations involved in activities for community benefit.

consulting rooms means premises used by no more than 2 health practitioners at the same time for the investigation or treatment of human injuries or ailments and for general outpatient care.

convenience store means premises —

- (a) used for the retail sale of convenience goods commonly sold in supermarkets, delicatessens or newsagents; and
- (b) operated during hours which include, but may extend beyond, normal trading hours; and
- (c) the floor area of which does not exceed 300m² net lettable area.

corrective institution means premises used to hold and reform persons committed to it by a court, such as a prison or other type of detention facility.

discount department store means large retail premises selling a wide variety of different goods organised into various departments.

dry cleaning premises / laundromat means premises used for the commercial cleaning of clothes and laundry either in a self-service or serviced manner.

educational establishment means premises used for the purposes of providing education including premises used for a school, higher education institution, business college, academy or other educational institution.

exhibition centre means premises used for the display, or display and sale, of materials of an artistic, cultural or historical nature including a museum.

family day care means premises where a family day care service as defined in the *Education and Care Services National Law (Western Australia)* is provided.

fast food outlet means premises, including premises with a facility for drive-through service, used for the preparation, sale and serving of food to customers in a form ready to be eaten —

- (a) without further preparation; and
- (b) primarily off the premises.

fuel depot means premises used for the storage and sale in bulk of solid or liquid or gaseous fuel, but does not include premises used —

- (a) as a service station; or
- (b) for the sale of fuel by retail into a vehicle for use by the vehicle.

funeral parlour means premises used —

- (a) to prepare and store bodies for burial or cremation;
- (b) to conduct funeral services.

garden centre means premises used for the propagation, rearing and sale of plants, and the storage and sale of products associated with horticulture and gardens.

holiday accommodation means 2 or more dwellings on one lot used to provide short term accommodation for persons other than the owner of the lot.

holiday house means a single dwelling on one lot used to provide short-term accommodation but does not include a bed and breakfast.

home business means a dwelling or land around a dwelling used by an occupier of the dwelling to carry out business, service or profession if the carrying out of the business, service or profession —

- (a) does not involve employing more than 2 people who are not members of the occupier's household; and
- (b) will not cause injury to or adversely affect the amenity of the neighbourhood; and
- (c) does not occupy an area greater than 50m²; and
- (d) does not involve the retail sale or display of any goods unless the sale, display or hire is done only by means of the Internet; and
- (e) does not result in traffic difficulties as a result of the inadequacy of parking or an increase in traffic volumes in the neighbourhood; and
- (f) does not involve the presence, use or calling of a vehicle more than 4.5 tonnes tare weight; and
- (g) does not involve the use of an essential service that is greater than the use normally required in the zone in which the dwelling is located.

home occupation means a dwelling or land around a dwelling used by an occupier of the dwelling to carry out an occupation if the carrying out of the occupation that —

- (a) does not involve employing a person who is not a member of the occupier's household; and
- (b) will not cause injury to or adversely affect the amenity of the neighbourhood; and
- (c) does not occupy an area greater than 20m²; and
- (d) does not involve the display on the premises of a sign with an area exceeding 0.2m²; and
- (e) does not involve the retail sale, display or hire of any goods, unless the sale, display or hire is done only by means of the Internet; and
- (f) does not —
 - (i) require a greater number of parking spaces than normally required for a single dwelling; or
 - (ii) result in an increase in traffic volume in the neighbourhood, and
- (g) does not involve the presence, use or calling of a vehicle more than 4.5 tonnes tare weight; and
- (h) does not include provision for the fuelling, repair or maintenance of motor vehicles; and
- (i) does not involve the use of an essential service that is greater than the use normally required in the zone in which the dwelling is located.

home office means a dwelling used by an occupier of the dwelling to carry out a home occupation if the carrying out of the occupation —

- (a) is solely within the dwelling; and
- (b) does not entail clients or customers travelling to and from the dwelling; and
- (c) does not involve the display of a sign on the premises; and
- (d) does not require any change to the external appearance of the dwelling.

hospital means premises used as a hospital as defined in the *Health Services Act 2016* section 8(4).

hotel means premises the subject of a hotel licence other than a small bar or tavern licence granted under the *Liquor Control Act 1988* including any betting agency on the premises.

industry means premises used for the manufacture, dismantling, processing, assembly, treating, testing, servicing, maintenance or repairing of goods, products, articles, materials or substances and includes facilities on the premises for any of the following purposes —

- (a) the storage of goods;
- (b) the work of administration or accounting;
- (c) the selling of goods by wholesale or retail;

- (d) the provision of amenities for employees;
- (e) incidental purposes.

industry - cottage means premises, other than premises used for a home occupation, that are used by the occupier of the premises for the purpose of carrying out a trade or light industry producing arts and crafts goods if the carrying out of the trade or light industry —

- (a) will not cause injury to or adversely affect the amenity of the neighbourhood; and
- (b) if the premises is located in a Residential zone – does not employ any person other than a member of the occupier’s household; and
- (c) is compatible with the principal uses to which land in the zone in which the premises is located may be put; and
- (d) does not occupy an area greater than 50m²; and
- (e) does not involve the display on the premises of a sign with an area exceeding 0.2m².

industry - extractive means premises, other than premises used for mining operations, that are used for the extraction of basic raw materials including by means of ripping, blasting or dredging and may include facilities for any of the following purposes —

- (a) the processing of raw materials including crushing, screening, washing, blending or grading;
- (b) activities associated with the extraction of basic raw materials including wastewater treatment, storage, rehabilitation, loading, transportation, maintenance and administration.

industry - light means premises used for an industry where impacts on the amenity of the area in which the premises is located can be mitigated, avoided or managed.

industry - primary production means premises used —

- (a) to carry out a primary production business as that term is defined in the *Income Tax Assessment Act 1997* (Commonwealth) section 995-1; or
- (b) for a workshop servicing plant or equipment used in primary production businesses.

industry - service means premises with a retail shop front:

- (a) from which goods manufactured on the premises are sold; or
- (b) used as a depot for receiving goods to be serviced.

liquor store - large means premises —

- (a) the subject of a liquor store licence granted under the *Liquor Control Act 1988*; and
- (b) in which the whole of, or a portion of, the premises with a net lettable area of more than 300m² is used to display and sell packaged liquor for consumption off the premises.

liquor store - small means premises the subject of a liquor store licence granted under the *Liquor Control Act 1988* with a net lettable area of not more than 300m².

lunch bar means premises or part of premises used for the sale of takeaway food (in a form ready to be consumed without further preparation) within industrial or commercial areas.

marina means —

- (a) premises used for providing mooring, fuelling, servicing, repairing, storage and other facilities for boats, including the associated sale of any boating gear or equipment; and
- (b) all jetties, piers, embankments, quays, moorings, offices and storerooms used in connection with the provision of those services.

marine filling station means premises used for the storage and supply of liquid fuels and lubricants for marine craft.

marine support facility means premises used for lay-down, fabrication, repair, loading and maintenance purposes associated with marine based industry, and may include a marine based component as a single operator or common use facility and terrestrial based components, whether contiguous or not.

market means premises used for the display and sale of goods from stalls by independent vendors.

medical centre means premises, other than a hospital, used by 3 or more health practitioners at the same time for the investigation or treatment of human injuries or ailments and for general outpatient care.

mining operations means premises where mining operations, as that term is defined in the *Mining Act 1978* section 8(1) is carried out.

motel means premises, which may be licensed under the *Liquor Control Act 1988* —

- (a) used to accommodate guests in a manner similar to a hotel; and
- (b) with specific provision for the accommodation of guests with motor vehicles.

motor vehicle, boat or caravan sales means premises used to sell or hire motor vehicles, boats or caravans.

motor vehicle repair means premises used for or in connection with —

- (a) electrical and mechanical repairs, or overhauls, to vehicles other than panel beating, spray painting or chassis reshaping of vehicles; or
- (b) repairs to tyres other than recapping or retreading of tyres.

motor vehicle wash means premises primarily used to wash motor vehicles.

motor vehicle wreckers means premises used for the storage, breaking up or dismantling of motor vehicles and includes the sale of second-hand motor vehicle accessories and spare parts.

nature based park means premises used for a nature based park as defined in the *Caravan Parks and Camping Grounds Regulations 1997* Part 1(3).

nightclub means premises the subject of a nightclub license granted under the *Liquor Control Act 1988*.

office means premises used for administration, clerical, technical, professional or similar business activities.

park home park means premises used as a park home park as defined in the *Caravan Parks and Camping Grounds Regulations 1997* Part 1(3).

place of worship means premises used for religious activities such as a chapel, church, mosque, synagogue or temple.

produce stall means a stall used to sell produce grown or made locally.

reception centre means premises used for hosted functions on formal or ceremonial occasions.

recreation - private means premises that are —

- (a) used for indoor or outdoor leisure, recreation or sport; and
- (b) not usually open to the public without charge.

repurposed dwelling means a building or structure not previously used as a single house, which has been repurposed for use as a dwelling.

residential aged care facility means a residential facility providing personal and/or nursing care primarily to people who are frail and aged and which, as well as accommodation, includes appropriate staffing to meet the nursing and personal care needs of residents; meals and cleaning services; furnishings; furniture and equipment. May also include residential respite (short term) care but does not include a hospital or psychiatric facility.

resource recovery centre means premises other than a waste disposal facility used for the recovery of resources from waste.

renewable energy facility means facility used to generate energy from a renewable energy source and includes any building or other structure used in, or in connection with, the generation of energy by a renewable resource, where energy is being produced for commercial gain (i.e. solar farms as opposed to solar panels).

restaurant/café means premises primarily used for the preparation, sale and serving of food and drinks for consumption on the premises by customers for whom seating is provided, including premises that are licenced under the *Liquor Control Act 1988*.

restricted premises means premises used for the sale by retail or wholesale, or the offer for hire, loan or exchange, or the exhibition, display or delivery of —

- (a) publications that are classified as restricted under the *Classification (Publications, Films and Computer Games) Act 1995* (Commonwealth); or
- (b) materials, compounds, preparations or articles which are used or intended to be used primarily in or in connection with any form of sexual behaviour or activity; or
- (c) smoking-related implements.

road house means premises that has direct access to a State road other than a freeway and which provides the services or facilities provided by a freeway service centre and may provide any of the following facilities or services —

- (a) a full range of automotive repair services;
- (b) wrecking, panel beating and spray painting services;

- (c) transport depot facilities;
- (d) short-term accommodation for guests;
- (e) facilities for being a muster point in response to accidents, natural disasters and other emergencies; and
- (f) dump points for the disposal of black and/or grey water from recreational vehicles.

rural pursuit/hobby farm means any premises, other than premises used for agriculture - extensive or agriculture - intensive, that are used by an occupier of the premises to carry out any of the following activities if carrying out of the activity does not involve permanently employing a person who is not a member of the occupier's household —

- (a) the rearing, agistment, stabling or training of animals;
- (b) the keeping of bees;
- (c) the sale of produce grown solely on the premises.

salvage yard means land and buildings used for the storage and sale of materials salvaged from the demolition or renovating of buildings or machinery.

second-hand dwelling means a dwelling that has been in a different location, and has been dismantled and transported to another location, but does not include a new modular or transportable dwelling.

service station means premises other than premises used for a transport depot, panel beating, spray painting, major repairs or wrecking, that are used for —

- (a) the retail sale of petroleum products, motor vehicle accessories and goods of an incidental or convenience nature; and/or
- (b) the carrying out of greasing, tyre repairs and minor mechanical repairs to motor vehicles.

serviced apartment means a group of units or apartments providing —

- (a) self-contained short stay accommodation for guests; and
- (b) any associated reception or recreational facilities.

shop means premises other than a bulky goods showroom, a liquor store - large or a liquor store - small used to sell goods by retail, to hire goods, or to provide services of a personal nature, including hairdressing or beauty therapy services.

shopping centre means a group of retail shops and other incidental commercial establishments that is planned and managed as a single complex, typically with on-site parking provided.

small bar means premises the subject of a small bar licence granted under the *Liquor Control Act 1988*.

supermarket means a business for the retail sale of household goods where the customer collects the proposed purchase from open shelves, payment being made at a central check point but does not include a convenience store, shop or a bulky goods showroom.

tavern means premises the subject of a tavern licence granted under the *Liquor Control Act 1988*.

telecommunications infrastructure means premises used to accommodate the infrastructure used by or in connection with a telecommunications network including any line, equipment, apparatus, tower, antenna, tunnel, duct, hole, pit, or other structure related to the network.

tourist development means a building, or a group of buildings forming a complex, other than a bed and breakfast, a caravan park or holiday accommodation, used to provide —

- (a) short-term accommodation for guests; and
- (b) onsite facilities for the use of guests; and
- (c) facilities for the management of the development.

trade display means premises used for the display of trade goods and equipment for the purpose of advertisement.

trade supplies means premises used to sell by wholesale or retail, or to hire, assemble or manufacture any materials, tools, equipment, machinery or other goods used for the following purposes including goods which may be assembled or manufactured off the premises —

- (a) automotive repairs and servicing;
- (b) building including repair and maintenance;
- (c) industry;
- (d) landscape gardening;
- (e) provision of medical services;
- (f) primary production;
- (g) use by government departments or agencies, including local government.

transport depot means premises used primarily for parking or garaging of 3 or more commercial vehicles including —

- (a) any ancillary maintenance or refuelling of those vehicles;
- (b) any ancillary storage of goods bought to the premises by those vehicles; and
- (c) the transfer of goods or persons from one vehicle to another.

veterinary centre means premises used to diagnose animal diseases or disorders, to surgically or medically treat animals, or for the prevention of animal diseases or disorders.

warehouse/storage means premises including indoor or outdoor facilities used for —

- (a) the storage of goods, equipment, plant or materials; or
- (b) the display or sale by wholesale of goods;

waste disposal facility means premises used —

- (a) for the disposal of waste by landfill; or
- (b) the incineration of hazardous, clinical or biomedical waste;

waste storage facility means premises used to collect, consolidate, temporarily store or sort waste before transfer to a waste disposal facility or a resource recovery facility on a commercial scale.

workforce accommodation means premises, which may include modular or relocatable buildings, used —

- (a) primarily for the accommodation of workers engaged in construction, resource, agricultural or other industries on a temporary basis; and
- (b) for any associated catering, sporting and recreation facilities for the occupants and authorised visitors.

Schedule of Modifications – Amendment 3 – Lots 1, 101,112 and 220 Kailis and Minilya-Exmouth Road, Exmouth

<p>SU10</p>	<p>Lot 1 Kailis Road and Lots 101, 112 and 220 Minilya-Exmouth Road, Learmonth</p>	<p>As a 'P' use</p> <ul style="list-style-type: none"> • Camping Ground; • Caravan Park; • Holiday Accommodation; • Nature Based Park; • Warehouse/Storage <p>As a 'D' use:</p> <ul style="list-style-type: none"> • Car Park; • Exhibition Centre; • Marine Filling Station; • Motel; • Reception Centre; • Recreation – Private; • Restaurant/Café; • Service Station; • Serviced Apartment; • Small Bar; • Tavern • Tourist Development <p>As an 'I' use:</p> <ul style="list-style-type: none"> • Bed and Breakfast; • Caretaker's Dwelling; • Cinema/Theatre; • Club Premises; • Convenience Store; • Fast Food Outlet; • Grouped Dwelling; • Holiday House; • Industry – Primary Production; • Lunch Bar; • Multiple Dwelling; • Repurposed Dwelling; • Residential Building; • Second-hand Dwelling; • Shop • Staff accommodation 	<ol style="list-style-type: none"> 1. The objectives of the Special Use Zone 6 are to: <ol style="list-style-type: none"> (a) Provide for high quality tourist experience and accommodation. (b) Ensure development results in sustainable foreshore management and coastal hazard mitigation. (c) Control the location, form, character and density of development to complement the natural features of the locality. (d) Ensure adequate coordination of development across the separate land parcels. 2. All development will require development approval. 3. All development will be in accordance with an approved precinct structure plan prepared in accordance with the <i>Planning and Development (Local Planning Schemes) Regulations 2015</i>, Schedule 2 Deemed provisions for local planning schemes, Part 4 Structure plans. <p>The Structure Plan shall include and address;</p> <ul style="list-style-type: none"> • Land use and or identification of precincts; • Appropriate Land use separation distances; • Coastal Hazards and Risk Management; • Foreshore Management; • Servicing including power, water and wastewater management strategy, vehicular access and egress; • Pedestrian movement; • Landscaping; • Fencing; • Bushfire Fire Management Plan; • Acoustic management measures to address <i>State Planning Policy 5.4 – Road and Rail Noise</i>; • Visual landscape assessment in accordance with Western Australian Planning Commissions Visual Landscape Planning in Western Australia Manual; • Coordination of land use planning across multiple land titles; and
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Schedule of Modifications – Amendment 3 – Lots 1, 101,112 and 220 Kailis and Minilya-Exmouth Road, Exmouth

			<ul style="list-style-type: none"> • Such other information as may be required by the local government or Western Australian Planning Commission. <ol style="list-style-type: none"> 4. The local government may require the preparation of the following to accompany a development application: <ul style="list-style-type: none"> • Drainage Management Plan; • Coastal Foreshore Management Plan; and • Acoustic Management Plan. 5. Adequate coastal hazard risk management and adaptation planning shall be provided as required by <i>State Planning Policy 2.6 State Coastal Planning Policy</i>. 6. The coastal foreshore management plan is to demonstrate that the landowner shall be responsible for the implementation of the coastal foreshore management plan as well as funding maintenance, monitoring and management of foreshore works. 7. Wastewater disposal shall comply with the <i>Government Sewerage Policy 2019</i>. 8. Development shall not exceed 2 storeys in height in above natural ground level. 9. All development shall be in accordance with the local government's adopted colour palette. 10. The land uses of 'Marine Filling Station; and 'Service Station' are limited to the sale of fuel only. 11. A maximum retail floorspace of 300sqm NLA applies to the site. 12. Other than for existing approved dwellings, staff accommodation and caretaker's dwelling/s, maximum stay is up to 3 months in any 12-month period of which a register of guests it to be maintained and provided to the Shire upon request. 13. Freehold or Strata subdivision is not permitted.
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Schedule of Modifications – Amendment 3 – Lots 1, 101,112 and 220 Kailis and Minilya-Exmouth Road, Exmouth

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Section	Comments
Document	Include appropriate Form 2A and 6A for the resolution to adopt and signing pages.
7.2 State Planning Policies	Reference and appropriately address <i>Government Sewerage Policy 2019 and SPP 4.1 – State Industrial Buffer Policy</i> .
8.1 Land use	Expand discussion on proposed uses, including Industry – Primary Production (seafood processing) quantifying inputs and outputs, waste, buffers and separation distances from sensitive land uses etc.
8.2.1 and new Resolution page	Change to ‘complex’ amendment rather than ‘standard amendment given the Strategy designates the site as ‘General Industry’.
New resolution page	AMD to include removal of Additional Use A4 from Schedule 2 of LPS 4 from Local Planning Scheme Schedule 2- Additional Uses and scheme maps.
Scheme provisions	Refer to required amendments and provide updated Schedule.
SCA 6	Special Control Area 6 is retained over the lots.

6.27 – Temporary Accommodation – Total Solar Eclipse Event

Adoption		
Date	Meeting	Council Decision
	OCM	
Review		
Date	Meeting	Council Decision
Delegation		
No.	Title	

POLICY STATEMENT

The purposes of this policy are to:

- Enable temporary accommodation options on private land around the Total Solar Eclipse Event on 20 April 2023.
- To provide an exemption from the requirement to obtain development approval under the *Planning and Development (Local Planning Scheme) Regulations 2015* for temporary accommodation options which satisfy the requirements of this Policy.

POLICY OBJECTIVES

1. To coordinate and provide temporary accommodation options in and around the Exmouth Townsite to cater for and facilitate the Total Solar Eclipse.
2. To minimise impacts and manage issues on the local amenity by ensuring the location and siting of the temporary accommodation in the context of surrounding land uses.
3. To streamline approval processes for temporary accommodation during the Total Solar Eclipse Event.

DEFINITIONS

Camp Site: a place where people are staying overnight in a vehicle, caravan, hut, awning, tent or similar. A camp site is the dedicated spot in which one (1) of the aforementioned may be set up for an approved period.

Event: The Total Solar Eclipse event on 20 April 2023.

LPS 4: Shire of Exmouth Local Planning Scheme No.4

Holiday Accommodation: means 2 or more dwellings on one lot used to provide short term accommodation for persons other than the owner of the lot.

Holiday House: means a single dwelling on one lot used to provide short-term accommodation but does not include a bed and breakfast.

POLICY

This Policy applies to all land identified as Additional Use - A10 in the scheme maps under the LPS 4.

The provisions of 'Additional Use (A10)' in Schedule 2 – Additional Uses under LPS 4 continue to apply.

The Policy only applies to uses and development associated with the Event, between 6 April 2023 and 4 May 2023.

Development approval will not be required for proposals that comply with the provisions of this Policy (including Tables 1 and 2), in accordance with Schedule 2, clause 61(2)(g) of the *Planning and Development (Local Planning Scheme) Regulations 2015*.

Table 1 and Table 2 outline the relevant requirements for camp sites and holiday accommodation/holiday house respectively.

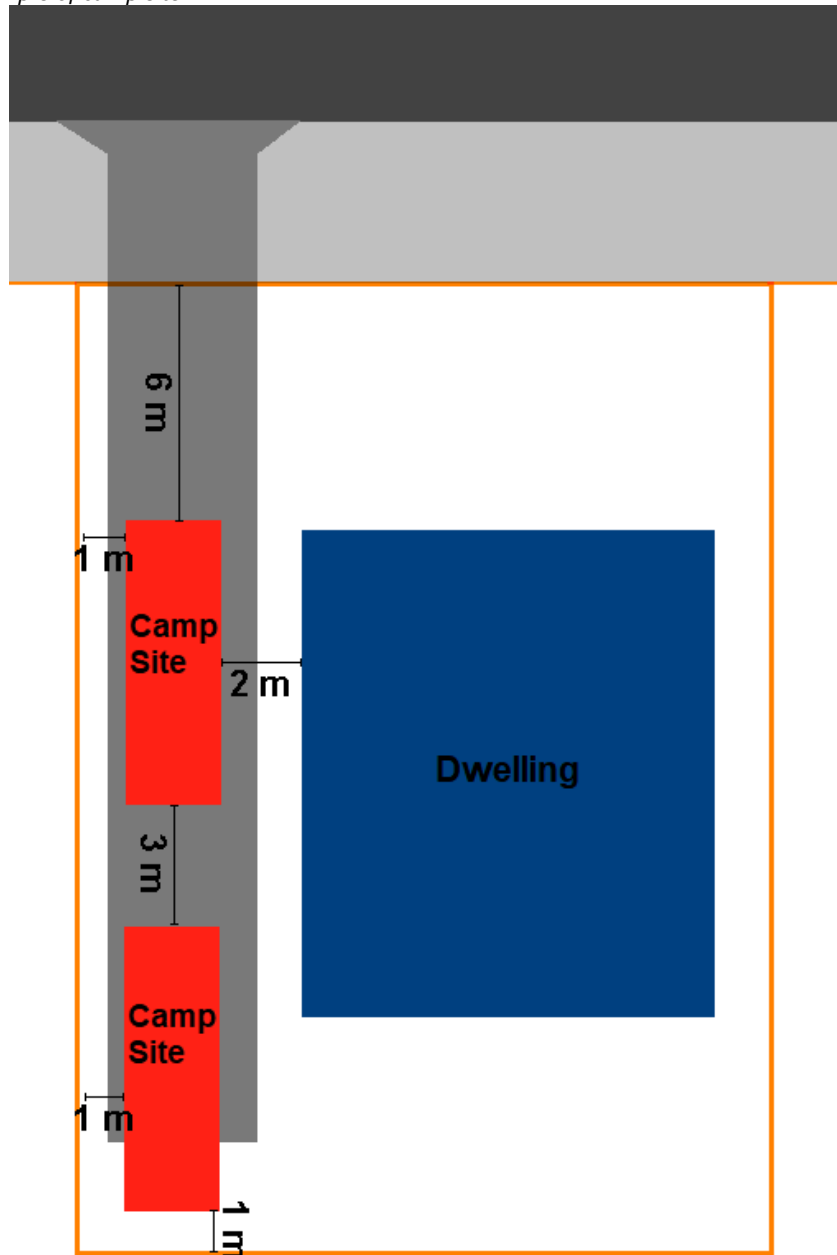
Table 1: Camp site	
Development standard	Requirement
Maximum number of camp sites	<p><u>Residential and Special Use 6 zones</u> 2</p> <p><u>Rural Residential and Special Use 9 (Cape Wilderness Estate) zones</u> 3</p> <p><u>Note:</u> Approval for in excess of 3 camp sites in the Rural Residential and Special Use 9 zone can be considered via the normal development application processes.</p>
Minimum boundary setbacks (see Diagram 1 below)	<p><u>Residential and Special Use 6 zones</u> Front - 6m Side - 1m</p> <p><u>Rural Residential and Special Use 9 (Cape Wilderness Estate) zones</u></p> <p>To be within an approved:</p> <ul style="list-style-type: none"> • building envelope; and • cleared area

	<p>It is noted that vegetation is not to be cleared without written approval from the Department of Environment and Water</p> <p><u>In addition, within the Rural Residential zone the following setback must be met:</u></p> <p>Primary street: 20m Side/rear: 10m</p>
Minimum internal setbacks (see Diagram 1 below)	<p>3m from each camp site 2m from any dwelling or other structure</p>
Toilets and ablutions	<p>The premise is to provide access to adequate toilet/shower facilities to accommodate the quantity of camps requested. Details of these services are required to be provided as part of any registration application.</p>
Wastewater	<p>All wastewater is to be contained and disposed of via an approved receptacle.</p>
Rubbish	<p>Suitable rubbish receptacle to be provided on site and disposed of properly.</p>
Cyclone requirements	<p>In the event of cyclone, all caravans and camp sites are to either be:</p> <ul style="list-style-type: none"> • Tied down using anchor points, as approved, capable of securing the caravan; or • Housed in a cyclone rated shed; or • Removed from site in a safe location.
Fire safety	<p>1x fire extinguisher (4.5kg B (E) dry chemical powder) in an easily accessible location.</p> <p>Compliance with the Shire's Firebreak Notice.</p>
Potable water	<p>Provision of suitable potable water is to be provided by visitors and is to be brought in from a location outside of Exmouth where possible.</p>
House/street number	<p>To be easily identifiable from the road.</p>
Car parking	<p>All vehicles (including boats and trailers) to be parked fully within the lot boundaries and not on the street, verge or neighbouring properties.</p>
Management statement	<p>A management statement is to be provided to guests, which shall detail:</p> <ul style="list-style-type: none"> • Operation management • Rubbish collection • Maintenance • Noise

	<ul style="list-style-type: none"> • Fire escape route • Emergency contacts • Security • Occupant rules • What do to in a cyclone event • What to do/what to avoid during heavy rain events
--	---

Table 2: Holiday Accommodation/Holiday House	
Development standard	Requirement
General	Only bedrooms shall be used for sleeping purposes.
Airspace calculations	<p>The maximum number of people sleeping in each bedroom must comply with the below:</p> <ul style="list-style-type: none"> • Ages 1 – 10 requires 8m³ of air space per person • Age 10 + requires 14m³ of air space per person
Maximum numbers	12 people of all ages
Management statement	<p>A management statement is to be provided to guests, which shall detail:</p> <ul style="list-style-type: none"> • Operation management • Rubbish collection • Maintenance • Noise • Fire escape route • Emergency contacts • Security • Occupant rules • What do to in a cyclone event • What to do/what to avoid during heavy rain events
Car parking	<p>1 space per 4 guests</p> <p>A maximum of 5 spaces overall, this includes trailers, boats etc</p> <p>All vehicles (including boats and trailers) to be parked fully within the lot boundaries and not on the street, verge or neighbouring properties.</p>
Rubbish	Suitable rubbish receptacle to be provided on site and disposed of properly.
Fire safety	<p>1x fire extinguisher (4.5kg B (E) dry chemical powder) in an easily accessible location.</p> <p>Compliance with the Shires Firebreak Notice.</p>
Local caretaker/manager	A local caretaker/manager living and readily contactable within 10 minutes travel of the property.

Diagram 1 example of camp site



All adjoining neighbours are to be notified and of the name and contact number of the local caretaker/manager which shall be readily contactable and within 10 minutes of the property, during the guest's entire stay.

This Policy does not apply where a maximum of one camp site is provided for no fee for no more than 3 nights in any period of 28 consecutive days, subject to landowner approval.

Landowners and temporary accommodation providers are to consult with and notify their relevant insurance providers.

All proposals shall be registered with the Shire of Exmouth. Only one approval per lot over the time period will be issued. The Shire of Exmouth reserves the right to withdraw any approvals at any stage.

This Policy does not exempt development or uses from complying with any other approval and/or compliance with any other relevant Federal, State or Local Law.

STATUTORY ENVIRONMENT

Shire of Exmouth Local Planning Scheme No.4

Planning and Development (Local Planning Schemes) Regulations 2015

Caravan Parks and Camping Ground Act 1995

Caravan Parks and Camping Ground Regulations 1997



PROPOSED SCHEME AMENDMENT MAP 1

Legend

Cadastre with Lot number

LPS Zones and Reserves Amendments

Residential

LPS Other Categories

A10 Additional uses



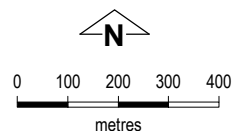
Department of Planning,
Lands and Heritage

Shire of Exmouth

Local Planning Scheme No. 4

Amendment No. 7




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Land Information Authority SLIP 1180-2020-1





PROPOSED SCHEME AMENDMENT MAP 2

Legend

-  Cadastre with Lot number
- LPS Zones and Reserves Amendments**
-  Residential
- LPS Other Categories**
-  Additional uses



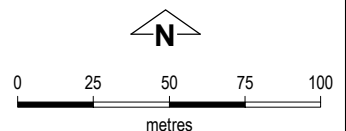
Department of Planning,
Lands and Heritage

Shire of Exmouth

Local Planning Scheme No. 4

Amendment No. 7




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Base Information supplied by Western Australian
Land Information Authority SLIP 1180-2020-1





PROPOSED SCHEME AMENDMENT MAP 3

Legend

-  Cadastre with Lot number
- LPS Zones and Reserves Amendments
-  Special use
-  Additional use



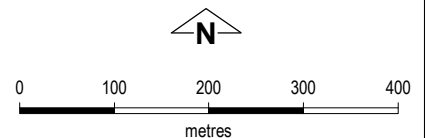
Department of Planning,
Lands and Heritage

Shire of Exmouth

Local Planning Scheme No. 4

Amendment No. 7




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PROPOSED SCHEME AMENDMENT MAP 4

Legend

-  Cadastre with Lot number
- LPS Zones and Reserves Amendments**
-  Rural residential
-  A10 Additional use



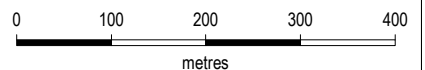
Department of Planning,
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Base Information supplied by Western Australian
Land Information Authority SLIP 1180-2020-1

Shire of Exmouth

Local Planning Scheme No. 4




Amendment No. 7





PROPOSED SCHEME AMENDMENT MAP 5

Legend

-  Cadastre with Lot number
- LPS Zones and Reserves Amendments
-  Special use
-  Additional use



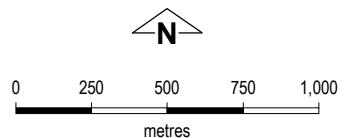
Department of Planning,
Lands and Heritage

Shire of Exmouth

Local Planning Scheme No. 4

Amendment No. 7

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Base Information supplied by Western Australian
Land Information Authority SLIP 1180-2020-1





Monthly Financial Report

For the period ended

March 2022

PO Box 21
2 Truscott Crescent
Exmouth
Western Australia 6707

Phone: (08) 9949 3000
Fax: (08) 9949 3050
Email: records@exmouth.wa.gov.au
Web: www.exmouth.wa.gov.au

ABN: 32 865 822 043

SHIRE OF EXMOUTH
MONTHLY FINANCIAL REPORT
(Containing the Statement of Financial Activity)
For the period ending 31 March 2022

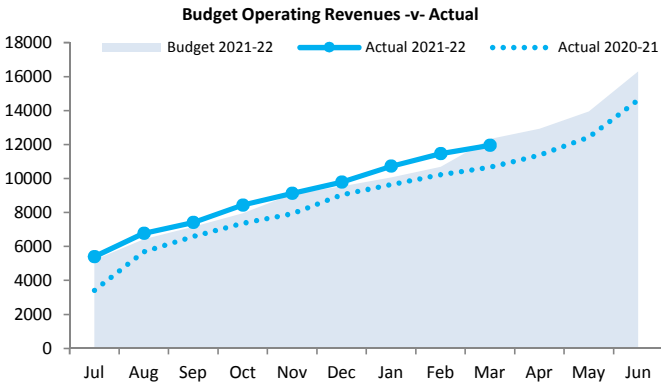
LOCAL GOVERNMENT ACT 1995
LOCAL GOVERNMENT (FINANCIAL MANAGEMENT) REGULATIONS 1996

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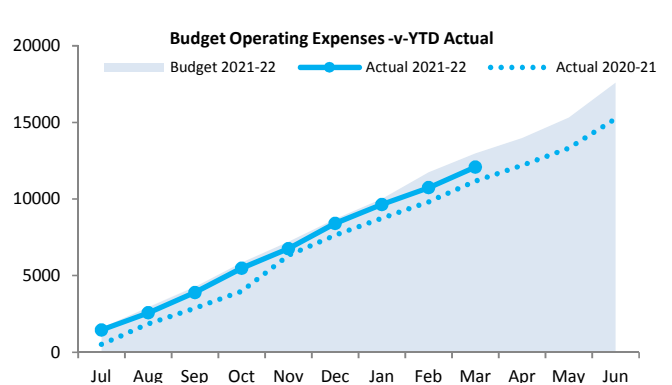
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OPERATING ACTIVITIES

OPERATING REVENUE

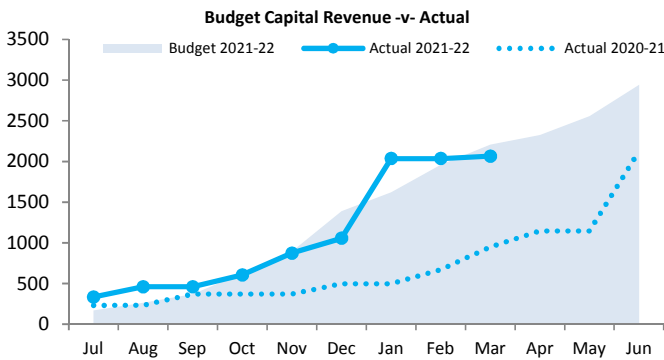


OPERATING EXPENSES

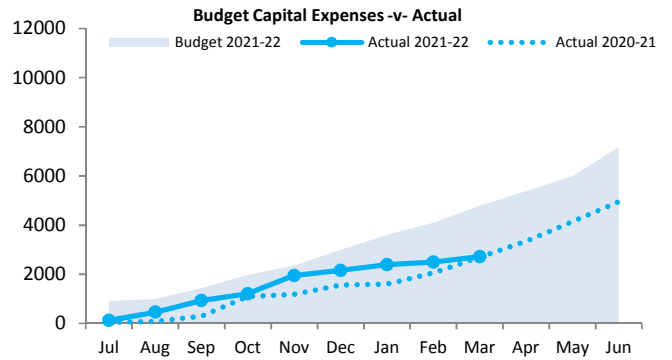


INVESTING ACTIVITIES

CAPITAL REVENUE



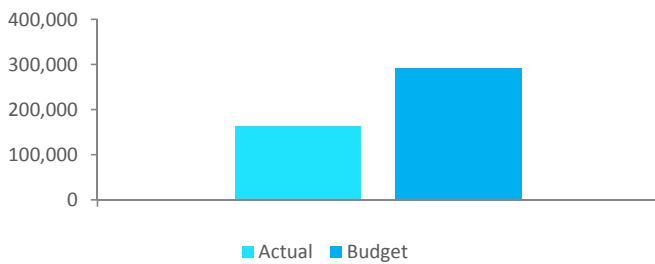
CAPITAL EXPENSES



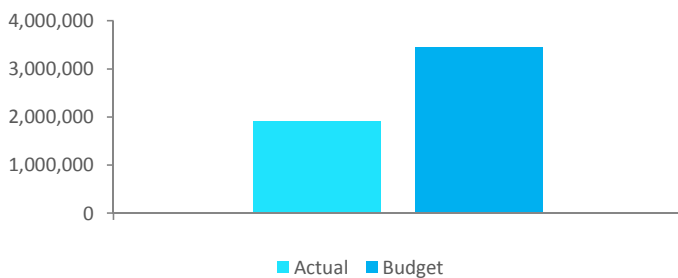
FINANCING ACTIVITIES

BORROWINGS

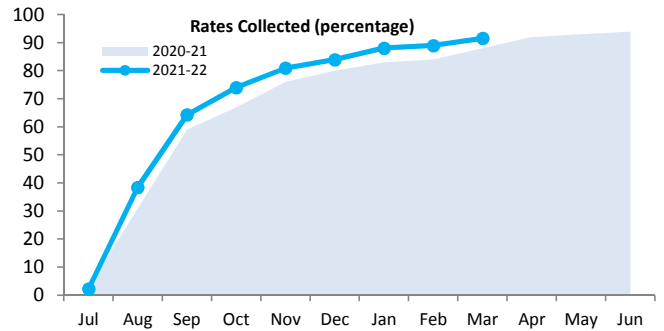
Principal Repayments



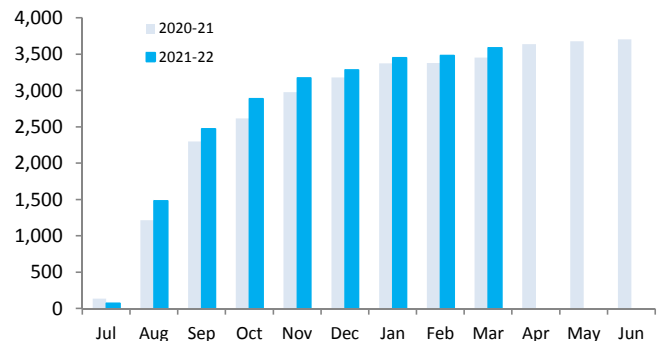
Principal Outstanding



RATES



Rates Received Amount Collected \$ ('000s)



This information is to be read in conjunction with the accompanying Financial Statements and Notes.

KEY TERMS AND DESCRIPTIONS

FOR THE PERIOD ENDED 31 MARCH 2022

REVENUE

RATES

All rates levied under the *Local Government Act 1995*. Includes general, differential, specified area rates, minimum rates, interim rates, back rates, ex-gratia rates, less discounts and concessions offered. Exclude administration fees, interest on instalments, interest on arrears, service charges and sewerage rates.

OPERATING GRANTS, SUBSIDIES AND CONTRIBUTIONS

Refers to all amounts received as grants, subsidies and contributions that are not non-operating grants.

NON-OPERATING GRANTS, SUBSIDIES AND CONTRIBUTIONS

Amounts received specifically for the acquisition, construction of new or the upgrading of identifiable non financial assets paid to a local government, irrespective of whether these amounts are received as capital grants, subsidies, contributions or donations.

REVENUE FROM CONTRACTS WITH CUSTOMERS

Revenue from contracts with customers is recognised when the local government satisfies its performance obligations under the contract.

FEES AND CHARGES

Revenues (other than service charges) from the use of facilities and charges made for local government services, sewerage rates, rentals, hire charges, fee for service, photocopying charges, licences, sale of goods or information, fines, penalties and administration fees. Local governments may wish to disclose more detail such as rubbish collection fees, rental of property, fines and penalties, other fees and charges.

SERVICE CHARGES

Service charges imposed under *Division 6 of Part 6 of the Local Government Act 1995*. *Regulation 54 of the Local Government (Financial Management) Regulations 1996* identifies these as television and radio broadcasting, underground electricity and neighbourhood surveillance services. Exclude rubbish removal charges. Interest and other items of a similar nature received from bank and investment accounts, interest on rate instalments, interest on rate arrears and interest on debtors.

INTEREST EARNINGS

Interest and other items of a similar nature received from bank and investment accounts, interest on rate instalments, interest on rate arrears and interest on debtors.

OTHER REVENUE / INCOME

Other revenue, which can not be classified under the above headings, includes dividends, discounts, rebates etc.

PROFIT ON ASSET DISPOSAL

Excess of assets received over the net book value for assets on their disposal.

NATURE OR TYPE DESCRIPTIONS

EXPENSES

EMPLOYEE COSTS

All costs associate with the employment of person such as salaries, wages, allowances, benefits such as vehicle and housing, superannuation, employment expenses, removal expenses, relocation expenses, worker's compensation insurance, training costs, conferences, safety expenses, medical examinations, fringe benefit tax, etc.

MATERIALS AND CONTRACTS

All expenditures on materials, supplies and contracts not classified under other headings. These include supply of goods and materials, legal expenses, consultancy, maintenance agreements, communication expenses, advertising expenses, membership, periodicals, publications, hire expenses, rental, leases, postage and freight etc. Local governments may wish to disclose more detail such as contract services, consultancy, information technology, rental or lease expenditures.

UTILITIES (GAS, ELECTRICITY, WATER, ETC.)

Expenditures made to the respective agencies for the provision of power, gas or water. Exclude expenditures incurred for the reinstatement of roadwork on behalf of these agencies.

INSURANCE

All insurance other than worker's compensation and health benefit insurance included as a cost of employment.

LOSS ON ASSET DISPOSAL

Shortfall between the value of assets received over the net book value for assets on their disposal.

DEPRECIATION ON NON-CURRENT ASSETS

Depreciation expense raised on all classes of assets.

INTEREST EXPENSES

Interest and other costs of finance paid, including costs of finance for loan debentures, overdraft accommodation and refinancing expenses.

OTHER EXPENDITURE

Statutory fees, taxes, allowance for impairment of assets, member's fees or State taxes. Donations and subsidies made to community groups.

**STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 31 MARCH 2022**

BY NATURE OR TYPE

	Ref Note	Amended Budget \$	YTD Budget (a) \$	YTD Actual (b) \$	Var. \$ (b)-(a) \$	Var. % (b)-(a)/(a) %	Var.
Opening funding surplus / (deficit)	1(c)	1,388,551	1,388,551	1,388,551	0	0.00%	
Revenue from operating activities							
Rates	5	3,639,000	3,639,000	3,634,774	(4,226)	(0.12%)	
Specified area rates	5	52,000	52,000	52,030	30	0.06%	
Operating grants, subsidies and contributions	13	3,340,500	1,988,869	2,053,200	64,331	3.23%	
Fees and charges		8,740,000	6,417,852	5,939,389	(478,463)	(7.46%)	
Interest earnings		67,000	50,247	40,066	(10,181)	(20.26%)	
Other revenue		475,500	306,702	229,795	(76,907)	(25.08%)	▼
Profit on disposal of assets	7	2,000	1,494	1,862	368	24.63%	
		16,316,000	12,456,164	11,951,116	(505,048)	(4.05%)	
Expenditure from operating activities							
Employee costs		(7,105,000)	(5,373,108)	(5,125,936)	247,172	4.60%	
Materials and contracts		(4,539,500)	(3,402,349)	(2,638,309)	764,040	22.46%	▲
Utility charges		(807,000)	(605,097)	(619,058)	(13,961)	(2.31%)	
Depreciation on non-current assets		(3,697,000)	(2,674,395)	(2,649,725)	24,670	0.92%	
Interest expenses		(68,000)	(41,994)	(35,233)	6,761	16.10%	
Insurance expenses		(521,000)	(521,000)	(521,209)	(209)	(0.04%)	
Other expenditure		(841,000)	(480,671)	(492,557)	(11,886)	(2.47%)	
Loss on disposal of assets	7	(7,000)	(5,247)	(7,342)	(2,095)	(39.93%)	
		(17,585,500)	(13,103,861)	(12,089,369)	1,014,492	7.74%	
Non-cash amounts excluded from operating activities	1(a)	3,702,000	2,678,148	2,655,205	(22,943)	(0.86%)	
Amount attributable to operating activities		2,432,500	2,030,451	2,516,952	486,501		
Investing activities							
Proceeds from non-operating grants, subsidies and contributions	14	2,943,000	2,207,241	2,066,432	(140,809)	(6.38%)	
Proceeds from disposal of assets	7	146,000	146,000	429,387	283,387	194.10%	▲
Payments for property, plant and equipment	8	(7,176,000)	(4,788,254)	(2,716,283)	2,071,971	43.27%	▲
		(4,087,000)	(2,435,013)	(220,464)	2,214,548		
Amount attributable to investing activities		(4,087,000)	(2,435,013)	(220,464)	2,214,548		
Financing Activities							
Proceeds from new debentures	10	1,660,000	0	0	0	0.00%	
Transfer from reserves	3	2,276,000	0	0	0	0.00%	
Proceeds from Community Loans		15,000	0	0	0	0.00%	
Repayment of debentures	10	(290,500)	(162,292)	(162,292)	0	0.00%	
Principal elements of Finance lease payments		(135,000)	0	0	0	0.00%	
Transfer to reserves	3	(3,259,000)	(15,847)	(15,847)	0	0.00%	
Amount attributable to financing activities		266,500	(178,139)	(178,139)	0		
Closing funding surplus / (deficit)	1(c)	551	805,850	3,506,900			

KEY INFORMATION

▲▼ Indicates a variance between Year to Date (YTD) Actual and YTD Actual data as per the adopted materiality threshold.

Refer to Note for an explanation of the reasons for the variance.

This statement is to be read in conjunction with the accompanying Financial Statements and Notes.

Shire operations as disclosed in these financial statements encompass the following service orientated activities/programs.

**PROGRAM NAME AND OBJECTIVES
GOVERNANCE**

To provide a decision making process for the efficient allocation of resources.

ACTIVITIES

Includes the activities of members of council and the administrative support available to the council for the provision of governance of the district. Other costs relate to the task of assisting elected members and ratepayers on matters which do not concern specific council services.

GENERAL PURPOSE FUNDING

To collect revenue to allow for the provision of services.

The collection of rate revenue and the maintenance of valuation and rating records to support the collection process. General purpose government grants and interest revenue.

LAW, ORDER, PUBLIC SAFETY

To provides services to help ensure a safer as environmentally conscious community.

The provision of bushfire control services, animal control and support for emergency services, as well as the maintenance and enforcement of local laws.

HEALTH

To provide an operational framework for environmental and community health.

Maternal and Infant health, preventative service and environmental health.

EDUCATION AND WELFARE

To provide services to disadvantaged persons, the elderly, children and youth.

Maintenance on playgroup and senior citizen buildings.

HOUSING

To provide housing for staff members.

Adminstration and operation of residential housing for council staff.

COMMUNITY AMENITIES

To provide services required by the community.

Maintenance of rubbish service to residents and maintenance of sanitary landfill sites. Town planning and regional development, maintenance of cemeteries and other community amenities.

RECREATION AND CULTURE

To establish and effectively manage infrastructure and resources which will help the social wellbeing of the community.

Maintenance of public halls, centres, swimming pools, beaches, recreation centre and various sporting facilities. Provision and manintenance of parks, gardens and playgrounds. Operation of library and radio broadcasting facilities.

TRANSPORT

To provide safe, effective and efficient transport services to the community.

Construction and maintenance of roads, streets, footpaths, depot, cycleways, parking facilities and traffic control. Cleaning of streets and maintenance of street trees, street lighting etc. Administration and operation of airport and aerodrome.

ECONOMIC SERVICES

The promotion of the district to increase economic activities and the provision of building control within the shire.

Tourism, area promotion and building control.

OTHER PROPERTY AND SERVICES

To monitor and control Council's overheads operating accounts.

The provision of private works to the public and the maintenance of cost pools for plant operating, public works overheads and adminstration costs.

**STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 31 MARCH 2022**

STATUTORY REPORTING PROGRAMS

	Ref Note	Amended Budget	YTD Budget (a)	YTD Actual (b)	Var. \$ (b)-(a)	Var. % (b)-(a)/(a)	Var.
		\$	\$	\$	\$	%	
Opening funding surplus / (deficit)	1(c)	1,388,551	1,388,551	1,388,551	0	0.00%	
Revenue from operating activities							
General purpose funding - general rates	5	3,639,000	3,639,000	3,634,774	(4,226)	(0.12%)	
General purpose funding - other		1,581,000	614,299	622,296	7,997	1.30%	
Law, order and public safety		103,000	27,342	36,610	9,268	33.90%	
Health		45,500	34,110	36,588	2,478	7.26%	
Education and welfare		3,000	2,241	443	(1,798)	(80.23%)	
Housing		57,000	42,741	55,033	12,292	28.76%	
Community amenities		1,523,000	1,142,208	1,488,831	346,623	30.35%	▲
Recreation and culture		1,052,000	790,187	767,870	(22,317)	(2.82%)	
Transport		6,982,000	5,001,117	4,280,699	(720,418)	(14.41%)	▼
Economic services		1,296,500	1,012,345	1,003,782	(8,563)	(0.85%)	
Other property and services		34,000	25,470	24,190	(1,280)	(5.03%)	
		16,316,000	12,331,060	11,951,116	(379,944)		
Expenditure from operating activities							
Governance		(305,000)	(228,681)	(526,447)	(297,766)	(130.21%)	▼
General purpose funding		(183,500)	(137,592)	(128,928)	8,664	6.30%	
Law, order and public safety		(424,500)	(321,091)	(320,324)	767	0.24%	
Health		(301,500)	(228,050)	(208,156)	19,894	8.72%	
Education and welfare		(82,000)	(61,470)	(60,929)	541	0.88%	
Housing		(50,000)	(37,422)	(62,273)	(24,851)	(66.41%)	
Community amenities		(2,142,500)	(1,611,525)	(1,302,994)	308,531	19.15%	▲
Recreation and culture		(5,987,500)	(4,490,725)	(4,012,329)	478,396	10.65%	▲
Transport		(5,927,500)	(4,197,087)	(3,955,929)	241,158	5.75%	
Economic services		(1,600,500)	(1,200,195)	(988,410)	211,785	17.65%	▲
Other property and services		(581,000)	(464,919)	(522,650)	(57,731)	(12.42%)	▼
		(17,585,500)	(12,978,757)	(12,089,369)	889,388		
Non-cash amounts excluded from operating activities	1(a)	3,702,000	2,678,148	2,655,205	(22,943)	(0.86%)	
Amount attributable to operating activities		2,432,500	2,030,451	2,516,952	486,501		
Investing Activities							
Proceeds from non-operating grants, subsidies and contributions	14	2,943,000	2,207,241	2,066,432	(140,809)	(6.38%)	
Proceeds from disposal of assets	7	146,000	146,000	429,387	283,387	194.10%	▲
Payments for property, plant and equipment and infrastructure	8	(7,176,000)	(4,788,254)	(2,716,283)	2,071,971	43.27%	▲
		(4,087,000)	(2,435,013)	(220,464)	2,214,548		
Amount attributable to investing activities		(4,087,000)	(2,435,013)	(220,464)	2,214,548		
Financing Activities							
Proceeds from new debentures	10	1,660,000	0	0	0	0.00%	
Transfer from reserves	3	2,276,000	0	0	0	0.00%	
Proceeds from Community Loans		15,000	0	0	0	0.00%	
Repayment of debentures	10	(290,500)	(162,292)	(162,292)	0	0.00%	
Principal elements of Finance lease payments		(135,000)	0	0	0	0.00%	
Transfer to reserves	3	(3,259,000)	(15,847)	(15,847)	0	0.00%	
Amount attributable to financing activities		266,500	(178,139)	(178,139)	0		
Closing funding surplus / (deficit)	1(c)	551	805,850	3,506,900			

KEY INFORMATION

▲ ▼ Indicates a variance between Year to Date (YTD) Actual and YTD Actual data as per the adopted materiality threshold.

Refer to Note for an explanation of the reasons for the variance.

The material variance adopted by Council for the 2021-22 year is \$25,000 or 10.00% whichever is the greater.

This statement is to be read in conjunction with the accompanying Financial Statements and notes.

NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY

FOR THE PERIOD ENDED 31 MARCH 2022

EXPLANATION OF MATERIAL VARIANCES

The material variance thresholds are adopted annually by Council as an indicator of whether the actual expenditure or revenue varies from the year to date Actual materially.

The material variance adopted by Council for the 2021-22 year is \$25,000 or 10.00% whichever is the greater.

Reporting Program	Var. \$	Var. %	Explanation of Variance
	\$	%	
Revenue from operating activities			
Operating grants, subsidies and contributions	64,331	3.23%	Timing of Fincial Assistance Grant.
Fees and charges	(478,463)	(7.46%)	Airport Securiy Screening Grant affected timing of airport fees & charges.
Other revenue	(76,907)	(25.08%)	Timing of Ningaloo Visitor Centre commissions.
Expenditure from operating activities			
Employee costs	247,172	4.60%	Vacant positions.
Materials and contracts	764,040	22.46%	Timing of various operational projects.
Investing activities			
Proceeds from non-operating grants, subsidies and contributions	(140,809)	(6.38%)	Timing of projects.
Proceeds from disposal of assets	283,387	194.10%	Plant replacement program & sale of Shire property.
Payments for property, plant and equipment	2,071,971	43.27%	See note 8.

BASIS OF PREPARATION

The financial report has been prepared in accordance with Australian Accounting Standards (as they apply to local governments and not-for-profit entities) and interpretations of the Australian Accounting Standards Board, and the *Local Government Act 1995* and accompanying regulations.

The *Local Government Act 1995* and accompanying Regulations take precedence over Australian Accounting Standards where they are inconsistent.

The *Local Government (Financial Management) Regulations 1996* specify that vested land is a right-of-use asset to be measured at cost. All right-of-use assets (other than vested improvements) under zero cost concessionary leases are measured at zero cost rather than at fair value. The exception is vested improvements on concessionary land leases such as roads, buildings or other infrastructure which continue to be reported at fair value, as opposed to the vested land which is measured at zero cost. The measurement of vested improvements at fair value is a departure from AASB 16 which would have required the Shire to measure any vested improvements at zero cost.

Accounting policies which have been adopted in the preparation of this financial report have been consistently applied unless stated otherwise. Except for cash flow and rate setting information, the financial report has been prepared on the accrual basis and is based on historical costs, modified, where applicable, by the measurement at fair value of selected non-current assets, financial assets and liabilities.

THE LOCAL GOVERNMENT REPORTING ENTITY

All funds through which the Shire controls resources to carry on its functions have been included in the financial statements forming part of this financial report.

In the process of reporting on the local government as a single unit, all transactions and balances between those funds (for example, loans and transfers between funds) have been eliminated.

All monies held in the Trust Fund are excluded from the financial statements. A separate statement of those monies appears at Note 15 to these financial statements.

SIGNIFICANT ACCOUNTING POLICES

CRITICAL ACCOUNTING ESTIMATES

The preparation of a financial report in conformity with Australian Accounting Standards requires management to make judgements, estimates and assumptions that effect the application of policies and reported amounts of assets and liabilities, income and expenses.

The estimates and associated assumptions are based on historical experience and various other factors that are believed to be reasonable under the circumstances; the results of which form the basis of making the judgements about carrying values of assets and liabilities that are not readily apparent from other sources. Actual results may differ from these estimates.

GOODS AND SERVICES TAX

Revenues, expenses and assets are recognised net of the amount of GST, except where the amount of GST incurred is not recoverable from the Australian Taxation Office (ATO). Receivables and payables are stated inclusive of GST receivable or payable. The net amount of GST recoverable from, or payable to, the ATO is included with receivables or payables in the statement of financial position. Cash flows are presented on a gross basis. The GST components of cash flows arising from investing or financing activities which are recoverable from, or payable to, the ATO are presented as operating cash flows.

ROUNDING OFF FIGURES

All figures shown in this statement are rounded to the nearest dollar.

PREPARATION TIMING AND REVIEW

Date prepared: All known transactions up to 14 September 2021

(a) Non-cash items excluded from operating activities

The following non-cash revenue and expenditure has been excluded from operating activities within the Statement of Financial Activity in accordance with Financial Management Regulation 32.

	Notes	Amended Budget	YTD Budget (a)	YTD Actual (b)
Non-cash items excluded from operating activities				
		\$	\$	\$
Adjustments to operating activities				
Less: Profit on asset disposals	7	(2,000)	(1,494)	(1,862)
Add: Loss on asset disposals	7	7,000	5,247	7,342
Add: Depreciation on assets		3,697,000	2,674,395	2,649,725
Total non-cash items excluded from operating activities		3,702,000	2,678,148	2,655,205

(b) Adjustments to net current assets in the Statement of Financial Activity

The following current assets and liabilities have been excluded from the net current assets used in the Statement of Financial Activity in accordance with *Financial Management Regulation* 32 to agree to the surplus/(deficit) after imposition of general rates.

		Last Year Closing 30 June 2021	This Time Last Year 31 March 2021	Year to Date 31 March 2022
Adjustments to net current assets				
Less: Reserves - restricted cash	3	(10,618,672)	(9,039,956)	(10,634,519)
Less: Loans receivable		(16,700)	(5,250)	(16,700)
Less: Land held for resale		0		0
Add: Borrowings	10	290,666	105,380	134,437
Add: Provisions - employee	12	712,559	769,874	712,559
Add: Lease liabilities	11	134,745	148,937	134,745
Add: Contract Liabilities		409,363	0	409,363
Total adjustments to net current assets		(9,088,039)	(8,021,015)	(9,260,115)

(c) Net current assets used in the Statement of Financial Activity

Current assets				
Cash and cash equivalents	2	12,640,020	12,747,196	12,128,013
Rates receivables	4	234,502	580,317	281,160
Receivables	4	2,196,416	1,127,965	2,077,538
Other current assets	6	114,747	88,437	199,445
Less: Current liabilities				
Payables	9	(3,137,428)	(572,969)	(503,703)
Borrowings	10	(290,666)	(105,380)	(134,437)
Contract liabilities	12	(409,363)	0	(409,363)
Lease liabilities	11	(134,745)	(148,937)	(134,745)
Provisions	12	(736,893)	(769,874)	(736,893)
Less: Total adjustments to net current assets	1(b)	(9,088,039)	(8,021,015)	(9,260,115)
Closing funding surplus / (deficit)		1,388,551	4,925,740	3,506,900

CURRENT AND NON-CURRENT CLASSIFICATION

In the determination of whether an asset or liability is current or non-current, consideration is given to the time when each asset or liability is expected to be settled. Unless otherwise stated assets or liabilities are classified as current if expected to be settled within the next 12 months, being the Council's operational cycle.

Description	Classification	Unrestricted	Restricted	Total Cash	Trust	Institution	Interest Rate	Maturity Date
		\$	\$	\$				
Cash on hand								
Petty Cash and Floats	Cash and cash equivalents	2,650	0	2,650	0			
Municipal Fund	Cash and cash equivalents	1,376,190	0	1,376,190	0	Westpac	0.00%	At Call
Reserve Fund	Cash and cash equivalents	0	2,634,519	2,634,519	0	Westpac	0.01%	At Call
Trust Fund	Cash and cash equivalents	0	0	114,654	114,654	Westpac	0.00%	At Call
Term Deposits								
Reserve Term Deposit	Cash and cash equivalents	0	1,000,000	1,000,000	0	Macquarie	0.55%	06/2022
Reserve Term Deposit	Cash and cash equivalents	0	1,000,000	1,000,000	0	NAB	0.38%	04/2022
Reserve Term Deposit	Cash and cash equivalents	0	3,500,000	3,500,000	0	NAB	0.28%	05/2022
Reserve Term Deposit	Cash and cash equivalents	0	2,500,000	2,500,000	0	AMP	1.00%	06/2022
Total		1,378,840	10,634,519	12,128,013	114,654			
Comprising								
Cash and cash equivalents		1,378,840	10,634,519	12,128,013	114,654			
		1,378,840	10,634,519	12,128,013	114,654			

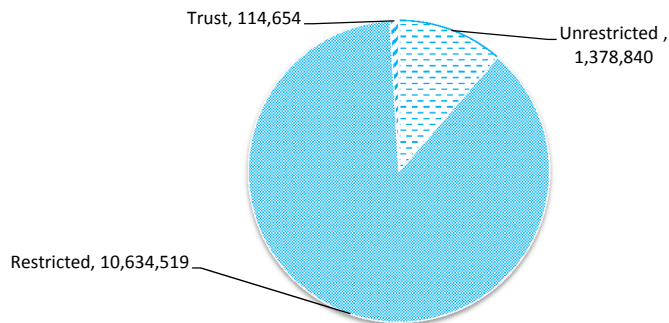
KEY INFORMATION

Cash and cash equivalents include cash on hand, cash at bank, deposits available on demand with banks and other short term highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and which are subject to an insignificant risk of changes in value and bank overdrafts. Bank overdrafts are reported as short term borrowings in current liabilities in the statement of net current assets.

The local government classifies financial assets at amortised cost if both of the following criteria are met:

- the asset is held within a business model whose objective is to collect the contractual cashflows, and
- the contractual terms give rise to cash flows that are solely payments of principal and interest.

Financial assets at amortised cost held with registered financial institutions are listed in this note other financial assets at amortised cost are provided in Note 4 - Other assets.



**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 31 MARCH 2022**

**OPERATING ACTIVITIES
NOTE 3
CASH RESERVES**

Cash backed reserve

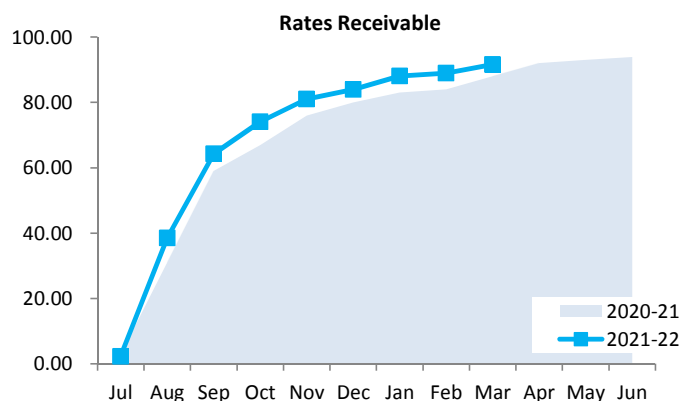
Reserve name	Opening Balance	Budget Interest Earned	Actual Interest Earned	Budget Transfers In (+)	Actual Transfers In (+)	Budget Transfers Out (-)	Actual Transfers Out (-)	Budget Closing Balance	Actual YTD Closing Balance
	\$	\$	\$	\$	\$	\$	\$	\$	\$
Leave Reserve	699,202	3,000	1,094	0	0	0	0	702,202	700,296
Aviation Reserve	1,172,684	5,000	1,838	0	0	(84,000)	0	1,093,684	1,174,522
Building Infrastructure Reserve	81,401	0	178	0	0	0	0	81,401	81,579
Community Development Reserve	1,382,658	5,000	2,168	0	0	(18,000)	0	1,369,658	1,384,826
Community Interest Free Reserve	278,065	1,000	435	0	0	0	0	279,065	278,500
Insurance/Natural Disaster Reserve	183,974	1,000	288	0	0	0	0	184,974	184,262
Land Acquisition Reserve	1,725,802	6,000	2,604	0	0	(360,000)	0	1,371,802	1,728,406
Marina Canal Reserve	411,149	2,000	639	52,000	0	0	0	465,149	411,788
Marine Village Asset Replacement Reserve	33,442	0	52	0	0	0	0	33,442	33,494
Mosquito Management Reserve	10,161	0	16	0	0	0	0	10,161	10,177
Ningaloo Centre Reserve	257,175	0	403	38,000	0	0	0	295,175	257,578
Plant Reserve	550,296	3,000	826	529,000	0	(650,000)	0	432,296	551,122
Public Radio Infrastructure Reserve	5,185	0	8	0	0	0	0	5,185	5,193
Rehabilitation Reserve	253,435	1,000	397	0	0	0	0	254,435	253,832
Roads Reserve	901,228	4,000	1,381	0	0	0	0	905,228	902,609
Shire Staff Housing Reserve	137,092	1,000	215	900,000	0	(100,000)	0	938,092	137,307
Shire President COVID-19 Relief Fund	40,209	0	63	0	0	0	0	40,209	40,272
Swimming Pool Reserve	650,793	3,000	1,009	1,700,000	0	(57,000)	0	2,296,793	651,802
Tourism Development Reserve	358,832	1,000	546	0	0	(5,000)	0	354,832	359,378
Town Planning Scheme Reserve	21,969	0	34	0	0	0	0	21,969	22,003
Waste Management Reserve	1,054,557	4,000	1,653	0	0	(593,000)	0	465,557	1,056,210
Unspent Grants & Contributions Reserve	409,363	0	0	0	0	(409,000)	0	363	409,363
	10,618,672	40,000	15,847	3,219,000	0	(2,276,000)	0	11,601,672	10,634,519

KEY INFORMATION

In accordance with Council resolutions or adopted budget in relation to each reserve account, the purpose for which the reserves are set aside and their anticipated date of use are as follows:

Name of Reserve	Purpose of the reserve
Leave Reserve	To be used for annual and long service leave requirements.
Aviation Reserve	To be used to fund aviation improvements.
Building Infrastructure Reserve	To be used for the development, preservation and maintenance of building infrastructure with the the Shire of Exmouth.
Community Development Reserve	To be used for major community development initiatives.
Community Interest Free Reserve	To be to fund major community development projects.
Insurance/Natural Disaster Reserve	To be used for the purpose of funding insurance claims where the excess is higher than the cost of repairs in addition to any weather related insurance/WANDRRA claims.
Land Acquisition Reserve	To be used to fund the acquisition and disposal of land and buildings and provide contributions for land development within the Shire of Exmouth.
Marina Canal Reserve (Specified Area Rates)	These funds are derived from levying specified area rate titles Marina Specified Area Rates.
Marina Village Asset Replacement Reserve	To be used for the preservation and maintenance of infrastructure related to the Exmouth Marina Village.
Mosquito Management Reserve	To be used in years where mosquito-borne disease/nuisance is greater than normal.
Ningaloo Centre Reserve	To be used for the preservation and maintenance of the Ningaloo Centre.
Plant Reserve	To be used for the purchase of major plant and equipment.
Public Radio Infrastructure Reserve	To be used to maintain the rebroadcasting infrastructure.
Rehabilitation Reserve	To be used to manage the funds associated with the environmental rehabilitation of the sand and gravel pits within the Shire of Exmouth.
Roads Reserve	To be used for the preservation and maintenance of roads.
Shire President COVID-19 Relief Fund	To be used to support the community who are severely financially affected by COVID-19.
Shire Staff Housing Reserve	To be used to fund housing for staff.
Swimming Pool Reserve	To be used to fund swimming pool upgrades.
Tourism Development Reserve	To be used to fund the development and implementation of initiatives to achieve the strategic tourism and economic developments of the Shire of Exmouth.
Town Planning Scheme Reserve	To be used fro the prupose of funding a review of the future Town Planning Scheme.
Waste & Recycle Management Reserve	To be used to fund capital and operational costs of Refuse Site including implementation of post closure plan.

Rates receivable	30 June 2021	31 Mar 2022
	\$	\$
Opening arrears previous years	510,805	234,502
Levied this year	3,489,748	3,686,804
Less - collections to date	(3,766,051)	(3,590,120)
Less - deferred rates		(50,026)
Equals current outstanding	234,502	281,160
Net rates collectable	234,502	281,160
% Collected	94.1%	91.6%

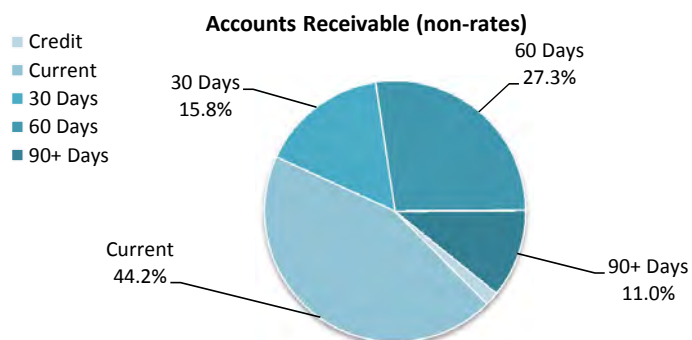


Receivables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	\$	\$	\$	\$	\$	\$
Receivables - general	(36,396)	901,453	321,765	555,721	223,511	1,966,054
Percentage	(1.9%)	45.9%	16.4%	28.3%	11.4%	
Balance per trial balance						
Sundry receivable						1,966,054
GST receivable						48,805
Community Loans						16,700
Property Service Charges						45,979
Total receivables general outstanding						2,077,538

Amounts shown above include GST (where applicable)

KEY INFORMATION

Trade and other receivables include amounts due from ratepayers for unpaid rates and service charges and other amounts due from third parties for goods sold and services performed in the ordinary course of business. Receivables expected to be collected within 12 months of the end of the reporting period are classified as current assets. All other receivables are classified as non-current assets. Collectability of trade and other receivables is reviewed on an ongoing basis. Debts that are known to be uncollectible are written off when identified. An allowance for impairment of receivables is raised when there is objective evidence that they will not be collectible.



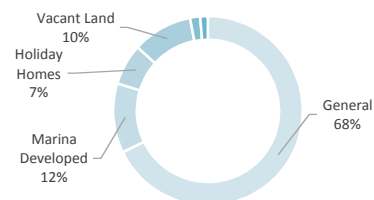
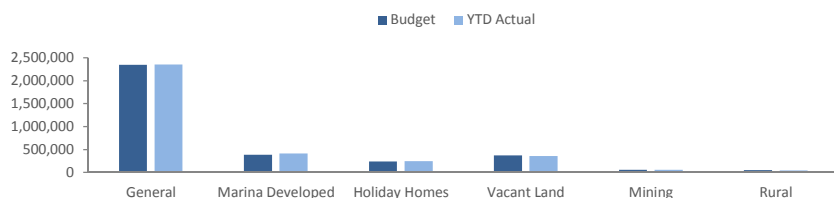
NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 31 MARCH 2022

OPERATING ACTIVITIES
NOTE 5
RATE REVENUE

General rate revenue	Budget						YTD Actual				
	Rate in \$ (cents)	Number of Properties	Rateable Value	Rate Revenue	Interim Rate	Back Rate	Total Revenue	Rate Revenue	Interim Rates	Back Rates	Total Revenue
RATE TYPE				\$	\$	\$	\$	\$	\$	\$	\$
Gross rental value											
General	0.078700	1,204	29,784,024	2,341,000	6,000	2,000	2,349,000	2,344,003	9,869	(1,859)	2,352,013
Marina Developed	0.106200	102	3,652,407	385,000	0	0	385,000	387,886	22,825	413	411,124
Holiday Homes	0.109100	87	2,197,000	240,000	0	0	240,000	239,693	3,593	334	243,620
Vacant Land	0.157300	232	2,348,030	373,000	0	0	373,000	369,346	(13,733)	0	355,613
Unimproved value											
Mining	0.167600	11	361,992	60,000	0	0	60,000	60,670	0	0	60,670
Rural	0.083800	6	537,400	54,000	0	0	54,000	45,034	0	0	45,034
Sub-Total		1,642	38,880,853	3,453,000	6,000	2,000	3,461,000	3,446,631	22,554	(1,112)	3,468,074
Minimum payment	Minimum \$										
Gross rental value											
General	950	60	549,082	57,000	0	0	57,000	57,000	0	0	57,000
Marina Developed	950	1	0	1,000	0	0	1,000	950	0	0	950
Vacant Land	750	141	465,880	106,000	0	0	106,000	105,750	0	0	105,750
Unimproved value											
Mining	250	10	8,574	2,000	0	0	2,000	2,500	0	0	2,500
Rural	750	1	5,800	1,000	0	0	1,000	750	0	0	750
Sub-total		213	1,029,336	167,000	0	0	167,000	166,950	0	0	166,950
Total general rates							3,628,000				3,635,024
Specified area rates	Rate in \$ (cents)										
Marina Specified Area	0.014000		3,669,077	51,000	0	0	51,000	51,367	413	0	51,780
Total specified area rates			3,669,077	51,000	0	0	51,000	51,367	413	0	51,780
Total							3,679,000				3,686,804

KEY INFORMATION

Prepaid rates are, until the taxable event for the rates has occurred, refundable at the request of the ratepayer. Rates received in advance give rise to a financial liability. On 1 July 2020 the prepaid rates were recognised as a financial asset and a related amount was recognised as a financial liability and no income was recognised. When the taxable event occurs the financial liability is extinguished and income recognised for the prepaid rates that have not been refunded.



Other current assets	Opening Balance 1 July 2021	Asset Increase	Asset Reduction	Closing Balance 31 March 2022
	\$	\$	\$	\$
Inventory				
Fuel and materials on hand	18,586	88,332	(42,239)	64,679
Stock - Visitor Centre Merchandise	96,161	38,605	0	134,766
Total other current assets	114,747	126,937	(42,239)	199,445
Amounts shown above include GST (where applicable)				

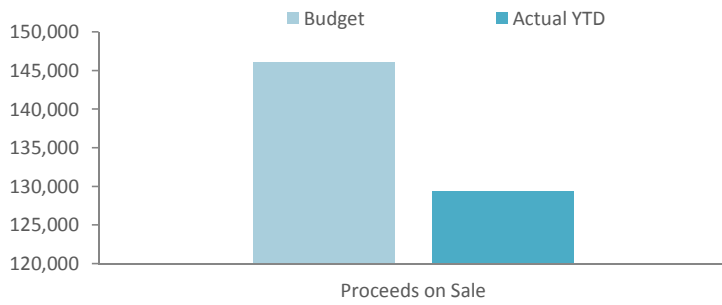
KEY INFORMATION

Inventory

Inventories are measured at the lower of cost and net realisable value.

Net realisable value is the estimated selling price in the ordinary course of business less the estimated costs of completion and the estimated costs necessary to make the sale.

Asset Ref.	Asset description	Budget				YTD Actual			
		Net Book Value	Proceeds	Profit	(Loss)	Net Book Value	Proceeds	Profit	(Loss)
		\$	\$	\$	\$	\$	\$	\$	\$
	Plant and equipment								
	Transport								
	Plant replacement	146,000	146,000	0	0	130,595	129,387	1,862	(7,342)
		146,000	146,000	0	0	130,595	129,387	1,862	(7,342)



Account Description	Amended		YTD Actual	Variance (Under)/Over	Timing		Comments
	Budget	YTD Budget			Start	Finish	
Buildings - Non Specialised							
Property renewals	170,000	(190,000)	2,343	192,343	Q1	Q4	
Staff Housing	830,000	622,503	539,228	(83,275)	Q1	Q2	Claim 1-3 progress payments.
Executive House	910,000	1,000,000	878,597	(121,403)	Q1	Q1	Purchase finalised.
Buildings - Specialised							
Aviation Check-In Airconditioning	50,000	50,000	42,201	(7,799)	Q1	Q2	RFQ closed.
Depot Office Expansion	100,000	74,997	500	(74,497)	Q2	Q3	
Ningaloo Centre Solar Panels	23,000	17,244	0	(17,244)	Q4	Q4	
Ningaloo Turtle Rehabilitation Centre	68,000	50,994	581	(50,413)	Q1	Q4	
Boundary Fencing Qualing Scarp Waste Site	10,000	10,000	0	(10,000)	Q2	Q2	
Aviation Screening Point Upgrade	245,000	245,000	88,255	(156,745)	Q1	Q3	Deposit for screening tunnel.
Ningaloo Centre solar panels (accrual)	0	0	145,794	145,794			Carried over from 20/21.
Plant and equipment							
LEA Tandem Trailer	9,000	6,750	9,046	2,296	Q2	Q3	
Plant Replacement Program	650,000	180,556	123,338	(57,217)	Q3	Q4	Carried over from 20/21.
Waste Compactor	245,000	163,333	0	(163,333)	Q2	Q4	
Infrastructure - Roads							
Footpath Program	200,000	133,333	4,846	(128,488)	Q2	Q4	
Murat Road - Edge Repairs	335,000	335,000	291,300	(43,700)	Q2	Q2	
Yardie Creek Road - Reseal and Line Marking	1,250,000	983,333	434,103	(549,230)	Q2	Q4	
Walk Bridge Replacement	50,000	13,889	467	(13,422)	Q3	Q4	
Infrastructure - Other							
Aviation Check-In Counters Upgrade	25,000	4,167	281	(3,886)	Q3	Q4	
Bike Park	368,000	275,994	152,786	(123,208)	Q2	Q3	Deposit for works.
Youth Precinct	170,000	127,494	38,642	(88,852)	Q2	Q3	Deposit for play equipment.
Swimming Pool Renewal	20,000	0	18,086	18,086			
Wastewater Treatment Plant Upgrade	20,000	0	4,545	4,545	Q3	Q3	
Septage Ponds	180,000	90,000	491	(89,509)	Q2	Q3	RFQ closed.
Tip Shop	20,000	13,333	0	(13,333)	Q2	Q4	
Waste Site Setup	30,000	20,000	0	(20,000)	Q2	Q4	
Recycling bins & bring it recycling centre	75,000	75,000	18,316	(56,684)	Q2	Q3	
Town Beach Upgrade	728,000	485,333	189,316	(296,017)	Q2	Q3	
Installation and leasing 8 jetties (accrual)	0	0	(291,327)	(291,327)			Carried over from 20/21.
Boat Ramp Lighting (accrual)	0	0	1,655	1,655			Carried over from 20/21.
Overflow Ablutions (accrual)	0	0	8,619	8,619			Carried over from 20/21.
Sentinel Chicken Pen Upgrades	15,000	0	0	0	Q4	Q4	
Electrical Work at Horse Club	30,000	0	14,275	14,275	Q3	Q4	
Pool Painting & New Cover	37,000	0	0	0	Q4	Q4	
Illegal Camping Prevention	250,000	0	0	0	Q3	Q4	
Federation Park Power Renewal	18,000	0	0	0	Q3	Q4	
Chlorine Storage	45,000	0	0	0	Q4	Q4	
	7,176,000	4,788,254	2,716,283	(2,071,971)			

Payables - general	Credit	Current	30 Days	60 Days	90+ Days	Total
	\$	\$	\$	\$	\$	\$
Payables - general	0	41,460	7,825	(308)	(1,394)	47,583
Percentage	0%	87.1%	16.4%	-0.6%	-2.9%	
Balance per trial balance						
Sundry creditors						47,569
ATO liabilities						73,823
Bonds, retentions and advance bookings and ESL liability						207,402
BSL						4,566
BCITF						21,003
Trust Liabilities						114,654
Prepaid Rates						34,686
Total payables general outstanding						503,703

Amounts shown above include GST (where applicable)

KEY INFORMATION

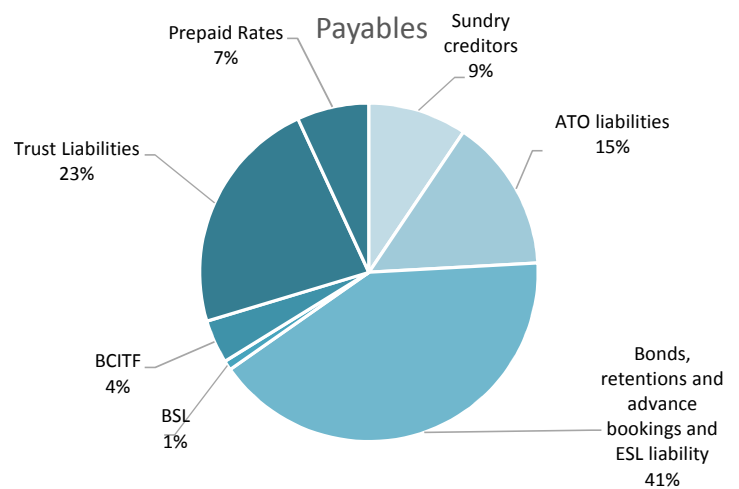
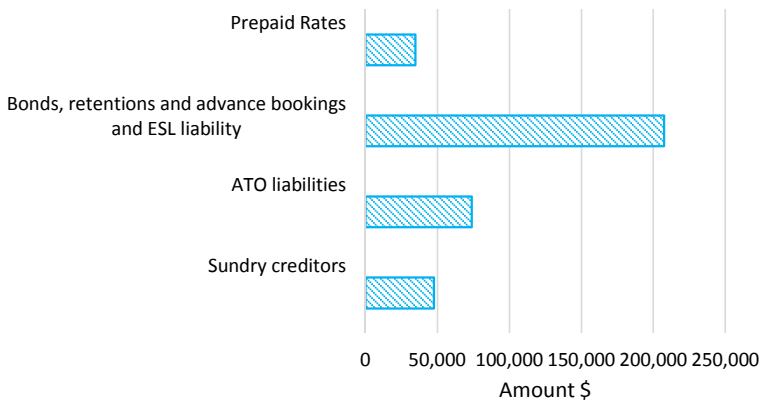
Trade and other payables represent liabilities for goods and services provided to the Shire that are unpaid and arise when the Shire becomes obliged to make future payments in respect of the purchase of these goods and services. The amounts are unsecured, are recognised as a current liability and are normally paid within 30 days of recognition.

- Credit
- Current
- 30 Days
- 60 Days
- 90+ Days

Aged Payables



Payables



Repayments - borrowings

Information on borrowings		1 July 2021	New Loans		Principal Repayments		Principal Outstanding		Interest Repayments	
Particulars	Loan No.		Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
		\$	\$	\$	\$	\$	\$	\$	\$	\$
Housing										
Staff Dwellings	80	480,257	0	0	53,716	72,000	426,541	408,257	16,196	21,000
Staff Dwellings	83	540,000	0	0	25,201	50,500	514,799	489,500	3,885	8,000
Staff Dwellings		0	0	860,000	0	0	0	860,000	0	0
Staff Dwellings		0	0	800,000	0	0	0	800,000	0	0
Community amenities										
Rubbish Truck	81	85,975	0	0	42,730	86,000	43,245	-25	1,036	2,000
Recreation and culture										
Ningaloo Centre	82	779,724	0	0	29,637	60,000	750,087	719,724	12,982	25,000
Other property and services										
1 Bennett Street	76	197,666	0	0	11,007	22,000	186,659	175,666	4,981	10,000
Total		2,083,622	0	1,660,000	162,292	290,500	1,921,330	3,453,122	39,080	66,000
Current borrowings		290,500					134,437			
Non-current borrowings		1,793,122					1,786,893			
		2,083,622					1,921,330			

All debenture repayments were financed by general purpose revenue.

KEY INFORMATION

All loans and borrowings are initially recognised at the fair value of the consideration received less directly attributable transaction costs. After initial recognition, interest-bearing loans and borrowings are subsequently measured at amortised cost using the effective interest method. Fees paid on the establishment of loan facilities that are yield related are included as part of the carrying amount of the loans and borrowings.

Movement in carrying amounts

Information on leases Particulars	Lease No.	1 July 2021	New Leases		Principal Repayments		Principal Outstanding		Interest Repayments	
			Actual	Budget	Actual	Budget	Actual	Budget	Actual	Budget
		\$	\$	\$	\$	\$	\$	\$	\$	\$
Housing										
25/30 Dugong Close		13,000	0	0	0	0	13,000	13,000	0	0
Transport										
Aviation - X-Ray Scanner		113,000	0	0	0	0	113,000	113,000	0	2,000
Aviation - RAAF Airport Lease		9,000	0	0	0	0	9,000	9,000	0	0
Total		135,000	0	0	0	0	135,000	135,000	0	2,000
Current lease liabilities		134,745					134,745			
Non-current lease liabilities		6,122					6,122			
		140,867					140,867			

All lease repayments were financed by general purpose revenue.

KEY INFORMATION

At inception of a contract, the Shire assesses if the contract contains or is a lease. A contract is, or contains, a lease if the contract conveys the right to control the use of an identified asset for a period of time in exchange for consideration. At the commencement date, a right of use asset is recognised at cost and lease liability at the present value of the lease payments that are not paid at that date. The lease payments are discounted using that date. The lease payments are discounted using the interest rate implicit in the lease, if that rate can be readily determined. If that rate cannot be readily determined, the Shire uses its incremental borrowing rate.

All contracts classified as short-term leases (i.e. a lease with a remaining term of 12 months or less) and leases of low value assets are recognised as an operating expense on a straight-line basis over the term of the lease.

	Note	Opening Balance 1 July 2021	Liability transferred from/(to) non current	Liability Increase	Liability Reduction	Closing Balance 31 March 2022
		\$		\$	\$	\$
Other current liabilities						
Total other liabilities		409,363	0	0	0	409,363
Provisions						
Provision for annual leave		450,789	0	0	0	450,789
Provision for long service leave		286,104	0	0	0	286,104
Total Provisions		736,893	0	0	0	736,893
Total other current liabilities		1,146,256	0	0	0	1,146,256

Amounts shown above include GST (where applicable)

KEY INFORMATION

Provisions

Provisions are recognised when the Shire has a present legal or constructive obligation, as a result of past events, for which it is probable that an outflow of economic benefits will result and that outflow can be reliably measured.

Provisions are measured using the best estimate of the amounts required to settle the obligation at the end of the reporting period.

Employee benefits

Short-term employee benefits

Provision is made for the Shire's obligations for short-term employee benefits. Short-term employee benefits are benefits (other than termination benefits) that are expected to be settled wholly before 12 months after the end of the annual reporting period in which the employees render the related service, including wages, salaries and sick leave. Short-term employee benefits are measured at the (undiscounted) amounts expected to be paid when the obligation is settled.

The Shire's obligations for short-term employee benefits such as wages, salaries and sick leave are recognised as a part of current trade and other payables in the calculation of net current assets.

Other long-term employee benefits

The Shire's obligations for employees' annual leave and long service leave entitlements are recognised as provisions in the statement of financial position.

Long-term employee benefits are measured at the present value of the expected future payments to be made to employees. Expected future payments incorporate anticipated future wage and salary levels, durations of service and employee departures and are discounted at rates determined by reference to market yields at the end of the reporting period on government bonds that have maturity dates that approximate the terms of the obligations. Any remeasurements for changes in assumptions of obligations for other long-term employee benefits are recognised in profit or loss in the periods in which the changes occur. The Shire's obligations for long-term employee benefits are presented as non-current provisions in its statement of financial position, except where the Shire does not have an unconditional right to defer settlement for at least 12 months after the end of the reporting period, in which case the obligations are presented as current provisions.

Provider	Unspent operating grant, subsidies and contributions liability					Operating grants, subsidies and contributions revenue		
	Liability	Increase in Liability	Decrease in Liability (As revenue)	Liability	Current Liability	Amended Budget Revenue	YTD Budget	YTD Revenue Actual
	1 July 2021			31 Mar 2022	31 Mar 2022			
	\$	\$	\$	\$	\$	\$	\$	
Operating grants and subsidies								
General purpose funding								
Grants Commission - General Purpose	0	0	0	0	0	1,400,000	1,049,994	473,996
Health								
CLAG - Fight the Bite	0	0	0	0	0	3,500	2,619	2,481
Community amenities								
DPLH - Coastal Hazard Risk Management and Adaption Plan	0	0	0	0	0	90,000	67,500	45,000
Recreation and culture								
Various - Community Grant	0	0	0	0	0	62,000	46,494	27,200
Transport								
Grants Commission - Untied Road Grant	0	0	0	0	0	435,000	269,121	154,864
DASCS - Domestic Airports Security Costs Support	0	0	0	0	0	1,239,000	929,250	1,235,064
Economic services								
Tourism Trainee Grant	0	0	0	0	0	40,000	29,997	37,000
Booking Platform	0	0	0	0	0	28,000	20,997	10,000
	0	0	0	0	0	3,297,500	2,415,972	1,985,605
Operating contributions								
Recreation and culture								
Various - Community Contributions & Donations	0	0	0	0	0	0	0	6,000
NADC - Reimbursements	0	0	0	0	0	0	0	682
Other property and services								
ATO - Diesel Fuel Subsidy	0	0	0	0	0	20,000	14,994	13,496
Other					0	23,000	17,235	47,417
	0	0	0	0	0	43,000	32,229	67,594
TOTALS	0	0	0	0	0	3,340,500	2,448,201	2,053,200

Unspent non operating grants, subsidies and contributions liability

Non operating grants, subsidies and contributions revenue

Provider	Unspent non operating grants, subsidies and contributions liability					Non operating grants, subsidies and contributions revenue		
	Liability 1 July 2021	Increase in Liability	Decrease in Liability (As revenue)	Liability 31 Mar 2022	Current Liability 31 Mar 2022	Amended Budget Revenue	YTD Budget	YTD Revenue Actual
	\$	\$	\$	\$	\$	\$	\$	\$
Non-operating grants and subsidies								
Recreation and culture								
Various - Recreation Facilities	0	0	0	0	0	300,000	225,000	150,000
BHP - Town Beach revitalisation	0	0	0	0	0	728,000	546,003	108,644
CSRFF - Swimming Pool Upgrade	0	0	0	0	0	0	0	0
Ningaloo Centre Solar Panels	0	0	0	0	0	860,000	644,994	1,009,696
Transport								
MRWA - Regional Road Group	0	0	0	0	0	177,000	132,750	173,946
Roads to Recovery Grant	0	0	0	0	0	270,000	202,500	267,432
Local Roads and Community Infrastructure	0	0	0	0	0	608,000	455,994	230,499
Expenditure POS Cash-in-Lieu, Murat Road footpath	0	0	0	0	0	0	0	126,215
	0	0	0	0	0	2,943,000	2,207,241	2,066,432

**NOTES TO THE STATEMENT OF FINANCIAL ACTIVITY
FOR THE PERIOD ENDED 31 MARCH 2022**

**NOTE 15
TRUST FUND**

Funds held at balance date which are required by legislation to be credited to the trust fund and which are not included in the financial statements are as follows:

Description	Opening Balance 1 July 2021	Amount Received	Amount Paid	Closing Balance 31 Mar 2022
	\$	\$	\$	\$
Cash in Lieu POS	171,855	0	(126,215)	45,640
Bond Deed Exmouth Marina Holdings	18,186	0	0	18,186
Exmouth Volunteer Fire & Rescue	50,828	0	0	50,828
	240,869	0	(126,215)	114,654

MONTHLY LIST OF PAYMENTS - MARCH 2022

Municipal Account:

Cheque numbers	\$	-
Direct Debits and EFT Payments EFT22053-EFT22253	\$	1,058,092.64
Credit Card Purchases	\$	6,932.40
Total Municipal Account	\$	1,065,025.04

Trust Account:

Cheque number	\$	-
EFT Payments	\$	-
Total Trust Account	\$	-

TOTAL PAYMENTS - FEBRUARY 2022 \$ 1,065,025.04

Reference	Date	Name	Description	Municipal Account	Trust Account
				TOTAL CHEQUES	\$ - \$ -
DD7263.1	01/03/2022	HP FINANCIAL SERVICES	LEASE PAYMENT	\$ 4,367.00	
DD7263.2	01/03/2022	WESTNET PTY LTD	MONTHLY INTERNET CHARGES - MAR 2022	\$ 346.99	
DD7272.1	02/03/2022	TELSTRA CORPORATION	TELSTRA MONTHLY ACCOUNT MAR 2022	\$ 812.54	
DD7278.1	09/03/2022	SUPERANNUATION	PAYROLL DEDUCTIONS	\$ 42,653.03	
DD7288.1	14/03/2022	MESSAGE4U PTY LTD	MESSAGE MEDIA BUNDLE MAR 2022	\$ 44.00	
DD7319.1	23/03/2022	SUPERANNUATION	PAYROLL DEDUCTIONS	\$ 39,049.06	
DD7290.1	28/03/2000	TELSTRA CORPORATION	MONTHLY COUNCILLORS PHONES	\$ 174.95	
DD7288.2	30/03/2022	TELAIR PTY LTD	MONTHLY AIRPORT INTERNET CHARGES - MAR 2022	\$ 724.90	
				TOTAL DIRECT DEBIT PAYMENTS	\$ 88,172.47 \$ -
EFT22053	01/03/2022	AUSTRALIAN TAXATION OFFICE	BAS STATEMENT JANUARY 2022	\$ 59,660.00	
EFT22054	04/03/2022	BIRDS EYE VIEW NINGALOO	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 610.30	
EFT22055	04/03/2022	CORAL BAY ECOTOURS	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 187.00	
EFT22056	04/03/2022	DEPARTMENT OF BIODIVERSITY, CONSERVATION AND ATTRACTIONS - EXMOUTH	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 1,687.25	
EFT22057	04/03/2022	DIVE NINGALOO	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 3,544.50	
EFT22058	04/03/2022	NINGALOO CARAVAN AND HOLIDAY PARK (PHOBOS NOMINEES)	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 689.20	
EFT22059	04/03/2022	NINGALOO CORAL BAY - BAYVIEW	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 170.00	
EFT22060	04/03/2022	NINGALOO ECOLOGY CRUISES	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 3,238.50	
EFT22061	04/03/2022	NINGALOO REEF DIVE	NINGALOO VISITOR CENTRE OPERATOR PAYMENT FEBRUARY 2022	\$ 1,024.25	
EFT22062	04/03/2022	SHIRE OF EXMOUTH	NVC OPERATOR BOOKINGS COMMISSION FEBRUARY 2022	\$ 1,949.72	
EFT22063	04/03/2022	ACS DISTANCE EDUCATION	STAFF TRAINING	\$ 689.70	
EFT22064	04/03/2022	AIRSAFE TRANSPORT TRAINING	STAFF TRAINING	\$ 80.00	
EFT22065	04/03/2022	EMPLOYEE	STAFF REIMBURSEMENT	\$ 662.70	
EFT22066	04/03/2022	ALGAEFREE AUSTRALIA	4 X YOOVEE LAMP HOLP 85W	\$ 709.66	
EFT22067	04/03/2022	AMPAC DEBT RECOVERY	DEBT RECOVERY COMMISSION	\$ 55.00	
EFT22068	04/03/2022	AMY JACINDA JAN	MERCHANDISE - JEWELLERY NECKLACE PENDENT	\$ 1,180.00	
EFT22069	04/03/2022	AQUA RESEARCH AND MONITORING SERVICES	REIMBURSEMENT OF AIRFARES	\$ 1,027.80	
EFT22070	04/03/2022	ASB MARKETING PTY LTD	FIGHT THE BITE PROMOTIONAL MATERIAL	\$ 638.99	
EFT22071	04/03/2022	ATOM SUPPLY / GERALDTON INDUSTRIAL SUPPLIES	DEPOT PARTS	\$ 2,001.97	
EFT22072	04/03/2022	AUSTRALIA POST	AUSTRALIA POST MONTHLY ACCOUNT	\$ 729.13	
EFT22073	04/03/2022	BLUE OCEAN PUBLICATIONS	BOOK SALES FOR NINGALOO CENTRE	\$ 1,858.00	
EFT22074	04/03/2022	DEPARTMENT OF TRANSPORT - TRANSPORT CENTRE PERTH	DISCLOSURE OF INFORMATION FEES	\$ 144.80	
EFT22075	04/03/2022	DLR BUILDING PTY LTD	SPRAY PARK MAINTENANCE WORKS	\$ 2,420.00	
EFT22076	04/03/2022	ENERAQUE PTY LTD	PARTS AS PER QUOTE FOR P056	\$ 272.55	
EFT22077	04/03/2022	EXMOUTH FUEL SUPPLIES	FUEL AND GAS	\$ 204.98	
EFT22078	04/03/2022	EXMOUTH HARDWARE & BUILDING SUPPLIES	AQUARIUM HARDWARE ACCOUNT JANUARY 2022	\$ 1,263.14	
EFT22079	04/03/2022	EXMOUTH PHARMACY	SUPPLIES FOR TURTLE REHABILITATION	\$ 176.38	
EFT22080	04/03/2022	EXMOUTH VET CLINIC	SURGERY FOR TURTLE	\$ 1,935.45	
EFT22081	04/03/2022	EXMOUTH WHOLESALERS	AIRPORT CONSUMABLES	\$ 518.59	

Reference	Date	Name	Description	Municipal Account	Trust Account
EFT22082	04/03/2022	EXY PLUMBING & CONTRACTING	WASTE TREATMENT FARM WORKS	\$ 952.95	
EFT22083	04/03/2022	FIONA MARIAN HARVEY	CLEANING SHIRE PROPERTY	\$ 375.38	
EFT22084	04/03/2022	FROTH CRAFT BREWERY LITTLE PHETE PTY LTD	GIFT VOUCHER FOR CHRISTMAS LIGHTS COMPETITION	\$ 350.00	
EFT22085	04/03/2022	HEMPFIELD SMALL ENGINE SERVICES	RECOIL STARTER ASSYS.	\$ 680.00	
EFT22086	04/03/2022	HESPERIAN PRESS	NVC MERCHANDISE - BOOKS	\$ 3,202.70	
EFT22087	04/03/2022	HORIZON POWER - ACCOUNTS	UTILITIES	\$ 6,202.07	
EFT22088	04/03/2022	INSIGHT ENTERPRISES AUSTRALIA PTY LTD	NITRO - SOFTWARE SUBSCRIPTION LICENCE	\$ 9,260.46	
EFT22089	04/03/2022	IT VISION	ALTUS PROCUREMENT - SOFTWARE IMPLEMENTATION	\$ 6,958.88	
EFT22090	04/03/2022	JASON SIGNMAKERS	RECYCLED WATER SIGNS	\$ 506.55	
EFT22091	04/03/2022	T SEELEY	ACHITECTURAL DRAWINGS	\$ 550.00	
EFT22092	04/03/2022	MANDALAY TECHNOLOGIES PTY LTD	WASTE MANAGEMENT SOFTWARE	\$ 3,886.66	
EFT22093	04/03/2022	MUIRON PTY LTD	BUILDING INCENTIVE PAYMENT	\$ 20,000.00	
EFT22094	04/03/2022	MUMBY'S AUTO ELECTRICAL AND AIR CONDITIONING	BATTERY	\$ 698.50	
EFT22095	04/03/2022	NETWORK POWER SOLUTIONS PTY LTD	REPAIR OF FEDERATION PARK TOILET & GAZEBO LIGHTING	\$ 3,323.00	
EFT22096	04/03/2022	NINGALOO COOKING STUDIO	SUPPLY OF BREAKFAST BUFFET	\$ 396.00	
EFT22097	04/03/2022	NORTH COAST DESIGN PTY LTD	QUOTE FOR CONSTRUCTION COSTS OF PMSW UPGRADES.	\$ 705.38	
EFT22098	04/03/2022	NATURE PLAYGROUNDS	REVIEW YOUTH PRECINCT LAYOUT NATURE PLAY & OUTDOOR FITNESS EQUIP	\$ 1,110.00	
EFT22099	04/03/2022	PATHWEST LABORATORY WA	RECRUITMENT COSTS	\$ 70.00	
EFT22100	04/03/2022	PLATINUM SURVEYS PTY LTD	QUALING SCARP WASTE FACILITY BOUNDARY SURVEY	\$ 1,815.00	
EFT22101	04/03/2022	SANTOS LIMITED	REFUND CREDIT FROM DEBTOR ACCOUNT - SANTOS SPORTS AWARD 2020	\$ 2,200.00	
EFT22102	04/03/2022	SEEK LIMITED	EMPLOYMENT ADVERTISEMENT	\$ 280.50	
EFT22103	04/03/2022	SICCE AUSTRALIA PTY LTD	AQUARIUM EQUIPMENT	\$ 2,640.61	
EFT22104	04/03/2022	STARMART EXMOUTH	TYRE REPAIR - P072	\$ 48.00	
EFT22105	04/03/2022	EMPLOYEE	STAFF REIMBURSEMENTS	\$ 29.90	
EFT22106	04/03/2022	WORKPLACE EXPRESS	WORKPLACE EXPRESS 12 MONTH SUBSCRIPTION	\$ 1,199.00	
EFT22107	04/03/2022	THE AUSTRALIAN LOCAL GOVERNMENT JOB DIRECTORY PTY LTD	ADVERTISING - FINANCE OFFICER POSITION	\$ 990.00	
EFT22108	04/03/2022	TNT EXPRESS AUSTRALIA - ACCOUNTS	FREIGHT	\$ 864.53	
EFT22109	04/03/2022	TOLL TRANSPORT PTY LTD	FREIGHT	\$ 129.80	
EFT22110	04/03/2022	WHALERS RESTAURANT MINDFUL CUISINE PTY LTD	GIFT VOUCHER FOR CHRISTMAS LIGHTS COMPETITION 2021	\$ 200.00	
EFT22111	15/03/2022	ATOM SUPPLY / GERALDTON INDUSTRIAL SUPPLIES	RETRACT BARE TWIN PEDESTAL REEL AS PER QUOTE G723465	\$ 1,023.00	
EFT22112	15/03/2022	AUSTRALIAN TAX OFFICE (PAYG)	PAYROLL DEDUCTIONS	\$ 47,265.28	
EFT22113	15/03/2022	BLUE MEDIA EXMOUTH	MERCHANDISE FOR NINGALOO VISITORS CENTRE	\$ 1,300.00	
EFT22114	15/03/2022	BOOEASY PTY LTD	BOOEASY MONTHLY FEES	\$ 330.00	
EFT22115	15/03/2022	BOYA EQUIPMENT	MACHINERY PARTS	\$ 1,039.50	
EFT22116	15/03/2022	CAPRICORN PEST CONTROL	PEST CONTROL	\$ 506.00	
EFT22117	15/03/2022	CASTROL AUSTRALIA PTY LTD	DEPOT TOOLS AND EQUIPMENT	\$ 155.89	
EFT22118	15/03/2022	CJ LORD BUILDING AND RENOVATION WA PTY LTD	BRING IT CENTRE FENCE AND GATE MAINTENANCE	\$ 4,895.00	
EFT22119	15/03/2022	EXMOUTH AIR & ELECTRICAL PTY LTD	ELECTRICAL MAINTENANCE - AIRPORT	\$ 365.20	
EFT22120	15/03/2022	EXMOUTH COMMUNITY GARDEN (INC)	COMMUNITY GRANT FUNDING	\$ 500.00	
EFT22121	15/03/2022	EXMOUTH DISTRICT HIGH SCHOOL PARENTS AND CITIZENS (P&C)	COMMUNITY GRANT FUNDING	\$ 1,500.00	
EFT22122	15/03/2022	EXMOUTH HARDWARE & BUILDING SUPPLIES	NADC - HARDWARE SUPPLIES	\$ 334.70	
EFT22123	15/03/2022	EXMOUTH WHOLESALERS	POOL STOCK	\$ 1,371.81	
EFT22124	15/03/2022	EXY PLUMBING & CONTRACTING	VARIOUS PLUMBING WORKS	\$ 6,424.16	
EFT22125	15/03/2022	GREY EAGLE HOLDINGS PTY LTD	MACHINERY PARTS	\$ 9,643.00	
EFT22126	15/03/2022	FIRE SERVICES AUSTRALIA (WA) PTY LTD	FIRE PANEL INSPECTIONS	\$ 673.94	
EFT22127	15/03/2022	GASCOYNE HAULAGE	SENTINEL CHICKENS	\$ 87.47	
EFT22128	15/03/2022	GASCOYNE OFFICE EQUIPMENT	PRINTER MAINTENANCE AND SUPPLIES - JAN 2022	\$ 2,860.06	
EFT22129	15/03/2022	GO DOORS PTY LTD	AIRPORT BUILDING MAINTENANCE	\$ 3,520.00	
EFT22130	15/03/2022	GO GO ON HOLD PTY LTD	ON HOLD MESSAGES SERVICES - 6 MONTHLY	\$ 455.40	
EFT22131	15/03/2022	HORIZON POWER - ACCOUNTS	UTILITIES	\$ 14,209.40	
EFT22132	15/03/2022	HT CLEANING SERVICES PTY LTD	NINGALOO CENTRE CLEANING	\$ 13,670.98	
EFT22133	15/03/2022	JESS HADDEN	FAREWELL GIFT	\$ 195.00	
EFT22134	15/03/2022	LOCAL GOVERNMENT PROFESSIONALS AUSTRALIA WA	EMPLOYMENT ADVERTISING	\$ 165.00	

Reference	Date	Name	Description	Municipal Account	Trust Account
EFT22135	15/03/2022	LOCAL GOVT RACING & CEMETERIES EMP UNION	PAYROLL DEDUCTIONS	\$ 19.40	
EFT22136	15/03/2022	LWT SYSTEMS	IT SUPPLIES	\$ 2,512.40	
EFT22137	15/03/2022	MARK'S SIGNS	SHIRE HOUSING MAINTENANCE	\$ 377.30	
EFT22138	15/03/2022	MUMBY'S AUTO ELECTRICAL AND AIR CONDITIONING	H7 12V55W GLOBE	\$ 22.00	
EFT22139	15/03/2022	McLEODS BARRISTERS AND SOLICITORS	LEGAL FEES	\$ 3,837.68	
EFT22140	15/03/2022	NETWORK POWER SOLUTIONS PTY LTD	STAFF HOUSING MAINTENANCE	\$ 1,829.00	
EFT22141	15/03/2022	NGT GLOBAL PTY LTD T/AS VICTORY FREIGHTLINES	RECYCLING BINS COLLECTION AND FREIGHT	\$ 1,071.47	
EFT22142	15/03/2022	NINGALOO COOKING STUDIO	STAFF TRAINING - CATERING	\$ 575.00	
EFT22143	15/03/2022	NINGALOO HARVEST IGA	MONTHLY CONSUMABLES JANUARY 2022	\$ 103.23	
EFT22144	15/03/2022	PEBBLE BEACH PRINTS NINGALOO	NVC MERCHANDISE	\$ 4,100.00	
EFT22145	15/03/2022	PERITUS TECHNOLOGY PTY LTD	MONTHLY TRANSACTION FEES	\$ 133.06	
EFT22146	15/03/2022	PUREWATER POOL SERVICES	SPRAY PARK MAINTENANCE	\$ 2,541.00	
EFT22147	15/03/2022	R&L COURIERS	FREIGHT	\$ 33.00	
EFT22148	15/03/2022	RHONDA KAYE GRIECHEN	NVC MERCHANDISE	\$ 48.00	
EFT22149	15/03/2022	SCOPE BUSINESS IMAGING	PRINTING SERVICES AND SUPPLIES	\$ 1,390.57	
EFT22150	15/03/2022	SEEK LIMITED	EMPLOYMENT ADVERTISING	\$ 313.50	
EFT22151	15/03/2022	SMART IN DESIGN	NVC MERCHANDISE	\$ 1,225.00	
EFT22152	15/03/2022	ST JOHN AMBULANCE WESTERN AUSTRALIA LTD	RESTOCKING OF FIRST AID KITS AND DEFIBRILLATOR	\$ 3,251.47	
EFT22153	15/03/2022	TACKLE WORLD EXMOUTH (BLUE WATER)	TURTLE FOOD	\$ 191.94	
EFT22154	15/03/2022	TALIS CONSULTANTS PTY LTD	CONSULTANT FEES	\$ 540.38	
EFT22155	15/03/2022	THE AUSTRALIAN LOCAL GOVERNMENT JOB DIRECTORY PTY LTD	EMPLOYMENT ADVERTISING	\$ 495.00	
EFT22156	15/03/2022	THE JAFFA ROOM / ARTISTRALIA	DIVE IN MOVIES - LICENCE TO VIEW	\$ 484.00	
EFT22157	15/03/2022	TOTALLY WORKWEAR MIDLAND	STAFF UNIFORM / PPE	\$ 131.87	
EFT22158	15/03/2022	VEBAS AQUARIUMS PTY LTD	AQUARIUM MAINTENANCE	\$ 785.40	
EFT22159	15/03/2022	VISUAL CONTRAST	TOWN MAPS A3	\$ 2,387.00	
EFT22160	15/03/2022	WESFARMERS KLEENHEAT GAS PTY LTD	GAS BOTTLE ANNUAL SERVICE AND RENTAL FEE - KLEENHEAT GAS	\$ 772.20	
EFT22161	15/03/2022	DEPARTMENT OF TRANSPORT - TRANSPORT CENTRE PERTH	INFORMATION REQUESTS	\$ 73.80	
EFT22162	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 3,273.40	
EFT22163	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 15,574.75	
EFT22164	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 3,273.40	
EFT22165	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 3,423.40	
EFT22166	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 5,583.15	
EFT22167	18/03/2022	COUNCILLOR	COUNCILLOR REMUNERATION - 01/01/2022 - 31/03/2022	\$ 3,423.40	
EFT22168	18/03/2022	WATER CORPORATION	UTILITIES	\$ 5,485.04	
EFT22169	18/03/2022	AFFORDABLE SIGNS	VEHICLE MAINTENANCE	\$ 528.00	
EFT22170	18/03/2022	AMPAC DEBT RECOVERY	DEBT RECOVERY COMMISSION	\$ 42.13	
EFT22171	18/03/2022	ATOM SUPPLY / GERALDTON INDUSTRIAL SUPPLIES	MACHINERY PARTS	\$ 169.95	
EFT22172	18/03/2022	BOULDER WELLNESS PTY LTD	CLASSIFICATION AND INSPECTION	\$ 2,514.50	
EFT22173	18/03/2022	BOYA EQUIPMENT	MACHINERY PARTS	\$ 377.41	
EFT22174	18/03/2022	CAPRICORN EXTINGUISHERS	FIRE EXTINGUISHERS FOR POUND	\$ 266.50	
EFT22175	18/03/2022	CASTROL AUSTRALIA PTY LTD	VEHICLE MAINTENANCE	\$ 960.78	
EFT22176	18/03/2022	CJ LORD BUILDING AND RENOVATION WA PTY LTD	NINGALOO CENTRE MAINTENANCE - FISH TANK CABINET	\$ 2,200.00	
EFT22177	18/03/2022	COMMON GROUND TRAILS PTY LTD	EXMOUTH BIKE PARK PROGRESS CLAIM 2	\$ 80,471.60	
EFT22178	18/03/2022	CORSIGN WA PTY LTD	SIGNAGE	\$ 174.35	
EFT22179	18/03/2022	DEPARTMENT OF FIRE AND EMERGENCY SERVICES	2021/2022 ESL QUARTER 3 EMERGENCY SERVICES LEVY	\$ 69,085.13	
EFT22180	18/03/2022	DEPARTMENT OF PRIMARY INDUSTRIES AND REGIONAL DEVELOPMENT	RETURN OF UNEXPENDED PROJECT FUNDS - NINGALOO CENTRE STAGE 2	\$ 117,221.85	
EFT22181	18/03/2022	DUALCO CONTRACTING (WA) PTY LTD	MAINTENANCE ICE MACHINE DEPOT	\$ 132.00	
EFT22182	18/03/2022	EXMOUTH AUTOMOTIVE AND BOATING SERVICES	WHEEL ALIGNMENT - 1ECJ051	\$ 120.00	
EFT22183	18/03/2022	EXMOUTH DISTRICT HIGH SCHOOL	UTILITIES EDHS HARD COURTS	\$ 475.20	
EFT22184	18/03/2022	EXMOUTH FREIGHT SERVICES	DEMobilISATION PRAWN STATUE	\$ 929.50	
EFT22185	18/03/2022	EXMOUTH HARDWARE & BUILDING SUPPLIES	MONTHLY HARDWARE ACCOUNT BUILDING MAINTENANCE	\$ 1,238.85	
EFT22186	18/03/2022	EXMOUTH NEWSAGENCY & TOYWORLD	MONTHLY NEWAGENCY ACCOUNT FEBRUARY 2022	\$ 64.80	
EFT22187	18/03/2022	EXMOUTH WHOLESALE	VENDING MACHINE STOCK	\$ 1,975.25	

Reference	Date	Name	Description	Municipal Account	Trust Account
EFT22188	18/03/2022	EXY PLUMBING & CONTRACTING	MAINTENANCE DEPOT CARETAKERS HOUSE	\$ 999.82	
EFT22189	18/03/2022	FIRE SERVICES AUSTRALIA (WA) PTY LTD	MONTHLY INSPECTION AND TESTING OF FIRE SERVICES	\$ 229.63	
EFT22190	18/03/2022	GRANTS EMPIRE	BBRF APPLICATION - PAYMENT 2	\$ 1,122.00	
EFT22191	18/03/2022	HORIZON POWER - ACCOUNTS	UTILITIES	\$ 27,357.14	
EFT22192	18/03/2022	HT CLEANING SERVICES PTY LTD	EVENT CLEANING	\$ 143.00	
EFT22193	18/03/2022	INSTRUMENT CHOICE	THERMOMETER	\$ 481.00	
EFT22194	18/03/2022	IXOM OPERATIONS PTY LTD	IXOM MONTHLY SERVICE FEE	\$ 611.07	
EFT22195	18/03/2022	MAIN ROADS WESTERN AUSTRALIA - EAST PERTH BRANCH	RETURN FUNDING STATE BLACKSPOT PROGRAM - MURAT RD/SKIPJACK INTERSECTION	\$ 117,332.60	
EFT22196	18/03/2022	MARK'S SIGNS	MONTHLY POOL MAINTENANCE	\$ 291.50	
EFT22197	18/03/2022	MARKETFORCE	ADVERTISING	\$ 3,709.32	
EFT22198	18/03/2022	EMPLOYEE	EMPLOYEE REIMBURSEMENT	\$ 297.00	
EFT22199	18/03/2022	MOON BAY TRADING CO PTY LTD T/A SML SECURITY COMMUNICATIONS & FIRE	MAINTENANCE LEARMONTH AIRPORT	\$ 1,023.00	
EFT22200	18/03/2022	MUMBY'S AUTO ELECTRICAL AND AIR CONDITIONING	VEHICLE A/C SERVICE	\$ 570.00	
EFT22201	18/03/2022	NETWORK POWER SOLUTIONS PTY LTD	PONY CLUB POWER UPGRADE - MATERIALS ONLY	\$ 17,162.50	
EFT22202	18/03/2022	NINGALOO COOKING STUDIO	EVENT CATERING	\$ 1,910.00	
EFT22203	18/03/2022	NINGALOO WATER & ICE	WATER FOR DEPOT	\$ 96.00	
EFT22204	18/03/2022	NSTA PTY LTD	STAFF TRAINING	\$ 2,990.00	
EFT22205	18/03/2022	RAY WHITE TRUST ACCOUNT	STORAGE UNIT RENT	\$ 383.66	
EFT22206	18/03/2022	EMPLOYEE	EMPLOYEE REIMBURSEMENT	\$ 34.97	
EFT22207	18/03/2022	SCENT AUSTRALIA PTY LTD	MONTHLY AMBIENT SCENTING	\$ 143.00	
EFT22208	18/03/2022	STARMART EXMOUTH	DEPOT PARTS	\$ 798.00	
EFT22209	18/03/2022	THE HONDA SHOP	DEPOT PARTS	\$ 1,095.00	
EFT22210	18/03/2022	THE LEISURE INSTITUTE OF WA AQUATICS INC	LIWA MEMBERSHIP	\$ 132.00	
EFT22211	18/03/2022	TOTAL EDEN PTY LTD	DEPOT SUPPLIES	\$ 85.47	
EFT22212	18/03/2022	VANGUARD PRESS	TRANSPORT FEE	\$ 127.85	
EFT22213	18/03/2022	WALGA	RAPID ANTIGEN TESTS	\$ 4,455.00	
EFT22214	18/03/2022	WESTRAC PTY LTD	DEPOT PARTS	\$ 163.91	
EFT22215	25/03/2022	ABCO PRODUCTS PTY LTD	COVID-19 SUPPLIES	\$ 1,200.45	
EFT22216	25/03/2022	AERODROME MANAGEMENT SERVICES PTY LTD (AMS)	ASIC CARD	\$ 230.00	
EFT22217	25/03/2022	AUSTRALIAN TAX OFFICE (PAYG)	PAYROLL DEDUCTIONS	\$ 65,839.65	
EFT22218	25/03/2022	BAIYUNGU DREAMING	WELCOME TO COUNTRY GASCOYNE RECREATION FORUM	\$ 350.00	
EFT22219	25/03/2022	CAPRICORN PEST CONTROL	PEST CONTROL MAINTENANCE	\$ 3,102.00	
EFT22220	25/03/2022	CASTROL AUSTRALIA PTY LTD	DEPOT MATERIALS	\$ 4,713.50	
EFT22221	25/03/2022	CJ LORD BUILDING AND RENOVATION WA PTY LTD	AQUARIUM WORKS	\$ 2,420.00	
EFT22222	25/03/2022	DLR BUILDING PTY LTD	NC MAINTENANCE - DURACK	\$ 5,102.90	
EFT22223	25/03/2022	EVA CROSS	ITEMS FOR NINGALOO VISITOR CENTRE	\$ 1,660.00	
EFT22224	25/03/2022	EXMOUTH HARDWARE & BUILDING SUPPLIES	HARDWARE SUPPLIES	\$ 121.75	
EFT22225	25/03/2022	EXMOUTH IGA	CONSUMABLES	\$ 496.88	
EFT22226	25/03/2022	EXMOUTH KART CLUB	COMMUNITY GRANT MAJOR EVENT SPONSORSHIP	\$ 2,890.50	
EFT22227	25/03/2022	EXMOUTH PHARMACY	STAFF UNIFORM / PPE	\$ 251.82	
EFT22228	25/03/2022	EXMOUTH WHOLESALERS	NINGALOO CENTRE CLEANING SUPPLIES	\$ 808.72	
EFT22229	28/03/2022	EXY PLUMBING & CONTRACTING	STAFF HOUSING MAINTENANCE	\$ 3,561.77	
EFT22230	28/03/2022	GREY EAGLE HOLDINGS PTY LTD	MACHINARY PARTS - TYRES	\$ 4,940.00	
EFT22231	28/03/2022	FUSION FABRICATION AND MARINE	AIRPORT REPAIRS, ELECTRICAL GATE	\$ 550.00	
EFT22232	28/03/2022	GROUND CONTROL AND GARDENS	PRUNING AND GARDENING WORKS	\$ 440.00	
EFT22233	28/03/2022	HORIZON POWER - ACCOUNTS	UTILITIES	\$ 8,421.04	
EFT22234	28/03/2022	INSIGHT ENTERPRISES AUSTRALIA PTY LTD	NITRO SUBSCRIPTION	\$ 9,260.46	
EFT22235	28/03/2022	T SEELEY	NINGALOO CENTRE DISPLAY	\$ 550.00	
EFT22236	28/03/2022	RATEPAYER	RATES REFUND OVERPAYMENT	\$ 122.00	
EFT22237	28/03/2022	RATEPAYER	RATES REFUND OVERPAYMENT	\$ 84.58	
EFT22238	28/03/2022	LOCAL GOVT RACING & CEMETERIES EMP UNION	PAYROLL DEDUCTIONS	\$ 44.00	
EFT22239	28/03/2022	MARKETFORCE	TENDER ADVERTISEMENTS	\$ 243.36	
EFT22240	28/03/2022	MUMBY'S AUTO ELECTRICAL AND AIR CONDITIONING	DEPOT MATERIALS	\$ 19.00	

Reference	Date	Name	Description	Municipal Account	Trust Account
EFT22241	28/03/2022	NETWORK POWER SOLUTIONS PTY LTD	TOWN CENTRE ELECTRICAL MAINTENANCE	\$ 13,063.26	
EFT22242	28/03/2022	NINGALOO COOKING STUDIO	CATERING - HARMONY EVENT	\$ 4,805.40	
EFT22243	28/03/2022	NSTA PTY LTD	CERTIFICATE II IN TRANSPORT SECURITY PROTECTION	\$ 1,495.00	
EFT22244	28/03/2022	PURCHER INTERNATIONAL	WORKSHOP MANUAL	\$ 1,540.00	
EFT22245	28/03/2022	RHONDA KAYE GRIECHEN	NVC MERCHANDISE	\$ 48.00	
EFT22246	28/03/2022	SIMPLY HEADSETS PTY LTD	HEADSETS FOR STAFF	\$ 480.00	
EFT22247	28/03/2022	STARMART EXMOUTH	PUNCTURE REPAIR	\$ 113.00	
EFT22248	28/03/2022	TACKLE WORLD EXMOUTH (BLUE WATER)	AQUARIUM GOODS (FISH FOOD)	\$ 304.79	
EFT22249	28/03/2022	THE AUSTRALIAN LOCAL GOVERNMENT JOB DIRECTORY PTY LTD	EMPLOYMENT ADVERTISING	\$ 495.00	
EFT22250	28/03/2022	RATEPAYER	RATES REFUND OVERPAYMENT	\$ 583.37	
EFT22251	28/03/2022	TNT EXPRESS AUSTRALIA - ACCOUNTS	WATER SAMPLING FREIGHT	\$ 383.26	
EFT22252	28/03/2022	TOLL TRANSPORT PTY LTD	FREIGHT	\$ 2,434.69	
EFT22253	28/03/2022	WATER CORPORATION	UTILITIES	\$ 23,330.35	
				\$ 969,920.17	\$ -
	26/02/2022	LIBERTY ROADHOUSE	FUEL	\$ 50.00	
	26/02/2022	REFUEL AUSTRALIA - MOUNT MAGNET	FUEL	\$ 108.01	
	26/02/2022	BP GERALDTON	FUEL	\$ 241.72	
	27/02/2022	MAILCHIMP	MONTHLY SUBSCRIPTION FEE	\$ 94.32	
	27/02/2022	BP NEWMAN	FUEL	\$ 202.44	
	28/02/2022	FACEBOOK ADS	EMPLOYMENT ADVERTISEMENT	\$ 9.47	
	09/03/2022	POST EXMOUTH LPO	ID CHECK FOR SALE OF SHIRE PROPERTY	\$ 49.00	
	11/03/2022	ADOBE	MONTHLY SUBSCRIPTION FEE	\$ 43.99	
	11/03/2022	QANTAS	FLIGHT SHIRE PRESIDENT - MINISTER VISIT	\$ 634.51	
	11/03/2022	QANTAS	FLIGHT CEO - MINISTER VISIT	\$ 634.51	
	14/03/2022	ZACD AUSTRALIA, WEST PERTH HOTELS	ACCOMODATION CEO AND SHIRE PRESIDENT - MINISTER VISIT	\$ 710.60	
	14/03/2022	LIVE TAXI AUSTRALIA	TAXI FARE TO MINISTER MEETING	\$ 49.72	
	19/03/2022	BP NEWMAN	FUEL	\$ 225.90	
	20/03/2022	ADOBE	MONTHLY SUBSCRIPTION FEE	\$ 39.59	
	23/03/2022	VISTAPRINT	REPRINT SOLAR ECLIPSE LEAFLET	\$ 86.77	
	24/03/2022	NINGALOO CENTRE	VIP GIFT (GENERAL RAYMOND)	\$ 377.10	
	27/03/2022	WESTPAC	CARD FEE	\$ 18.25	
			TOTAL CREDIT CARD CEO	\$ 3,575.90	
	03/03/2022	SHOP FITTINGS STORE	POSTCARD STAND NINGALOO VISITOR CENTRE	\$ 168.13	
	04/03/2022	APPLE	IT SUBSCRIPTION	\$ 17.99	
	05/03/2022	GETSLING	IT SUBSCRIPTION	\$ 79.01	
	10/03/2022	REZDY	IT SUBSCRIPTION	\$ 275.95	
			TOTAL CREDIT CARD EMCC	\$ 541.08	
	04/03/2022	RAMPED UP	PORTABLE RAMPS FOR DOG POUND	\$ 432.70	
	11/03/2022	POST EXMOUTH LPO	FAREWELL GIFT	\$ 105.95	
	22/03/2022	QANTAS	STAFF TRAINING - FLIGHT	\$ 341.00	
	22/03/2022	QANTAS	STAFF TRAINING - FLIGHT - CARBON TAX	\$ 4.51	
	27/03/2022	WESTPAC	CARD FEE	\$ 18.25	
			TOTAL CREDIT CARD EMDS	\$ 902.41	
	02/03/2022	KOGAN	STAFF MOBILE PHONE	\$ 470.98	
	14/03/2022	LOCAL GOVERNMENT PROFESSIONALS	PROFESSIONAL DEVELOPMENT	\$ 1,400.00	
	18/03/2022	ZOOM	IT SUBSCRIPTION	\$ 23.78	
	27/03/2022	WESTPAC	CARD FEE	\$ 18.25	
			TOTAL CREDIT CARD EMCS	\$ 1,913.01	
			TOTAL CREDIT CARD PURCHASES	\$ 6,932.40	
			TOTAL PAYMENTS - MARCH 2022	\$ 1,065,025.04	\$ -



STATEMENT OF RATING OBJECTS AND REASONS

FOR THE 2022/23 FINANCIAL YEAR

In accordance with Section 6.36 of the Local Government Act 1995 and the Notice of the Council's intention to Levy Differential Rates for the 2022/23 Financial Year on certain properties within the Shire, the Shire is required to publish its Objects and Reasons for implementing differential rates.

Overall Objective

The overall objective of the proposed rates and charges in the 2022/23 budget is to provide for the net funding requirement of Council's operational and capital activities after taking into account all other forms of revenue.

Property valuations are provided by the Valuer General of WA for two types of values; Gross Rental Value (GRV) which generally applies for urban areas; and Unimproved Value (UV) which generally applies for rural land.

GRV's for all properties are revalued as part of a five year cycle of revaluations, six yearly after the next valuation with the next valuation scheduled for 1 July 2024. For properties on UV, the values are set annually. Interim valuations are issued for properties where changes have occurred such as subdivisions, construction, additions etc.

These valuations are used as the basis for the calculation of rates each year.

Rating Provisions

The Local Government Act 1995 sets out the basis on which differential general rates may be based as follows: Section 6.32 (1) and 6.33 of the Local Government Act 1995 States:

6.32 Rates and service charges

- (1) When adopting the annual budget, a local government —
 - (a) in order to make up the budget deficiency, is to impose* a general rate on rateable land within its district, which rate may be imposed either —
 - (i) uniformly; or
 - (ii) differentially;And
 - (b) may impose* on rateable land within its district —
 - (i) a specified area rate; or
 - (ii) a minimum payment;And
 - (c) may impose* a service charge on land within its district

**Absolute majority required*

6.33. Differential general rates

- (1) A local government may impose differential general rates according to any, or a combination, of the following characteristics —
 - (a) the purpose for which the land is zoned, whether or not under a local planning scheme or improvement scheme in force under the *Planning and Development Act 2005*; or
 - (b) a purpose for which the land is held or used as determined by the local government; or
 - (c) whether or not the land is vacant land; or
 - (d) any other characteristic or combination of characteristics prescribed.

- (2) Regulations may —
 - (a) specify the characteristics under subsection (1) which a local government is to use; or
 - (b) limit the characteristics under subsection (1) which a local government is permitted to use.
- (3) In imposing a differential general rate a local government is not to, without the approval of the Minister, impose a differential general rate which is more than twice the lowest differential general rate imposed by it.
- (4) If during a financial year, the characteristics of any land which form the basis for the imposition of a differential general rate have changed, the local government is not to, on account of that change, amend the assessment of rates payable on that land in respect of that financial year but this subsection does not apply in any case where section 6.40(1)(a) applies.
- (5) A differential general rate that a local government purported to impose under this Act before the *Local Government Amendment Act 2009* section 39(1)(a) came into operation¹ is to be taken to have been as valid as if the amendment made by that paragraph had been made before the purported imposition of that rate.

6.35. Minimum payment

- (1) Subject to this section, a local government may impose on any rateable land in its district a minimum payment which is greater than the general rate which would otherwise be payable on that land.
- (2) A minimum payment is to be a general minimum but, subject to subsection (3), a lesser minimum may be imposed in respect of any portion of the district.
- (3) In applying subsection (2) the local government is to ensure the general minimum is imposed on not less than —
 - (a) 50% of the total number of separately rated properties in the district; or
 - (b) 50% of the number of properties in each category referred to in subsection (6), on which a minimum payment is imposed.
- (4) A minimum payment is not to be imposed on more than the prescribed percentage of —
 - (a) the number of separately rated properties in the district; or
 - (b) the number of properties in each category referred to in subsection (6), unless the general minimum does not exceed the prescribed amount.
- (5) If a local government imposes a differential general rate on any land on the basis that the land is vacant land it may, with the approval of the Minister, impose a minimum payment in a manner that does not comply with subsections (2), (3) and (4) for that land.
- (6) For the purposes of this section a minimum payment is to be applied separately, in accordance with the principles set forth in subsections (2), (3) and (4) in respect of each of the following categories —
 - (a) to land rated on gross rental value; and
 - (b) to land rated on unimproved value; and
 - (c) to each differential rating category where a differential general rate is imposed.

2022/23 rates schedule

The Shire of Exmouth proposes to impose differential general rates based on the following categories for 2022/23 financial year:

Rate Category	Rate in Dollar	Minimum Payment
	\$	\$
GRV General	0.0825	995.00
GRV Marina Developed	0.1113	995.00
GRV Holiday Homes	0.1143	995.00
GRV Vacant Land	0.1649	785.00
UV Mining	0.1756	260.00
UV Rural	0.0878	785.00

The proposed 2022/23 differential rating categories, rate in the dollar amount and minimum payment amount continue to provide fairness and equity by ensuring that all properties pay a consistent minimum payment. These funds continue to deliver our community expectations and needs as outlined in our Strategic Community Plan and Corporate Business Plan.

Marina Specified Area Rate

Included in the 2022/23 Differential Rating proposal is a Specified Area Rate to be applied to properties zoned Marina that have canal frontage in the Exmouth Marina Precinct. As in previous years, these funds are used for environmental monitoring costs, periodic dredging, clearing and maintenance of the canal waterways.

Specified Area Rate	Basis of Valuation	Rate in \$	Minimum Payment
Marina Specified Area	GRV Marina Developed	0.0147	N/A

OBJECTS AND REASONS FOR PROPOSED DIFFERENTIAL AND MINIMUM RATES

Following are the objects and reasons for each of the differential rates for properties zoned and whether the land is vacant in accordance with Shire of Exmouth Town Planning Scheme No.4:

GROSS RENTAL VALUE

GRV General

This rating category consists of properties zoned as:

- Residential
- Urban Development
- Commercial
- Tourism
- Light Industry
- Service Commercial
- General Industry
- Industrial Development
- Rural Residential

The proposed rate in \$ is 0.0825 of GRV Value. Rates provided by this category, including minimum rates at \$995 are approximately 66% of the total rate requirements of Council. Revenue derived from this category assists funding to operate efficiently the service levels expected by the community as outlined in our Strategic Plan and Corporate Business Plan. The rate for this category is to be the base rate by which all other GRV rated properties are assessed. It excludes all vacant land, Holiday Homes and properties developed in the Marina as these categories have a higher demand on Shire resources.

GRV Marina Developed

This rating category consists of developed properties zoned as:

- Marina

The proposed rate in \$ is 0.1113 of GRV Value. Rates provided by this category, including minimum rates at \$995 are approximately 11% of the total rate requirements of Council. The object of the rate for this category is to reflect the additional revenue required to fund the costs associated with the higher level of maintenance provided to these properties including maintaining the seawall to the north of the marina, maintain public jetties, canal footbridge, beach stabilisation, landscaping, road sweeping, and maintenance of street furniture, canal drainage and footbridge lighting. Also responsible for boat ramps and associated with cost within the area and maintenance of water way adjoining public open space.

GRV Holiday Homes

This rating category consists of residential properties that have received Town Planning approval to operate as short term holiday accommodation.

The proposed rate in \$ is 0.1143 of GRV Value. Rates provided by this category, including minimum rates at \$995 are approximately 7% of the total rate requirements of Council. This category is rated higher than the GRV General Rate to assist with contribution to tourism, marketing and related projects throughout the district. Additionally, it includes the development of tourist related services and infrastructure.

GRV Vacant Land

This rating category consists of all vacant land within Town site boundaries.

The proposed rate in \$ is 0.1649 of GRV Value. Rates provided by this category, including minimum rates at \$785 are approximately 13% of the total rate requirements of Council. The object of the rate for this category is to reflect the additional revenue required to fund the costs associated with the higher level of service provided to properties in this category, including but not limited to firebreaks maintenance, upgrade and renewal of the street network, roadside sweeping, CBD car parking, landscaping, dust control management, drainage, footbridge lighting, street furniture and other amenities.

UV Mining

This rating category consists of properties used for mining, exploration or prospecting purposes.

The proposed rate in \$ is 0.1756 of UV Value. Rates provided by this category, including minimum rates at \$260 are approximately 2% of the total rate requirements of Council. The object of the rate for this category is to raise revenue to fund additional costs to Council including, but not limited to frequent heavy vehicle use over extensive lengths of Shire roads throughout the year.

UV Rural

This rating category consists of properties zoned Rural.

The proposed rate in \$ is 0.0878 of UV Value. Rates provided by this category, including minimum rates at \$785 are approximately 1% of the total rate requirements of Council. This rate is required to meet our community expectations and needs in our Strategic Community and Corporate Business Plans. The object of the rate for this category is to be the base rate by which all other UV rated properties are assessed. The reason is these properties are large extensive parcels of land with little commercial activity.

SPECIFIED AREA RATE

GRV Specified Area Rate

This Specified Area Rate applies to properties zoned Marina that have canal frontage in the Exmouth Marina Precinct.

The proposed rate in \$ is 0.0147 of GRV Value. Specified Rates provided by this category. The proceeds of these funds are applied in full on environmental monitoring and maintenance of the canal waterway, dredging and entrance channel navigation including both onshore & offshore, cost of clearing the sand traps, maintaining the main breakwaters including all breakwaters and groynes surrounding and protecting the outer harbour and other preservation works in accordance with the Exmouth Marina Village Agreement between the Minister for Transport, Landcorp & Shire of Exmouth.

SUBMISSIONS

All submissions are required to be made in writing to the Chief Executive Officer with respect to the proposed differential general rates, minimum payments and specified area rate within 21 days of the date of the notice of intent. Submissions must be received by the Shire of Exmouth no later than 4pm Wednesday 25 May 2022.

Submissions may be:

- Mailed to PO Box 21, Exmouth WA 6707
- By email to: info@exmouth.wa.gov.au

BEN LEWIS
CHIEF EXECUTIVE OFFICER

Shire of Exmouth PUBLIC NOTICE

Notice of Intention to Levy Differential Rates

Pursuant to Section 6.36 of the *Local Government Act 1995*, notice is hereby given of the intention of the Shire of Exmouth to levy differential rates for each rating category and minimum rates for the 2022/23 financial year.

GENERAL RATE	RATE IN THE DOLLAR	MINIMUM PAYMENTS
GROSS RENTAL RATE		
GRV General	\$0.0825	\$995
GRV Marina Developed	\$0.1113	\$995
GRV Holiday Homes	\$0.1143	\$995
GRV Vacant Land	\$0.1649	\$785
UNIMPROVED VALUES (UV)		
UV Mining	\$0.1756	\$260
UV Rural	\$0.0878	\$785
SPECIFIED AREA RATE		
GRV Specified Area Rate	\$0.0147	N/A

If you require additional information regarding the proposed changes please contact the Shire office on 08 9949 3000 between the hours of 8:30am to 4:30pm Monday to Friday or email info@exmouth.wa.gov.au.

Electors and ratepayers may inspect the objectives and reasons for the differential ratings on Council's website.

Electors or ratepayers are invited to make public submissions regarding the above. All submissions are required to be made in writing to the Chief Executive Officer with respect to the proposed differential general rates, minimum payments and specified area rate within 21 days of the date of the notice of intent. Submissions must be received by the Shire of Exmouth no later than 4pm Wednesday 25 May 2022. Submissions may be:

- Mailed to PO Box 21, Exmouth WA 6707
- By email to: info@exmouth.wa.gov.au

Benjamin Lewis
CHIEF EXECUTIVE OFFICER