

An aerial photograph of a coastal development site, showing a road, a beach, and some buildings. A large blue diagonal overlay covers the right side of the image. In the top left corner, there is a small yellow square icon with three horizontal lines.

EDGELOE Engineering

Sunrise Resort Holdings Pty Ltd

**Lot 848 Truscott Crescent Exmouth
Proposed Resort Development**

Servicing Strategy

Job No. 24049
Prepared by Edgeloe Engineering 1
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Document Status

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0	W Edgeloe	30 October 2025	Review	
1	W Edgeloe	1 December 2025	Update and issued for approval	
2	W Edgeloe	26 February 2026	Update and issued for approval	

1 INTRODUCTION

Edgeloe Engineering has been engaged by Sunrise Resort Holdings Pty Ltd to provide engineering servicing advice for the proposed Resort Development on Lot 848 Truscott Crescent Exmouth as shown in Figure 1.

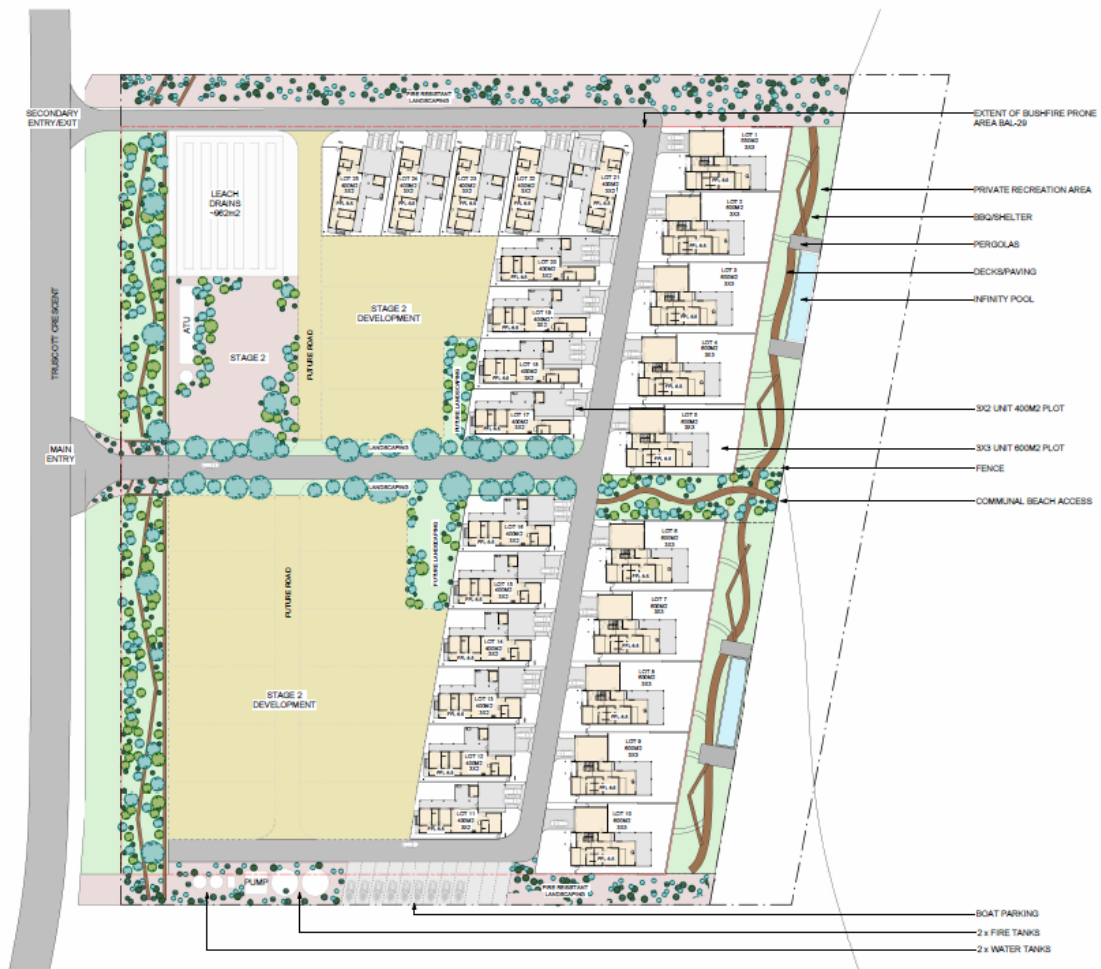


Figure 1 Proposed Development

2 SITE CONDITIONS

2.1 Existing levels

A full feature survey has been undertaken across the site and the levels are shown in Figure 2.

The site generally falls from RL 7.3 at the south east corner of the site to RL 2.9 along Truscott Crescent. Existing stockpiles are also located along the Truscott Crescent frontage.

An aerial photo of the site is shown in Figure 3 and shows much of the site is cleared with only low vegetation cover.

Historical photos show the site was uncleared scrub in the early (1960s) aerial photos, then appears to have been a caravan park or similar up until mid-2000s, when it was cleared and earthworked.

Stockpiles to the west of the site are likely to be the topsoil that was stripped from the site in the first place.



Figure 2 Existing Site Levels

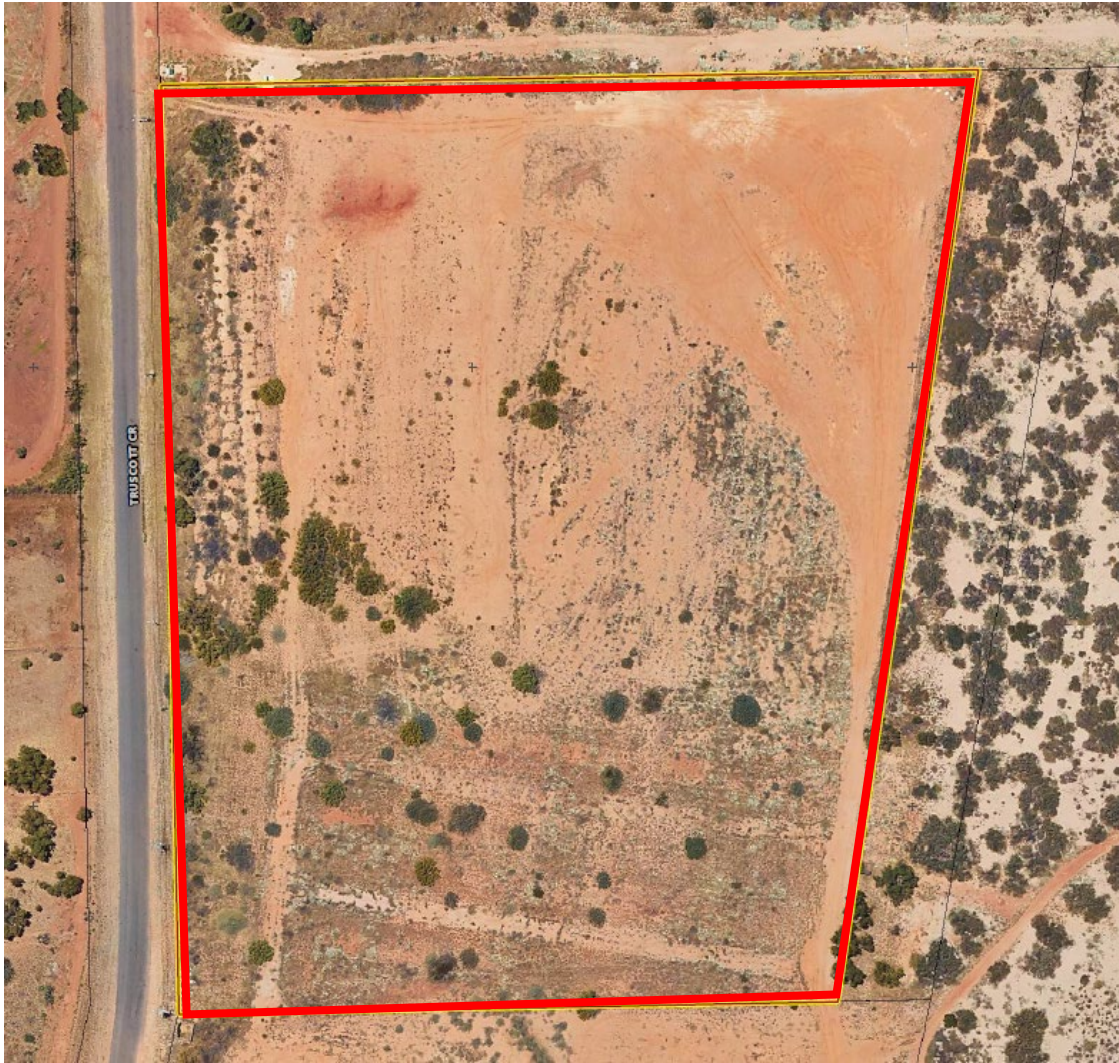


Figure 3 Existing Site Aerial

2.2 Site Conditions

2.2.1 Geotechnical Investigations

Geological mapping for the site indicates it is underlain by either colluvium (clay, silt, sand, gravel and possible laterite) or “beaches and coastal dunes’ including calcarenite (limestone).

Frequent thin sand overlying calcrete and limestone is commonly found in the Exmouth area.

GB Geotechnics (2023) mapped rock depths adjacent this site as part of a coastal vulnerability study for Exmouth. This showed rock on the eastern boundary of the site was generally 1 to 2m below the surface as shown in Figure 4.

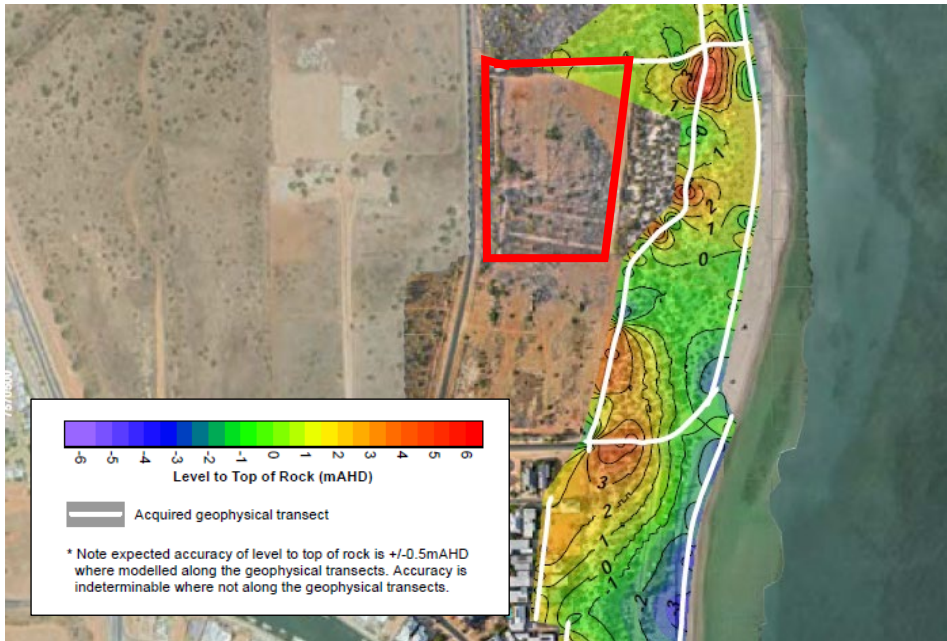


Figure 4 Depth to top of rock, GB Geotechnics (2023)

2.2.2 Acid Sulfate Soils

Acid Sulfate Soils were mapped by GALT (2024). The DWER ASS risk map as shown in Figure 5 indicates the majority of the site is a High to Moderate risk. Further investigations would be undertaken on this site prior to any ground disturbing works occurring so appropriate ASS management practises can be used.

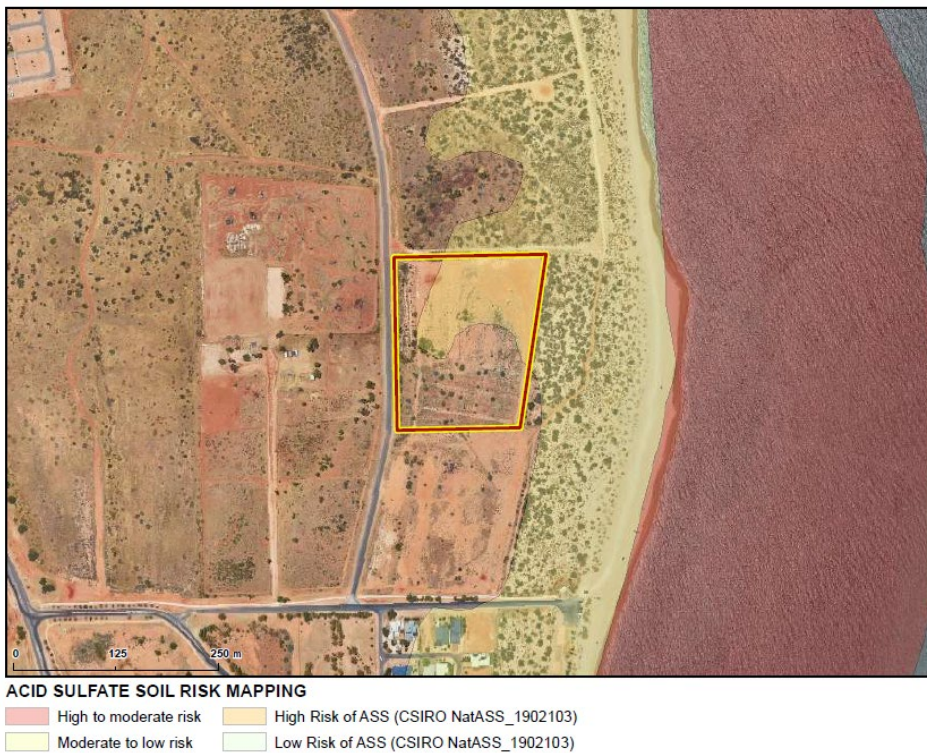


Figure 5 ASS Mapping

2.2.3 Groundwater

Groundwater is in excess of 2m below ground surface and so will not impact proposed infrastructure.

2.2.4 Flood mapping

SKM (2007) mapped flooding as a result of the canal development to the south and this showed a flood level of approximately RL 4.5 at the western boundary of the site as shown in Figure 6.

All development on the site will thus need to be at least 500mm above this flood level for the 1% AEP event. This level will be confirmed prior to setting minimum fill levels on the site.

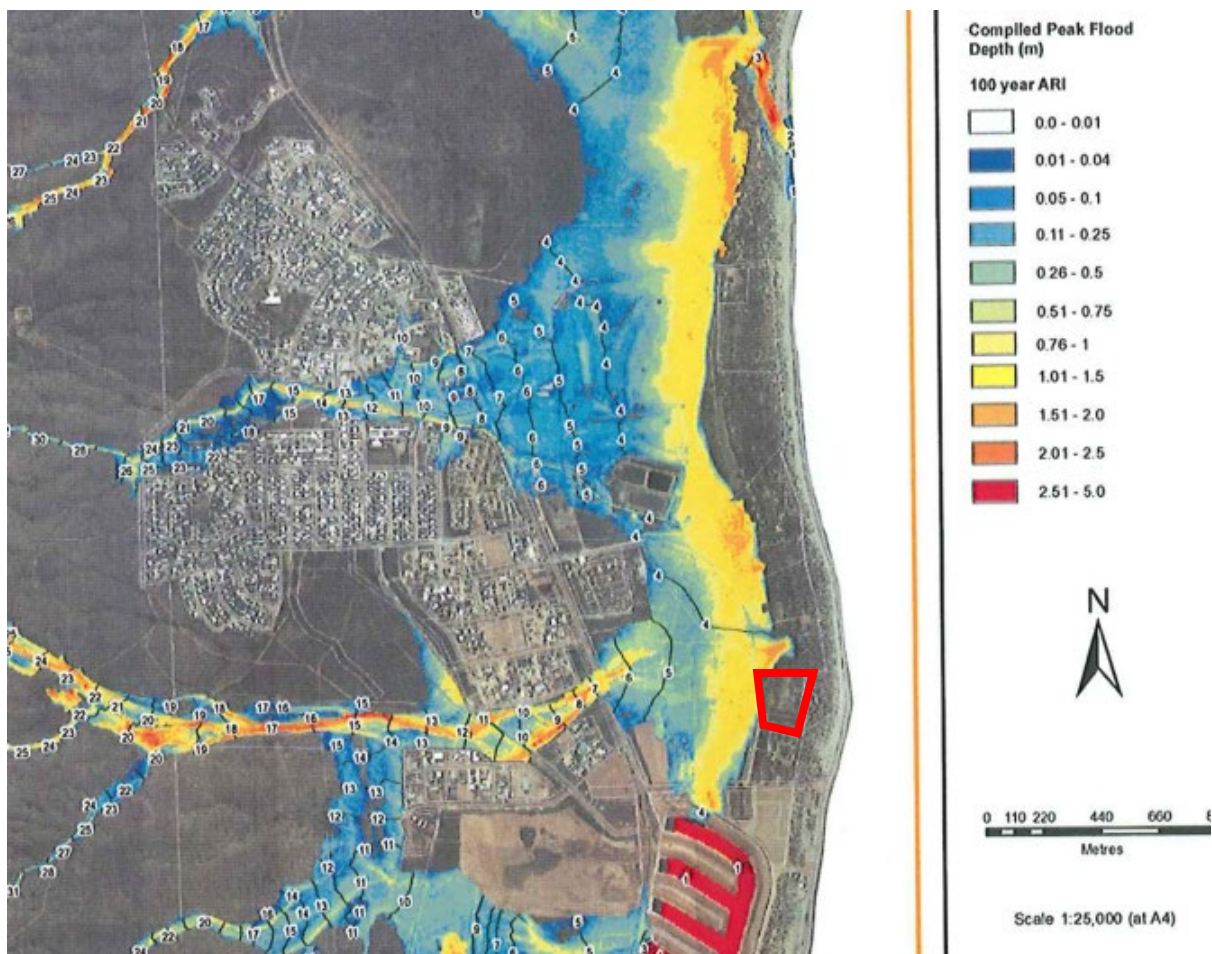


Figure 9 Q100 Flood mapping – Developed Case, SKM (2007)

The Exmouth Townsite Structure Plan, TBB (2011) shows the site is also adjacent but outside the Floodway Zone.

The Shire of Exmouth Town Planning Scheme Map also shows in Figure 11 that the site is outside the flood area.

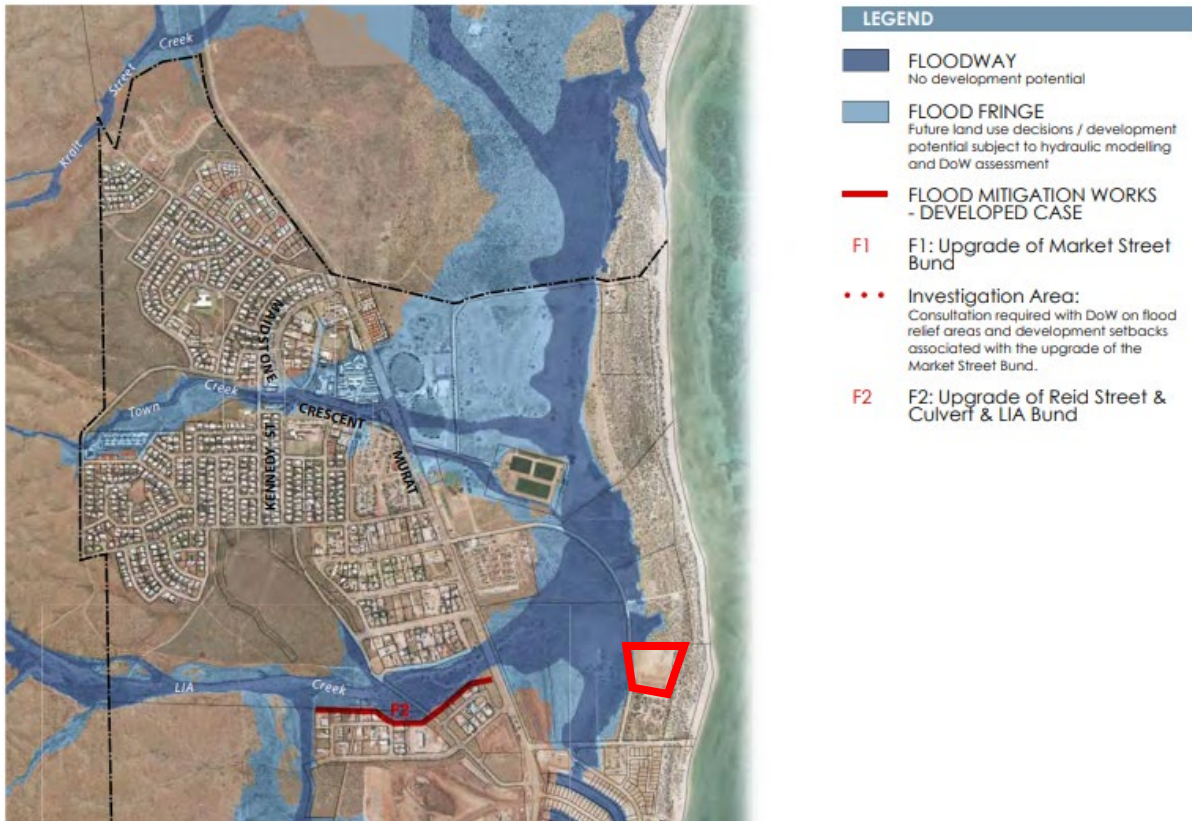


Figure 10 Exmouth Floodway and Flood Fringe Areas, TBB (2011), Source SKM (2007)

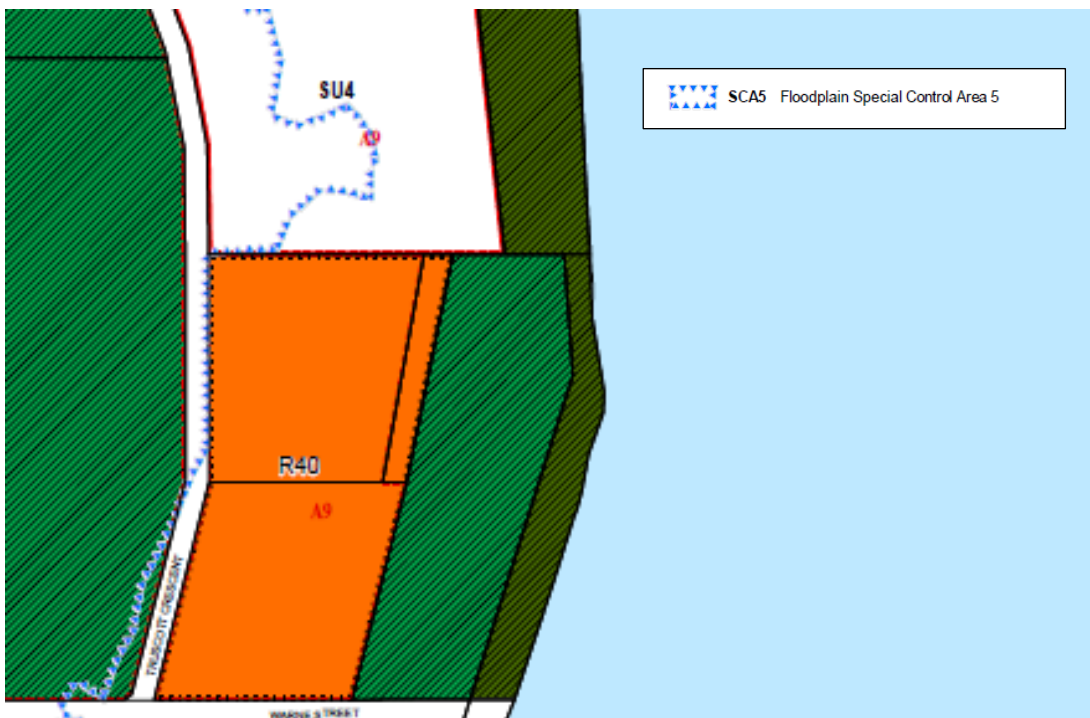


Figure 11 Shire of Exmouth Local Planning Scheme No. 4 (extract)

3 EARTHWORKS

To develop this site fill will be required to achieve:

- Adequate separation above perched groundwater levels
- Grading of the site so the 1% AEP (1 in 100 year) overland flows will be directed in safe flow towards the floodway.
- Grading and filling to achieve minimum 500mm separation above the adjacent 1% AEP flood level.
- Filling to remove trapped low points on the site.
- Suitable subgrade layers below internal roads and paths.

4 SEWER

The Exmouth townsite is serviced by Water Corporation sewer network and falls within the Exmouth Sewer District. Sewer catchment planning as shown in Figure 12 and advice from Water Corporation advised that there is no permanent pump station for the catchment the subject lot falls within and this development also requires another WWPS (PS B) downstream to accept the flow from this catchment, WWPS B, which is tentatively planned to be delivered in 2042, with this date subject to change.

If a wastewater connection is required, the development will require headworks infrastructure to be constructed. Since these headworks wastewater infrastructure items are not scheduled on Water Corporation's 5-year Capital Investment Program. The future headworks are currently un-planned and un-programmed and therefore there will be a requirement that all the costs associated with the delivery of the services to the land will be met by the proponent.

Further advice was sought if a private sewer pumpstation could be utilised to pump to other DN225 sewers nearby but it was advised that even though the DN225 pipes have capacity, the DN300 further downstream is currently modelled to be almost at capacity. Water Corporation could thus not guarantee that a private pumpstation will be acceptable as a solution.

Onsite waste water treatment and disposal will thus be used via an ATU for this development unless sewer becomes available in the meantime. The ATU disposal areas would be set a minimum above groundwater levels.

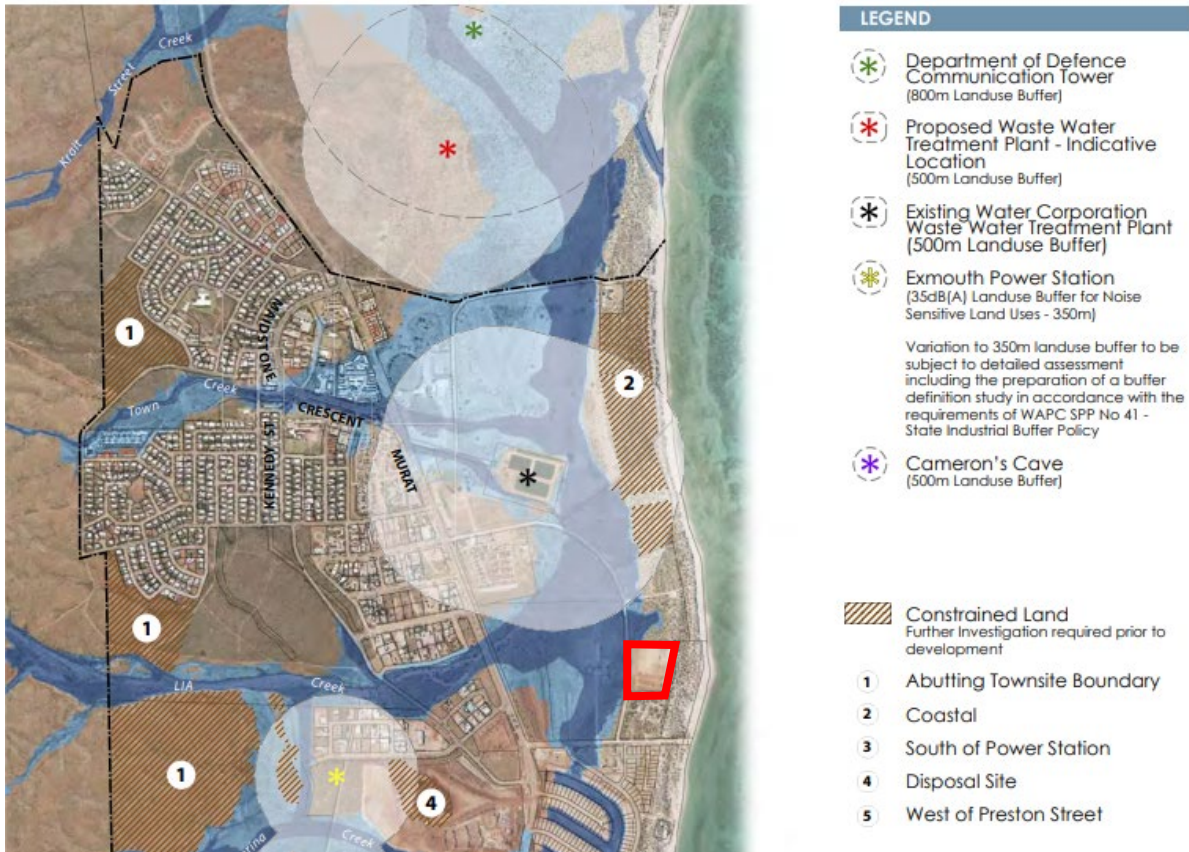


Figure 13 Water Corporation Wastewater Treatment Plant Buffer, TTB (2011)

5 DRAINAGE

The drainage strategy for the area would be to collect and treat the 1 year 1-hour event in swales or infiltration devices, have the 20% AEP (1 in 5 year) flows captured and detained/ infiltrated on the site and the 1% AEP (1 in 100 year) flows would be safely conveyed to the adjacent Floodway.

A combination of swales, basins and underground storage devices would be used in open space areas and under carparks and walkways for management of stormwater flows on site.

The types of devices to be used would be determined at detail design stage.

6 ROADWORKS

The site fronts Truscott Crescent which is a 6m wide sealed and unkerbed road. No upgrades are planned to this road.

All roads within the proposed development will be privately owned and maintained.

Roads, parking and paths within the development would be a mixture of brick paving and asphalt surfacing to tie in with the desired development themes for the site.

Two Key access points to the site are as shown in Figure 14 and would come off existing Truscott Crescent.

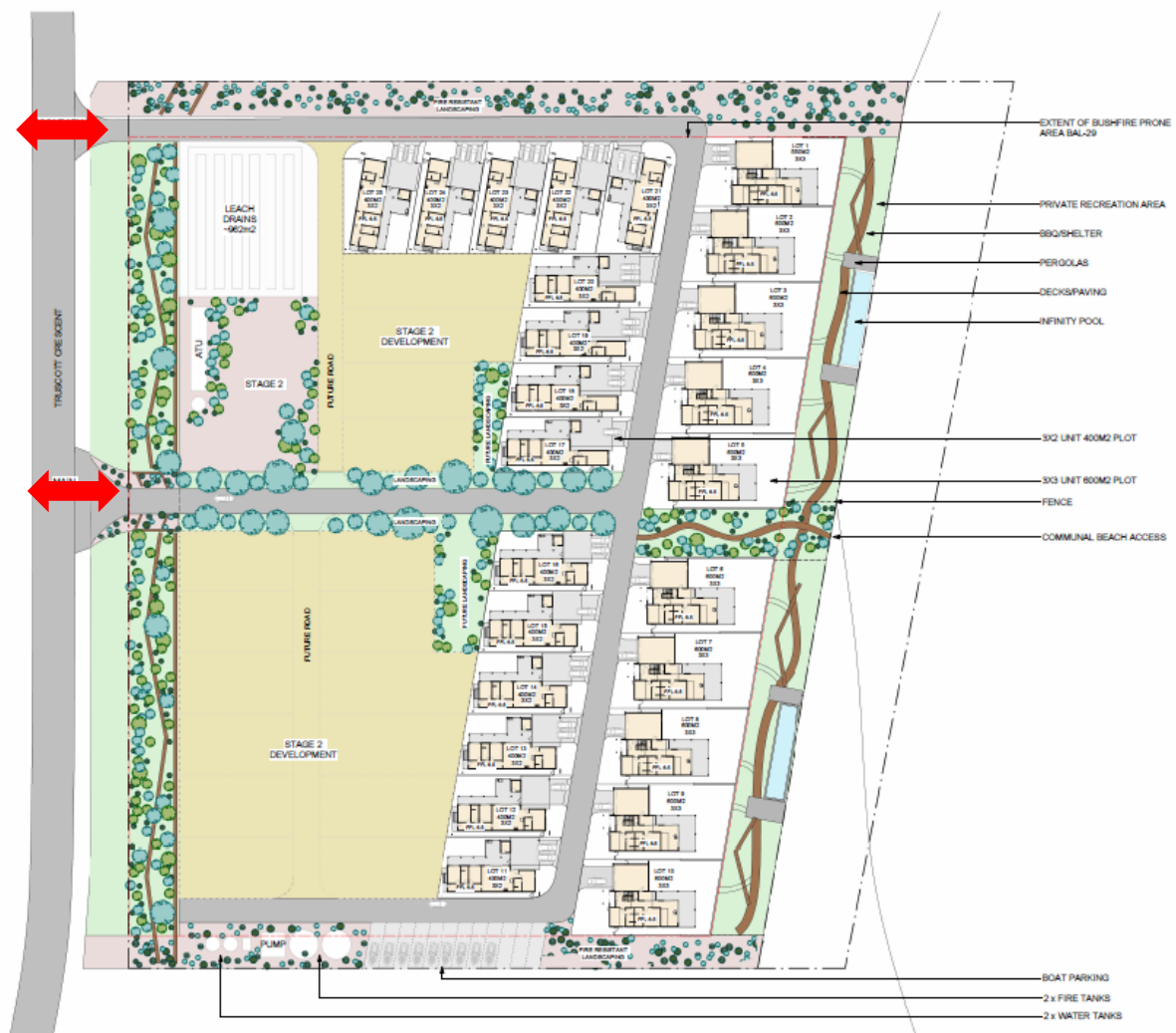


Figure 14 Proposed Access Points

7 WATER SUPPLY

Water Corporation have advised that the lot is currently outside the existing Water zone boundary.

However, as the proposal conforms with existing land use, the following advice applies: “Exmouth has a water constraint until 2030, as such all proposals conforming to existing land uses can only be provided with a 20mm water meter with onsite storage to be delivered by the proponent.”

They further advised that the DN58AC water retic main along Warne St, Madaffari Drive will need to be upgraded at the cost of the proponent to allow for standard fire flows and pressures.

In further discussions with Water Corporation it was agreed that rather than upgrading the existing DN58AC main it would be better to extend off the end of the existing DN150PVC main in Warne Street as per the concept shown in Figure 15.

A 20mm water service would then be provided off this extension and internal tanks and pumps used within the development to provide required internal demands.

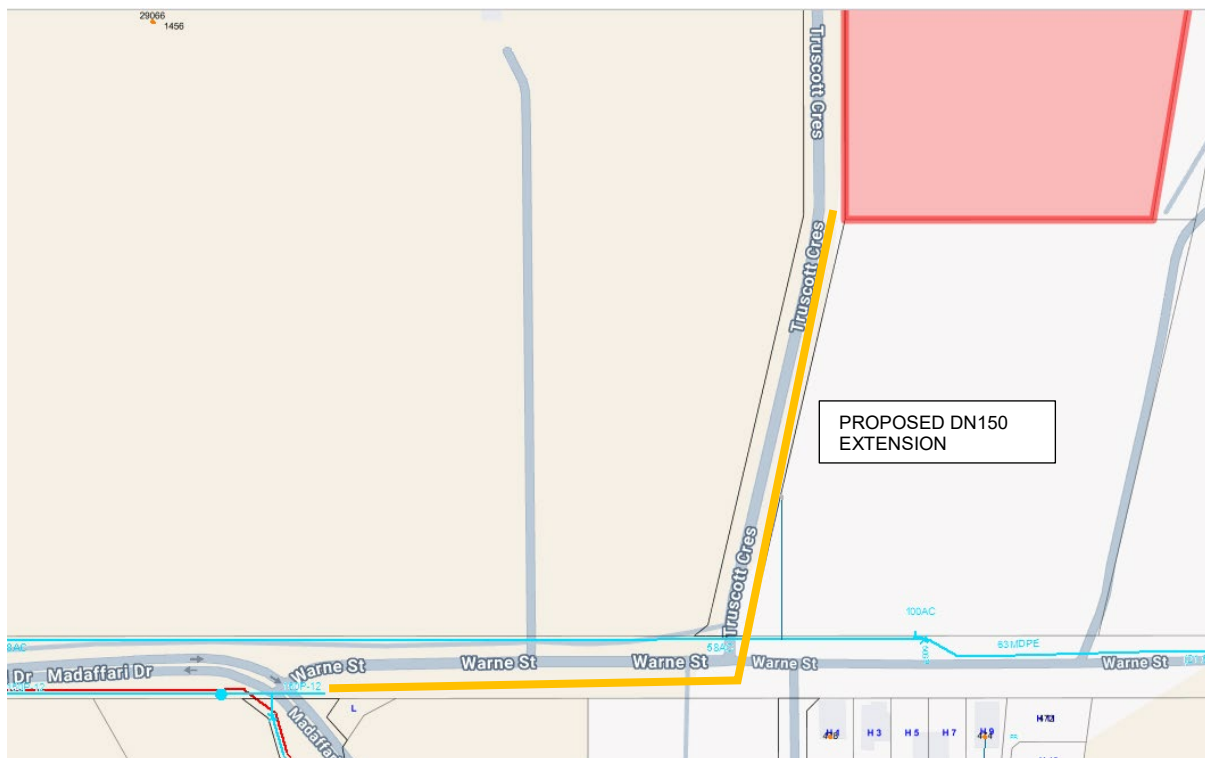


Figure 15 Water Corporation Water, ESINET (2025)

8 POWER

The site currently serviced by Horizon Power overhead network as shown in Figure 16.

Horizon Power provides power to Exmouth by a mixture of existing and proposed gas fired generation, solar and battery systems. New solar facilities are due to commence construction in 2025 to enable Exmouth to be supplied by up to 80% renewable energy by 2026.

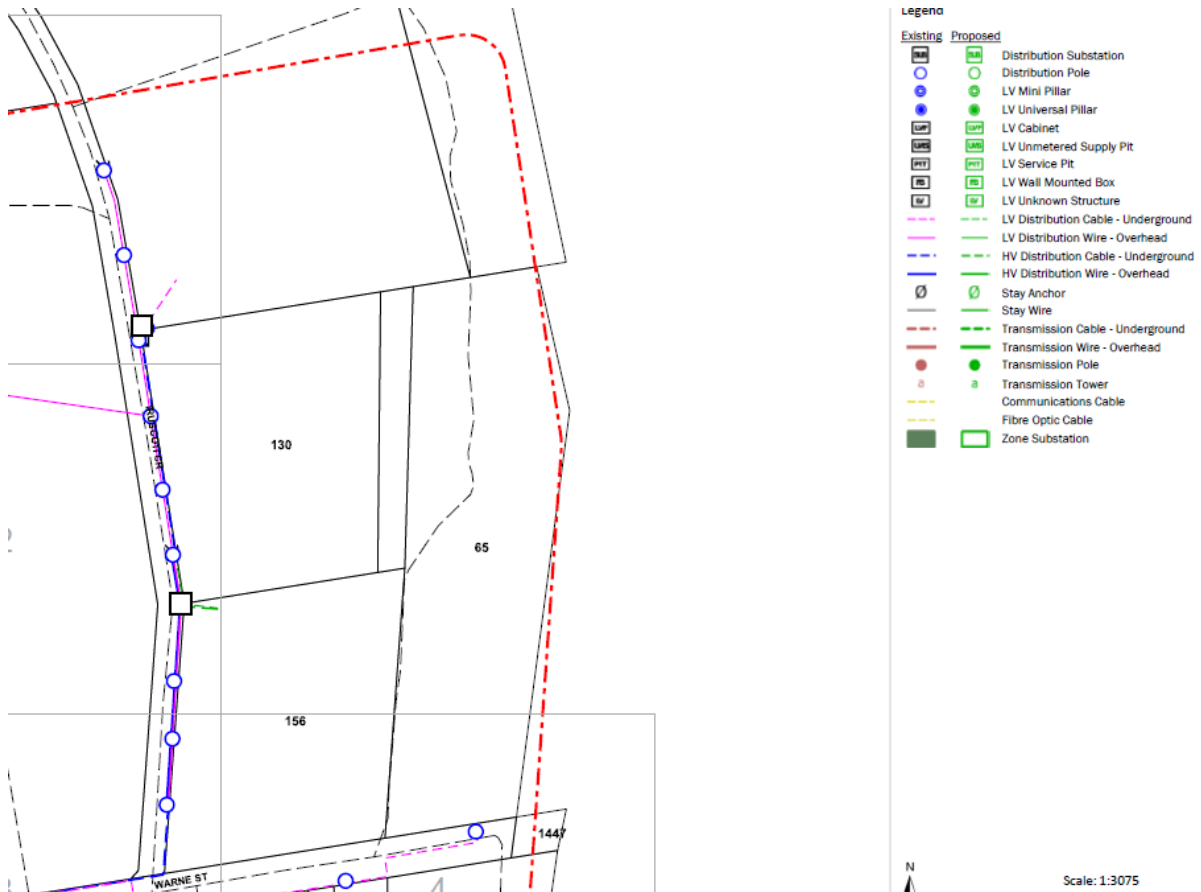


Figure 16 Existing Overhead Power Infrastructure

The power connection to the site will be subject to a formal DIP submission and this will determine any upgrades that may be required in addition to onsite supply requirements such as switchgear and transformers that may be required.

10 NBN

Dial Before Dig records indicate Telstra and nbn conduits and pits are directly adjacent the site and so extension and a connection should be readily available to the site.

As shown in Figure 17 some old redundant Telstra conduits may be within the southern portion of the lot and these would be removed as the site is developed.



Figure 17 Existing Telstra Infrastructure

REFERENCES

GALT (2024) Geotechnical summary mapping

GB Geotechnics (2023) Geotechnical Investigation for Coastal Erosion Vulnerability Assessment, Exmouth Report 3095B Rev 1

SKM (2007) Exmouth Floodplain Management Study, December 2007.

TBB (2011) Exmouth Townsite Structure Plan, August 2011.