



# Locke Estate Site 7

## Expression of Interest Information

We pay our respects to the Wadandi Bibulmun People, Traditional Custodians of this land.



# Environmental Health

**The City's Environmental Health Service applies the following legislative requirements:**

Resource - [Environmental Health \(busselton.wa.gov.au\)](http://busselton.wa.gov.au)

**Food Preparation** – Food Act 2008

If food is prepared on behalf of others, that entity must complete a Notification/Registration form and comply with the Food Act 2008 & Food Safety Standards (this includes kitchen fit out). An Environmental Health Officer will conduct regular inspections.

**Waste water disposal** – Health (Treatment of Sewage & Disposal of Effluent & Liquid Waste) Regulations 1974.

Application must be made to the City for all on site treatment & disposal systems.

**Lodging House** – City of Busselton Local Laws 1997

Application to be made to operate a lodging house & comply with requirements. Annual renewal required.

**Camping** - Caravan Parks & Grounds Act 1995 (WA). Camping only permitted - no caravans. Applications to be made. Annual renewals required.

An Environmental Health Officer will conduct regular inspections.

**Potable water supply** - City of Busselton Heath Local Laws 1997

Must connect to scheme water source.

# Building / Planning

## **Planning, Building, and Health are all interrelated;**

- Development Application comes first and is required for all development on the site, including habitable accommodation, kitchen area, toilet block, parking areas etc;
- Information required with the application comprises site plan, floor plan and elevations of all buildings, covering letter, Bushfire Attack Level (BAL) [Bushfire Management Plan (BMP) exists for the Locke Estate, including a Bushfire Emergency Evacuation Plan (BEEP)];
- Consider locating 'non-habitable' development i.e toilet blocks, car parking within the Asset Protection Zone (see slide 5)

# Building / Planning continued....

- Certified building applications are required for all buildings.
  - Engage a registered building surveyor contractor early in the process!
  - Occupancy permits required at completion of building, prior to use.
- Habitable buildings – where people sleep - required to have a bushfire BAL report, and be built to meet the BAL standard (AS3959 building on bushfire prone areas) – see Slide 5.
- Always consider Universal Access.



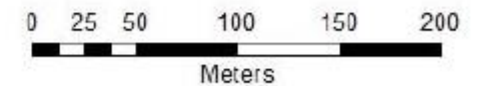
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- Proposed building
- Lot Boundary
- Class D Scrub
- Sublot Boundaries
- Coastal Setback Zone
- Conservation Zone
- Developable Area
- Existing Buildings
- Low Fuel Zone

Buildings (potential exception of sheds) may only be constructed within the Developable Area which achieves BAL-29 and is outside the Coastal Setback and Conservation Zone with an approved or exempt clearing permit and fauna spotter where vegetation removal

described within Section 3.2. and Appendix F.

The driveway access will comply with the requirements of the Guidelines (A3.5). Maintain any future obligations under the City of Busselton Firebreak



PROPERTY / ASSESSMENT DETAIL



## Site 7 Development Zone

# Clearing and Development

Demonstrate the proposal has considered all avenues to

- Retain vegetation and
- Minimise clearing

Should clearing be necessary, an authorisation to take/disturb from Department of Biodiversity, Conservation and Attractions may be required.

Approvals for clearing may result in requirements,

- to modify the development design
- provide a revegetation offset.
- have a fauna spotter present during clearing to report on outcome of the operation.

# Fire

It was recognised early on that the implications of the fire requirements for development could have a significant influence on the amount of clearing required to develop the Locke Estate Campsites.

- The City therefore prepared a bushfire management plan for the estate, first in 2011 and then again in 2019 to ensure fire requirements are compliant with the most recent fire planning regulations.
- 2 Way access – 4m trafficable width, 6m horizontal width to vegetation. 4.5m vertical height clearance
- Reticulated water

## Bushfire Management Plan

Locke Estate, Caves Road, Siesta Park

4 July 2019

Prepared for:  
City of Busselton



# Environmental Management Plan (EMP)

In 2012 City prepared EMP

## Values

- Habitat for Western Ringtail Possum and Quenda

## Threats

- Clearing/loss of habitat
- Coastal Erosion
- Rabbits and foxes
- Fire



# Western Ringtail Possum (WRP)

Locke Estate is within what is recognised as prime WRP habitat.  
The WRP is now categorised as 'Critically Endangered'

Impacts	Response
Clearing/Loss of WRP habitat;	Avoid or minimise any clearing of vegetation
Decrease in canopy continuity and condition in WRP habitat	Maintain, or extend where possible, canopy continuity
Increased predation on the WRP	Maintain or improve tree condition Management of rabbits and foxes

## Western Ringtail Possum (*Pseudocheirus occidentalis*)

### Recovery Plan



Wildlife Management Program No. 58  
Western Australia Department of Parks and Wildlife  
February 2017

# Quenda

## *Isoodon fusciventer*

- Quenda are a type of bandicoot, which are small marsupials that live on the ground. They are often mistaken for rats but they are generally bigger and fatter with shorter tails.
- Quenda are most often seen at dusk because they are mostly nocturnal animals, but they can also be active during the day, especially in winter.
- Habitat: Dense shrublands and forests in south-west Western Australia. They have been seen in the more dense vegetation along the Geographe Bay coastline. In this environment they like the dense thickets of Sword Sedge.
- Management of campsites must consider these and other native animals may be present.



# Rabbits and Foxes

## Rabbits

- Like the coastal areas - the dunes are easy digging, there is plenty of vegetation they can shelter under and many areas where they are not disturbed by human activity.
- Management is necessary to reduce diggings as they pose a safety risk and degrade the amenity of landscaped areas and to prevent regeneration of bushland.

Management includes;

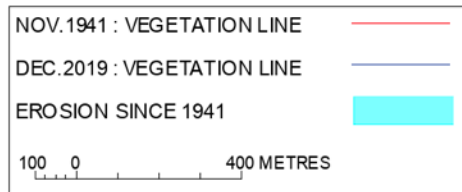
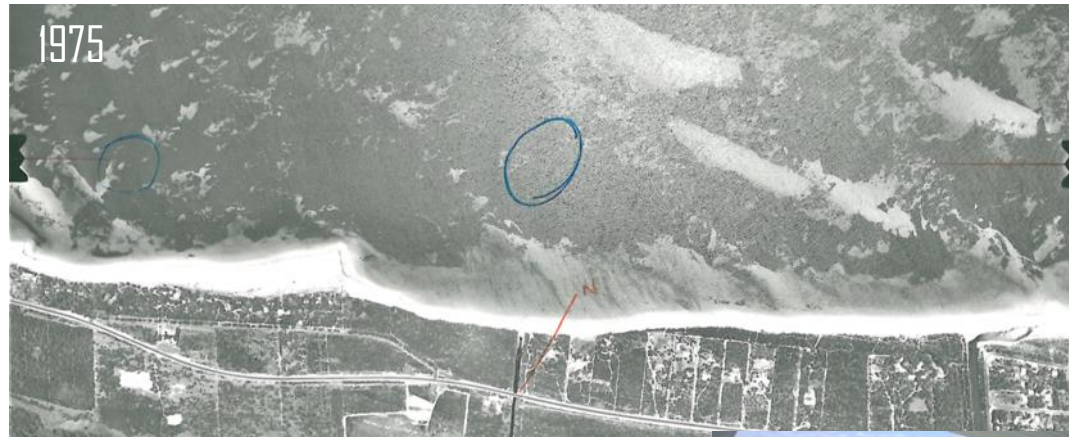
- regular (spring and autumn) control to prevent build up of numbers
- removal of harbourage – eg junk and debris piles

## Foxes

- Need to be managed due to being;
  - Keen hunters of wildlife
  - Significant predator of the Western Ringtail Possum

# Coastal Information

## Coastal Processes – Longshore Sediment Transport (Siesta Park Groyne)

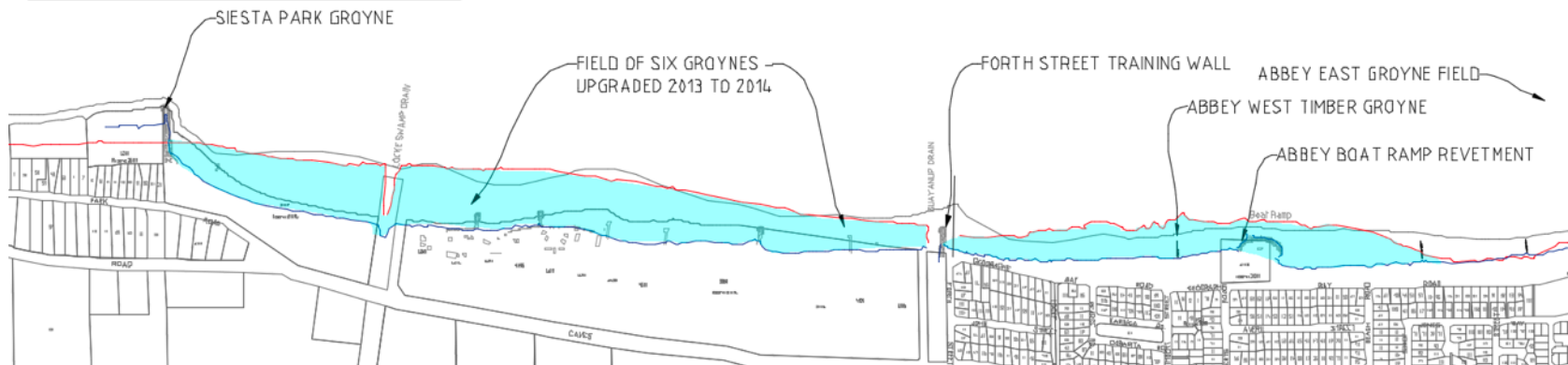


Erosion at Locke Estate is 160m since 1941.

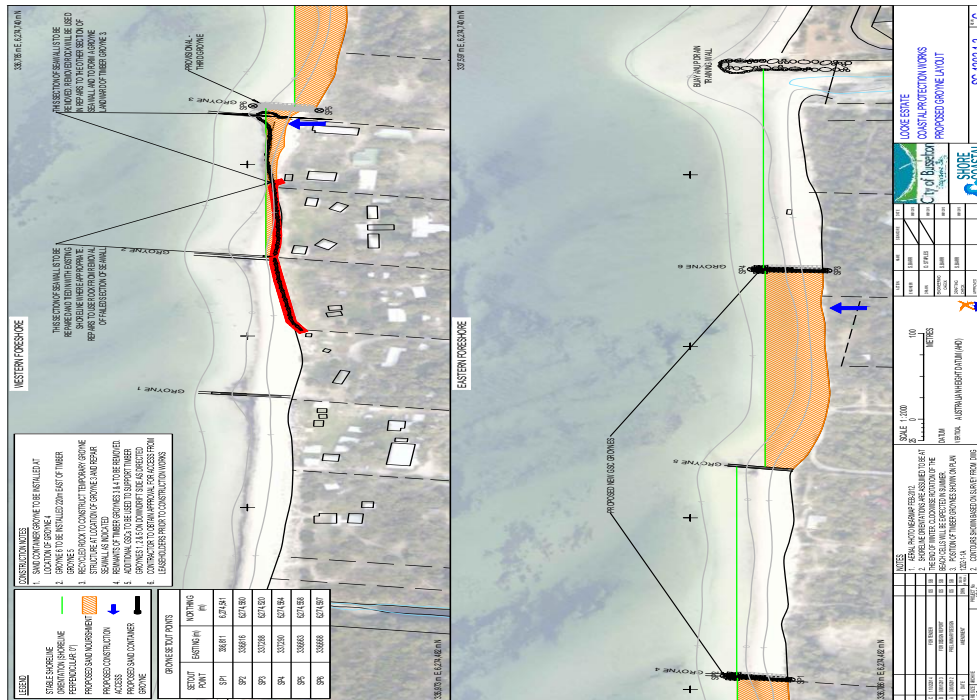
Direct influence extends ~2km east.

Sand is naturally bypassing the structure but at a significantly reduced rate.

Geographe Bay beaches are highly responsive to blocking of alongshore sediment transport by structures.

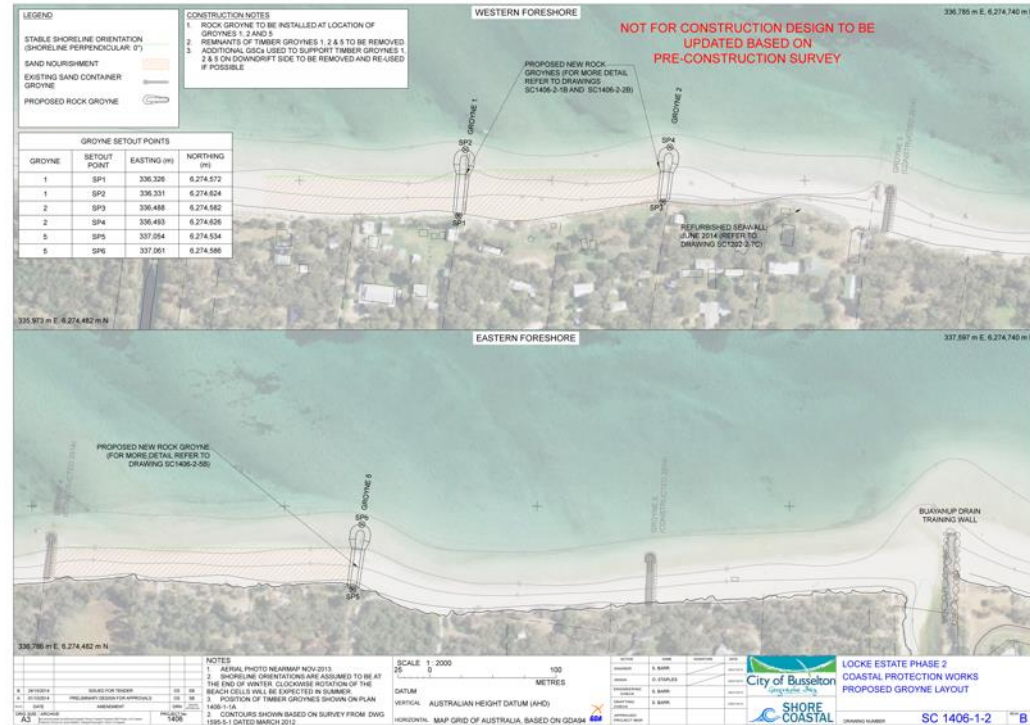


# Locke Estate Coastal Works - Phase 1 GSC Groynes (2014)



- Works completed in May/June 2014 by BCP.
- Three geotextile sand container (GSC) groynes & sand nourishment.
- Two structures (Groynes 3 & 4) replaced failed timber groynes.
- New structure at eastern end of campsites (Groyne 6).
- 5,000m<sup>3</sup> of sand from commercial sand pits placed on the beach to improve amenity and mitigate downdrift erosion.
- Removal of rock on beach (relocated to seawall).

# Locke Estate Coastal Works - Phase 2 Rock Groynes (2015)



- Works completed by June 2015 by BCP.
- Three rock groynes (Groynes 1, 2 & 5) replacing timber groynes.
- Rock structures (durability) provide a balance with GSC structures (amenity).
- 7,500m<sup>3</sup> of sand from commercial sand pits placed on the beach to improve amenity and mitigate downdrift erosion.



# Locke Estate – Coastal Monitoring (Baptist Camp)



# Locke Estate – Coastal Monitoring (Legacy Camp)

5\_2 Forth Street (Buayanup Drain)



December 2013

May 2014



December 2014

May 2015



December 2015

May 2016



December 2016

May 2017



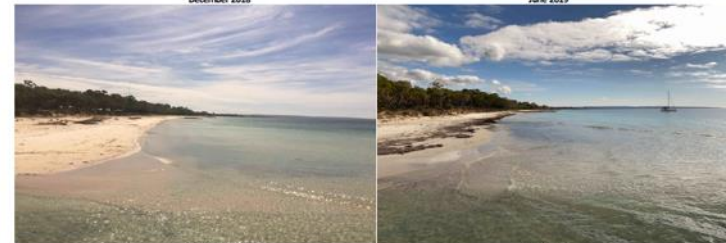
December 2017

June 2018



December 2018

June 2019



December 2019

May 2020

# Locke Estate – Coastal Monitoring

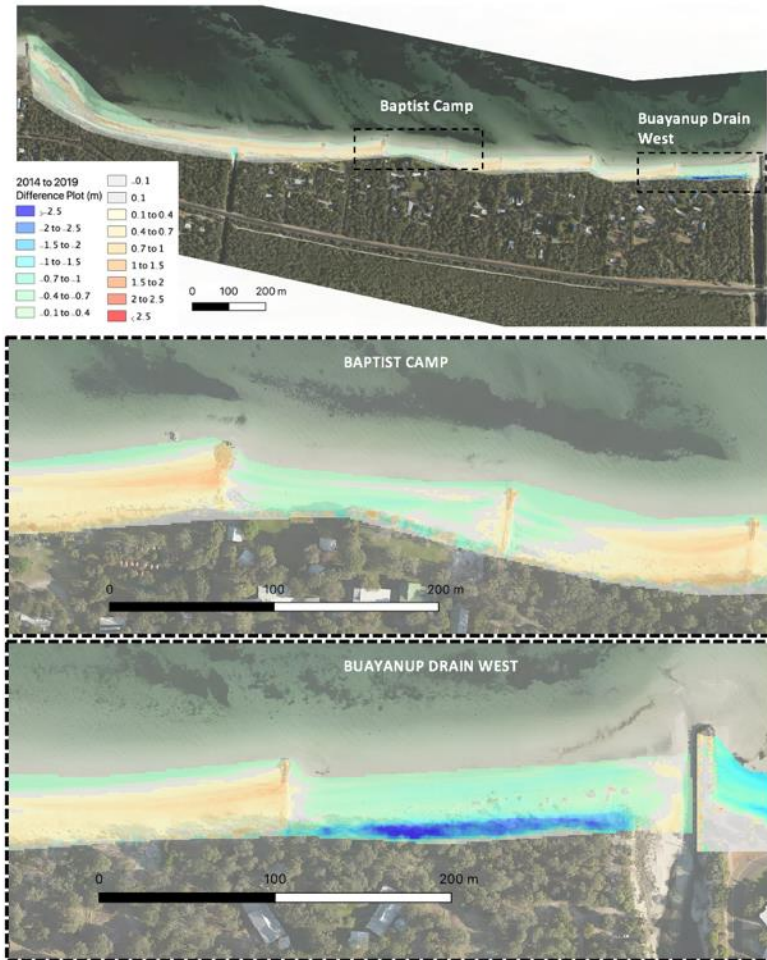


Figure 4.2 – Difference Plot from April 2014 to Dec 2019 at Locke Estate (above) and close up of the coast at the Baptist Camp (middle), and Buayanup Drain West (below).

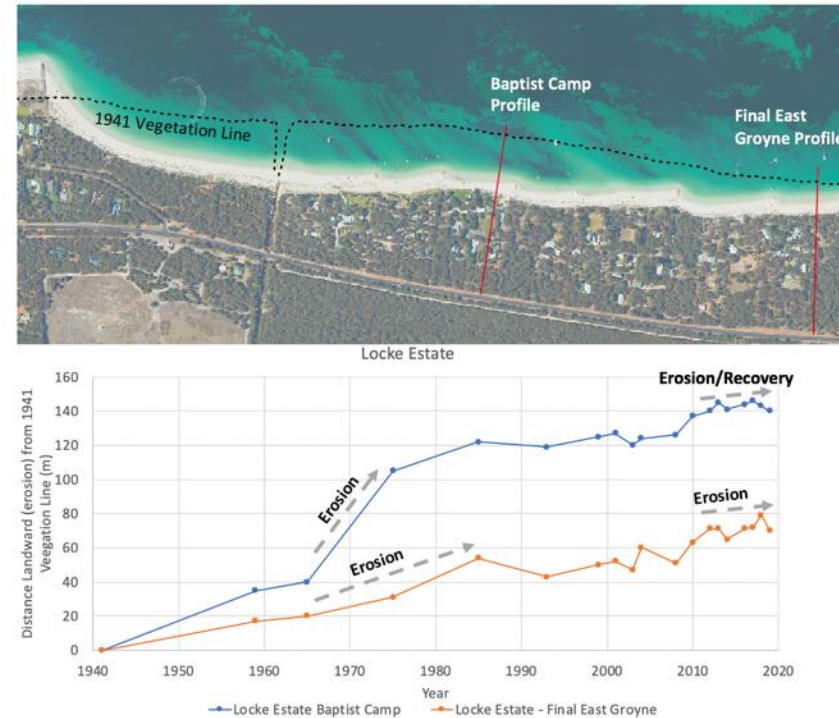


Figure 3.1 – Landward migration of the vegetation (erosion) since 1941 (below), measured at the two profiles (above).

- High rates of erosion observed in 1960s and 1970s mitigated by initial coastal protection works (timber groynes).
- Accreted erosion due to failure of timber groynes mitigation by 2014/15 works.
- Coastal area will continue to be affected by erosion for storms (relocation of structures).
- Local issues at Baptist Camp (seawall end erosion) and Legacy camp (downdrift) and Forth St.

# Contacts

**In the first instance please contact the Leasing and Property Officer**

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