

CITY OF GREATER GERALDTON
LOCAL PLANNING SCHEME NO. 5 (GREENOUGH)
AMENDMENT NO. 10

Prepared By



MARCH 2012

1.0 INTRODUCTION

This local scheme amendment seeks to rezone the subject land known as Glenfield Beach, an englobo land estate comprised of Lots 9000, 1001, 5805 and 404 from 'Residential - Residential Structure Plan' and 'Commercial' zone to 'Development' zone under the City of Greater Geraldton Local Planning Scheme No. 5. The amendment will provide for subdivision and development in accordance with an approved local structure plan over the development site.

The englobo land estate of 188ha is located approximately 11 kilometres north of the Geraldton Central Area. The land is generally bound by Chapman Road to the east, the Indian Ocean foreshore reserve to the west, the existing Drummond Cove residential development to the north, and by public open space and the Water Corporation North Geraldton Waste Water Treatment Plant to the south.

The owner of this substantial landholding (North Bay Developments Pty Ltd) is seeking to lodge local structure plans over the development site to create a District Activity Centre Precinct in the south-eastern corner and facilitate a range of land uses and residential densities across the remainder of the subject land. A scheme amendment to amend the zoning to 'Development' zone will provide more flexibility in terms of allocation and assembly of land uses in the approved structure plans, similar to the existing 'Development' zoned land east of Chapman Road. The 'Development' zone is considered more suitable for the future urban and commercial development of the site.

2.0 SITE CONTEXT

2.1 Location

The subject site is located in the locality of Glenfield, which is approximately 11 km north of the Geraldton Town Centre. The site is midway between the Geraldton Town Centre and proposed Oakajee Industrial Estate (see **Figure 1 – Location Plan**). The subject site comprises of two parcels, with Lot 1001 being situated to the north of Glenfield Beach Drive and Lots 9000, 5805 & 404 being situated to the south of Glenfield Beach Drive.

Lot 1001 is bound to the north and west by existing urban development in Drummond Cove, to the south by Glenfield Beach Drive and to the east by public open space (Crown Reserve 48777). Lot 1001 is approximately 13.891 hectares in area.

Lots 9000, 5805 & 404 is bound to the south by unconstructed road reserve and Crown Reserve 45523, bound to the east by Chapman Road, Lot 12111 and Crown Reserve 12129, bound to the west by the Indian Ocean and to the north by Ocean Heights Estate and Glenfield Beach Drive. The land contained within the Ocean Heights Estate is in a different ownership and forms a southern 'bulge' relative to the subject site. **Figure 2 – Structure Plan Boundary** shows the two separate areas over which local structure plans are to be prepared within the proposed 'Development' zone.

2.2 Landownership

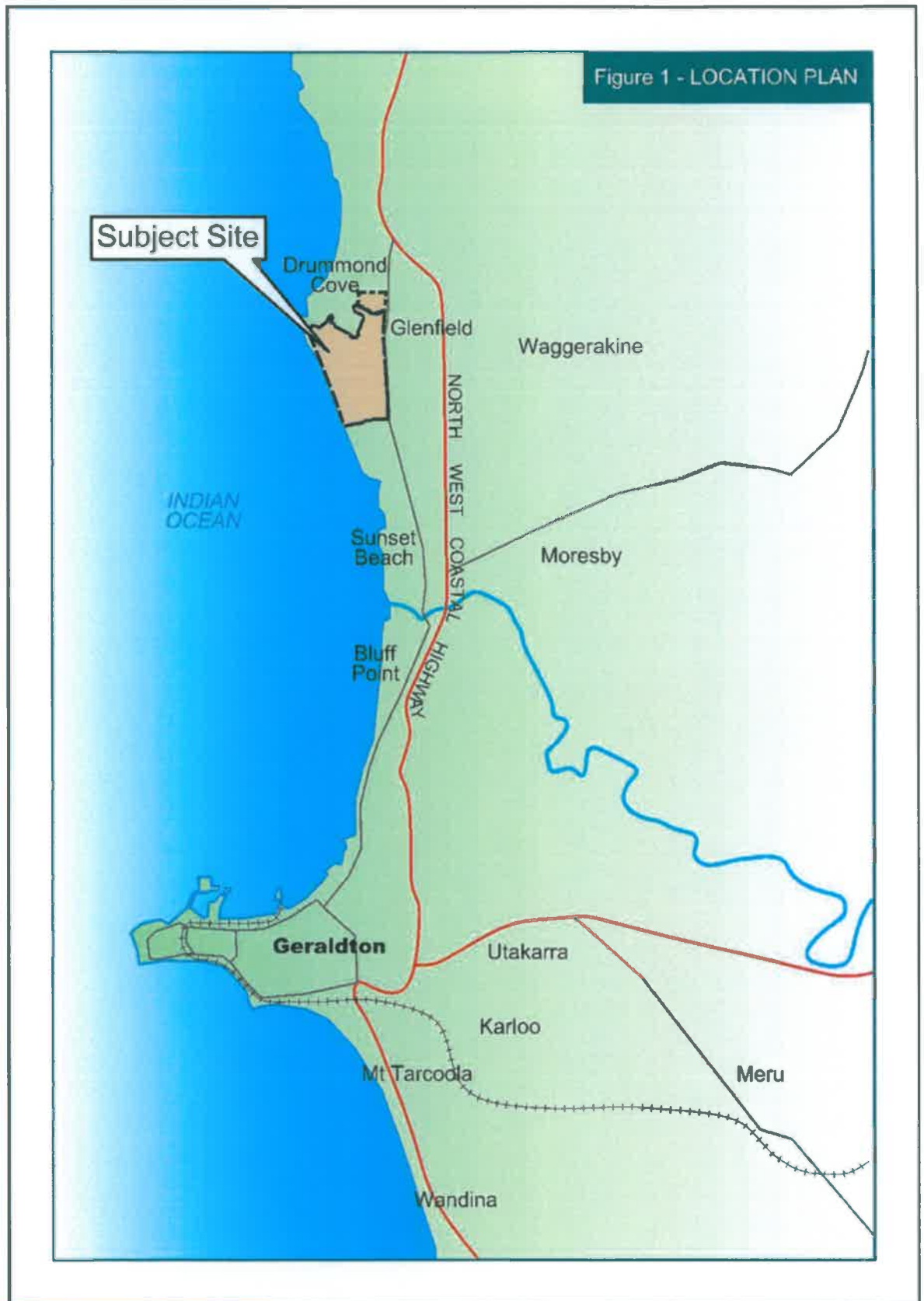
The subject site area contains (4) land parcels in ownership of North Bay Developments Pty Ltd. The legal description and area of each land parcel is set out in Table 1 below.

Table 1. Land description and area of lots comprising subject site

Lot	Plan	Volume	Folio	Area (ha)
9000	56904	2735	688	126.65
1001	93388	2107	259	13.89
5805	83129	2107	260	43.77
404	231877	2107	260	4.43
TOTAL				188.83

(Lot areas source : Landgate, 2011)

Figure 3 – Aerial View shows the cadastral boundaries of the lots that form the area proposed for rezoning to 'Development' zone and the area identified for the future District Activity Centre in the south-east corner of the development site.





2.3 Surrounding Context

The subject site is within the locality of Glenfield. **Figure 4 – Surrounding Land Use Context** provides an overview of the subject site in relation to surrounding land use and environment.

To the west of the subject site is the Indian Ocean. There is a relatively narrow strip of Crown land between the ocean and the subject site forming part of the foreshore reserve, including the beach. This includes the popular surfing spots known as “The Point” and “Glennies”. Most of the beach and inshore area contain sand breaks, however, closer to the point and Drummond’s Cove, there is a section of nearshore reef with numerous reef breaks. Intermittent among the nearshore reefs are sandy lagoon beaches, which provide ideal sheltered swimming areas.

To the north is the existing urban development of Drummond’s Cove and newly constructed residential subdivision lots of Ocean Heights Estate. There are a number of vacant residential lots in the estate and various subdivision roads that terminate at the subject site boundary. In the north-east sector Dolby Creek flows from the north to the south relatively parallel with Chapman Road and a portion of Lot 1001 and Lot 404 is within the Dolby Creek floodway.

South of the subject site there is the existing Water Corporation wastewater treatment plant with evaporation ponds. Lot 55 to the south is currently undeveloped, similar to the subject site. The undeveloped coastal land of Crown Reserve 45523 acts as a buffer between the WWTP and the subject site.

Immediately adjacent to the subject site on the eastern side is a portion of ‘Rum Jungle’ (Crown Reserve 12129), Chapman Road and Lot 12111 held by a private landowner, which contains an existing dwelling. On the eastern side of Chapman Road there are large rural residential properties which have been zoned ‘Development’ zone under LPS 5. These properties also form part of the 2011 Glenfield Structure Plan which is a District Structure Plan that provides a framework for future urban development.



Figure 4. Surrounding land use context of the subject site

2.4 Existing Land Use & Previous Subdivision Approvals

The 1993 Glenfield Beach Local Structure Plan is a valid approved local structure plan. The subject site is largely undeveloped englobo land, with the exception of clearing and development around Ocean Heights Estate. Clearing and earthworks have been carried out in past years over the northern portion of Lot 9000, 5805 & 404. This coincides with subdivision and development at Ocean Heights Estate and two WAPC subdivision approvals [WAPC 129840 & 132284] that have been granted for the northern portion of Lots 9000, 5805 & 404. However, subdivision 129840 expired in June 2010. Subdivision 132284 (Figure 5) is due to expire in August 2014.

The layout and design of both subdivision approvals reflect that of a Subdivision Guide Plan that was prepared by the previous landowner as an update to the 1993 Glenfield Beach ODP. The Subdivision Guide Plan has not been endorsed by the local authority or WAPC.

A large sand stockpile has been placed in a central location on Lot 1001 as a result of the earthworks. A 'turkey's nest' for water supply to the subdivision works has been constructed to the south of Ocean Heights Estate. There is a cleared unconstructed (trafficable) service access track extending north-south through Lot 9000 in the general

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location of the sewer pressure main, which connects the pump station at Ocean Heights Estate with the wastewater treatment plant to the south.

Glenfield Beach Drive road reserve currently terminates that the western end of the subject site. Informal access tracks occur throughout the foreshore area providing 4WD access to the beach for recreational vehicles. There is an informal car park near the 'point' which provides a parking facility for beach users. This car park is accessed via informal tracks which traverse the subject site and traverse the adjacent Crown land foreshore area.

In general most of the subject site is inaccessible and contains englobo coastal dune formations and remnant vegetation. 'Rum Jungle' which extends north-south along the eastern boundary of the subject site is also undeveloped. There are informal degraded vehicle tracks which traverse 'Rum Jungle'. There are sites within 'Rum Jungle' of unauthorised dumping of rubbish and debris, which has degraded part of the 'Rum Jungle' area.

Figure 3 – Aerial View provides an aerial overview of the subject site and the distinct area of subdivision and development that has occurred in proximity to Ocean Heights Estate.



Figure 5. Existing Subdivision Conditional Approval [WAPC 132284]

2.5 *Physical Processes Setback*

In 1990, PJ Woods & Associates completed an analysis of the coastal stability and coastal processes to determine the appropriate coastal setback and creation of a foreshore reserve for the Glenfield Beach Estate. Under the adopted 1993 Glenfield Beach Local Structure Plan the coastal setback requirement was determined and is shown in **Figure 6 – Physical Processes Setback**.

In 2004 the Physical Processes Setback (PPS) for the Glenfield Beach Estate was reviewed and assessed by MP Rogers & Associates (MRA) in accordance with the WAPC Statement of Planning Policy 2.6 – State Coastal Planning Policy. The 2006 PPS was determined as being similar to the coastal setback identified in the 1993 Glenfield Beach Local Structure Plan.

In 2010 the WAPC released a Position Statement which updated the criteria requirements for calculating the PPS under SPP 2.6. The changes to SPP 2.6 related to allowances for climate change. MRA reviewed the PPS requirement in relation to the revised criteria in SPP 2.6 and has determined the 2011 PPS as that shown in Figure 6. The revised MRA Physical Processes Setback 2011 would need to be assessed as part of structure planning under the proposed 'Development' zone.

2.6 *Opportunities and Constraints*

Opportunity exists to create a unique and integrated coastal community to accommodate a range of socio-demographic groups through creation of diverse lot sizes and housing typologies. There is opportunity to create allotments that have a strong relationship to the coast, by providing convenient and safe access to the ocean and beach environment.

A coastal living theme integrated with high quality built form, landscaping and urban infrastructure and treatments can create a strong sense of place and community identity, enhanced by coastal activity nodes and destinations. The natural topography offers westerly ocean views and easterly countryside views from various areas of the subject land.

The main opportunities and constraints for the site are illustrated in **Figure 7 – Opportunities and Constraints** plan. These can be considered and addressed under the proposed 'Development' zone as part of any future structure planning of the development site.

3.0 SITE DESCRIPTION

3.1 *Topography*

Most of the development site contains dune complex ranging from low relief to high relief across the land from the coast up to one kilometer inland. The dune complex has a series of coastal parallel inland dunes and parabolic dunes with taller foredunes. Along the western edge of the vegetated 'Rum Jungle' area, the boundary of the dune complex drops steeply into a floodplain containing Casuarina woodland. **Figure 8 – Topography Plan** shows the general topographical features of the development site. There are no significant topographical constraints that would preclude development, however, there are localised areas which may require sensitive planning to respect the landform.

3.2 *Geology & Soils*

The majority of the development site comprises sand of the Quindalup Dune System, unconsolidated Holocene Shoreline deposits within the coastal dune formation and dunes mainly consisting of Safety Bay Sand. These sands are described as rapidly drained calcareous sand of high permeability.

Typically on the eastern side, particularly on the floodplain within 'Rum Jungle', the geology is described as a series of recent alluvium deposits derived from the Moresby System geology located upstream, which comprises a plateau and foot slopes underlain by Jurassic aged rocks. These alluvial soils form the creek bed of Dolby Creek and its floodplain is made up of a mixture of variably textured materials including silty loams and silty clays. All of these alluvial soils are slower draining compared with the Quindalup sands.

Across Chapman Road on the eastern side are deflated dunes of the Spearwood system comprising residual quartz sand over. The Spearwood sands form a low sandy rise above the broader alluvial plain. The development site is suitable for urban development and the sandy soils can readily accommodate on-site direct infiltration of stormwater.

3.3 *Acid Sulphate Soils*

With the exception of areas within 'Rum Jungle', the development site is categorised as 'Low' risk acid sulphate soils within 3 metres of the surface. The area of 'Rum Jungle' containing the floodway and floodplain adjacent to Chapman Road is the only area known to contain acid sulphate soils within 3 metres of the surface. Regional acid sulphate soils mapping categorises the alluvial deposits of the 'Rum Jungle' floodway as having 'Moderate – High' risk of acid sulphate soils occurring within 3 metres of the surface.

Acid sulphate soils pose no unacceptable risks to development if left undisturbed. Since no development is recommended within the Dolby Creek floodway ('Rum Jungle'), no major disturbance is planned within this area. However, should any road upgrading, servicing or drainage infrastructure be planned within this area, an acid sulphate soils investigation would be carried out to inform any required acid sulphate soils management plan prior to works being undertaken.

3.4 Hydrology

Groundwater

Based on information from the Department of Water, the groundwater generally flows in a westerly direction towards the coast. The groundwater levels across the development site are generally greater than 10 metres below natural ground level, with some variations due to topography. The average hydraulic gradient for the site is approximately 0.001 in summer and 0.0002 in winter. Groundwater testing undertaken by JDA (2007) indicates the quality of the groundwater is poor due to saline encroachment. Unless the groundwater undergoes some form of treatment (such as "shandyng"), groundwater from the superficial aquifer is not considered to be suitable for irrigation purposes.

Surface Water

The only natural expression of surface water within the development site is the Dobby Creek floodplain. There are no interdunal wetlands or sumplands. The pre-development catchment area contains mostly coastal vegetation with 100% pervious surfaces. Infiltration at source is the dominant hydrological characteristic in the pre-development catchment.

Previous investigations by Cardno BSD (2006) indicated that there is no delineated channel or creek line for Dolby Creek. The Dolby Creek is characteristically a 'blind hydrological system' that discharges into the lower lying floodplain within 'Rum Jungle'. The majority of the development site does not drain into the Dolby Creek floodplain area due to the topography of the development site (i.e. eastern dunal ridge). However, a small portion in the northern section of the development site does drain into the Dolby Creek floodway.

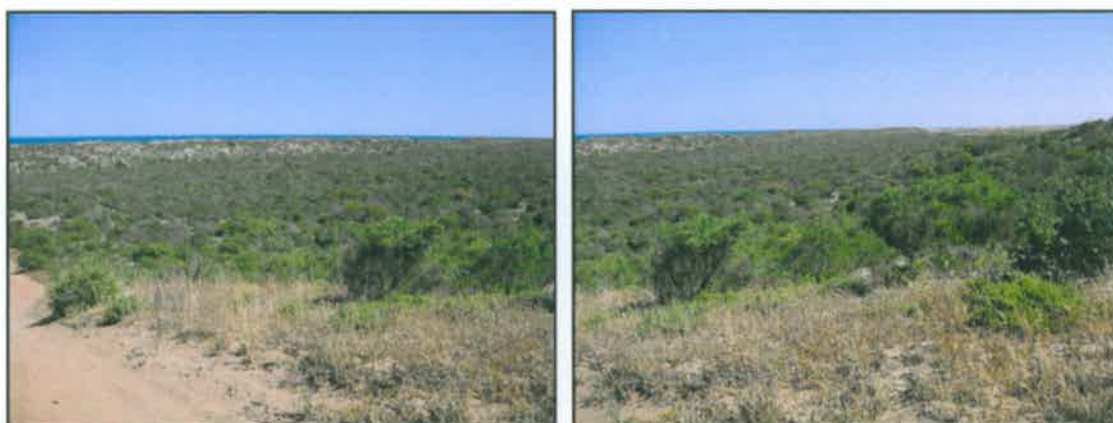
The floodplain south of Glenfield Beach Drive within 'Rum Jungle' typically receives floodwaters during and following major storm events (i.e. 1:50 or 1:100 year ARI events) or high rainfall events. Flood water modeling by AECOM (2011) indicates that a 1:100 year ARI event would cause an overflow over Glenfield Beach Drive of Dolby Creek. The majority of water flowing within the Dolby Creek floodplain originates from upstream and discharges into 'Rum Jungle' floodplain. At district level, the 'Rum Jungle' floodplain is considered important as it provides a significant area for the disposal of stormwater.

Wetlands

There is currently no wetland mapping available for Geraldton. The 'Rum Jungle' area along the eastern boundary of the subject site is a naturally formed alluvial flat, which is seasonally water logged damp land maintained by rainfall and surface water drainage via Dolby Creek and seepage from the coastal dune system.

3.5 Vegetation & Flora

An initial Level 1 Survey and subsequent Level 2 Terrestrial Flora and Vegetation Survey were conducted by Matiske Consulting Pty Ltd ("Matiske") for the subject land. The Level 1 Survey occurred in late March 2011 and the Level 2 Spring Survey was carried out on 30th August and 1st September 2011. Matiske advised that the Level 2 Survey was conducted in prime flowering period and after decent rainfall for spring. The Flora & Vegetation Surveys are included in the **Environmental Assessment Report (RPS, 2012)** attached as Appendix 1 with this report.



(Above & Below) View across the development site of coastal vegetation and landforms



The predominant vegetation communities were defined and mapped as being the following (refer to the 2011 Matiske report for further details):

- Low open coastal grassland of *Acanthocarpus preissii* and *Spinifex longifolius* with low herbs and weeds on near coastal dunes; and
- Low open shrubland of *Acacia rostellifera* and *Lycium ferocissimum* over *Rhagodia baccata* subsp. *dioica*, *Ptilotus divaricatus* subsp. *divaricatus*, *Threlkeldia diffusa*, *Acanthocarpus preissii* and *Spinifex longifolius* on low back dunes.

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- Low open shrubland of *Rhagodia baccata*, *Olearia axillaris* with patches of *Acacia rostellifera* over *Ptilotus divaricatus* subsp. *divaricatus*, *Threlkeldia diffusa* and *Acanthocarpus preissii* on fore dunes.
- Low forest of Swamp Sheek (*Casuarina obsea*) over *Threlkeldia diffusa* in swales; and
- Low open woodland of *Eucalyptus camaldulensis* subsp. *obtus* and *Casuarina obesa* over weeds on riparian areas.

The results of the Level 2 Flora & Vegetation Survey undertaken by Matiske indicate the following:

- No Threatened or Priority Flora species were recorded upon the subject site.
- No Threatened or Priority Ecological Communities were recorded upon the subject site.
- The vegetation condition of the subject site ranges from 'Good' to 'Completely Degraded'.
- One population of a declared plant, being Paterson's curse, was identified as occurring upon the subject site.

Matiske identifies that one population of a Declared Plant Paterson's Curse (*Echium plantagineum*) was recorded on the subject land within the previously cleared area to the south of Ocean Heights Estate. Paterson's Curse is declared under the Agriculture and Related Resources Protection Act 1976 and is a Priority 1 declared species for the whole of WA. It is recommended that during construction works, soil distribution in areas affected by Paterson's Curse is minimised, with standard vehicle hygiene practiced to ensure the species does not spread or become further established with the subject land. Steps should be taken to eradicate the identified population of Paterson's Curse on the subject land to minimise its spread to surrounding areas. This can be addressed at subdivision stage.

3.6 Fauna

A Level 1 Terrestrial Fauna Survey was undertaken by MJ & AR Bamford Consulting Ecologists ("Bamford"), including a field survey of the subject site on the 4th, 5th & 6th April 2011. The Fauna Survey is included in the Environmental Assessment Report (RPS, 2012) attached as Appendix 1 with this report.

The main habitat types identified within the subject land are:

- Sandy Beach;
- Foredune;
- Hind dune/swale system on sandy soil with occasional underlying limestone;
- Sheek woodland on seasonally inundated clay; and
- Eucalypt woodland on clay/gravelly soil.

Graceful Sun-Moth

The Graceful sun-moth (*Synemon gratiosa*) is listed as Endangered in the *WA Wildlife Conservation Act* and the *EPBC*. It was not found in the database search and its presence at this coastal location is likely to be influenced by the availability of suitable food plants.

The timing of the early April 2011 field survey was too late for the peak activity period of adult moths to be observed, however the larvae of the Graceful Sun-Moth feed exclusively on two species of *Lomandra* (*L.hemaphrodita* and *L.maritima*) and neither was found on the subject site, despite extensive searching by Bamford.

Specifically *Lomandra maritima* is a host plant for the Graceful sun-moth. The Spring 2011 Level 2 Vegetation and Flora Survey by Mattiske did not record any *L.maritima* within the subject land. From these observations, Bamford concludes that it is highly likely that the species would not rely to any significant degree on the subject land, given the general absence of *Lomandra*.

Carnaby's Black Cockatoo

The early April 2011 Fauna Survey by Bamford identified that the species was not observed and there was no evidence during the survey to indicate that birds had recently visited the subject land. A further site visit on 11 July 2011 was carried out to collect detailed information about potential Carnaby's Black Cockatoo nesting trees on the subject site. Only 20 out of 58 trees were identified as being large enough (i.e. tree trunk diameter at breast height > 500mm) to be potential nesting trees for the birds. The majority of these were located within 'Rum Jungle' and Dolby Creek outside areas of proposed development. None of the 20 trees had evidence of any hollows deemed suitable for nesting sites. No evidence of bird feeding activity was observed during the field survey.

Other Fauna

Fauna habitats of potential significance tend to be those that are both rare across the landscape and that are important for significant species and/or for biodiversity. The 'Rum Jungle' area has been noted in previous environmental reports for the subject site (i.e. Cardno, 2006) as being known habitat for the South Western Carpet Python.

3.7 Site Contamination

RPS conducted a search of the DEC's Contaminated Sites Database on 21 September 2011. No matches were recorded for the subject land or adjacent lands. The subject site is predominantly remnant vegetation and dunes with contamination being unlikely to be present. A site inspection indicates the presence of uncontrolled tipping activities of domestic refuse in 'Rum Jungle'.

3.8 Heritage

Indigenous Heritage

A search of the Department of Indigenous Affairs (DIA) Aboriginal Heritage Inquiry System indicated the location of a single registered Aboriginal Heritage site (Site 4462) partially within the northwest corner of the subject land (refer to Figure 5 – Opportunities and Constraints). Site 4462 is named 'Drummond Cove Shell Midden' and is described as being a *midden/scatter* type of site.

All places reported to the Registrar of Aboriginal Sites are assessed within the terms of section 5 of the *Aboriginal Heritage Act 1972*. The site status for Site 4462 is the currently 'Stored Data'. 'Stored Data' refers to places or sites that have been assessed as not meeting the terms of section 5 of the *Aboriginal Heritage Act 1972*, hence are given a status of 'Stored Data' in the Register. The provisions of the *Aboriginal Heritage Act 1972* do not apply to these places unless further information is lodged with the Registrar requiring a reassessment of the place.

Information relating to Stored data is not deleted from the Register, but is retained and displayed for a number of reasons:

- It is possible that information provided about a place at one point in time may be incomplete and further information will be provided in the future that may change the assessment of the place.
- To alert people to the possibility that even though a place may not meet the terms of the *Aboriginal Heritage Act 1972*, there may still be some level of Aboriginal heritage value associated with a place.
- To identify the location of places reported as sites but assessed as not meeting the terms of the *Aboriginal Heritage Act 1972* for planning purposes.

It is important to note that the database of heritage sites held by the DIA is not comprehensive and there exists the potential for unknown sites of Indigenous heritage significance to be located inside or within close proximity to the subject land. Archaeological monitoring is recommended for any eventual excavation works as part of subdivision and development. The process for protecting Indigenous heritage sites and considering proposals that may impact a known site is set out under the *Aboriginal Heritage Act 1972*. The Act protects all Aboriginal sites in WA whether they are known to the DIA or not.

The advice given as part of the conditional subdivision approval granted 12 June 2006 for the land in which the Site 4462 is located, with regard to Aboriginal Heritage is as follows:

"The Department of Indigenous Affairs advises that there is a requirement to comply with the Aboriginal Heritage Act 1972, which protects all Aboriginal sites in Western Australia whether they are known to the Department or not. Prior to any proposed development/activity, so that the site is not damaged or altered (which would result in a breach of Section 17 of the Act) it is recommended that suitably qualified consultants are engaged to conduct ethnographic and archaeological survey of the area.

If you do not wish to carry out the survey but in the course of works find anything of significance you are advised to cease works and contact the Department of Indigenous Affairs. As stated above, if any site is damaged or altered this would result in the breach of the Aboriginal Heritage Act”.

European Heritage

There are no places or sites of cultural significance within the subject site area under the City of Greater Geraldton Municipal Heritage Inventory and State Heritage Register.

3.9 *Unexploded Ordinance (UXO)*

The development site is located within a former WWII military training area. UXO Surveys have previously been carried out between January – May 2006 over land within the northern portion of the development site. These were undertaken prior to the construction of lots within Ocean Heights Estate. The surveys focused on a 100% search of the designated areas for objects with the equivalent mass of a 20mm projectile or equivalent ferrous object as determined by FESA.

In addition to these surveys, a 10% electromagnetic Field Validation Survey was also completed for any items of Exploded Ordinance confirming any previous military targeting use. Overall 15 impact areas were surveyed with no Exploded or Unexploded Ordinance uncovered. The project consulting engineer has recommended that further 10% UXO Field Validation Search be undertaken in slashed lane widths of 2.0m – 2.5m separated by no more than 20m apart prior to any development construction taking place.

4.0 KEY PLANNING FRAMEWORK

STATE & REGIONAL PLANNING

4.1 *Geraldton Region Plan 1999*

The Geraldton Region Plan provides a regional framework, consistent with the *State Planning Strategy*, to assist in planning decisions for the growth of Geraldton over the next 20 – 30 years. The Plan includes the Greater Geraldton Structure Plan 1999, which identifies areas for future urban development. Drummond Cove/Glenfield is included as one of the areas identified in the Structure Plan to accommodate future urban growth (refer to **Figure 9 – Greater Geraldton Structure Plan**), subject to development proposals being consistent with coastal planning principles and policy.

4.2 *Draft Northern Geraldton District Structure Plan*

The Draft Northern Geraldton District Structure Plan was prepared in 2004/2005 to provide a district structure plan for the northern part of Geraldton. The subject site is identified for future urban development (refer to extract **Figure 10 – Draft Northern Geraldton Structure Plan**). The draft Structure Plan is considered dated and was never endorsed by WAPC.

4.3 *Greater Geraldton Structure Plan 2011*

The 2011 Greater Geraldton Structure Plan is intended to be used in conjunction with the 1999 Geraldton Region Plan, but is an update of the 1999 Greater Geraldton Structure Plan. **Figure 11 – Greater Geraldton Structure Plan 2011** shows the subject site as being identified for 'Urban' use. The wastewater treatment site buffer has not changed from the 1999 Plan.

LOCAL PLANNING

4.4 *City Of Geraldton–Greenough Local Planning Scheme 5*

The subject site is zoned 'Residential - Residential Structure Plan' and 'Commercial' under the City of Geraldton Greenough LPS 5 (**Figure 12 – Local Zoning**). The provisions of LPS 5 require preparation and approval of a local structure plan prior to any subdivision and development.

It is considered that a scheme amendment to rezone the subject site to 'Development' zone is more appropriate to facilitate development in accordance with an approved local structure plan. This would be similar to the land on the eastern side of Chapman Road contained within the Glenfield Structure Plan which is zoned 'Development'.

4.5 *Shire of Greenough Local Planning Strategy*

The Shire of Greenough's Local Planning Strategy was endorsed by the WAPC in September 2008 to guide future development within the Shire. The Strategy identifies that further urban development is recommended to occur at Drummond Cove/Glenfield.

4.6 *Geraldton–Greenough Coastal Strategy & Foreshore Plan*

The Geraldton-Greenough Coastal Strategy & Foreshore Management Plan 2005 encompasses the coastal area between Drummond Cove in the north and the Greenough River mouth to the south. The Strategy identifies the foreshore area of Glenfield Beach as being suitable for conservation and recreation. This is elaborated as a focus on protection of the dunes and vegetation while integrating a range of compatible recreational activities and access in suitable, more disturbed areas. The Strategy recommends that development of land containing foreshore areas should involve preparation of a detailed foreshore management plan, which should include identification of access, facilities and any rehabilitation/stabilisation of dunes. It also recommends that existing tracks and degraded areas should be used to provide access locations and facilities wherever possible to avoid further damage and degradation of the dunes and vegetation.

4.7 *Glenfield Structure Plan*

The Glenfield Structure Plan (**Figure 13 – Glenfield Structure Plan**) guides land use planning for the eastern portion of Geraldton's northern growth corridor, on the opposite side of Chapman Road to the subject land. The Structure Plan proposes a range of densities and land uses. In order to facilitate the Structure Plan, the land was zoned 'Development' which allowed for the flexibility required as part of the design and planning process. The Structure Plan identifies a future District Activity Centre on the subject site and a potential future east-west road link between the subject site and North West Coastal Highway.

4.8 *Geraldton – Greenough Retail and Services Strategy*

In 1996 a commercial study was undertaken by Council to produce a strategic planning framework to guide future retail and commercial development. A District Centre was identified as being required to service future urban development in the northern coastal corridor. The location and need for a District Centre, as shown indicatively in Figure 13, was based on a high growth scenario.

4.9 *Interim Commercial Activity Centres Strategy Draft (October 2010)*

The Interim Strategy provides guidance for commercial development in the City of Geraldton-Greenough. The intent of the document is to distribute commercial activity in a strategic sense and reflects the WAPC State Planning Policy Activity Centres for Perth and Peel. The Strategy identifies the need for a District Centre as shown indicatively in Appendix 2 Map 2 of the ICACS to provide for the population growth north of Geraldton.

4.10 1993 Glenfield Beach Local Structure Plan

The adopted 1993 Glenfield Beach LSP (Figure 14 – 1993 Glenfield Beach Local Structure Plan) covers a much wider area of approximately 317 hectares, that includes Lots 9000, 1001, 5805, 404, Lot 55, portion of Reserve 45523 and areas of Ocean Heights Estate.

In 2004 a planning report to the Shire of Greenough Council, expressed concern with the approved 1993 Glenfield Beach LSP. The planning report (written in response to the submission of a Public Open Space Strategy for subdivision in Ocean Heights Estate), outlined problems with the 1993 LSP. In general the report stated that the 1993 LSP “...is a dated planning tool and contains planning elements/design that would not likely receive subdivision approval from the WAPC and would require referral to the Department of Environment.” Notwithstanding the adopted 1993 Glenfield Beach LSP constitutes a valid approved local structure plan.

The Glenfield Beach Conceptual Master Plan (refer to page 35) reflects contemporary planning principles and practice and addresses Council’s above concerns. Under the proposed ‘Development’ zone, the developer proposes to update the 1993 Glenfield Beach LSP pursuant to Clause 5.17.4 of LPS 5.

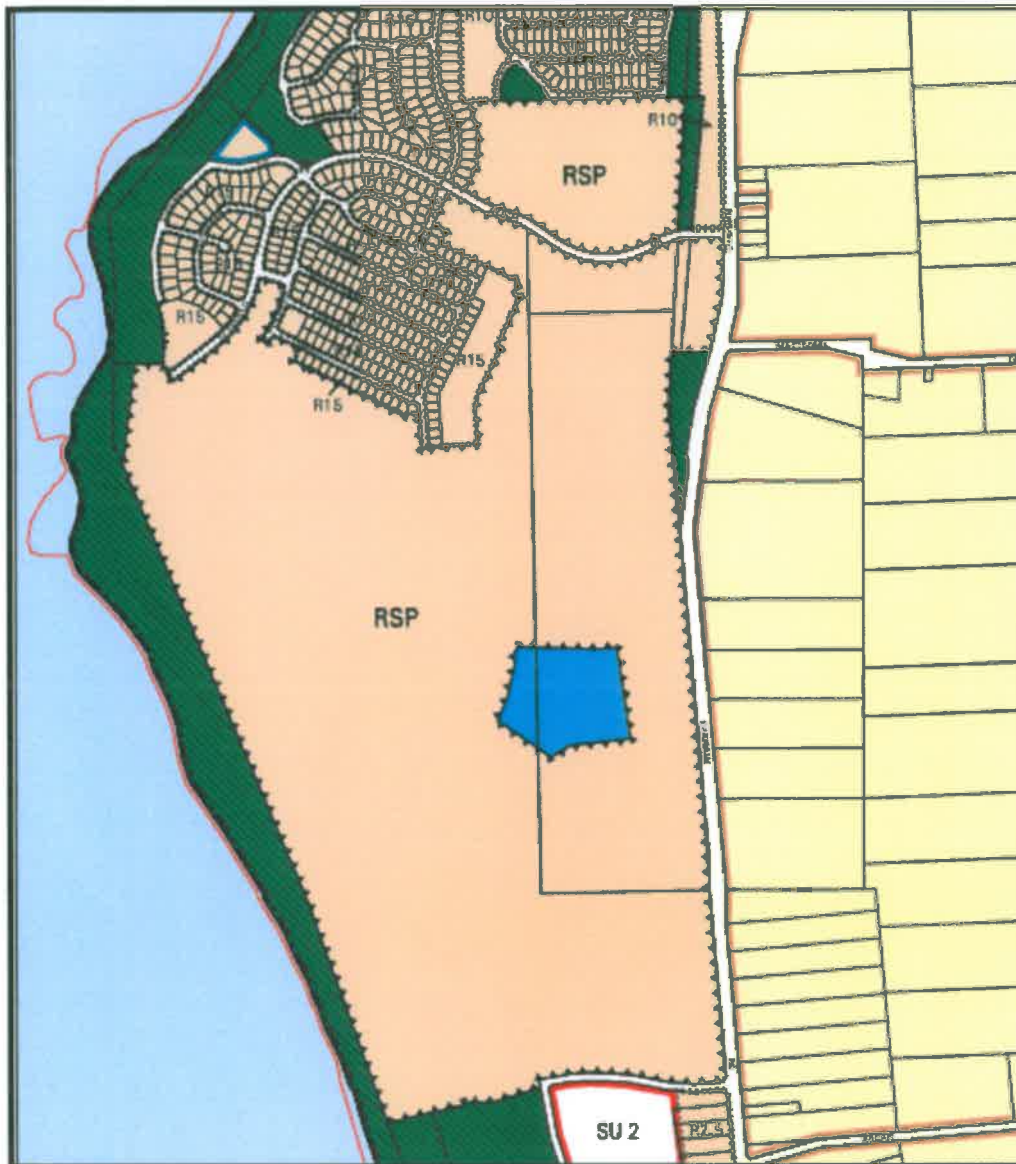


Figure 12 Local Zoning of the subject site



Figure 14. Adopted 1993 Glenfield Beach Outline Development Plan

5.0 AMENDMENT RATIONAL

Lots 9000, 1001, 5805 and 404 form an englobo land estate known as Glenfield Beach. The site is largely undeveloped and under its current zoning, prior to any subdivision and development, a local structure plan is required to be prepared and adopted.

This scheme amendment seeks to rezone the subject land from 'Residential – Residential Structure Plan' and 'Commercial' zone to 'Development' zone under the City of Greater Geraldton Local Planning Scheme No. 5.

The existing 'Residential – Residential Structure Plan' zoning over the subject land provides for flexibility in the spatial distribution of residential densities, within the processes of local structure planning. However, the 'Commercial' zoned land in the central portion of the subject site 'locks in place' this area for commercial purposes only. This commercial zoned land is approximately 5.41 hectares and is in an undesirable location with its limited commercial exposure "behind Rum Jungle".

The 'Commercial' zoning of the subject site under TPS 3 is not consistent with the adopted 1993 Glenfield Beach Local Structure Plan or the developer's proposed **Glenfield Beach Conceptual Master Plan**. The proposed rezoning will remove this anomaly.

The existing 'Commercial' zoned area is proposed to be [relocated] to an area within the south – east portion of Lot 9000 adjacent to Chapman Road. This area is considered to be more strategically located within the future District Centre site consistent with the Glenfield Structure Plan and the City of Greater Geraldton Interim Commercial Activity Centres Strategy (ICACS). It has superior commercial exposure and viability by being on Chapman Road and can form part of the entrance to the Glenfield Beach estate.

By rezoning the subject land to 'Development' zone, the existing 'Commercial' zone is deleted, with structure planning pursuant to the provisions of Clause 5.15 of TPS 3 providing the basis for land use assembly, residential density and its statutory implementation. A 'Development' zone is an appropriate zoning for the englobo subject land and is consistent with the 'Development' zoning of land on the eastern side of Chapman Road.

This amendment is based on the understanding from discussions with the City of Greater Geraldton that the existing 'Commercial' zoned land on the subject site would be [transferred] to the future District Centre site in the SE corner of Lot 9000 adjacent to Chapman Road. As part of the development of the land, a separate Activity Centre Plan will be proposed over a 12 hectare area of land in the SE portion of Lot 9000 adjacent to Chapman Road. The Activity Centre Plan will propose a future District Commercial Centre within this 12 hectare parcel of land.

The key considerations for urban development of the subject land have been identified in early conceptual planning and site investigations. The indicative Glenfield Beach Conceptual Master Plan was prepared as a working plan to identify the key considerations (i.e. environmental, economic, infrastructure and community etc) that would need to be addressed in any local structure planning for the development site. These will be discussed in more detail expanding on the proposed scheme amendment rationale.



6.0 KEY CONSIDERATIONS FOR FUTURE STRUCTURE PLANNING

6.1 Determination of Physical Processes Setback

In 1990, PJ Woods & Associates completed an analysis of the coastal stability and coastal processes to determine the appropriate coastal setback and creation of a foreshore reserve for the Glenfield Beach Estate. Under the adopted 1993 Glenfield Beach Local Structure Plan the coastal setback requirement was determined and is shown in Figure 6 – Physical Processes Setback.



Adopted 1993 Glenfield Beach Local Structure Plan

In 2004 the Physical Processes Setback (PPS) for the Glenfield Beach Estate was reviewed and assessed by MP Rogers & Associates (MRA) in accordance with the WAPC Statement of Planning Policy 2.6 – State Coastal Planning Policy.

In 2010 the WAPC released a Position Statement which updated the criteria requirements for calculating the PPS under SPP 2.6. The changes to SPP 2.6 related to allowances for climate change. MP Rogers & Associates reviewed the PPS requirement in relation to the revised criteria in SPP 2.6 and has determined the 2011 PPS as that shown in Figure 6. The eastern boundary of the future foreshore reserve area (as shown in the Glenfield Beach Conceptual Master Plan) has been determined based on the revised MP Rogers & Associates Physical Processes Setback 2011.

The impact of sea level rise on the Glenfield Beach Estate was investigated by MP Rogers & Associates (2011). The minimum average heights behind the primary coastal dunes range between 2.7m – 3.0m AHD, before increasing up to heights of 13.0m AHD for the secondary dune system immediately behind the primary dunes. It is considered that these minimum heights are adequate to prevent direct inundation of the development site behind the Physical Processes Setback line in the event of the predicted sea level rise up to 0.9 metres by 2100. In certain areas, the minimum heights behind the primary dune system are likely to increase as a result of earthworks and leveling to provide for development. This will further increase the minimum heights behind the primary dune systems reducing susceptibility to inundation as a result of sea level rise. The exact final delineation of the foreshore reserve can be undertaken through consultation with the relevant authorities as part of local structure planning.

6.2 Designing for Community

The subject land enjoys a frontage of approximately 1.8 kilometres to a unique coastal and foreshore environment. Drummond Cove is a popular swimming and surfing area, with nearshore reefs providing both sheltered swimming areas and surfing breaks. The sandy beach to the west is also a popular destination for swimming and surfing. Structure planning should respond to this coastal setting opportunity. It recognises the unique location of the subject site and provides for a variety of land uses (i.e. commercial, residential and tourist) and diversity in housing typologies, within proximity to the coast.

'Rum Jungle' is an important feature in the subject site's context and any future structure planning should acknowledge the environmental values of 'Rum Jungle', as well as its function as the Dolby Creek floodplain area.

In terms of the future District Activity Centre in the south-west portion of Lot 9000 adjacent to Chapman Road, the design of the Activity Centre Plan should allow for an key east-west link road through the District Activity Centre (i.e. opportunity to create a 'main street'), which will provide connection with the Glenfield Structure Plan area (east of Chapman Road) and the development site, foreshore and coastal areas and Lot 55 to the south. This is consistent with the Glenfield Structure Plan.

Future structure planning should also take into consideration managed access to the unique foreshore area adjacent to the western boundary of the development site. The foreshore interface should include pockets of grassed areas around coastal nodes, paths, boardwalks, parking facilities and conservation areas. It is recommended that a Foreshore Management Plan be prepared to identify natural assets and provide for sustainable levels of recreation within those assets and opportunities for improvement. The current uncontrolled access within the foreshore area is to be managed more appropriately, similarly with uncontrolled access in 'Rum Jungle'. These can be addressed as part of local structure planning.

6.3 Residential Densities and Yield

Future structure planning should provide for a range in residential density with opportunities for a diversity of lot sizes and housing types, responsive to the site's location. Higher densities may be considered around the District Activity Centre, coastal nodes, elevated areas with scenic views and those overlooking public open space. The early concept master plan provides one example of how the subject site could be planned under the proposed 'Development' zone.

6.4 Integration with Surrounding Land Uses

Future structure planning within the 'Development' zone should take into consideration interface and connection into existing and proposed development on neighbouring landholdings, including the Glenfield Structure Plan east of Chapman Road. To the north and west of Lot 1001 is existing residential development, where the northern and western boundaries of Lot 1001 interfaces with public open space, residential use and existing road (Barnacle Road). On the eastern side of Lot 1001 is public open space (Dolby Creek floodway) and low density residential lots. The design over Lot 1001 provides for future road connections and integration with existing residential and public open space areas.

The interface with Ocean Heights Estate requires the design to integrate with existing road reserves and constructed residential lots. In this instance, design options become limited; however, the conceptual Glenfield Beach Estate Master Plan provides a good integration example without compromising design outcomes. For instance, key road connections (including Mistral Crest and Glenfield Beach Drive) have been maintained as through roads between Ocean Heights Estate and the LSP Update area.

The Glenfield Beach Conceptual Master Plan also demonstrates the capability for links with the unconstructed road reserve to the south through provision of connecting roads. A strip of public open space is proposed adjacent to Crown Reserve 45523 as a buffer to the Water Corporation wastewater treatment plant to the south and to interface with the land to the south. The proposed road system in the south west compliments and connects into the proposed District Activity Centre area to form a cohesive movement network for vehicles, pedestrians and cyclists. This provides good accessibility to the District Activity Centre within the development site. These design considerations can be flagged and addressed as part of any future local structure planning under the proposed 'Development' zone.

6.5 Wastewater Treatment Plant Buffer

Discussions have been held between the landowner and the Water Corporation with regards to the existing Glenfield North wastewater treatment site buffer. The Water Corporation has recently finalised a review of its wastewater treatment planning for the Geraldton region. This Review provides for a range of options for its various WWTP sites, including the potential for relocation of the Geraldton North WWTP to Oakajee. There is uncertainty at this stage as to whether the Water Corporation will commit to upgrading its Geraldton North wastewater treatment plant, or decommission the WWTP and relocate its operations by establishing a new wastewater treatment plant in the southern part of Oakajee.

The current buffer for the wastewater treatment site is contained in the 2011 Greater Geraldton Structure Plan. The buffer is shown in Figure 9 and Figure 11. The buffer is not included in any statutory instrument including LPS 5. The Water Corporation has been advised by the WAPC that any increase to the buffer will require consultation with affected landowners.

The early design work in the Glenfield Beach Conceptual Master Plan are based on the approved WWTP buffer as contained in the 2011 Greater Geraldton Structure Plan. The WWTP buffer affects a narrow strip of land along the southern boundary of the development site. A POS strip has been provided within the buffer area and the exact location of the buffer will need to be determined at the detailed subdivision stage to ensure that no sensitive development (i.e. residential dwelling) is proposed within the WWTP buffer.

6.6 Education & Community Infrastructure

Public Primary Schools

The 1993 Glenfield Beach Local Structure Plan identified a site for a future primary school in a central location adjacent to the proposed neighbourhood centre. The Glenfield Beach Conceptual Master Plan provides a site for a public primary school to serve the local catchment. The school site is centrally located within its catchment area and is provided with a well connected street network focused towards the school. It is in close proximity to the proposed District Activity Centre (i.e. within 400m walkable catchment) thus complimenting the District Centre as a focal destination point.

Public High Schools

A site for a public high school was not identified in the 1993 Glenfield Beach Local Structure Plan. Although a public high school site was identified in the Draft Northern Geraldton District Structure Plan (Figure 10) on the western side of Chapman Road in 'Rum Jungle' adjacent the future District Activity Centre, this site is considered problematic. In discussions between the Department of Education (DoE) and the developer, DoE has indicated that a preliminary investigation of this site has revealed issues, in terms of topographical and environmental constraints. This location for a high school site, as shown in Figure 10, is therefore not considered feasible. The western side of Chapman Road is constrained both topographically by a high dune ridge and by the Dolby Creek floodplain and Casuarina woodland.

Public high schools should be located on arterial roads, with good public transport, as indicated under Liveable Neighbourhoods. Opportunities exist for location of a high school site on the eastern side of Chapman Road, where there are reduced topographical and environmental constraints and where the high school would be more centrally located in terms of its Glenfield catchment. Notwithstanding that a public high school site has not been identified in the Glenfield Structure Plan (refer to Figure 13), the DoE has indicated that a future high school site is required somewhere in Glenfield. This can be considered as part of the local structure plan process for urban development east of Chapman Road.

Opportunity also exists for DoE to provide for a larger than normal public high school in Waggrakrine. Preliminary discussions have taken place with key stakeholders, including the City of Greater Geraldton (CGG), DoE and Department of Planning, in relation to provision of educational needs to meet the demands of urban growth in the northern Geraldton coastal corridor. During discussions, CGG has indicated that, subject to further investigation, consideration could be given for the public open space area (as identified in the Waggrakrine Local Structure Plan located adjacent to the existing DoE Waggrakrine high school site) to be co-developed for the high school playing fields. This will potentially free up more of DoE's land for school buildings & infrastructure. This will enable the creation of a much larger high school at Waggrakrine to accommodate future educational needs and subsequently consolidate the need for an additional high school in Glenfield, if not, significantly extend its timing of delivery.

The DoE's Waggrakrine high school site has already been approved in structure planning and is in a good central position with regard to the proposed urban growth areas in the northern parts of Geraldton. It would seem logical that the Waggrakrine site be retained and subsequently developed to meet forecasted educational demand, with particular consideration to the co-sharing of the adjacent public open space with the local authority. The issue of a future public high school site within the development site can be further explored as part of future local structure planning for the subject land.

Community Sites

Specific community purpose sites, for land uses such as community centre, child day care centre, meeting hall, kindergarten, civic uses can be considered in future local structure planning under the proposed 'Development' zone. It might be advantageous to locate such uses within the proposed 12 hectare District Activity Centre site.

Private Schools

A future site for a Catholic education establishment (i.e. K-12 school) has been provided for in the Waggrakrine Structure Plan. In addition to existing private educational establishments in Geraldton, the Catholic education site at Waggrakrine will provide private educational needs in the northern coastal urban growth corridor. No private educational institutions have approached the landowner or local authority with regards to a request for the provision of a future private school site in Glenfield. This is the same during the preparation and adoption of the Glenfield Structure Plan 2011. Notwithstanding, should there be a demand for a private education site/s in Glenfield, this can be explored and accommodated for within the proposed 'Development' zone through identification in an approved local structure plan.

6.7 Climate Responsive Design & Energy Conservation

For urban residential design, there are three main areas of climate-sensitive sustainable design. In general, these are to reduce energy consumption, optimise on-site solar access and protect solar access for neighbouring properties. Future structure planning should take into consideration street network design to be highly interconnected, which assists in reducing local travel distances and related emissions and energy use. Energy consumption can also be reduced by orientating lots to maximise solar access and cooling breezes.

The provision of street blocks to create regular shaped lots is important for also providing micro-planning opportunities to design more energy efficient dwellings. The climate of Geraldton, which is south of latitude 26, can be summarised as follows:

"Geraldton experiences a Mediterranean-type climate, characterised by hot, dry summers and mild, wet winters. Geraldton experiences seasonal extremes in weather, from hot summer days when northeasterly winds arrive, to cold wet, windy winter days as cold fronts from the Southern Ocean move in through the region....south to southwesterly afternoon seas breezes are common in spring, summer and autumn....Regular sea breezes moderate the climate in the warmer months, however, hot dry northeasterly winds from the interior of WA can sometimes dominate. Hot days are usually followed by a cool change with fresh to strong southerly sea breezes."
(Bureau of Meteorology, 2011)

Local residents living in Geraldton highly regard the frequent afternoon sea breezes during the warmer and hot months of the year, which allow opportunity for the cooling of dwellings. A north-south, (even SW- NE) orientation is considered to be an ideal orientation for lots, to enable dwellings to readily take advantage of sea breezes. Wherever possible within the site constraints (i.e. topography), roads should be orientated to create street blocks that allow for dwellings to maximise the micro-climate benefits of southerly cooling breezes. A north-south and east-west orientation also enables solar access opportunity for dwelling design to capture winter sun.

6.8 Landform

The Glenfield Beach Conceptual Master Plan maintains the integrity, ecological functions and environmental values of the natural landform wherever possible in the planning and design of the urban form. The main potential impacts that arise from urban development include loss of landform through development and destabilisation of retained landforms through blow-outs and erosion.

To minimise the requirement for energy intensive large scale re-contouring of the subject land, preliminary design work (Glenfield Beach Conceptual Master Plan) has located, wherever possible, development on the naturally flatter or less steep terrain. Steeper terrain, such as the eastern ridge along 'Rum Jungle' and foredune system has been retained in the proposed foreshore reserve and 'Run Jungle' natural area. Any future local structure plan design should seek, wherever possible, to utilise the natural landform in order to reduce bulk earthworks and the need for high artificial walls (i.e. retaining walls).

6.9 'Rum Jungle' Vegetation Retention

Vegetation retention is proposed to be incorporated within designated areas including 'Rum Jungle'/Dolby Creek public open space, foreshore reserve and public parks and parkways (i.e. linear green linkages). The retention of remnant vegetation will assist in maintaining biodiversity within the context of the proposed development. Within these areas there is opportunity to retain examples of the local terrestrial vegetation and habitat types that are representative of the area. 'Rum Jungle' is a key habitat area for retention and within this reserve, some of the individual large *E.camaldulensis* trees that have been identified as potential roosting sites for Carnaby's Black Cockatoo, are envisaged to be retained.

It is recommended that a 'Rum Jungle' Management Plan be prepared at the subdivision stage for the 'Rum Jungle'/Dolby Creek public open space. The Plan should include measures to protect and enhance the existing vegetation retained within the 'Rum Jungle' area, such as access restrictions, removal of illegal rubbish dumping, management interface between residential development and 'Rum Jungle', areas for rehabilitation and implementation/responsibilities and timing.

In addition to rehabilitation proposed in the 'Rum Jungle' Management Plan and Foreshore Management Plan, landscaping within median strips, road verges and public open space are recommended following construction of development. Landscaping should incorporate appropriate native species plantings to assist in 'greening' the development. The identification of areas for vegetation retention can be considered as part of the structure planning process.



[Left]
Extract from RPS
(2011) report
showing trees (mostly
within 'Rum Jungle'
POS) with potential as
Carnaby's Black
Cockatoo
nesting/roosting

6.10 Care of Biodiversity & Fauna Habitat

As shown in the Glenfield Beach Conceptual Master Plan, the significant fauna habitats to be set aside within the subject site, specifically 'Rum Jungle' and foreshore reserve natural areas, will be protected through the provision and implementation of the 'Rum Jungle' Management Plan and Foreshore Management Plan. These will be prepared and approved in consultation with the local authority as a condition of subdivision approval. From a wider community perspective, signage will be provided in the Foreshore Reserve and 'Rum Jungle' public open space to facilitate awareness of the types of local fauna that are found within the subject land and promoting the need for care.

6.11 Coastal Care & Management

To address the issue of climate change and rising sea level, an appropriate coastal setback for development of 123 – 126 metres has been determined based on State Planning Policy DC 2.6. This setback defines the coastal foreshore reserve, which will be created as a Crown Reserve as part of subdivision and managed by the local authority. The implementation of the coastal setback will set aside an area for habitat conservation of coastal vegetation, fauna and landform.

A Foreshore Management Plan for the foreshore reserve will provide for measures to mitigate potential impacts as a result of removal of vegetation, degradation of retained vegetation through uncontrolled public access and disturbance to vegetation from fire. These considerations will be further investigated as part of any future local structure planning under the proposed 'Development' zone.

6.12 Surface and Ground Water Management

To ensure that the quantity and quality of surface and ground water is maintained, a Local Water Management Strategy (LWMS) will be prepared and implemented. This will include measures to address appropriate treatment and disposal of stormwater runoff and groundwater recharge. In order to protect the quality of groundwater, a Groundwater Management Strategy is recommended to be prepared as part of any structure planning. The Plan should address direct infiltration of stormwater adequately pre-treated prior to infiltration.

6.13 Acid Sulphate Soils

The area of 'Rum Jungle' containing the floodplain adjacent to Chapman Road is the only area known to potentially contain acid sulphate soils within 3 metres of the surface. Regional acid sulphate soils mapping categorises the alluvial deposits of the 'Rum Jungle' floodway as having 'Moderate – High' risk of acid sulphate soils occurring within 3 metres of the surface.

Acid sulphate soils pose no unacceptable risks to development if left undisturbed. Any development proposed within the Dolby Creek floodplain will require an Acid Sulphate Soils Management Plan. Should any road upgrading, servicing or drainage infrastructure be planned within areas potentially containing ASS, an acid sulphate soils investigation would be carried out to inform any required acid sulphate soils management plan prior to works being undertaken.

6.14 Dolby Creek Floodplain

The Department of Water has previously undertaken flood modeling of Dolby Creek for the 100 year ARI event and has derived the Dolby Creek Floodplain. Previous investigations indicated that there is no delineated channel or creek line for Dolby Creek.

The Dolby Creek is characteristically a 'blind hydrological system' that discharges into the lower lying floodplain within 'Rum Jungle'. The majority of the development site does not drain into the Dolby Creek floodplain area due to the topography of the development site. Any future structure planning for the development site can take into consideration the Dolby Creek floodplain.

6.15 Fire Management

The identification of fire hazards can be undertaken as part of the preparation of a Fire Management Plan. A Fire Management Plan recommends appropriate fire management measures that should be undertaken to address the risk of bushfire to property and persons within and adjacent to the development site.

At the time of subdivision or when any residential lots are created adjacent to fire hazard areas, such as 'Rum Jungle', coastal foreshore reserve, southern boundary or Dolby Creek, a building protection zone can be established by the developer. This includes provision of the appropriate setbacks to future dwelling building envelopes, landscaping, treatment and management of the land interface with bush fire risk areas (i.e. strategic firebreaks between staging areas) to ensure that the building protection zones remain effective in terms of bush fire protection.

7.0 FUTURE DISTRICT ACTIVITY CENTRE

The proposed 'Development' zone covers the whole of the subject land, however, the development site will be divided into two separate structure plan areas. A local structure plan will be prepared for the bulk of the subject site, being the "main residential estate" as shown in the Glenfield Beach Conceptual Master Plan. The remaining area in the SE corner, approximately 12 hectares, is proposed to be set aside for a future District Activity Centre site.

The Glenfield Beach Conceptual Master Plan proposes a 12 hectare site for the allocation and preparation of an Activity Centre Plan, which will be separate to the local structure plan for the "main estate". The rationale for the setting aside of an area of approximately 12 hectares includes:

- The future District Commercial Centre will require at least 8.0 – 10.0 hectares for ultimate capacity retail floor space and car parking as per Liveable Neighbourhoods for a 'District Centre'. The centre may also provide for other non-commercial uses such as community purpose site/s, landscaping, drainage infrastructure and open space;
- Land is proposed adjacent to the District Commercial Centre for future medium density (i.e. R40) dwellings. Sufficient land will need to be planned to accommodate this land use within the 12 hectare site. Thus the 12 hectare site will not be all 'Commercial' land use but will contain a substantial component of residential land use;
- The steep parabolic dune topography of the site requires sufficient area to be able to earthwork the site to create a practical site (preferably as level as possible) for the future district commercial centre built form;
- The site is located adjacent to Chapman Road (i.e. good accessibility and commercial exposure). The location of the site is also consistent with the general location for the future District Centre as identified in the Glenfield Structure Plan and the City of Greater Geraldton Interim Commercial Activity Centres Strategy; and
- The Glenfield Beach Conceptual Master Plan shows the 12 hectare site being separated potentially by roads (i.e. including Neighbourhood Connectors) so that the District Commercial Centre site can be developed independently from the "main residential estate", yet be fully integrated.

8.0 CONCLUSION

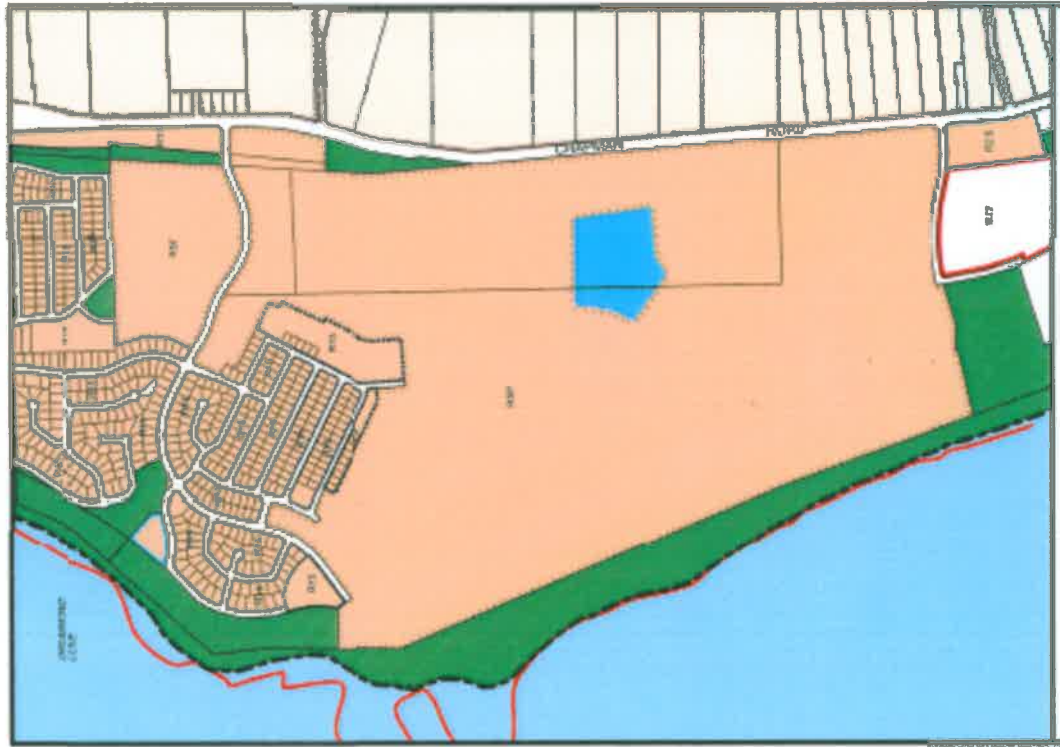
The proposed 'Development' zone for the subject land provides greater flexibility in terms of coordinating subdivision and development of land uses and residential densities in a comprehensive manner. Under a 'Development' zone, formal structure planning would be required for the land in accordance with the City of Greater Geraldton Local Planning Scheme No. 5 prior to any development/subdivision occurring.

Structure planning can adequately address the key issues and considerations raised in this report that affect the subject land. For instance, the indicative Glenfield Beach Conceptual Master Plan has been prepared to demonstrate that local structure planning could take into consideration the key opportunities/constraints and environmental values appurtenant to the subject land.

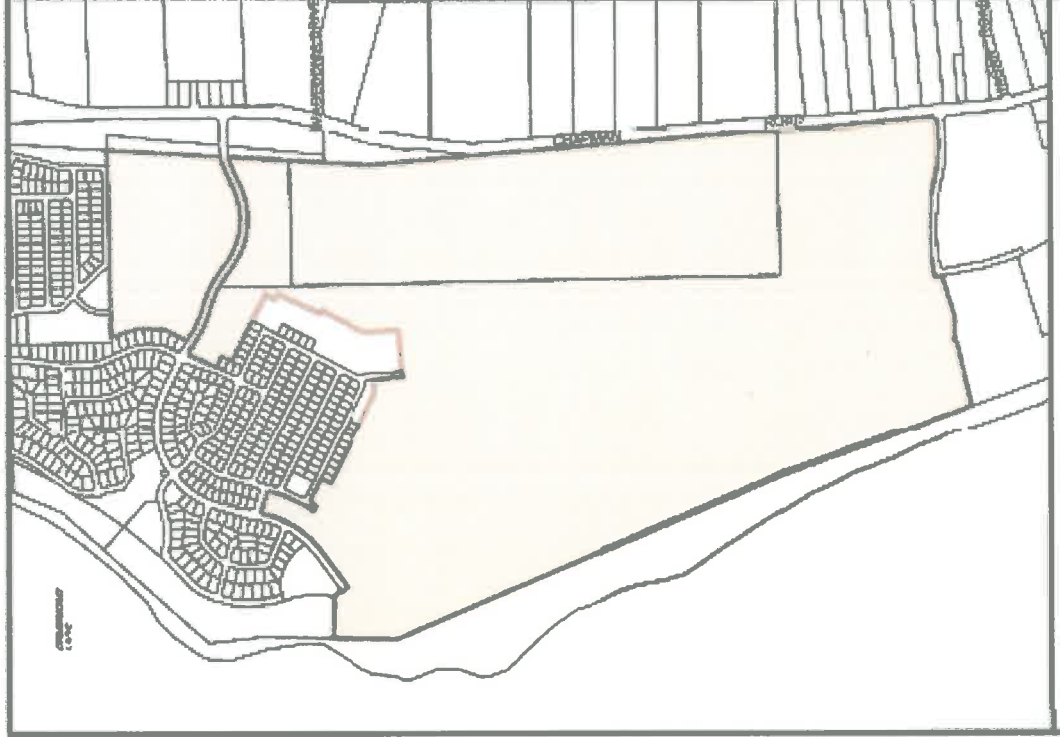
The proposed scheme amendment to 'Development' zone also effectively removes the existing 'Commercial' zoned land on the subject site. It is intended that an Activity Centre Plan will be prepared for approval to create a future District Centre in the SE corner of Lot 9000 adjacent to Chapman Road. The Activity Centre Plan would subsequently secure commercial [status] within the SE portion of Lot 9000 for the purpose of a future District Centre consistent with City of Greater Geraldton's strategic planning (i.e. ICACS) for this area.

**CITY OF GREATER GERLADTON
LOCAL PLANNING SCHEME No. 5**

-Amendment No.



EXISTING ZONING



SCHEME (AMENDMENT) MAP

LEGEND

LOCAL SCHEME RESERVES

Parks and Recreation

Waterway

Road

ZONES

Development

Residential

Tourist

Commercial

Special Use

OTHER

R Codes

Schema Boundary

Local Government Boundary

Special Use Area
(See Scheme Text)

Residential Structure Plan
(See Scheme Text)

No Zone

SCALE 1:17 500