

# **NORTH HEAD DISTRICT STRUCTURE PLAN**

**AUGUST 2007**  
ISSUE REV 005 (MAY 2012)

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FOR	NORTH HEAD JURIE N BAY PTY LTD

**ENDORSEMENT PAGE**

This structure plan is prepared under the provisions of the Shire of Dandaragan  
Local Planning Scheme No. 7.

IT IS CERTIFIED THAT THIS STRUCTURE PLAN WAS APPROVED BY RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

**30 MAY 2012**

In accordance with Schedule 2, Part 4, Clause 28 (2) and refer to Part 1, 2. (b) of the *Planning and Development  
(Local Planning Schemes) Regulations 2015*.

Date of Expiry:

**19 OCTOBER 2028**

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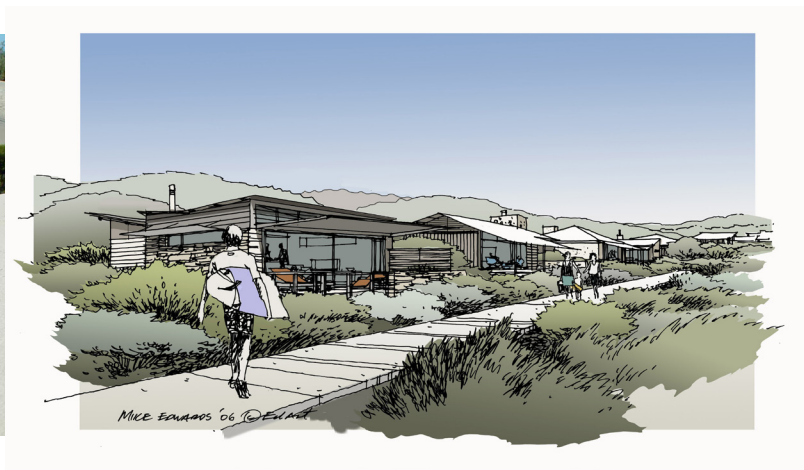
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# EXECUTIVE SUMMARY



North Head is a spectacular headland located next to Jurien Bay on Western Australia’s Central Coast. North Head and the land that surrounds it are a dramatic combination of beaches and coastal bushland fronting the stunning Jurien Bay Marine Park.

The owners of Victoria Location 8836 (the subject site) know that this unique location deserves a unique response. This should be nothing less than:

***To set a new standard for coastal development in Western Australia***

The aspiration is to create a sustainable development that harmonises with the coastal landscape and respects the site’s special values. The development of the project has at all times been informed by a set of guiding principles:

- Provide a unique residential and tourist destination in the Shire of Dandaragan
- Create a landmark project that will set a new standard for coastal development in Western Australia
- Preserve the natural landscape and environmental qualities of the site

- Prioritise public access through the site and to the foreshore
- Integrate the development with adjacent conservation areas
- Provide a quality range of accommodation options to suit a variety of lifestyles and recreational needs
- Create opportunities for regional economic growth
- Develop facilities that complement but do not compete with existing services
- Ensure the built form harmonises with the special qualities of the coastal setting through innovative design

The outcome is the North Head Structure Plan. The Structure Plan describes a world class residential and tourist development that celebrates the site’s unique landscape and spectacular location. Key elements include:

- Two thirds of the site remains free from development, with dune ridges and natural vegetation retained in a network of landscape and open space.
- Six residential/tourism precincts comprising 2,215 single residential lots and 550 tourist rooms.
- A new access road from Indian Ocean Drive provides the “gateway” to North Head.

- A built form response that evokes the site’s distinctive sense of place and captures the outstanding natural experience of North Head.
- Encouraging walking over the use of vehicles. A network of dual use paths and roads puts all residents within 800 metres (a 10 minute walk) of beaches, open space and community facilities.
- Acknowledging that existing commercial facilities and services exist in the Jurien Bay town centre.

The proponents’ aspiration to create a world class coastal development includes a commitment that the project will provide social, environmental and economic benefits directly to the Jurien Bay community. In particular the development will complement and enhance, rather than compete with the existing economy of Jurien Bay.

The North Head Structure Plan is only the first stage of a broader vision – a unique concept inspired by a genuine desire for a better standard of coastal development in Western Australia. The owners are confident that the North Head project will stand with the best developments that the world has to offer, becoming a by-word for quality, integrity and a genuine Western Australian coastal experience.





## PART A: BACKGROUND



# 1 INTRODUCTION

North Head is a spectacular headland located next to Jurien Bay on the Central Coast of Western Australia. The Central Coast is an increasingly popular lifestyle and tourist destination with a diverse recreational offer. The recent completion of Indian Ocean Drive is anticipated to generate significant pressure for additional accommodation and tourist facilities in the region, particularly in Jurien Bay. The development of Victoria Location 8836 (the subject site), with its captivating mix of beaches, bushwalks and views, will play an important part in meeting this demand.

This District Structure Plan proposes a site sensitive and environmentally responsible design outcome for the site as the basis for the development of a distinctive and sustainable coastal development. It is the outcome of a rigorous and consultative process and incorporates the contributions of the community and other key stakeholders. The Structure Plan is the first stage of a broader vision for the land – a unique concept inspired by a desire for a better standard of coastal development in Western Australia.

## REPORT FORMAT

The District Structure Plan report has been prepared in four parts:

### Executive Summary

The Summary provides an ‘at a glance’ overview of the vision and guiding principles that drive the North Head project, including the major elements of the Structure Plan.

### Part A

Part A details the background and objectives for the project and includes a synopsis of the statutory requirements guiding development of the site. It also documents the extensive site analysis and ground-truthing undertaken by the interdisciplinary project team to inform the preparation of a site sensitive and sustainable development outcome for North Head.

### Part B

Part B describes the Structure Plan in detail. It sets out the elements and merits of the Structure Plan design and explains how the proposed Structure Plan achieves the project objectives.

### Technical Reports

A compilation of technical reports has been prepared by the team’s specialist consultants. These provide further detail in relation to the assessments and analyses conducted as the basis for the preparation of the Structure Plan. These reports are as follows:

- Environmental Constraints Analysis
- Environmental Management Overview
- Vegetation And Rare Flora Survey
- Landscape Study
- Aboriginal Heritage & Ethnographic Survey
- Demand Assessment
- Coastal Analysis
- Traffic Overview
- Built Form
- Bushfire Management Plan
- Servicing Analysis
- Community Consultation



## PROJECT TEAM

An interdisciplinary team of specialist consultants has been assembled for this project, comprising the highest level of expertise available in each discipline. Each of the consultants are highly skilled and bring to this project extensive experience in the land development industry. The members of the project team are as follows:

- Roberts Day Town Planning + Design - Town Planning & Design
- RPS Environment - Environmental Management Consultants
- Simon Youngleson - Architects & Urban Designers
- Richard Hammond - Landscape Architect & Planner
- Ethnoscience - Ethnographic & Cultural Studies
- Creating Communities - Community Consultants
- Shrapnel Urban Planning - Urban Economic Consultant
- MP Rogers & Associates Pty Ltd - Coastal Engineers
- Riley Consulting -Traffic & Transport Consultants
- Wood and Grieve - Civil Engineers
- York Gum Services - Fire Management Consultants

## THE PROCESS

Planning for the development of the site has been occurring since July 2000. Lodgement of an earlier version of the Structure Plan was deferred at the request of the Shire of Dandaragan pending the gazettal of the new Local Planning Scheme No.7 (LPS 7). LPS 7 has been in preparation since 2003 and was finally gazetted on 24 October 2006. The final Structure Plan that is presented for consideration is the result of intensive site analysis coupled with a robust consultation process. This involved the Shire of Dandaragan and the Jurien Bay community, as well as the input of a comprehensive range of key stakeholders and government agencies, detailed as follows:

- Department of Planning
- Department of Environment and Conservation
- Department of Aboriginal Affairs
- Fire and Emergency Services Association
- Former shack owners
- Jurien Tourism and Progress Association
- Jurien Bay District High School
- Local business
- Local community members
- Local religious representatives
- Representatives of the fishing and aquaculture industry
- Shire of Dandaragan
- Water Corporation
- Western Australian Tourism Commission
- Western Power
- Wheatbelt Development Commission

The key elements of the process are outlined as follows:

### Document and Analyse the Physical Characteristics of the Site

Detailed site analysis of the site was undertaken to inform the development of a site specific, environmentally sensitive and sustainable development outcome. This analysis included:

- Inspections of the site with representatives from the Shire of Dandaragan and the Department of Environment and Conservation (DEC).
- Environmental constraints analysis prepared by RPS Bowman Bishaw Gorham Environmental Management.
- Landscape assessment prepared by Richard Hammond - Landscape Architect and Planner.
- Coastal setback analysis prepared by M P Rogers & Associates.

### Seek Community Input

A leaflet was distributed to the community and key stakeholders advising of the intention to prepare a Structure Plan for the land and inviting submissions. A series of meetings with key stakeholders was also facilitated by Creating Communities to develop an appreciation of the community’s aspirations and objectives for the development of North Head and its environs. This process was used to establish the guiding principles that drove the subsequent design process.

### Preparation of Preliminary Structure Plan

Design options for a preliminary Structure Plan were prepared based on the guiding principles agreed with the community, the environmental and landscape constraints established by RPS Bowman Bishaw Gorham and Richard Hammond and advice from key stakeholders.

### Critique Planning Concepts

A workshop with the Project Team identified a preferred concept from the range of design options and established the key principles underlying the built form for the project.

### Development of Architectural Themes

Based on the key principles established at the workshop a suite of architectural themes were developed that reflected the region’s coastal architectural vernacular and the unique attributes of the site.

### Community Consultation

The community and key stakeholders were invited to provide feedback on the preferred concept plan and built form proposals. The community and government instrumentalities all responded favourably to the proposal.

### Demand Analysis

A Demand Assessment was prepared by Shrapnel Urban Planning that confirmed that the combination of residential and tourist accommodation proposed in the Structure Plan would serve a market not currently being satisfied in Jurien Bay.

### Modifications to Structure Plan

The Structure Plan was further refined to reflect the advice and outcomes of the most recent consultation process. This involved further visits to the site by the Project Team to ground truth the modifications to ensure that the amendments responded to the established topographical and environmental parameters. This phase included:

- Richard Hammond provided further comment in respect of the concept against the set of landscape principles established at the beginning of the design process. The Structure Plan was modified several times to accommodate the recommendations provided by Mr Hammond.
- A site visit was undertaken by the Project Team and Ms Sue Hancock (then CALM) to review the accuracy of the plan in the field. The proposed revisions to the Structure Plan based on this site inspection included a preferred road access over neighbouring areas of the Beekeeper’s Reserve to the north of the site.

### Preparation of Draft Design Guidelines

Draft design guidelines were prepared to ensure that the final built form outcomes for the site contribute to the desired character and experience of the place. The final imagery and built form typologies are provided in the body of this report.

### Presentation to Shire of Dandaragan Council

Members of the Project Team gave a presentation to the Shire Council on 23 November 2006. This provided an opportunity for the Shire’s elected members to review and comment on the progress of the Structure Plan. The presentation provided an overview of the process to date, including setting out the environmental parameters and the urban design and built form proposals for the site.

### Rezoning Amendment – Amendment No.3

The Structure Plan was accompanied by a request to initiate an amendment to the Shire of Dandaragan Local Planning Scheme No.7 (LPS 7), proposing the rezoning of the land from ‘Rural’ to ‘Special Development Zone No.2’ and providing the necessary land use planning framework and statutory controls to facilitate the orderly and proper planning of the development throughout the life of the project.

Amendment No.3 was approved by the Minister on 15<sup>th</sup> February 2012 and is anticipated for gazettal in the near future.



# 2 PROJECT VISION

The owners of the site recognise the tremendous potential for this development to meet the aspirations of Jurien Bay's growing resident and visitor population. The driving vision for the project therefore aims high:

*To set a new standard for coastal development in Western Australia*

The development will harmonise with the coastal landscape, capturing the unique sense of place and respecting the natural environment. The quality of architecture and urban design will establish a new coastal paradigm that complements the outstanding natural experience that this site offers.

The proponents' aspiration to create a world class coastal development includes a commitment that the project will provide social, environmental and economic benefits directly to the Jurien Bay community. A key consideration is to ensure that the development complements and enhances the existing local economy. Other key commitments include providing a choice of housing and accommodation to satisfy a broad spectrum of lifestyle and recreational needs, and improving public access to the recreational opportunities of North Head.

The proposal also embraces the State strategic planning for this region, which promotes development of the land for residential, tourist and recreation purposes. The development will create both a unique living environment for residents and an exciting destination to be experienced by domestic and international visitors.

The Project Team is confident that the development will stand with the best coastal developments that the world has to offer, and will become a by-word for quality, integrity and an authentic Western Australian coastal experience.

## PROJECT BACKGROUND

Western Australia is a state with an extensive coastline and a long tradition of maritime recreation and beach-going. This makes it more surprising that we have so few examples of world class coastal development. In the absence of quality local examples the North Head Project Team drew inspiration from some of the landmark coastal development projects elsewhere in Australia and overseas. This included the prestigious Costa Smeralda seaside community on the Mediterranean island of Sardinia which was visited by representatives of Roberts Day (sponsored by the landowners of North Head). The vision for the site was also informed by the acclaimed New Town development of Seaside in Florida's north-west and the outstanding Couran Cove Island Resort on the north Queensland coast. These projects inspired the Project Team with a range of exciting ideas and possibilities that have the potential to be adapted to the local conditions at North Head.

### Costa Smeralda, Sardinia

Costa Smeralda is a refined seaside resort style development located on more than 3000ha of spectacular coastline on the north-east coast of Sardinia. The development was designed to ensure that the sensitive coastal environment from which its uniqueness derives was protected. Due to the similarities of the coastal environment and climatic conditions, Costa Smeralda is an important example of coastal development with direct relevance to the project.

Members of the Project Team met with Count Luigi, the Project Director of Porto Rotondo, the most successful community and holiday development on the Costa Smeralda. Count Luigi's message for the Project Team was that the design of good coastal development must be driven by the environmental and landscape values unique to the site. The project also demonstrated the critical importance of design controls to ensure the built form vision that underpins the project is carried through into reality. The use of local materials was also a defining feature of the development. This further emphasised the sympathetic approach of the local architecture in complimenting the natural landscape.

### Seaside, Florida

The world renowned Seaside development is located on the north-west Florida coast. The project has a unique sense of place. In part this is due to the widespread use of wood-framed cottages that take advantage of the local climate and enhance the sensual pleasure of life by the sea.

Located behind the primary dune system, Seaside was designed and built to satisfy rigorous environmental standards. Key project objectives included reducing car dependency and creating a walkable community that could take advantage of the natural attractions of a coastal lifestyle. These elements in particular have been adopted by the North Head Project Team in its own designs.

### Couran Cove, Queensland

Couran Cove is an excellent example of a commercially successful development that is sensitive to the environmental values of its location. The resort has won over 25 tourism and environmental awards and commendations since it was completed. These include the Australian Federation of Travel Agents national "Environmental Achievement Award 1998" and the "Best Resort for 1999".

The Resort is a beautifully designed eco-tourism project integrated with the natural vegetation. This principle of integrating development with the surrounding landscape has been adopted as a key aspect of the North Head project. Couran Cove also adopts best practice environmental standards for the recycling of grey water, passive solar design and sustainable development. These initiatives are of a standard that the North Head project aspires to achieve.

## GUIDING PRINCIPLES

The vision to make the North Head project a world class coastal development is based on a set of guiding principles developed in consultation with the local community. These principles underpin the proponents' commitment to provide a sustainable development outcome that is environmentally driven, responding to the local site conditions and respecting the landscape attributes of the site.

The guiding principles developed for the project are detailed as follows:

- Provide a unique residential and tourist destination in the Shire of Dandaragan
- Create a landmark project that will set a new standard for coastal development in Western Australia
- Preserve the natural landscape and environmental qualities of the site
- Prioritise public access through the site and to the foreshore
- Integrate the development with adjacent conservation areas
- Provide a quality range of accommodation options to suit a variety of lifestyles and recreational needs
- Create opportunities for regional economic growth
- Develop facilities that complement but do not compete with existing services
- Ensure the built form harmonises with the special qualities of the coastal setting through innovative design



COSTA SMERALDA, SARDINIA



SEASIDE, FLORIDA



COURAN COVE, QUEENSLAND



# 3 PLANNING CONTEXT

The development detailed in this District Structure Plan represents a unique opportunity to realise the potential of the North Head and its environs for the benefit of current and future generations. The combination of rigorous environmental standards, sensitivity to landscape values and quality urban design and built form will ensure the project sets a new standard for coastal development in Western Australia.

The following synopsis demonstrates that the proposal is consistent with the State’s strategic planning proposals for the region and with the Shire of Dandaragan’s objectives for the locality set out in their strategic documents. The proposed development fully embraces the opportunities that the site presents to positively contribute to the locality and the region in a sustainable way.

## STATE SUSTAINABILITY STRATEGY (STATE OF WESTERN AUSTRALIA, 2003)

The State Sustainability Strategy was released by the State Government in 2003. Its objective is to provide a background to the concept of sustainability and to detail the necessary actions for implementing sustainability in Western Australia. The Strategy is based on seven foundation principles:

- Long term economic health
- Equity and human rights
- Biodiversity and ecological integrity
- Settlement efficiency and quality of life
- Community, regions, ‘sense of place’ and heritage
- Net benefit from development
- Common good from planning

The strategy identifies the following six goals, each complemented by a series of priority initiatives, to guide action towards achieving the vision of a sustainable Western Australia:

- Governance – ensure that the way we govern is driving the transition towards a sustainable future
- Global Contribution – play our part in solving the global challenges of sustainability
- Natural Resources – value and protect our environment and ensure the sustainable management and use of natural resources
- Settlements – plan and provide settlements that reduce the ecological footprint and enhance quality of life at the same time
- Community – support communities to fully participate in achieving a sustainable future
- Business – assist business to benefit from and contribute to sustainability

The Strategy has informed the subsequent development of many other statutory and strategic documents relevant to the development of the site, including the Western Australian Planning Commission’s (WAPC) State Coastal Strategy and Urban Growth and Settlement Strategy.

The preparation of this District Structure Plan has been driven by the desire to create a development that respects its unique natural setting whilst also fulfilling the social and economic goals of the State Sustainability Strategy. Consideration of how the Plan meets the goals of the Strategy is set out in Part B of this report.

## STATE PLANNING STRATEGY (WAPC, 1997)

The State Planning Strategy provides a state-wide land use-planning framework to the year 2029. The Strategy is clear in respect to the future for Jurien Bay – “Support the development of Jurien as the district centre for the Central Coast region”. Other strategy initiatives relevant to the project include:

- Recognise tourism as a legitimate land use compatible with a range of existing land uses and incorporate into future regional planning strategies and town planning schemes (WAPC, LA).
- Promote tourism development in the Avon Arc and the Central Coast (WATC, WDC).
- Adopt innovative and flexible town planning schemes to allow future economic development (LG, WAPC).

***The Structure Plan identifies tourist nodes at key beachside locations on the site complemented by residential development. This results in an integrated land use proposal that can accommodate future residential and tourist demand, boosting the local economy and reinforcing Jurien Bay’s important regional role.***

## STATE PLANNING POLICY

The proposed development is consistent with the relevant State Planning Policies prepared and adopted by the WAPC pursuant to Section 26 of the Planning and Development Act 2005. These documents have been instrumental in informing the development of a site specific and regionally appropriate planning outcome for the site.

## STATE PLANNING POLICY NO.2 – ENVIRONMENTAL AND NATURAL RESOURCES POLICY (WAPC, 2003)

State Planning Policy No.2 – Environmental and Natural Resources Policy (SPP2) aims to integrate environmental and natural resource management within the planning framework, in order to protect and conserve the natural environment and to assist with the sustainable use of natural resources.

Amongst the general measures promoted by SPP2 and relevant to the subject site are requirements to:

*Avoid development that may result in unacceptable environmental damage*

The development plan reflects a design philosophy based on sensitivity to the unique landscape qualities inherent to the subject site. Approximately two thirds of the site is retained in its natural vegetated state and free from development. The nominated development precincts have been designed to work in sympathy with the existing topography and landforms thereby retaining the sites distinctive landscape character. All development, including roads and the built form, has been designed to minimise visual intrusion.

Detailed environmental investigation of the site have been undertaken over several years in respect of vegetation, flora and fauna, topography, landform identification and stability, shallow stratigraphy and soil type, groundwater, ethnography and archaeology and fire management. These investigations and the resulting design responses are outlined in Section 5 of this report.

- Actively seek opportunities for improved environmental outcomes including support for development which provides for environmental restoration or enhancement
- Support conservation, protection and management of native remnant vegetation where possible, to enhance soil and land quality, water quality, biodiversity, fauna habitat, landscape, amenity values and ecosystem function

The Structure Plan proposes a residential/tourist development that respects the sites distinct environmental values. Comprehensive environmental and landscape assessments have enabled more than two thirds of the site to be retained free from development, with parabolic dune ridges and natural vegetation retained in an integrated network of landscape and open space. By setting aside this amount of land free from development it is possible to retain at least 60% of every existing vegetation species on the site, more than double the Bush Forever requirement of 30% for non-metropolitan areas.

- Take account of the availability and condition of natural resources, based on best available information at the time
- The subject site is located approximately 2.2 kilometres south of a gypsum mine located on the Sandy Cape Road (Jurien Bay North Mine) and north of the “Jurien Bay-Westdeen” limesand deposit. Any related buffer zones (that might be required) to these facilities do not lie within the identified development areas and development of the nominated cells will not impact on the continued operation of these facilities for resource extraction.
- Protect significant natural, indigenous and cultural features, including sites and features significant as habitats and for their floral, cultural, built, archaeological, ethnographic, geological, geomorphological, visual or wilderness values

Section 5 of this report outlines the natural, indigenous and cultural features that occur on the subject site and provide key actions for their management and protection.

*Take account of the potential for on-site and off-site impacts of land use on the environment, natural resources and natural systems*

Section 5 of this report summaries the findings of the various studies provided as technical appendices, which account for the potential impact that future development, may have on and off the subject site.

- Safeguard and enhance areas of environmental significance on the coast including the marine environment
- Ensure use and development on or adjacent to the coast is compatible with its future sustainable use for conservation, recreation and tourism in appropriate areas
- Take into account the potential for impacts from changes in climate and weather on human activities and cultural heritage including coastal and urban communities, natural systems and water resources

Specialist coastal engineers MP Rogers & Associates Pty Ltd have undertaken an assessment of the area to determine appropriate coastal setbacks for development, including consideration of the impacts of climate change on sea level rise. A summary of this assessment is contained in Section 5 of this report.

## STATE PLANNING POLICY NO.2.6 - STATE COASTAL PLANNING POLICY (WAPC, 2006)

The State Coastal Planning Policy aims to promote a balance between the competing demands on coastal land to ensure that our coastal lifestyle and its unique opportunities are preserved for present and future generations.

The Policy outlines a range of policy measures with respect to:

- Preserving the public interest in relation to coastal access
- Identification and protection of coastal foreshore reserves
- Preparation of coastal strategies and management plans
- Protecting the coastal environment
- Promoting appropriately located and sustainable development and settlement
- Recognising and responding to physical processes on the coast

The Policy also identifies a generic setback of 150 metres from the horizontal setback datum to be applied to coastal development. Significantly the Policy notes that variations to this requirement will be assessed on their merits.

The WAPC has produced a revised SPP2.6 which is currently being advertised. The draft revision to SPP2.6 proposes various amendments to a number of the measures discussed below.

Specific Policy measures applicable to the project are summarised as follows:



# 3 PLANNING CONTEXT

## Public Interest

- Maintain and enhance public enjoyment of the coast where this is consistent with the objectives of this Policy.
- Require the provision of public access to the coast that is consistent with the values and management objectives of the area including, the interests of security, safety and protection of coastal resources, as well as the recreational opportunities, both on and offshore, of that section of coast.
- Support public ownership of the coast, including where appropriate the provision of a coastal foreshore reserve and accommodation of regional and local recreational needs.
- Support the removal of existing unlawful dwellings (squatter shacks) on coastal Crown land as per the Cabinet endorsed State Government Squatter Policy (July, 1989 and January, 1999).

A key aspect of the Structure Plan is the provision of managed public access to North Head, the Jurien Bay Marine Park and the adjacent foreshore reserve for the first time. In the past access to the site has been available only by 4 wheel drive vehicle. A substantial proportion of this 4 wheel drive activity was associated with the use of the “squatters shacks” on various parts of the property. These have now been removed by the Shire of Dandaragan.

The Structure Plan identifies a new road network starting from Indian Ocean Drive, moving through the residential precincts and terminating at key points adjacent to the foreshore reserve. The road system connects to a complementary network of dual use paths and boardwalks throughout the site that provide direct pedestrian access to the foreshore reserve. The network also links in with dual use paths from Sandy Cape and surrounding areas. Except in locations with extreme topography the path network will be accessible to people of all abilities.

## Coastal Foreshore Reserve

Ensure that the coastal foreshore reserve is separated from adjacent development in a way that provides a clear demarcation between public and private land.

Detailed planning at the Local Structure Plan stage will ensure that there is a clear demarcation of public and private land where the development interfaces with the adjacent foreshore reserve.

## Coastal Strategies and Management Plans

- Ensure that, at rezoning, subdivision, strata subdivision or development, whichever arises first and is appropriate in scale, a coastal foreshore management plan is prepared and implemented, by the proponent, for the coastal foreshore reserve and any abutting freehold land with conservation values of the subject land.
- Ensure that any structure plan, zoning, subdivision, strata subdivision or development proposal for public purposes, residential, industrial, commercial, tourist, special rural and similar uses on the coast is only approved based upon or in conjunction with a current detailed coastal planning strategy or foreshore management plan (whichever is appropriate for the stage and scale of development).

A foreshore management plan will be prepared in partnership with the Department for Environment and Conservation (DEC) to manage the adjacent foreshore reserve and the interface with the Jurien Bay Marine Park and the residential/tourism precincts proposed in the Structure Plan. The development of a foreshore management plan is identified as a statutory requirement of the rezoning of the land from ‘Rural’ to ‘Special Development Zone No.2’.

## Environment

- Protect significant natural, indigenous and cultural features of the coast. These include sites and features significant as coastal habitats and for their biodiversity, cultural, built, archaeological, ethnographic, geological, geo-morphological, visual or wilderness values.
- Avoid any significant and permanent negative impacts on the environment and coastal processes, either on or off site.
- Ensure development located on or adjacent to the coast does not cause discharges of waste and storm-water that would be likely to degrade the coastal environment, including the coastal foreshore reserve, coastal waters and marine ecosystems.

From its inception development of the Structure Plan has been driven by the need to preserve the key environmental qualities of the site including existing flora and fauna and the distinctive dunal landforms. The Structure Plan identifies a development footprint comprising approximately 215ha, equivalent to only one third of the site. Approximately 435ha of native bushland is retained and identified in the Structure Plan for ‘landscape protection’. This ensures that all of the existing vegetation types on the site are retained and represents twice the Bush Forever requirement for vegetation retention in non-metropolitan areas. The Landscape Assessment undertaken by Richard Hammond has also critically underpinned the design concept by ensuring that key landforms, dune ridges and scenic views are protected from development. More detail in relation to these elements is included at the Site Analysis section of this report and a full copy of the technical reports are provided as an attachment.

As detailed in the Site Analysis section of this report a desktop analysis of the heritage and ethnographic values of the site did not identify any issues on the site.

## Development and Settlement

- Ensure that use of the coast, including the marine environment, for recreation, conservation, tourism, commerce, industry, housing, ocean access and other appropriate activities, is sustainable and located in suitable areas.
- Encourage urban development to be concentrated in and around existing settlements, particularly those with established infrastructure and services. Continuous linear urban development along the coast should be discouraged or, where it has occurred, carefully controlled. Proposed major urban development outside existing settlements will only be supported where a genuine community need has been demonstrated and the environmental capability has been properly assessed.
- Require that proponents demonstrate why their development should be located within the policy area. Valid proposals will generate a demonstrable net public benefit in both the short and long term.
- Ensure that land use and development, including roads, adjacent to the coast is sited and designed to complement and enhance the coastal environment in terms of its visual, amenity, social and ecological values.
- Support the use of water sensitive urban design best management practice for adjacent development to avoid discharge of waste and storm-water into the coastal foreshore reserve.

This element of the Policy is to be read in conjunction with the Commission’s Statement of Planning Policy No.3: Urban Growth and Settlement and is discussed in detail in the following section of this report.

## Physical Processes Setback

- Ensure that new buildings and foreshore infrastructure on the coast are positioned to avoid risk of damage from coastal processes and, where possible, avoid the need for physical structures to protect development from potential damage caused by physical processes on the coast.
- The Setback Guidelines in Schedule One form part of this Policy and should be applied to determine appropriate setbacks to accommodate coastal processes.
- Recognise, if specifically appropriate, the variations and possible exemptions to the physical processes setback (in Schedule One) that may be considered to accommodate varying physical circumstances and desirable, essential or practical community development outcomes (as specified in the Schedule).

***In accordance with the provisions of the Policy a Coastal Setback Assessment has been prepared by MP Rogers and Associates which defines an appropriate coastal setback for development on the site. A summary of the key findings of this assessment is included at the Site Analysis section of this report and a full copy of the technical report is provided as an attachment.***

***Notwithstanding the minor amendments proposed to SPP2.6 the principles and design of the District Structure Plan are considered to meet the objectives and criteria of SPP2.6.***





# 3 PLANNING CONTEXT

## STATE PLANNING POLICY NO.3: URBAN GROWTH AND SETTLEMENT (WAPC, 2006)

The aim of the Urban Growth and Settlement SPP is to “facilitate sustainable patterns of urban growth and settlement”. The Policy encourages the concentration of urban development in and around existing settlements, particularly those with established infrastructure and services. In particular the Policy notes the “continued pressure for development in coastal locations particularly for tourism projects, holiday homes and for people seeking a lifestyle change from city living.”

The Policy highlights the key role of Local Planning Strategies in identifying “sufficient land to meet future population and housing needs” at a local level. It also identifies the need for Structure Planning, including an analysis of sustainability outcomes, as the basis for the orderly and proper planning of settlement extensions. The North Head Structure Plan is consistent with the local strategic planning context, describing a development concept and planning framework for the completion of the northern part of the Jurien Bay settlement area.

The North Head land is identified in the Shire of Dandaragan District Planning Strategy as the last area for urban development within the 10km ‘Town Subdivision Precinct’ surrounding the Jurien Bay town centre. To the south is the Turquoise Coast estate, a development extending a significant distance southwards past the 10km ‘Town Subdivision Precinct’. Land to the east comprises ‘Rural Residential’ type developments. To the north of the Jurien Bay town centre a range of crown reserves, including the Beekeepers Reserve, form a buffer zone between the Jurien Bay Marina and North Head. This buffer zone effectively precludes linear development along the coast to the site. It would be simplistic to assume that on the basis of this purely physical separation that development at the site therefore represents a new settlement rather than an expansion of Jurien Bay. The proposed level of services and facilities that are proposed, as well as the anticipated resident profile established in the Demand Assessment for the project, mean that the development will be reliant on Jurien Bay in the same way as any other any outlying suburb relates to the town of which it forms part.

It is important to note that the spatial separation between North Head and the Jurien Bay town centre is only 6km. This is effectively an 8 minute vehicle trip. Particularly when viewed in a non-metropolitan context this is not a significant distance for journeys such as weekly shopping or appointments. Significantly the school bus from Green Head passes the site on a daily basis to bring primary and secondary students to the Jurien Bay District High School.

The Urban Growth Policy identifies a range of criteria by which to assess the ‘sustainability’ of settlement expansions. These criteria include proposals for providing employment, services and infrastructure, as well as the mix of land uses proposed. Evidently the Policy requirements need to be applied on a case by case basis that considers sustainability in a broader context rather than only the development site itself. The integrated residential and tourist development proposed for the site has been developed to respect the strategic role of Jurien Bay in providing regional services and

facilities. Early consultation with the community and the Shire of Dandaragan established that economically the proposed development should complement rather than compete with the Jurien Bay town centre. For this reason only convenience retail and ancillary hospitality uses are proposed in addition to the substantial tourism components of the project. The tourism components are anticipated to provide opportunities for local employment.

The Demand Assessment prepared for the project confirms the findings of existing research that demonstrates that a significant proportion of housing stock in Jurien Bay (up to 50%) is used for short stay or ‘weekender’ accommodation. Much of this use is seasonal, corresponding to peak holiday periods and cyclical lulls in farming activity. This is an important consideration in assessing the future demand for housing in the region, particularly how and when this housing is used. In particular, the unique recreational and landscape qualities of North Head and the subject site give the proposed development excellent potential to respond to the needs of this sector of the market.

The servicing analysis set out at Section 10 of this report identifies that existing services and infrastructure in the Jurien Bay town centre are more than sufficient to accommodate the development.

## WAPC REGIONAL STRATEGIES AND STUDIES

The WAPC prepares regional strategies as a guide to the implementation of the State Planning Strategy at a regional level. Regional strategies are also used as a basis for cooperative action with local authorities in relation to land use and development.

## TOWARDS A WHEATBELT REGIONAL STRATEGY – DIRECTIONS PAPER FOR PUBLIC COMMENT (WAPC, 2009)

Towards a Wheatbelt Regional Strategy – Directions Paper for Public Comment (WRS Directions Paper) is a precursor to the development of the proposed Wheatbelt Planning and Infrastructure Framework (Wheatbelt PIF).

The WRS Directions Paper provides strategic direction for the 43 local governments in this region, including the Shire of Dandaragan., which is included in the North-west Wheatbelt sub-region identified in the WRS.

The WRS Directions Paper states that there is a discernable shift in the distribution of people in the Wheatbelt from inland towns to coastal communities. Coastal communities will need to provide housing, infrastructure and services in order to accommodate this increase in population. The WRS Directions Paper recognises the growth of Jurien Bay and its surrounds, stating that up to 8,000 extra dwellings could be provided with a population limit expected to be in the vicinity of 25,000 people. The North Head development contributes to this target, identifying a possible 2,215 residential dwellings at project completion.

The WRS Directions Paper also identifies tourism as an economic opportunity in the Wheatbelt, with environmental features and heritage places being highly valued. In regards to facilitating tourism the WRS Directions Paper states:

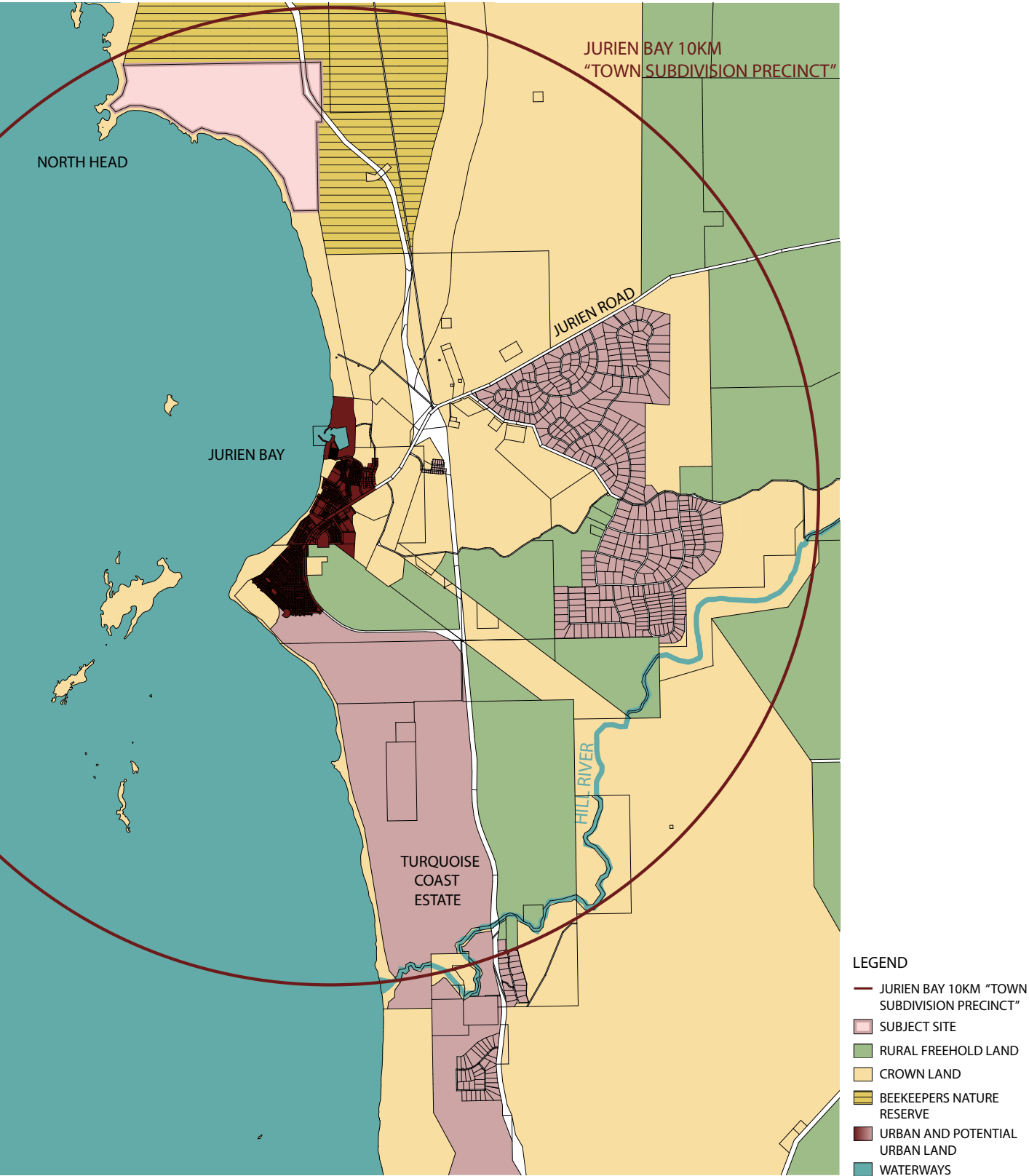


FIGURE 1: JURIEN BAY SETTLEMENT AREA

# 3 PLANNING CONTEXT

*Where there is no negative impact on the integrity of surrounding land uses or the future of the tourism industry, planning instruments and decisions should seek to facilitate tourism developments.*

***In providing for an integrated residential and tourism development, the North Head District Structure Plan facilitates the WRS aim of providing high quality tourism development that will consolidate the diversification of the local economy and highlight North Head as a location of outstanding natural beauty.***

***The District Structure Plan is therefore consistent with the strategic direction outlined in the WRS Directions Paper.***

## CENTRAL COAST REGIONAL STRATEGY (WAPC, 1996)

The Central Coast Regional Strategy was prepared to guide land use planning in the region for a ten year period. It recognises that as “Perth continues to expand, the Central Coast Region will be required to provide urban, employment, recreation and tourism opportunities for an increasing number of residents, holiday makers and visitors.” Despite its need for review, the Strategy still has relevance for the strategic development of the site in a regional context, identifying that “there is potential for tourism and recreation development at North Head”. The Strategy also sets out a range of proposed actions, a number of which are relevant to the current proposal. These include:

- Recognise the hidden population factor that includes semi-permanent residents during the fishing and peak tourist seasons by including these statistics in development scenarios.
- Promote Jurien as the major regional centre by facilitating major commercial and tourist development.
- Ensure that there is adequate land zoned in local government town planning schemes for residential...and tourist purposes.
- Ensure the interface between terrestrial conservation areas is designed to minimise impacts on the natural environment and allow bush to contribute to the character of the towns of the region.
- Facilitate townscape design which takes account of topography, landscape, colours, textures and indigenous flora to promote a sense of place and identity for local communities and visitors.
- Plan for visitor access and use of the Region's resources compatible with the environmental capability and characteristics of specific locations.
- Encourage and plan for a wide range of tourism and visitor facilities along the coast which are appropriate to the coast's local features, suitability and natural characteristics.

***The Structure Plan celebrates the unique natural values and opportunities of the site with a distinctive and environmentally driven development solution. As addressed in detail throughout this report the proposal clearly facilitates the range of strategic actions relevant to the location. Further detailed analysis of the implications of the Strategy for the North Head development are contained in the Demand Assessment provided as an attachment to this report.***

## TOURISM PLANNING TASKFORCE REPORT (DEPARTMENT OF PLANNING, 2006)

A Ministerial Taskforce was established to examine the issues surrounding the relationship between residential and tourist development on land zoned for tourist purposes. The final Report identifies 26 recommendations, some of which propose/require modification to the existing state planning framework. Key initiatives include:

- Preparation of a Statement of Planning Policy relating to ‘Land Use Planning for Tourism.
- The requirement for certain local authorities to prepare Local Tourism Planning Strategies.
- Establishing criteria for identifying Strategic Tourism Sites, Strategic Tourism Locations and Non-Strategic Tourism Sites.

Under the terms of the Report the majority of the subject site could reasonably be designated as either a ‘Strategic Tourism Location’ or a ‘Non-Strategic Tourism Site’. It is also possible that specific locations on the property could be identified as ‘Strategic Tourism Sites’ without the need to extend this classification to the remainder of the land. The proposed development will provide the first opportunity for controlled access to North Head by the general public and will enable the development of key locations for tourist development.

Detailed analysis of the implications of the Taskforce Report for the North Head development is contained in the Demand Assessment provided as an attachment to this report.

In 2009 a review of the Report and other relevant tourism policy was undertaken in light of the identified need to provide a more strategic and flexible approach to tourism planning. Planning Bulletin 83 was prepared in order address this need, which ultimately led to a series of revised key considerations (see below), in particular regarding the benefits of designating identifying Strategic Tourism Sites, Strategic Tourism Locations and Non-Strategic Tourism Sites.

## PLANNING BULLETIN 83 – PLANNING FOR TOURISM (WAPC, 2011)

Planning Bulletin 83 – Planning for Tourism (PB83) outlines the current policy position of the WAPC in respect to planning for tourism. PB83 provides the following relevant objectives which relate specifically to North Head:

- Recognise local and regional variations in tourism demand and development pressures; and their impacts on the viability of tourism development, in assessing and determining tourism proposals;
- Provide guidance on the development of non-tourism uses on tourism sites;
- Provide for flexibility in the design and assessment of tourism and mixed use development; and
- Identifies criteria for the designation of tourism sites.

When considering the application of the Taskforce Report and PB83, it needs to be emphasised that the North Head development is primarily a residential development in which key areas have been identified as being suitable for tourism, whereas the Taskforce Report and PB83 focus principally on managing the interplay of residential development on what are identified as principally tourism sites.

Notwithstanding this important distinction, PB 83 does provide useful principles for guiding the structure planning and design of developments containing tourism and residential uses, including:

- Giving priority to locating the tourism component on those areas of the site providing the highest tourism amenity.
- The intensity and compatibility of land use and development including consideration of lot sizes, building heights, scale and character of development and the potential impacts on the surrounding area.
- Innovative master planning of the site to integrate residential and tourism components of the site to both enhance the tourism component of the site and to ameliorate potential conflicts that may arise; such as noise, between tourist accommodation and permanent residents.

These matters have been considered in the development of the North Head District Structure Plan, as evidenced by the location of the proposed tourist nodes, and particularly the dedicated North Head tourism precinct.

***As demonstrated in the Demand Assessment summarised at Section 6 of this report, the North Head project successfully integrates tourism uses into the broader residential development in a manner that will work to the mutual advantage of both activities.***

## INDIAN OCEAN DRIVE ECONOMIC AND SOCIAL IMPACT STUDY (WHEATBELT DEVELOPMENT COMMISSION AND WAPC, 2003)

Prepared for the Wheatbelt Development Commission and the WAPC, the Study “is intended to offer high-level policy and resourcing advice to local, regional and state government agencies” in respect of the economic and social implications following the completion of Indian Ocean Drive. The Study details a range of considerations relevant to the future development of the Shire of Dandaragan, Jurien Bay and the subject site. These include:

- Recognition that the region will be placed under significant development pressure and that this will require appropriate management to preserve the integrity of the natural environment.
- The “inevitable movement of population towards the coast and with it a necessary re-focussing of commercial and government activities in centres like Jurien Bay, Cervantes and Lancelin”.
- Tourism is likely to be the major driver of growth” but the Region requires a “point of difference.
- The road should be aligned to go through or near as many towns as possible.
- Each community requires a discrete development profile to differentiate it from other communities.

The Study identifies the Shire of Dandaragan as having the strongest population growth in the Region. This is being driven by ongoing construction, the availability of residential land, improved access to Perth and the Central Coast lifestyle being made more accessible. The changing demographic for the Region (increased numbers of retirees and young couples) will also generate the need for relevant services, including medical and leisure resources. Economic activity is expected to triple over the next 10 to 15 years, favouring tourism and associated activities.

Importantly for the current proposal the Study recognises that the impact of tourist visitation will far exceed the effects of residential population growth. Visitors are anticipated to increase from 541,000 in 1996 to more than 1 million by 2016. 80% of this visitation is expected to be to the Shires of Dandaragan and Gingin. This will generate the need for extensive new tourist offerings “both in terms of quality and quantity”.

***The proposed North Head development responds to these challenges with an integrated residential and tourist model. The demand for quality tourism facilities is addressed as a key element of the proposal with dedicated tourism areas adjacent to the high amenity coastal locations. By successfully integrating this tourist experience into a living community the development will be a model for future coastal development in the Region.***

## WAPC OPERATIONAL POLICIES

The WAPC prepares operational policies to guide decision-making in respect of the subdivision and development of land. As the North Head District Structure Plan has been prepared as a higher level document the majority of these policies are not immediately relevant to consideration of this proposal. As Local Structure Plans and detailed planning for the individual precincts is progressed, more detailed consideration of the relevant policies will be provided.

## PLANNING FOR BUSHFIRE PROTECTION – GUIDELINES (EDITION 2) (WAPC, 2010)

The Planning for Bushfire Protection Guidelines (the Guidelines) outline a range of matters that need to be addressed to ensure the provision of an appropriate level of protection to life and property from bushfires and avoid inappropriately located or designed land use, subdivision and development on land at risk from bushfire. The Guidelines address the following fire risk management and planning issues:

- The statutory planning process as it relates to fire protection;
- Bush fire hazard assessment;
- The definition of bush fire prone areas;
- Fire protection requirements for subdivision and development; and
- Strategies available to limit the vulnerability to fire.

Significant consideration has been given to the Guidelines as part of the North Head District Structure Plan. York Gum Services, a specialist fire management consultancy, was engaged at an early stage to ensure that issues relating to bush fire management could be appropriately managed. In accordance with the provisions of the



# 3 PLANNING CONTEXT

Guidelines a comprehensive bush fire management report has been prepared assessing the risk and identifying site specific mechanisms for bushfire prevention and ongoing risk management across the site. As required by the Guidelines fire protection measures are incorporated into the scheme controls applicable to the land. A summary of the key findings of the bush fire assessment is included at the Site Analysis section of this report and a full copy of the technical report is provided as an attachment.

## SHIRE OF DANDARAGAN LOCAL PLANNING SCHEME NO.7 (SHIRE OF DANDARAGAN, 2006)

Amendment No.3 to LPS 7 re-zoned the land from ‘Rural’ to ‘Special Development Zone No.2’. Amendment No.3 was approved by the Minister for Planning on 15<sup>th</sup> February 2012 and is currently awaiting gazettal.

Amendment No.3 incorporates a range of modifications to the Scheme to ensure that an appropriate planning framework is provided to guide the future development of the land. The amendment also establishes a statutory basis for the implementation of the various environmental management plans applicable to the land.

A key aspect of the amendment is the establishment of a staged approval process to guide the detailed planning for each precinct. Certainty is delivered to Council through the preparation and approval of Local Structure Plans that refine the proposals in this District Structure Plan and provide detailed guidance for the subdivision, development and land use planning decisions for each precinct. Where necessary the proposed planning framework also provides for the preparation and approval of Activity Centre Structure Plans and/or Area Specific Plans to provide specific guidance in respect of particular areas or lots.

This planning approach is based on the model originally used for delivery of the award winning Ellenbrook development. In the local context the same statutory process has been successfully applied to guide the planning of the Turquoise Coast Development south of the Jurien Bay town centre.

A full overview of the applicable provisions as they relate to the implementation of the District and subsequent Local Structure Plans is provided at Part B, Section 12 – Implementation of this report.

## LOCAL STRATEGIC PLANNING CONTEXT

### SHIRE OF DANDARAGAN STRATEGIC PLAN 2000 – 2004 (SHIRE OF DANDARAGAN)

The Strategic Plan provides “a blueprint to guide the future decisions of Council”. The Shire of Dandaragan community, Councillors and administrative staff participated in a thorough consultation process to prepare the Plan to ensure that it reflects the communities’ aspirations for the future of the district.

The following are some of the key statements described in the Strategic Plan as they relate to the subject site:

#### *What Makes the Shire of Dandaragan Special?*

*Our icons – the Pinnacles, Mt Lesueur, North Head.*

#### *Our Vision for the Future*

*Achieve recognition of the Shire’s unique natural environment, lifestyle and rural and coastal opportunities as part of a well-planned strategy to enhance the prosperity of the region.*

#### *The Challenges Ahead*

*The challenge is to maintain our very special coastal and rural environment and address environmental degradation, recognising that our unique natural icons and beautiful living environment will be increasingly attractive to future generations seeking alternative experiences and lifestyles.*

#### *Facilitating Development*

The key challenges and tensions:

- To be proactive in achieving appropriate and sustainable development throughout the Shire.
- To achieve the balance between development and the environment.
- To maximise the tourism potential of our natural environment in a sustainable manner.

#### *The Outcome We Want to Achieve:*

*To capitalise on the opportunity to create the type of development which gives us the lifestyle and economic base for our future, in line with our vision.*

These statements speak to the unique environmental qualities that make North Head and the subject site such desirable locations to both local residents and visitors to the region. In particular these statements recognise the legitimate community desire to maximise the tourism potential of strategic locations in the region in an environmentally responsible manner that contributes to a sustainable economic base for the Shire of Dandaragan.

***The proposed North Head development will provide a quality urban design and built form response to realise these aspirations.***

### SHIRE OF DANDARAGAN DISTRICT PLANNING STRATEGY (SHIRE OF DANDARAGAN, 1998)

The District Planning Strategy provides a framework for rural planning in the Shire of Dandaragan. The Strategy identifies the subject site as part of the ‘Coastal’ and ‘Town Subdivision’ precincts.

The Strategy identifies Mariculture, Tourism and Conservation as desirable land uses to be encouraged in the ‘Coastal Precinct’. Urban uses are identified as being possible when subject to strict environmental management. The Strategy requires proposals to be supported by a detailed land capability assessment. This should address matters such as retaining existing vegetation to prevent dune mobility and ensuring that development does not impact on sand dunes or result in soil erosion.

The Subdivision and Development Guidelines for the ‘Coastal Precinct’ in the Strategy state that “closer subdivision should be permitted within 10km of Jurien”. The location of the subject site satisfies this criterion by its identification in the Strategy as being within a ‘Town Subdivision Precinct’. The Guidelines also set out that subdivision should include restrictions on the clearing of vegetation. The development concept is consistent with these recommendations, proposing the retention of a minimum of 66% of the total site free from development and built form outcomes that respect the site’s natural integrity. The Environmental Analysis Report prepared by RPS Bowman Bishaw Gorham also identifies a series of best practice development solutions and treatments to address the environmental management issues pertinent to the site. These measures are included in Schedule 12A of the town planning scheme amendment for the site.

### DRAFT SHIRE OF DANDARAGAN LOCAL PLANNING STRATEGY - RURAL LAND USE AND RURAL SETTLEMENT (SHIRE OF DANDARAGAN, 2011)

The Draft Shire of Dandaragan Local Planning Strategy - Rural Land Use & Rural Settlement (Draft LPS) has been prepared to address the immediate need for forward planning of the Shire’s rural towns and settlements. The Draft LPS aims to:

- Assess the demand and supply for further subdivision;
- Identify where it should occur;
- Propose any special planning and development requirements;
- Consider the need for an additional rural residential zone; and
- Address other land use and development issues.

***While the majority of the subject site is not included within the Draft LPS study area, the easternmost portion of the site, east of Indian Ocean Drive is included. However, as this area is allocated for ‘Landscape Protection’ rather than development in the District Structure Plan, it is considered that the Draft LPS does not have a bearing on future subdivision and development of the subject site.***

#### Shire of Dandaragan Coastal Plan (Shire of Dandaragan, 1999)

The Coastal Plan provides strategic guidance for future coastal development and management of the foreshore areas vested in the Shire of Dandaragan. Various concept plans for selected coastal nodes are included in the study.

The Plan identifies the subject site as part of the Sandy Cape - North Head Node. This node focuses on recreation, identifying six sites including North Head as “suitable for development, ranging from day use areas to low key holiday accommodation areas”. North Head is identified as a day use site with a tourism focus. The Plan sets out a number of recommendations, primarily relating to the provision of tourist facilities/amenities, access and site rehabilitation for the foreshore reserve adjacent to the subject site. Specific recommendations include:

- Provision of a sealed entry road and parking area;
- Promote the area as a tourist focus with picnic and ablution facilities for day visitors;
- Provide a site for the Jurien Bay Marine Park research and interpretative centre;
- Provide well signed walk trails and boardwalks (with interpretative information) to heritage sites, beaches and look out points;
- Provide a boat launching/mooring site for glass bottom boat tours;
- Recognising the potential to establish a resort development on private land; and
- Rehabilitation of dunes and closure of some tracks required.

Development of the privately owned land at North Head is required to be the subject of a Structure Plan which includes road access to North Head and identification of an adequate foreshore reserve.

***The North Head Structure Plan describes a development proposal that satisfies the majority of these recommendations. Importantly, the development proposal does not preclude the future development of public facilities such as the proposed interpretative centre and boat launching facility, which can be developed in consultation with the relevant authorities as part of more detailed planning for the site.***

**SHIRE OF DANDARAGAN LOCAL TOURISM PLANNING STRATEGY (SHIRE OF DANDARAGAN, 2011)**

The Shire of Dandaragan Local Tourism Planning Strategy (LTPS) is the guiding strategic document for tourism planning in the Shire. The LTPS directly relates to the broader strategic tourism context outlined in the Central Coast Strategic Tourism Planning Study which is outlined below. A strength, weaknesses, opportunities and threats assessment of the Shire’s tourism industry revealed:

- Jurien Bay and Cervantes are adequately supplied with affordable accommodation, however lack high quality and branded short stay accommodation;
- Suitably located vacant Tourist zoned sites are currently not protected from redevelopment through Local Planning Scheme No. 7; and
- The completion of Indian Ocean Drive is expected to increase visitation to the Shire, however accommodation and attractions are currently not developed to meet this demand.

***The North Head development is identified in the LTPS as having the potential to be ‘of local tourism significance’. The proposed tourism components (550 rooms) are identified as being in the planning phases with a range of accommodation types to be provided addressing existing local deficiencies.***

**CENTRAL COAST STRATEGIC TOURISM PLANNING STUDY (VARIOUS, 2008)**

The purpose of the Central Coast Strategic Tourism Planning Study (CCS Tourism Study) is to identify and promote tourism investment within the Central Coast Region, which is defined as the stretch of coast between Guilderton and Port Denison/Dongara. The CCS Tourism Study states that the Central Coast is ‘unique’ and ‘authentic’ but also contends that the market profile is not sufficient to attract significant investment in tourism product at this time. The CCS Tourism Study reinforces this view by stating that there is a poor awareness of the area and tourism investment will not occur without significant marketing. In response to this finding the CCS Tourism Study provides the following strategies:

- Encourage the development of sustainable world class tourists attractions and products that celebrate the natural values of the region;
- Attract accommodation investments that meet market demand at identified strategic nodes;
- Increase visitation to primary destinations in the region;
- Ensure that the visitor experience delivered within the region is world class;
- Integrate and coordinate the delivery of social and physical infrastructure across local government boundaries to underpin the private sector investment in tourism in the region;
- Ensure that the strategic and statutory planning frameworks identify and protect significant tourist sites and facilitate the development of a range of tourism products in key strategic nodes.
- North Head will ultimately be a sustainable, world class development which respects and capitalises upon the outstanding natural beauty of the area. The Structure Plan allows for the integration of residential and tourism development. The development of North Head will result in the expansion of the tourism industry throughout the Shire and raise the awareness of the area’s natural beauty.

***The North Head Structure Plan’s mix of high quality tourism and residential development responds to the opportunities identified in the CCS Tourism Study.***

**CENTRAL COAST EMPLOYMENT STRATEGY (CENTRE FOR REGIONAL DEVELOPMENT, 2011)**

The Central Coast Employment Strategy (Employment Strategy) provides an analysis of the industry and employment opportunities of the Central Coast. The Employment Strategy includes North Head within the study area, and identifies Jurien Bay as one of five locations ‘in focus’.

The Employment Strategy reveals that these five locations had grown by 17% between 1996 and 2006, an increase higher than the Western Australian average of 15% and that the majority of those moving to high-growth coastal areas come from large regional centres and country areas. The Shire of Dandaragan is expected to grow from a population of 4,100 in 2016 to 4,500 in 2021. Further to this, the Employment Strategy highlights that visitor numbers far outweigh permanent population figures.

In response to this anticipated population increase the Employment Strategy focuses on several key industries which are expected to play a key role in the local subregional economy. Of these industries the development of North Head will contribute significantly to the “land development industry” and “tourism and recreation industries”.

The future development of North Head will also provide accommodation in a high quality community for workers in other industries such as aquaculture, agriculture and mining. In regards to the Land Development industry the Employment Strategy states:

*“...land development is a significant industry in itself generating both employment and economic multipliers. As discussed in section 3.2.1 the construction industry is a significant employer in the Central Coast subregion”.*

The North Head development will also significant local generator of employment that will require an array of skills and expertise during construction and the future delivery of housing and facilities.

The Employment Strategy states that nearly all businesses in the five locations are ‘in tourism’, whether directly or indirectly.

- This includes tradesmen, for example, as much of their business comes from servicing accommodation and food establishments. Thus, providing after hours service and accommodating extra service during peak times is essential; and
- ....it is tourism’s capacity to facilitate expansion of complementary businesses and employment in the hospitality, transport and entertainment service sector that has led many, including Federal and State governments, to herald rural tourism as the solution to reducing impacts of insecure returns from traditional agricultural commodities and to stabilise regional economies.

***Whilst the Employment Strategy tempers this point of view with a variety of considerations, the North Head development is an outstanding opportunity to grow the tourism industry in the Shire, and diversify and strengthen the local economy.***

**REGIONAL CENTRES DEVELOPMENT PLAN (SUPER TOWNS) FRAMEWORK (DEPARTMENT OF REGIONAL DEVELOPMENT AND LANDS, 2011)**

The SuperTowns initiative is aimed at encouraging regional communities located in the southern half of Western Australia to plan and prepare for accelerated population growth over the next 40 years. Jurien Bay has been chosen as one of nine inaugural SuperTowns which the government believes can play a pivotal role in decentralising the forecast population growth.

The SuperTowns initiative will prepare Jurien Bay for not only its own natural population expansion but also provide it with the capacity, vibrancy and commercial and industry base that will ensure it is in attractive choice for potential residents. Development at North Head will ultimately assist with an anticipated increase in population as well as strengthen the local tourism industry base, providing greater housing and employment opportunities. The Structure Plan is therefore consistent with the SuperTowns initiative.

The Shire of Dandaragan has undertaken community consultation and strategic reporting in response to the SuperTowns initiative. These actions include:

**Towards 20,000 – Building the Turquoise Coast Regional City Plan (Shire of Dandaragan, 2011)**

Towards 20,000 – Building the Turquoise Coast Regional City Plan (the Regional City Plan) provides a vision for the Turquoise Coast Region (Cervantes to Jurien Bay) for the next 10-20 years. The vision aims to achieve a population of more than 20,000 people in a coastal city that accommodates a large working, residential and retirement population and provides regional services for the hinterland and coastal communities within a 120 kilometre radius. The city will contain a number of essential services and a bustling tourism industry. The vision will require:

- A hierarchy of settlements from regional centre, through major town to community / village, with tiered delivery of services, throughout the sub-region;
- Tourist accommodation and services, offering a variety of options for visitors;
- Extensive housing choice; and
- Cultural precinct areas that allow the community to come together regularly and enhance the sense of self of the region, and areas that build the liveability of the region.

***The plan shows that the future city will be approximately 30 kilometres in length and be formed of a hierarchy of settlements. North Head, which is identified as one of these settlements within the Regional City Plan, is essential to achieving the above vision and requirements.***

**Jurien Bay: A Town by the Sea – Town Centre Strategy Plan (Shire of Dandaragan, 2011)**

The aim of this Strategic Plan is to establish a clear direction for the future planning, development and management of the broader Jurien Bay Town Centre.

***The Strategic Plan recognises the potential for significant population and economic growth in Jurien Bay and lists North Head as a key and influential project.***

**Aged Care Strategy (Shire of Dandaragan, 2011)**

The Aged Care Strategy provides a detailed analysis of shifting local demographics in relation to the ageing community. The Aged Care Strategy reinforces findings from the WRS Directions Paper which outline a migration of people from inland communities to coastal communities such as Jurien Bay. The Aged Care Strategy reveals that this migration is largely characterised by 50-70 year olds. The number of senior residents falls way from ages 65-69 and over which is expected considering the lack of aged care facilities in the area.



# 4 SITE CONTEXT

## NORTH HEAD

The subject site is identified as Victoria Location 8836 and comprises 650ha. The site is located approximately 6km north of the Jurien Bay town centre and 280km north of Perth, Western Australia. The land enjoys 6 kilometres of frontage to the spectacular coastline of the Jurien Bay Marine Park and is a popular spot for fishing, diving and other forms of recreation.

Like a number of coastal locations the site has been used informally by holidaymakers for many years. This resulted in the construction of numerous “squatters shacks” on the more desirable parts of the site and the adjacent foreshore reserve. The leases for the shacks expired on 30th June 2001 and these have now been removed by the Shire of Dandaragan.

The natural vegetation that covers most of the site is generally in good condition. However, uncontrolled four-wheel drive activity has caused significant damage to the vegetation in some areas, particularly the coastal fore dunes, resulting in dune erosion.

Two World War II Radar Installation Bunkers are located within the Foreshore Reserve at North Head. The Heritage Council of Western Australia has registered the bunkers as places of historic importance that warrant protection.

The Bartle Memorial is also located on the headland at North Head. The memorial was erected in honour of Mr Bob Bartle who was fatally taken by a shark in nearby waters in 1967.

The land is surrounded on its northern and eastern boundaries by the Beekeeper’s Reserve which is vested in and managed by the DEC. Gypsum is mined from within the Reserve approximately 1.7km to the north of the site.

The Beekeeper’s Reserve and the Jurien Bay Marine Park are major attractions for visitors to the region. Access to North Head, the subject site and the adjoining conservation reserves has been significantly improved with the completion of the adjacent section of Indian Ocean Drive (which cuts through the north-east corner of the site). With the increased visitation to the area that this enables, an environmentally driven response is crucial to accommodate and manage the increased pressure that this will place on the site. The proposed town planning scheme amendment establishes a statutory framework for best practice environmental management of the site that includes facilitating and managing public access to this unique location.

## REGIONAL CONTEXT

Jurien Bay is located 38km west of the Brand Highway in the Shire of Dandaragan. The area was first settled in the mid 1850’s when land was taken up for pastoralism. By the early 1900’s a temporary fishing village was established around the Jurien Bay jetty, however an unreliable water supply restricted the development of the town. It wasn’t until the 1950s that permanent residences were built in the area. Jurien Bay now has a population of approximately 1,130 people making it the largest coastal town in the Shire of Dandaragan.

Jurien Bay is a significant coastal and regional centre for the Wheatbelt Region of Western Australia and is identified to play a key role in the future economic development of the area. The economy of the Wheatbelt Region is principally based on mining (primarily for mineral sands), agriculture and fishing. Jurien Bay is the epicentre of Western Australia’s growing aquaculture industry and is also a major contributor to the State’s crayfishing trade. The town also has a fully serviced marina which offers quality facilities for boating and fishing. Jurien Bay is a popular tourist destination with its extensive coastline and proximity to a national parks and scenic locations. Primary tourist activities include beach-going, marine recreation and sightseeing.

### Indian Ocean Drive

Indian Ocean Drive is a new coastal road extending from Perth, through the coastal towns and tourist destinations along the coast, to Cliff Head just south of Dongara.

The completion of Indian Ocean Drive significantly improves connectivity between the existing coastal towns and reduces the travelling time from Perth to North Head by about 30 minutes. It is anticipated that this will significantly contribute to regional population growth as well as making the area more attractive as a destination for tourists and vacationers. This should further reinforce Jurien Bay’s role as a key regional centre.

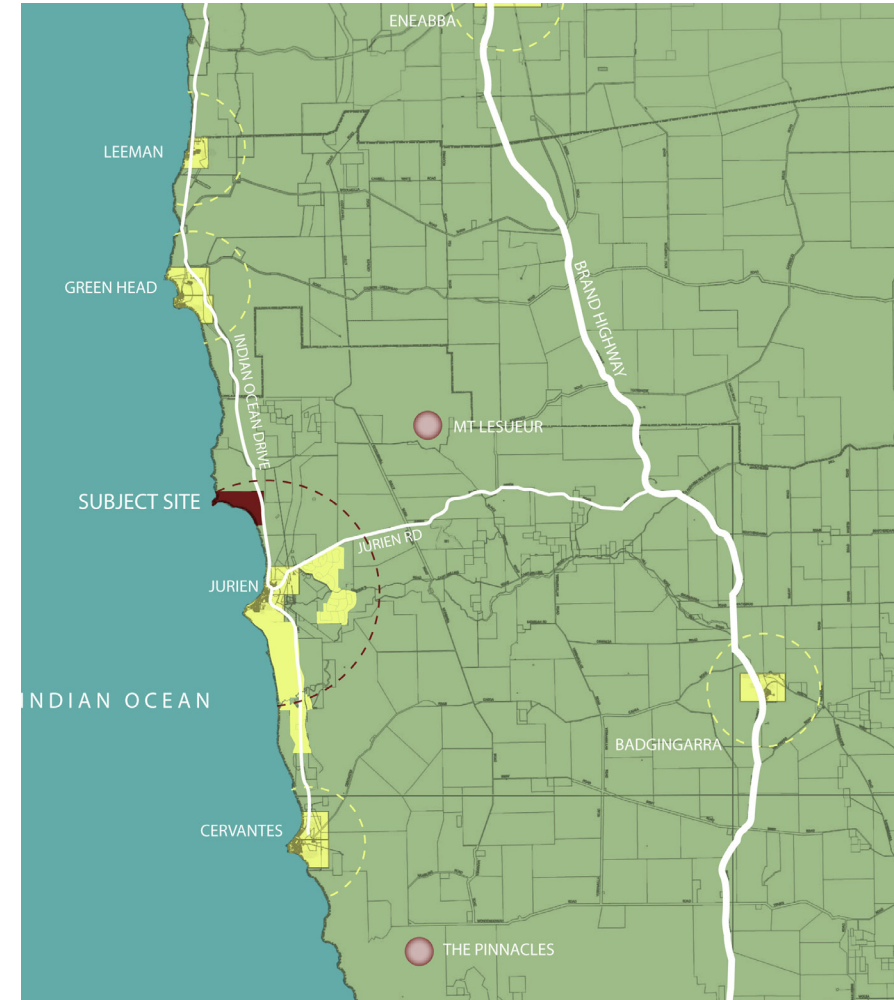


FIGURE 2: REGIONAL CONTEXT



EXAMPLES OF DAMAGE TO VEGETATION BY UNCONTROLLED FOUR-WHEEL DRIVE ACTIVITY RESULTING IN DUNE EROSION

# 5 SITE ANALYSIS

The interdisciplinary project team completed a range of site analyses and technical investigations to inform the preparation of the North Head Structure Plan. This included detailed investigation of the site and its influences in regard to:

- Environmental values
- Landscape and views
- Aboriginal heritage
- Coastal stability
- Bushfire management

Critical to developing an understanding of the site was the need for ground-truthing of the design concept as it progressed. Numerous site inspections have been, and continue to be, undertaken by the Project Team. These visits have included community representatives, as well as officers from the Shire of Dandaragan, the WAPC and the DEC. The input and feedback received has enabled the design to be developed in an interactive and robust fashion.

The following summary provides an overview of the technical findings of each investigation and how these have informed the preparation of the Structure Plan. The complete series of technical documents accompany this report.

## ENVIRONMENTAL ANALYSIS

RPS Bowman Bishaw Gorham has undertaken extensive environmental investigations to establish the environmental characteristics of the site. These form the basis for the formulation of a Structure Plan that respects the natural values of the site whilst providing for quality recreational and residential opportunities for future visitors and residents.

The findings of investigations have been documented within the attached Environmental Assessment Report (EAR). A summary of the environmental factors on the site is outlined below.

### Environmental Investigations

The proponent's commissioned detailed environmental investigations of the site, most of which were completed several years ago, with some work now continuing to update the data base against EPA Guidance Statements 51 and 56 in respect of vegetation, flora and fauna survey method requirements.

Investigations have addressed the following key factors for the site:

- vegetation and flora, including DRF, Floristic Community types, with spring survey work in accordance with the EPA's Guidance Statement No. 51 undertaken most recently in November 2006
- fauna based on habitat types, known species for the area and with specialist fauna survey undertaken most recently in November 2006 using techniques set out in the EPA's Guidance Statement No. 56
- topography, landforms, shallow stratigraphy and soil types based on published data and direct analysis
- comparative landform stability based on topography, slope, soils and stratigraphy, and aspect/location relative to coastal processes and exposure to prevailing wind
- groundwater based on published data and sampling of shallow water tables
- ethnography and archaeology based on published data
- landscape based on specialist survey deploying techniques used by CALM
- fire management in accordance with FESA and industry criteria and standards

As a consequence of the detailed data set which has been created by these investigations environmental planning and environmental impact assessment of the site can be progressed with confidence.

## Landforms and Stability

The site's soils and landforms have been comprehensively mapped and may be described as Holocene Safety Bay Sands which forms foredunes at the shoreline and parabolic and mobile dunes of varying height, slope and size in the interior of the site. There are discrete areas of un-vegetated parabolic dunes and sandsheet which demonstrate northerly migration. There is also a sand plain and limestone pavement deflation plains with low narrow linear sand ridges with northerly aligned crests.

The Holocene/Safety Bay sand features variably overlies Pleistocene Tamala limestone sediments which forms headlands and rocky shores at the coast. Tamala limestone with thin siliceous surface sands forms the contemporary land surface within a deflation basin which lies within the centre of the site and merges to the north with a lagoonal salt lake system which lies mainly within the Beekeepers Reserve and extends for some distance to the north. Several seasonal damplands are located within the deflation basins representing the re-worked sediments of lagoonal deposits variably over-run by more recent dune sands.

The regime of persistent, strong southerly winds which the site experiences together with the presence of steeply sloping parabolic dunes which are mobile in places, presents the most important design factor in terms of responding to the site's landforms.

Based on the above factors, the design concept has needed to account for the following factors:

- the short, medium and long term northerly advance of mobile parabolic dunes;
- the long term northerly migration of young parabolic dunes stabilised by vegetation; and
- the erosion risk and rehabilitation requirements resulting from construction disturbances and post occupancy activities in areas of steep slope, high wind exposure and areas only weakly stabilised by vegetation.

In order to guide the structure planning process in regard to the relative stability of the site's landforms, the site was further classified into three zones of relative stability, on the basis of topography, slope, landform type and exposure to the prevailing southerly winds, as described below and as depicted on Figure 7 in the accompanying technical report.

These zones are classified as follows:

### ***Zones of Least Stability***

These zones are where the dunes are the youngest geologically and have steep slopes and the sand is unstable, exposed and usually mobile, such as on the blowouts, and along the coast. Development on the zones of least stability should be avoided wherever possible in order to avoid the need for land stabilisation techniques to be deployed.

### ***Zones of Intermediate Stability***

These areas comprise of parabolic dunes of lower topographic level, lesser slope and better vegetative cover than the zones of lowest stability described in the previous section. There is also lower volume of unconsolidated sand available in these zones. The zones of intermediate stability require very careful attention to design and land management to protect the vegetative cover and prevent wind erosion from taking hold. Some sectors identified in the EAR will require attention to land management, but by virtue of their very flat or low slopes, the cementation of the soil profile, their low position in the landscape and distance from the shoreline, these areas are easily developed on the site in terms of landform stability.

### ***Zones of Comparatively High Stability***

The areas of high stability are mapped as such based on low slope and comparatively large distance from the coast. These areas are well vegetated by coastal shrublands and due to the cementation of the soil profile to depths of 0.1 to 5 m has resistance to wind and water erosion. This zone is the most appropriate for development.

An examination of historical aerial photographs from 1960 indicates that the long term trend is that the southern coastline abutting Victoria Location 8836 is eroding several places along the south facing beaches of Sectors 1, 2 and 3 (Figure 7). A specific coastal processes and stability assessment has been undertaken by MP Rogers and Associates, and is attached as Appendix B to the separate EAR document.



# 5 SITE ANALYSIS

## Vegetation and Flora

Apart from limited areas where historical squatting and off road vehicle activity have removed the original vegetation, the site is presently fully covered by coastal vegetation typical for the region and locality.

A comprehensive Level 2 Flora Survey, in line with the methodology outlined in the EPA's Guidance Statement No. 51 - Terrestrial Flora and Vegetation for EIA in Western Australia has been carried out in the 2006 spring period and will be included as a part of the rezoning submission for the site. This survey was conducted as a follow up to earlier survey work carried out in 2003.

Survey has identified 14 plant communities, complexes and mosaics within the site and these have been mapped. None of the plant communities comprise Threatened Ecological Communities.

No species of flora listed as Declared Rare have been located on the site, however two priority 2 and two priority 3 species have been identified by previous and current survey. The locations of these populations are known and management of these limited areas will be addressed as the planning process proceeds.

## Wetlands

There are no lakes or sumplands (areas of permanent or regular standing water) within the site. However, there are a number of small damplands (areas of seasonal dampness or saturation and possible occasional temporary inundation) within the site. The damplands within the site will be excluded from building and construction due to their moderately high water tables and saline clayey soils.

## Habitats and Fauna

On the basis of the landforms and vegetation types present, the site may be divided into four main habitat types:

- limestone plains with tall shrub-land and heath
- parabolic dunes with low coastal heath and shrublands
- deflation basins with tall shrublands and ephemeral saline wetlands
- beaches rocky shores and headlands at the coast

Evaluation of the site's fauna has been conducted during November 2006 by specialist fauna consultants in accordance with a comprehensive level 2 survey as set out in the EPA's Guidance Statement No. 56 - Terrestrial Fauna Surveys for Environmental Impact Assessment in Western Australia.

The interim findings of survey indicate that whilst there are no species which are rare, restricted in distribution, out of range of otherwise threatened or of special conservation interest, the site appears to support the full range of fauna species which would be expected for this location.

## Conservation Reserves

The site adjoins a portion of the coast and ocean that is included in the Management Plan for the Jurien Bay Marine Park (CALM, 2005) and also adjoins Beekeepers Nature Reserve which has Interim Management Guidelines in place. The site is also mentioned within the Central Coast Regional Strategy (WAPC, 1996). The implications of these documents have been considered in the Preliminary Structure Planning for the site.

## Servicing, Urban Form and Architecture

Engineering consultants to the project have advised that the extension of services from the Jurien Bay town centre can satisfy servicing requirements for the site in respect of water supply, electricity and sewer.

Sewerage treatment at Jurien Bay is presently achieved using conventional oxidation pond techniques, however the development of urban land uses to the south of the Jurien Bay town centre, has supported a proposal by the Water Corporation to upgrade the present treatment plan to include nutrient removal and re-use of treated effluent for irrigation and other appropriate uses.

In order to meet sustainable development criteria, it is also intended to address demand-side management for energy and water, in respect of housing design and fit out with energy and water efficiency principles and technology.

Urban design conducted in support of the structure plan features walkable neighbourhoods with strong public amenity and the development of an architectural style for the site which draws strongly from the historical vernacular.

The outcomes of design work will be a subsidiary factor in Structure Plan evaluation under statutory processes, but will become specifically relevant as detailed area plans and subdivision/development proposals for the site emerge, in the near future.

## Environmental Planning Principles

There has been a clear and concise instruction from the landowner, that structure planning for the site must at all times and in all instances target worlds best practice.

In respect of environmental impacts and management, the landscape and biodiversity values of the site have attracted specific attention in respect of setting principles, and the core principle has been derived as follows:

- the State Government, in its strategy for regional vegetation complexes for the Perth Metropolitan area adopted a minimum protection proportion of 10% of the original extent of each complex; and
- the EPA, in setting its criteria for protection of vegetation complexes in regional areas, has established a minimum reservation proportion of 30% of the original extent.

Following consideration of how best practice can be demonstrated at the site in respect of biodiversity protection, the landowner has accepted the consultant recommendation that the target reservation proportion for biodiversity should be double the EPA's minimum reservation proportion for regional vegetation complexes.

That is, in the location and delineation of land parcels intended for development, a maximum of 40% development of each vegetation mapping unit and habitat type is the core criteria.

Under this rule, at the completion of development in accordance with the Structure Plan there would be 60% of the original extent of each vegetation mapping unit and habitat type remaining and protected in areas off-limits to development.

Connectivity between reserve areas and minimal dissection by roads and services is a further target.

In addition, in the delineation of development areas, core design criteria have included:

- development to be confined to land of high or moderate landform stability
- development to be confined to areas where the visual qualities of the land in the local landscape context can sustain the change in landscape character which will accompany development.

The application of these design principles and criteria is a development proposal which can be implemented whilst also protecting and utilising the high level of coastal landscape amenity for the benefit of future visitors and residents and that affords protection of biodiversity values expressed as vegetation, flora, habitats and fauna.





# 5 SITE ANALYSIS



## LANDSCAPE ASSESSMENT

The visual characteristics and values of the North Head Project Area landscape were identified and described in the Landscape Study for Victoria Location 8836, prepared by Richard Hammond in March 2002. A systematic inventory and assessment of visual landscape values resulted in delineation of Landscape Character Units with implications (opportunities and constraints) for development proposals and options. That data-base continues to be the foundation for recent and on-going review, assessment and adjustments to project development planning.

The systematic methodology used in the Study is a Landscape Management Process used widely in Western Australia and internationally that represents state-of-the-art methodology. Key components of the assessment process include: Assessment of Values - community perceptions and values, landscape character, significant elements, community use and sensitivity, user volumes, distance zones, primary viewer positions and focal points in the project landscape; and Assessment of Impacts – physical changes, visual changes, community perceptions and other sensory responses to landscape alterations. The resulting Units and suggested implications for development provide the foundation upon which North Head development options are assessed as part of on-going planning, review and revision processes.

### Overall Assessment - Summary

The development plan reflects a design philosophy based on sensitivity to the unique landscape qualities inherent to the Project Site. It borrows heavily from characteristics found in the natural setting to create a unique coastal community, potentially of extraordinary distinction. Built elements such as architecture, utilities and roads remain subordinate to the naturally established landscape characteristics throughout the project site.



Some elements of the built environment will likely be seen from ocean viewpoints and from North Head within the coastal reserve. While the changes will be evident, they will be subordinate to the naturally established characteristics of the landscape. In localised areas where built elements are seen, impacts can be reduced by creative architectural design, sensitivity to form, line, colour and texture in the landscape and minimal clearing of native vegetation.

### Response to key areas of identified sensitivity - Summary

- The viewshed from the Indian Ocean Drive will remain largely undisturbed.
- Mobile dunes, dune ridges and cones remain undisturbed.
- Pockets of distinctive vegetation have been integrated into leave areas where possible.
- The North Head ridgeline remains undisturbed. No architectural elements will compete with the key landform for visual dominance.

### Response to key view points - Summary:

- Indian Ocean Drive – the viewshed will remain largely natural.
- North Head – the proposed hotel will be visible from key viewer positions near the memorial. The access road and car park will be screened from view. Some but not all of the residential lots in the North Head precinct will be all or partially visible.
- Coastal Reserve – views into the residential and commercial zones are largely screened or filtered by viewer position, coastal dune formations and vegetation cover.
- Internal walking track system – while the paths will be located generally in natural zones, views to developed areas will be common. This will require more detailed assessment during detailed design stages of the project.

### General Assessment - Roads

Road alignments within the subject site have been selected to provide a variety of view opportunities ranging from enclosed to panoramic and to minimise site disturbance due to extensive cuts and fill, to generally remain low in the topography and to limit the amount of road disturbance seen from key view points.



Roads are aligned and designed to provide the maximum amount of visual diversity by focussing on distinctive elements in the landscape. Roads avoid focal points or where they may detract from identified natural landscape features. Generous buffers are provided. Road alignments do not breach key skylines.

The main access road is located in a natural corridor of high scenic quality. Approaching North Head and the hotel, the road offers panoramic views to the ocean without becoming a negative visual element itself and terminates in a concealed valley.

Road alignments reflect and accentuate natural elements in the landscape such as vegetation patterns and rolling dune topography. Roads are generally curvilinear to reflect the dominant form and line characteristics of the landscape. Straight road tangents are utilised in some residential zones by intent to focus views to dune cones, ridges and the sea thus creating a 'special character or theme'.

### General Assessment - Residential

Residential nodes are designed to provide a range of landscape settings – most are low in profile nestled between dune rises and ridges while some are located on broadly rolling landforms with greater exposure and view potential. All residential lots are designed to be responsive to localised landscape characteristics – primarily landform. No lots are located on ridges or the top of hills that may become focal points from key viewer positions.

Some of the residential lots will be fully or partially seen from ocean viewpoints. Potentially negative impacts can be lessened or eliminated by careful assessment of localised landscape characteristics during the detail design stages of project implementation. These include siting of buildings on each lot, creative use of architectural form, building materials, height, colours and degree of vegetation clearing around each unit. Natural elements in the landscape will always be dominant as the high points and ridges are retained in their natural state.



### General Assessment - Public Facilities

The North Head Hotel has been sited low in profile to be subordinate to the coastal landscape and yet offer spectacular views and proximity to the coastal features. To reduce the amount of land disturbance and visual impact around and adjacent to the main structure, a car parking area is separated from the hotel by a dune ridge.

Views from the structure will be restricted from the ground storey by coastal fore-dunes, but will be possible (and desirable) through 'dune defined' corridors from any proposed first level. The development will be clearly visible from North Head viewpoints and from a proposed coastal walking trail as well as from ocean viewer positions, but will remain a subordinate component in the landscape.

A sensitive and distinctive architectural design will be essential to ensure that the building will complement rather than detract from the sensitive landscape setting. The dune ridge immediately adjacent to the proposed building site should provide the key backdrop, sense of place and scale.

The South Head and Pumpkin Hollow tourist areas have been sited in low areas behind a relatively high fore-dune ridge. The majority of the infrastructure of each building will be unseen from shoreline and ocean viewpoints. However opportunity exists for view corridors to the ocean from upper levels of carefully designed buildings. Viewers on the ocean will see little of either structure if designed sensitively.

### Summary

The North Head Development deals skilfully and creatively with issues of visual landscape management through a comprehensive understanding of landscape significance and the sensitivity of natural setting. The results are an excellent development proposal likely to result in effective resource management, improved public access to an important coastal landscape, protection of key visual assets and fewer potential land use conflicts.

# 5 SITE ANALYSIS

## ABORIGINAL HERITAGE & ETHNOGRAPHIC SURVEY

A desktop study of the Aboriginal heritage values of the site was undertaken by Ethnoscience. The desktop review indicated that no listed archaeological or ethnographic sites are located within the North Head study area. However, four archaeological sites are listed within a 10km radius of the study area, including two shell middens in very close proximity (Site ID 5282, Sandland Island and Site ID 5338, Middle Head Midden). Two other shell middens are also located further north at Green Head. The desktop research indicates that there is a potential, in particular for archaeological sites including shell middens, artefact scatters and burials, to be located within or adjacent to the proposed North Head development area.

Consequently archaeological research ought to be undertaken prior to development. Archaeological research, however, can be targeted on areas that will be subject to ground disturbance. An archaeological monitoring program should also be implemented during earthworks as this is one method to mitigate against the unearthing of archaeological material, including skeletal material. Both archaeological surveys and archaeological monitoring programs necessitate consultation with the relevant Aboriginal community. In this case, members of the Yued native title claim (WC97-071) which encompasses the study area. As the development will not take place for some years it would be advisable to update periodically the desktop assessment of Aboriginal heritage values of the area.

The preparation of the necessary ethnographic analysis and monitoring program will be required as a condition in Schedule 12A of the amendment to LPS 7 which accompanies the Structure Plan.

## COASTAL ANALYSIS

Specialist coastal engineers MP Rogers & Associates Pty Ltd was engaged to complete an assessment of the required coastal setback to afford development a low level of erosion risk over the coming 100 years due to the action of physical coastal processes. The assessment was completed in line with the State Coastal Planning Policy (SCPP), requiring allowances to be made for severe storm erosion, long term shoreline movement trends, and shoreline recession due to climate change for a 100 year planning timeframe. Drilling for rock was also completed in certain locations to determine whether a reduced setback could be justified on the basis of a rocky coast.

A total of 6 profiles were modelled to determine the storm erosion allowance for different sections of the shoreline. Profile locations were chosen based on aspect, exposure and beach characteristics. Simulations by the SBEACH profile evolution model predicted erosion of the Mean Sea Level by between 0 and 25 m. Analysis of the long term shoreline movements indicated that the shoreline has historically been quite stable, based on this, it is inferred that the shoreline should remain relatively stable in the future so the 20 metre safety factor is required along the majority of the beach. The exception is a 600 metre section of shoreline to the south of the site which did experience a slight erosion trend in the past, so a 40 metre allowance is made for the long term shoreline movement at this location.

Scenarios modelled by the Intergovernmental Panel on Climate Change make predictions on the sea level rise that is expected to occur in the coming 100 years. The SCPP recommends using the mean result of the median model in combination with the Bruun rule to predict the shoreline recession that may occur as a result of climate change induced sea level rise. This leads to an allowance of 38 metres for all sandy shores within the development area.

Combining each of the allowances gives total setbacks for the sandy beaches calculated as per the methodology outlined in the SCPP ranging between 58 and 103 metres respectively. Areas assessed as having competent rock above an elevation of 2 metres AHD were given the SCPP default 50 metre setback distance.

## BUSHFIRE MANAGEMENT

A preliminary Bushfire Management Plan has been developed for the North Head project by York Gum Services, a specialist bushfire consultancy with extensive experience of bushfires and urban development. The Plan is based upon site inspection and liaison with FESA, the DEC and Shire of Dandaragan.

The Plan identifies the key values to be protected, the risk of bushfires occurring and causing damage and the measures which can be taken to minimise risks and damage. The Plan highlights the main risks involved, which are:

- The exposure on the northern side of the site to extensive and highly flammable crown land reserves
- The retention of bushland within the proposed residential nodes and on individual lots.

The Plan also takes into account a range of positive factors including the availability of a reticulated water supply with hydrants, high standard access and egress to every lot and underground power. The site adjoins the ocean on the western and southern boundaries and no lot will be more than 1.5 km from the beach. The Plan sets out specific measures to maximise the protection of human lives if a fire enters the property and recommendations to home-owners who plan to optimise their own bushfire protection.

The preparation of more detailed Bushfire Management Plans is proposed as part of the detailed future planning for each precinct. This is required as a statutory condition in Schedule 12 of the approved Amendment No.3 to LPS 7 which accompanies the Structure Plan.



# 6 DEMAND ASSESSMENT

The planned development at the site will offer a unique combination of permanent residential, holiday (including 'weekender') and short-stay tourist accommodation facilities at one of the few major geographic landmarks on the central coast. The planning studies relevant to the area have identified a future demand for both permanent housing and tourist accommodation on the central coast. Importantly, however, these studies have also called for (i.e. 'demanded') a high standard of development, particularly in relation to the environment and ecological sustainability. The proposed development responds to and reflects these aspirations.

The following is a synopsis of the conclusions and recommendations of the Demand Assessment prepared by Shrapnel Urban Planning consultants which is provided in full as a supplementary report.



## TOURISM

In the planning studies the need to cater for tourism and its importance to the local economy has been emphasised. Other more widely applicable studies have also strongly argued in favour of promoting tourism in the regions of Western Australia in order to diversify local economies where possible. This is particularly important in the Shire of Dandaragan where the economy is still very largely dependent on primary industries such as mining, fishing and agriculture.

Extensive analysis of current tourism data clearly indicates that Australia's Coral Coast (as the collection of coastal and some inland Local Government Areas (LGA's) from Dandaragan to Exmouth is now referred to by Tourism WA) could perform a lot better in terms of its tourism potential. It will need to do this if it is to reverse a recent declining trend in both domestic and international visitors. Many measures aimed at enhancing the tourism oriented performance of the Coral Coast have been identified in a number of tourism-related strategies. These include improved accessibility, accommodation, services and attractions.

Unlike many regional areas, the Shire of Dandaragan has the potential to significantly enhance its role as a tourism destination. However, compared to other coastal LGA's in the Coral Coast region, the Shire of Dandaragan currently plays a relatively minor tourism role in terms of visitor nights, with a market share of 8 percent. The potential exists, however, to expand this role considerably through an enhanced tourism focus on Cervantes and Jurien Bay. It is very much in the Shire's economic interests to do this.

In relation to the recent State Government Tourism Planning Taskforce Report, it is considered that the North Head project provides an excellent opportunity to combine residential development with more specifically focussed tourism development in a manner that will work to the mutual advantage of both. The way would appear to be open to specifically identify 'higher order' tourist sites within the development (such as the hotel), while simultaneously catering for the more informal and primarily domestic tourism markets through the separate residential components (e.g. the weekenders). It is important to note that the modifications to the Taskforce Report's approach to tourism and residential development as detailed in PB83 emphasise the need for flexibility in tourism development, especially in the case of developments that integrate tourism and residential land uses. The Structure Plan adheres to the recommended principles for residential and tourism development advocated in PB83..



## POPULATION AND PLANNING DEMAND

It needs to be recognised that at present the population of the Shire of Dandaragan is not very large (estimated by the ABS to be 2,882 persons in 2006). In Jurien Bay itself, the 2006 population count was only 1,342 persons. This situation is set to change significantly over the next 20 years with the Department of Planning estimating that the Shire's permanent population will increase to an anticipated maximum of 4,700 persons by 2026. Most of this growth will occur within the two coastal towns of Cervantes and Jurien Bay. The recently completed Indian Ocean Drive link between Lancelin and Cervantes will also be a major catalyst for additional population growth in excess of the Department of Planning estimates, as well as related increases in demand for both permanent and holiday accommodation due to reduced travel time between Jurien Bay and Perth.

The 2001 Census revealed that only about 50 percent of dwellings in the Shire of Dandaragan were occupied at the time of the Census (the more recent 2006 Census does not provide this data). This high proportion of unoccupied private dwellings is mainly due to the large number of 'weekenders' in Jurien Bay and Cervantes. These are owned by temporary residents, many of whom have their main place of residence elsewhere within the Shire of Dandaragan, the wider rural hinterland, or in Perth. During peak holiday periods and during cyclical lulls in farming activity most private dwellings in Jurien Bay are occupied – either by the owner/s or by short-stay rental tenants. The high proportion of total housing stock used for this purpose is an important consideration in assessing the future demand for housing in Jurien Bay, including the subject site. Ready availability of holiday accommodation in Cervantes and Jurien Bay is an important factor in further promoting these towns as tourism locations.

Counting the future demand for 'weekenders' as well as permanent residences, it is estimated that between 2006 and 2026 approximately 1,700 additional dwelling units will be required in the Shire of Dandaragan, mostly in the towns of Cervantes and Jurien Bay. The main markets for this housing will cover the income spectrum but will mainly be lower and middle-income, albeit with an increasing upper-income layer. Current historically high house prices are no doubt affecting the ability of low and low-middle income households to obtain accommodation in Jurien Bay. Purely in terms of 'planning' demand as defined in this assessment there would appear to be ample available developable land on the southern side of the Jurien Bay town centre to cater for the projected population increase. However, the areas of this land developed to date, while not unattractive, tend to be flat and unremarkable 'suburbia', with extensive buffers between the housing and the beach. Over time, it is anticipated that the 'economic' demand for alternative residential products in Jurien Bay will increase significantly.

## ECONOMIC DEMAND

The urban-economic literature establishes that the demand for housing and other forms of real estate cannot be validly appreciated by reference to demographic pressures alone, as often occurs in planning reports. This is because all real estate products are essentially unique, due to the fixity of geographic location (which may vary widely in terms of character and appeal), and because different developers will often seek to produce alternative products or variations on a theme, and market them accordingly. In particular, the perceived attractiveness of a particular location and/ or real estate product, compared to the alternatives, is a major factor in that product's demand regardless of how much of the alternative might be available. In Jurien Bay at the present time, there is an active real estate market that seems set to continue and increase considerably over at least the next 20 years. This market includes low, middle and upper-income housing products. Under such conditions, subject to appropriate pricing, there will certainly be a demand for residential land that is perceived to be attractive and/ or has unique features that will appeal to relevant segments of the housing market.

The proposed development will offer a clear choice of housing product to the Jurien Bay Real Estate market. Living at the site will not appeal to everyone – those who want or need the close proximity of urban services should, and probably will, choose to live in the town centre. However, some percentage of retirees and other market segments seeking to acquire a weekender or holiday house will find that the residential lots to be provided as part of the North Head development have an appeal unmatched by any of the more town-based alternatives. The en-masse removal of squatter shacks from the region has also created an immediate demand for a reasonably low-cost but properly managed alternative. Some of the housing product in the North Head development will be aimed at this market.

In addition to the single residential lots aimed at the retirees and 'weekender' markets, and the group housing and chalets aimed at the seasonal holiday market, there is considered to be a demand for a more upmarket resort-hotel aimed at intra-state, inter-state and international tourist markets. However, this demand is seen to be longer-term, as Jurien Bay has not yet acquired the critical mass or tourism interest to immediately warrant such an investment. It would be good planning however to have suitable sites identified for this kind of activity when that time arrives.





## PART B: STRUCTURE PLAN



# 7 PLANNING & URBAN DESIGN



FIGURE 3: LOCAL TRANSECT & INDICATIVE RESIDENTIAL DENSITY

**STRUCTURE PLAN OVERVIEW**  
The Structure Plan sets out an indicative framework for an integrated residential and tourist development that capitalises on the site's natural assets and landscape values. It has been prepared using a holistic and consultative design approach influenced by the desire for an environmentally driven solution for this unique site.

The Structure Plan proposes five residential/tourist precincts - North Head, The Valley, South Head, Pumpkin Hollow and Beekeepers. Two additional precincts comprise a dedicated tourist node (located to take advantage of the spectacular westerly headland and north facing aspect up the coast) and a community purpose node which is a potential location for a fire station, boat storage, manager's residence and/or storage areas.

Future detailed planning for each precinct will espouse the transect model which promotes Traditional Neighbourhood Design principles. The transect model captures the morphology of human settlements from urban to wilderness environments. It interprets the orderly and combined association and transition of built form and landscape elements (such as open space, roads and buildings) from one zone to another. At the site this will be demonstrated by the transition from the wilderness experience at the edge of each precinct (single storey buildings immersed in the landscape) to a more traditional urban configuration at the precinct heart.

The built form response will be an integral component of the success of this development and is addressed in more detail in the following section of this report. The built form will be of the highest standard, respecting its place in the landscape and making a vital contribution to the experience of being at North Head.

The key elements of the Structure Plan include:

- More than two thirds of the site remains free from development, with parabolic dune ridges and natural vegetation retained in an integrated network of landscape and open space.
- Six residential/tourism precincts comprising a total of 2,215 single residential lots and 550 tourist rooms (located in three strategic areas set aside for tourism uses).
- The potentially strategic tourism site adjacent to the westerly headland being retained exclusively for tourism uses (intended to comprise a hotel with 200 tourist rooms).
- An access road from Indian Ocean Drive provides the "gateway" to North Head and serves as a spine from which secondary spur roads provide access to each of the precincts.
- A design response that achieves an authentic and coherent built form across the site to complement the coastal landscape and evoke the site's distinctive sense of place.
- Encouraging walking over the use of vehicles, with an interconnected network of dual use paths and roads putting all residents located within 800 metres (a 10 minute walk) of beaches, open space or community facilities.
- Acknowledging that existing commercial facilities and services exist in the Jurien Bay town centre. Commercial uses for the development will be limited to those that service the day to day needs of residents and tourists.

# 7 PLANNING & URBAN DESIGN

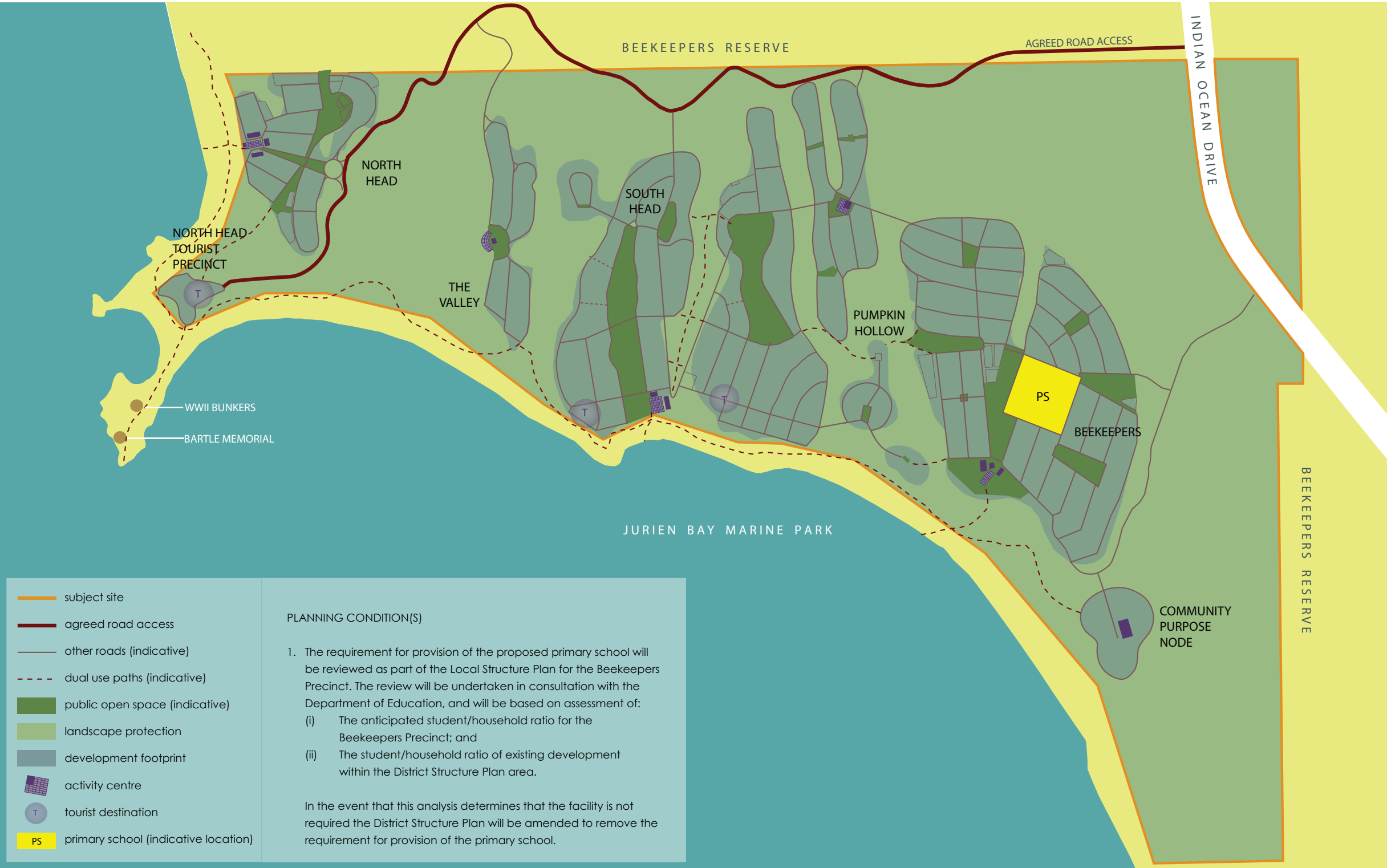


FIGURE 4: DISTRICT STRUCTURE PLAN



# 7 PLANNING & URBAN DESIGN



## RESIDENTIAL

The Structure Plan proposes five residential precincts that will provide for a range of accommodation options appealing to different budgets and lifestyle preferences. Each residential node has been carefully configured according to the environmental principles established for the project to enable the preservation of existing dunes and coastal vegetation. An organic style road network is also proposed that minimises clearing and is sympathetic to the site's topography.

The residential precincts are structured around community nodes, typically located in close proximity to the foreshore reserve. The design of the precincts promotes walking rather than vehicle use with all residents located within 800 metres (a 10 minute walk) of beaches, open space or community facilities.

The footprint of the residential areas was established through an iterative process of ground-truthing with the project's environmental and landscape consultants. The design was tested in the field and modified on several occasions to ensure that the proposed areas minimise impacts on the environment. The precincts are nestled in the landscape and are separated from each other by the prominent parabolic dune ridges that characterise the site. This creates a sense of enclosure, with the dune ridges forming a natural backdrop to each precinct. The dunes also offer protection to the developed areas from strong westerly winds.

Where possible, such as for larger lots, existing vegetation will be further preserved by ensuring that construction is confined to designated building envelopes. Site specific Design Guidelines will require the design of buildings to respond to the climate and the natural setting.

The Structure Plan proposes a provisional residential yield of 2,215 lots. It is anticipated that development will be progressed in stages responding to market demand over an anticipated 20 year period. Indicative residential yield for each precinct comprises:

- North Head 225 lots
- The Valley 155 lots
- South Head 390 lots
- Pumpkin Hollow 620 lots
- Beekeepers 825 lots

In accordance with the planning hierarchy established in the town planning scheme for the Special Development Zone, residential densities will be identified at the Local Structure Plan stage for each of the precincts, and confirmed prior to subdivision by the submission and approval of a Residential Density Strategy.

In accordance with the transect model a variety of lot sizes will be identified with smaller lot sizes closer to the core area of individual precincts, or where lots are adjacent to areas of public open space or the foreshore reserve. Moving through the development the individual will feel that they are gradually "arriving" at the beach. The experience will be one of moving from a wilderness environment, with the occasional dwelling peeping over the top of bushland, through areas that become increasingly structured with more solid buildings, kerbed roads and the emergence of landscaped open space. Indicative residential densities predicated on this approach and equating to each of the identified transect 'zones' for the local transect are provided at Figure 3 overleaf.

On the basis of the current analysis (and presuming full build out at the completion of the project in 2029) it is anticipated that the development will accommodate approximately 2,500 permanent residents. This figure is based on consideration of the predicted person per dwelling (ppd) occupancy rate by 2026 (2.29 ppd) and the 50% dwelling occupancy rate for Jurien Bay established at the 2001 census.

7 PLANNING & URBAN DESIGN



FIGURE 5: RESIDENTIAL

# 7 PLANNING & URBAN DESIGN

## TOURISM

Current research indicates that total visitors to the Central Coast region will increase to more than 1 million by 2016. The completion of Indian Ocean Drive will be a significant contributor to this increase in visitation. However, although strong tourism growth is expected, the lack of accommodation choice currently on offer in Jurien Bay, particularly for families and the upper end of the market, limits the potential to capitalise on the locality's natural advantages. Although the area is identified as having appeal to all market segments, including internationally, "the region lacks a significant identity or point of difference" (Indian Ocean Drive Economic and Social Impact Study, Pracsys Economics, 2003).

The North Head proposal is a means of creating this "point of difference". As identified in the Demand Assessment prepared for the project, certain areas on the site are quite strategic for tourism purposes, particularly the North Head tourism node itself. The Structure Plan responds to this by identifying three of the key beachside locations on the site for dedicated tourist purposes. The tourist developments will provide the ideal place to return after a day sight-seeing or bushwalking in the numerous National Parks in close proximity to the site. It is anticipated that two of these nodes will be developed as quality hotels (North Head and South Head) and the third as more informal "lodge" accommodation (Pumpkin Hollow). This will broaden the tourist offer at the site by providing a range of accommodation choice. The Structure Plan proposes a total of 550 tourist rooms/units allocated as follows:

- North Head Tourist Precinct      200 rooms
- South Head      200 rooms
- Pumpkin Hollow      150 rooms

Daily convenience and hospitality uses for the benefit of residents and visitors are expected to be co-located with the tourist facilities.

The proposed dual-use path and integrated landscape network will contribute to the visitor's experience by providing the opportunity for people of all abilities to take advantage of the recreational and tourist potential of the site for the first time. The proposal also retains the opportunity for the future development of public facilities such as an interpretative centre or a boat launching facility. Although not identified as part of the District Structure Plan, these facilities can be developed in consultation with the relevant authorities as part of more detailed planning for the site.

Tourism WA continues to provide positive feedback in respect of the preliminary proposals in the Structure Plan, noting that:

- *The site looks to have the characteristics that make it an important tourism site that has the capabilities of offering a range of quality nature based and marine based experiences.*
- *It is important that any development is planned appropriately in consideration of minimal impact to the environment. Tourism WA acknowledges the environmental work undertaken thus far in the proposed Structure Plan and the proposed environmental guidelines outlined in respect to each village.*
- *Tourism WA holds the view that the mix of accommodation outlined in the North Head Structure Plan has the capacity to significantly enhance the range of accommodation currently on offer in the region. It also has the capacity to address the anticipated shortfalls in accommodation anticipated when Indian Ocean Drive is completed.*

7 PLANNING & URBAN DESIGN



FIGURE 6: TOURISM

# 7 PLANNING & URBAN DESIGN

## MOVEMENT NETWORK

Regional access to the site is provided by Indian Ocean Drive. The completion of this road has now provided a shorter and more direct route between Jurien Bay and Perth.

The Structure Plan identifies two roads accessing the subject site from Indian Ocean Drive. Primary access is provided by a tourist road that serves as a spine from which secondary spur roads are used to access the individual precincts. This will be constructed to a high standard to accommodate the anticipated residential and tourism demand and to brand it as the “gateway” to North Head. A secondary access road is identified further south, providing access to the Beekeepers precinct and the community purpose node.

The primary access road will be designed for slower traffic speeds that reinforce the arrival experience for visitors to North Head and that maximise the safety of pedestrians and commuters. Where it interfaces with the adjacent Beekeeper’s Reserve to the north it also functions as a strategic firebreak. The road terminates at the North Head Tourist Node where parking facilities will be available for the public and tourist coaches.

The agreed alignment of the access road will minimise earthwork disturbances by following the existing Sandy Cape track immediately north of the site. The road deviates into the Beekeeper’s Reserve where it follows another existing track at the foot of a prominent ridge. Adoption of this alignment has been agreed via a Deed of Agreement with the Shire of Dandaragan.

Spur roads from the main boulevard will provide access to the proposed development nodes and beaches. Car parking facilities will be provided where the spur roads terminate at the beaches. A carparking strategy will be prepared as part of the Development Plan for each precinct. This will ensure that parking is provided in a manner that is sympathetic to the landscape values of the site and avoids the allocation of large, unsightly carparking areas in key locations. To discourage the through movement of vehicles and to provide a more pedestrian friendly environment, the proposed road network does not provide vehicle access between individual precincts. The exception is a road linkage between the Pumpkin Hollow and Beekeepers precincts. The Beekeeper precinct is intended to form the final phase of development at the site. This potential road linkage anticipates that a primary school or other significant community facilities may ultimately be located in this precinct and would require that it be more integrated with adjacent residential areas. The development of the Beekeepers precinct is not expected to commence until approximately 2024.

An indicative internal road pattern is also shown for each of the precincts to demonstrate possibilities for connectivity between areas of landscape value, the dual path network, community nodes and the foreshore reserve. The detailed planning for each of the precincts will establish the actual internal road patterns based on the application of these criteria and the application of best practice urban design principles.

All roads will respond sensitively to the topography of the site and therefore tend to reflect a more organic design than the rigid grid layout that is more typically preferred where there are no landscape constraints. Road alignments accentuate physical, visual and perceptual links to the beaches, public open space areas and areas of landscape amenity. This also serves to reinforce pedestrian amenity along natural desire lines.

Detailed analysis of traffic and movement in and around the site is set out in the Traffic Overview provided as a supplementary report with this Structure Plan.

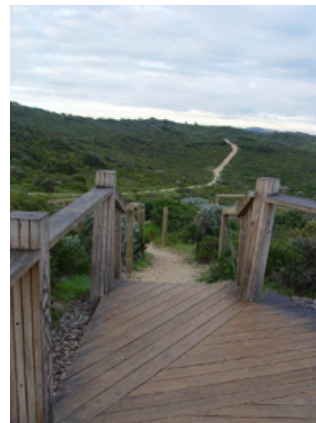


7 PLANNING & URBAN DESIGN



FIGURE7: MOVEMENT NETWORK

# 7 PLANNING & URBAN DESIGN



## WALKING AND CYCLING

The dual use path network is a key element of the project which aims to create a coastal community dominated by pedestrians rather than vehicles.

Dual use paths and boardwalks are proposed throughout the site, connecting the residential and tourist accommodation with community nodes, landscape areas and the adjacent foreshore reserve. The network will interlink with dual use paths from Sandy Cape and the surrounding Beekeepers Reserve. Where possible the paths have been positioned along existing tracks created from post occupation uses on the land in order to minimise the risk of further erosion or disturbance of vegetation. The path network can also serve as strategic firebreaks and emergency vehicle access throughout the site as required.

The path network is designed to protect the landscape and amenity values of the site in the longer term, while providing access at key points to the locations of most interest such as the beaches and scenic areas. It is intended to provide a pleasurable alternative to driving a car within the site. This is further reinforced by the design of the precincts which ensure that all residents are located within 800 metres (a 10-minute walking distance) of beaches, open space or community facilities.

The proposed construction of boardwalks within the foreshore dunes and other fragile landscapes will also minimise uncontrolled pedestrian activity in these sensitive areas, whilst maximising accessibility to locations of high amenity for people of all abilities.

7 PLANNING & URBAN DESIGN



FIGURE 8: PEDESTRIAN NETWORK



# 7 PLANNING & URBAN DESIGN



## LANDSCAPE

The guiding principles of the Structure Plan in respect of landscape are:

- To preserve the natural landscape and environmental qualities of the site; and
- To integrate the development with adjacent conservation areas

The Environmental Constraints Analysis and the Landscape Assessment have therefore strongly influenced the identification and distribution of open space throughout the site.

By limiting development to the nominated precincts the Structure Plan enables the retention of approximately 435 hectares of native vegetation across the site, in particular on the sensitive parabolic dunes and within significant lowland areas. This area is identified for 'landscape protection' will be ceded as a 'Reserve for Recreation' pursuant to section 152 of the Planning and Development Act 2005. Ongoing protection of this area and the interface with the development areas will be ensured through a management plan and funding agreement negotiated with the proponent and agreed in December 2011.

In addition to this unique natural asset, Public Open Space will be distributed throughout the residential/tourist precincts in accordance with the requirements of LN. Open space within the development areas is expected to be provided in two principal categories:

1. Traditional open space - providing opportunities for active and passive recreation in a landscaped setting; and
2. Natural open space - that preserves the landscape and environmental characteristics of the site and complements the conservation objectives of the surrounding Landscape Protection area and the Beekeepers Reserve. These areas will also be able to be used for active recreation by virtue of the proposed dual use path network that permeates the site.

The configuration of these areas will be determined at the Local Structure Planning stage and the areas set aside as local reserves with management to be undertaken by the Shire of Dandaragan.

The site has distinct advantages over a traditional suburban development in relation to the variety of recreational opportunities that are available. These include 6 km's of superb coastline, the spectacular Jurien Bay Marine Park and the site's own landscape and topographical qualities. Together this combination offers an exceptional recreational experience for people of all abilities and interests. It is reasonable to assume that residents and visitors will be there to take advantage of these particular attributes. The adopted strategy has been to preserve key areas of the site's natural character within an integrated landscape network that ensures that residents are within easy walking distance of a variety of recreational experiences. This will result in the provision of a network of natural parks comprised of existing vegetation and dunal ridges integrated with more formal areas of public open space evenly distributed throughout the residential areas.

The proposed dual use path network throughout the landscape areas also contributes to preserving the site's environmental integrity by positively influencing pedestrian activity. The path network will facilitate controlled public access to areas of key visitor interest such as the foreshore and scenic viewing points, as well as enabling active recreational use of the areas of retained bushland for walking and hiking.

7 PLANNING & URBAN DESIGN



FIGURE 9: LANDSCAPE NETWORK



# 8 BUILT FORM

Simon Youngleson Architects has prepared a series of design concepts to promote a built form for the land that will be coherent, site sensitive and sustainable. The concepts respond to the guiding principles agreed between the Project Team and the community, in particular the aspiration to “ensure the built form harmonises with the special qualities of the coastal setting through innovative design”. The design concepts provide the context for the development of detailed design guidelines that will define how the built form will contribute to the community’s expectations for the desired character and experience of North Head and its environs.

As required at Schedule 12 of LPS 7, these design concepts will be translated into Design Guidelines to accompany each Local Structure Plan to ensure that the site’s special qualities are protected.

The following is a synopsis of the design concepts provided in full as a supplementary report.

## DESIGN CODES

The Design Codes provide the framework around which detailed design guidelines will ultimately be structured:

### Architecture

The Architectural Codes provide a framework for the built form. With the specific outcome of a coastal development in mind, the architectural language will be focused by limiting the palette of materials and clearly defining how they are used. The Codes will address the specific elements of the buildings, including walls, roofs, openings and attachments.

### Environment

The Environmental Codes recognise the need to minimise the impact of human activity on the environment and ensure the built form contributes to more sustainable living. The Codes address matters such as:

- Identifying and restricting building footprints to preserve vegetation and landforms
- Passive solar design
- Conservation of power and water

### Materials

The materials palette defines the colour and material selection identified in the Architectural Codes. Colours and materials will be carefully selected to enhance the character of the regional coastal village.

### Landscaping

The Landscaping Codes define both the hard and soft landscaping requirements for the development. The hard landscaping components will address paving, pathways, driveways and fences. The soft landscape guidelines provide an approach to the planting of local species which will minimise water use as well as defining the character of the development in terms of its local context.



## CREATING A LOCAL ARCHITECTURAL TYPOLOGY

The development of a site specific built form outcome was informed by referencing the visual imagery of the historical and contemporary local precedent of Jurien Bay and similar coastal communities. This has resulted in the preparation of design concepts that set the ground rules by which an appropriate local architecture can be developed:

### Human scale and proportion

One of the defining elements of traditional architecture is the human scale. All elements of the development will be held together by a harmonic scale based on human proportions which reflect the scale of local, historical development.

### Parking

Parking and garages will be addressed differently, depending on whether the dwelling is in the outer ‘wilderness area’ of the development or closer to the heart of the residential precincts. In the outer edges garages will be separate from the main dwellings in order to reduce the visual bulk and scale of the built form. As you move towards the precinct heart garages will start to become connected to the houses, until you reach the centre where garages will be accessed from rear laneways in order to preserve the pedestrian focus of the streets.

### Colour

Colours will be taken from the local examples of the natural landscape and coastal communities.

### Limited palette of materials

Limiting the palette of materials enables individuals to construct buildings that reflect their own aspirations and lifestyles whilst contributing to a collective coherency of design throughout the whole community.

### Creating a unique coastal destination

What makes the North Head project unique is its potential to be a community which is not only surrounded by wilderness to explore and beaches to enjoy, but a place which is truly coastal in nature and which celebrates its location in every sense.

Every dwelling will be designed to embrace the activities associated with coastal retreats. There will be outdoor courtyards in which occupants can gather in the shade or sun, sheltered from the gusty southerly afternoon winds. Dwellings will be understated and slightly raised above the existing scrub, giving the feeling of being in the wilderness while living on a protected platform within it.

The community will be centred around the pedestrian rather than the motor vehicle. Walking from dwellings to the precinct heart and on to the beach will be encouraged. Apart from residential and non-residential buildings in the development, incidental structures will be designed around key nodes in the landscape, creating destination points that people will have reason to discover and explore. Structures may serve a function - such as picnic shelters, lookout platforms and towers, toilet facilities, bird-watching hides and children’s play areas - or may be sculptural objects and historical artefacts that contribute to a more meaningful and memorable experience of the unique coastal wilderness.

### Private open space, solar orientation and aspect

Private open spaces will be provided in the form of sheltered outdoor terraces, protected courtyards, useable outdoor decks and grassed areas. External courtyards and decks will be connected to living or dining areas and shaded from the sun during summer months. With the prevailing coastal winds in mind, outdoor courtyards will be sheltered by buildings to protect residents from blustery south westerlies.



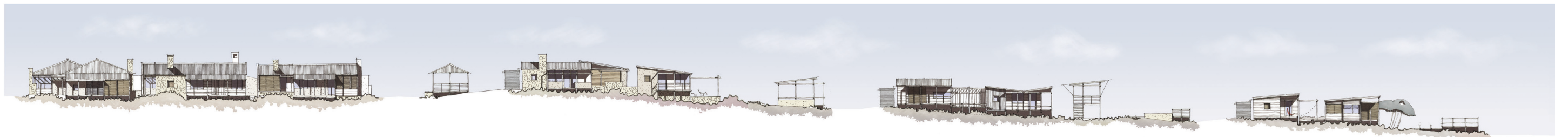


# 8 BUILT FORM

## Common syntax

A common syntax will define the scale and proportion of the built form, the building materials and construction methodologies. This syntax strives for a simple, robust coastal style grounded in the aesthetic roots of the region's architectural character.

Applying a common syntax to the built form creates coherence while allowing variety of forms to emerge as building types scale up and down according to their proximity to the heart of the residential precincts. Not only will dwellings change in size, form and density throughout the development but so too will roads and paths.



# 9 SUSTAINABILITY PERFORMANCE

The Project Team proposes a coastal development that goes well beyond any other Western Australian examples. In all its aspects the North Head project will set new standards for environmental responsibility, economic contribution and social responsiveness. Some of the specific proposals are detailed as follows:

## ENVIRONMENTAL SUSTAINABILITY

- The Structure Plan proposes a residential/tourist development that respects the sites distinct environmental values. The comprehensive environmental and landscape assessments have enabled more than two thirds of the site to be retained free from development, with parabolic dune ridges and natural vegetation retained in an integrated network of landscape and open space.
- By setting aside this amount of land free from development it is possible to retain at least 60% of every existing species of vegetation species, more than double the Bush Forever requirement of 30% for non-metropolitan areas.
- Particular attention has been given to analyse coastal processes and identify appropriate foreshore setbacks.
- A Fire Management Plan has been prepared to satisfy the standards for proposed residential and tourist uses. This also satisfies mutually agreed objectives with the DEC in relation to the interface with the Beekeeper's Reserve.
- The proposed dual-use path network connects development nodes and locations of interest (such as areas of landscape character, look-outs and interpretative facilities) for pedestrians, cyclists and people of all abilities. The movement network aims to discourage the use of vehicles for cross-movements through the project area and to prevent pedestrian entry to sensitive areas.
- Management Plans for key elements of the project area such as the foreshore reserve will be prepared and implemented to provide for the on-going protection of the sites natural environment and landscape values.
- Ongoing attention will be given to identifying and implementing where appropriate new technologies and innovation in relation to environmental protection, energy efficiency, renewable energy, construction, waste minimisation and re-use, water conservation and wastewater re-use as development progresses.

## ECONOMIC SUSTAINABILITY

- The North Head Structure Plan proposes a world class residential and tourism development unique to this region and Western Australia. The proposal aims to satisfy the State's longer term strategic objective to facilitate tourism uses at key points on the site and thereby contribute to regional prosperity.
- Consideration of 'economic' demand establishes the importance to the development of its key attributes:
  - The land is located on a distinct major coastal feature (North Head). Such features are comparatively rare along the central coast and will therefore attract interest from the market
  - The land is immediately adjacent to the Indian Ocean coast, distinct from any other competing residential development in the Shire of Dandaragan. The residential and tourism market is attracted to coastal locations
  - South, west and north facing beaches offer a unique choice of locations for recreation opportunities to suit varying weather conditions and to provide a variety of view aspects for development
  - Some areas of the land are elevated offering views not available in other residential areas in the locality
- These factors establish that the North Head development offers to the active residential and tourist market in the Shire of Dandaragan a distinctively high quality development in a setting that will attract significant 'economic' demand from permanent residents (employed and retired), 'weekenders' and other tourists.
- The profitability and viability of existing business, community facilities and infrastructure in the Jurien Bay town centre will be boosted due to an increased demand for services from the North Head development as the Structure Plan does not propose competing uses or facilities on the site.
- The proposal will reinforce the role of Jurien Bay as the Regional Centre of the Wheatbelt by attracting additional tourism and creating opportunities for employment and regional economic growth.
- The project will set a new benchmark for the development industry by demonstrating how the application of innovation in planning and design techniques can achieve environmentally responsible coastal development. This will improve the standard of other coastal projects in the region.

## SOCIAL SUSTAINABILITY

- The Structure Plan does not propose activities that compete with the existing community facilities and businesses in the Jurien Bay town centre. Through attracting new residents and tourists, the proposal will in fact improve the profitability and viability of local businesses.
- The project provides the first opportunity for community groups who cannot currently access the land to enjoy the beauty of North Head.
- The development will ensure that the community continues to enjoy the existing landscape qualities of the site by ensuring that development is sensitive to topography. The Structure Plan proposes not to disturb prominent view corridors and requires all development to meet site specific Design Guidelines. These will ensure that all development is compatible with the coastal landscape and will provide a sensitive interpretation and response to this unique environment.
- The community will continue to enjoy the environmental values on the land in a setting where flora and fauna co-exist with human habitation and activities.

## QUALITATIVE ASSESSMENT

Sustainable outcomes are achieved by securing simultaneous improvements against economic, social and environmental criteria without having to trade-off between the three. The draft Sustainability Checklist (2005, Department for Planning and Infrastructure) synthesises the requirements of some forty other sustainability 'scorecards' into a single tool to try and assess this. Although the draft Checklist requires refinement, it still provides a useful means of reviewing sustainability performance against the requirements of the State Sustainability Strategy. Analysis of the North Head Structure Plan demonstrates that it should result in sustainable outcomes when assessed against the key criteria of social advancement, economic prosperity, environmental protection and good governance. This analysis is provided in the Sustainability Checklist Table.



9 SUSTAINABILITY PERFORMANCE

	CURRENT PRACTICE	BEST PRACTICE	INNOVATION
SUSTAINABILITY GOAL - SOCIAL ADVANCEMENT Will the proposal ....?			
Increase the proportion of trips using public transport	✓		
Increase the proportion of cycling trips			✓
Increase the proportion of walking trips			✓
Reduce private vehicle kilometres travelled			✓
Reduce sole-occupant car trips (passengers should not be sourced from cycling or walking)			✓
Improve community safety and security		✓	
Establish a socially diverse community		✓	
Support indigenous communities	✓		
Provide education and training opportunities	✓		
Provide affordable housing	✓		
Provide a diversity of housing product		✓	
Provide flexibility of housing product		✓	
Increase home-based employment	✓		
Increase employment of Aboriginal people	✓		
Reduce urban sprawl			✓
Prevent co-location of incompatible land uses			✓
Provide open space that complies with the principles of universal design			✓
Provide recreational areas that comply with the principles of universal design		✓	
Improve community health outcomes		✓	
Integrate land use and transport		✓	
Identify, acknowledge, protect, enhance, manage & promote indigenous heritage		✓	
Identify, acknowledge, protect, enhance, manage & promote cultural heritage		✓	
Identify, acknowledge, protect, enhance, manage & promote natural heritage			✓
Establish community networks		✓	
Form partnerships with the community		✓	
Invest in community decision making capacity building	✓		
Support community creativity and vitality	✓		
Facilitate visual amenity			✓
Facilitate amenity and a 'sense of place'			✓

	CURRENT PRACTICE	BEST PRACTICE	INNOVATION
SUSTAINABILITY GOAL - ECONOMIC PROSPERITY Will the proposal ....?			
Create jobs (short-term and long term)		✓	
Establish new enterprises		✓	
Retain new enterprises		✓	
Increase revenue flow (direct and indirect) to State and Local government		✓	
Balance capital expenditure between State and Local government and the private sector		✓	
Limit operating costs		✓	
Provide advanced communications technology and infrastructure	✓		
Provide employment to the unemployed	✓		
Deliver more benefits than costs (incl. environmental and social benefits & costs)			✓
Avoid risk of damage from physical processes			✓
Promote sustainability through the use of economic instruments		✓	

	CURRENT PRACTICE	BEST PRACTICE	INNOVATION
SUSTAINABILITY GOAL - ENVIRONMENTAL PROTECTION Will the proposal ....?			
Decrease potable water consumption		✓	
Reduce energy use from non-renewable sources		✓	
Reduce greenhouse gas emissions		✓	
Rehabilitate or remediate degraded land for appropriate future use		✓	
Rehabilitate contaminated sites		NA	
Reduce waste disposal to landfill	✓		
Reduce the negative impact of light spill	✓		
Protect or enhance the noise environment	✓		
Reduce emissions of air pollutants		✓	
Improve indoor air quality		NA	
Conserve and enhance land that has high biodiversity and/or conservation value			✓
Conserve and enhance water resources with high biodiversity and/or conservation value			✓
Prevent export of pollutants to receiving waters		✓	
Promote natural flow regimes for water resources		✓	
Protect flora, fauna and fisheries			✓
Provide co-generation opportunities	✓		
Avoid permanent negative changes to coastal processes			✓
Safeguard high-value landscapes and seascapes			✓
Improve efficiency of resource use	✓		
Maintain essential ecological functions			✓

	CURRENT PRACTICE	BEST PRACTICE	INNOVATION
SUSTAINABILITY GOAL - GOOD GOVERNANCE Will the proposal ....?			
Encourage the community to be engaged actively in decision making		✓	
Ensure genuine opportunities for consultation and feedback		✓	
Recognise community concerns		✓	
Encourage increased levels of participation of historically disadvantaged communities	✓		
Ensure accountability		✓	
Employ decision making processes which are open and transparent		✓	
Ensure financial resources are managed and properly audited		✓	
Ensure decisions are implemented		✓	
Ensure policy, legislation, regulation and practice meet sustainability goals		✓	

FIGURE 10: PERFORMANCE AGAINST DRAFT SUSTAINABILITY CHECKLIST

# 10 INFRASTRUCTURE PROVISION

The site is capable of being fully serviced with reticulated water and sewerage, underground power and telecommunications infrastructure. Construction and installation will be undertaken consistent with the underlying philosophy of minimising disturbance of the existing site and limiting the clearing of vegetation. Consistent with the sustainability objectives for the development every effort will also be made to provide for passive solar design and the use of sustainable practices in water and energy use where practical.

The following servicing analysis has been prepared by Wood and Grieve civil engineers to identify the infrastructure required to facilitate the development:

## STORMWATER MANAGEMENT

Stormwater will be managed as far as possible in accordance with the best water sensitive urban design principles and the DEC's policies.

Previous environmental reports indicate that the disposal of stormwater by direct infiltration will be achievable in most areas of the site as a result of the porous nature of the surface soils. This will achieve water sensitive urban design basic principles of returning runoff into the groundwater regime as close to source as possible.

Based on this, it is proposed that disposal of stormwater runoff from road pavements within the development will be by extensive direct infiltration. The existence of permeable ground conditions will provide filtration for the stormwater and allow recharge of groundwater.

The stormwater drainage system will be designed using water sensitive design methods and will be in accordance with the DEC and the Shire of Dandaragan's requirements.

## SEWER AND WATER PROVIDER

The North Head development area currently does not fall within any licensed areas for the provision of water and wastewater services. In order to provide these services to the development, the Developer must appoint a Service Provider and obtain an operating licence from the Economic Regulatory Authority, in accordance with the Water Services Coordination Act 1995.

The Water Corporation is the Licensed Service Provider for Jurien Bay. Although the proposed development is outside their current licence area, it is intended to appoint the Water Corporation as the Service Provider for the site by getting an extension to their license. The Water Corporation has advised that their existing groundwater production bores and sewerage treatment plant is likely to have sufficient capacity to service the development with upgrading of the infrastructure in line with the development timetable. They are also likely to construct a completely new and upgraded wastewater treatment plant in 2015. Water Corporation also believes their borefield is sufficient to enable them to provide a water supply facility for this development but will need to accurately assess the required production levels to serve the current proposal.

## SEWERAGE

The Water Corporation's existing wastewater treatment plant may require some minor upgrading to service the North Head development for the initial phases of development. A sewer pressure main will be constructed from a new sewer pump station located at the site back to the sewerage treatment plant in the Jurien Bay town centre (approximately 8km). Sewer reticulation for the development may be constructed as either a single gravity system discharging into the pump station, or as a number of separate gravity systems for each of the precincts, each with its own small pump station and rising main discharging into the main pump station.

Ultimately the Water Corporation has plans to construct a new state of the art wastewater treatment plant in 2015, which will utilise advanced technology, service the entire area and discharge treated effluent to a sustainable 'woodlot' area. This plant would be sized to serve the proposed ultimate plan for all of the Jurien Bay area.

## WATER SUPPLY

The Water Corporation's existing groundwater production borefield will be expanded to service the development, and a water main extended from the Jurien Bay town centre along Indian Ocean Drive to the site (approximately 7km). Borefield production would need to be expanded to match the timetable and proposed size of development for the North Head Development. Water reticulation mains will be constructed to service each stage of the development. These mains include provision for fire hydrants in accordance with FESA requirements. Water from the borefield area is treated for salts and chlorinated prior to reticulation.

As potable water is at a premium in this vicinity it may be possible (subject to costs and physical constraints) to reduce potable water demand by providing a third pipe for garden reticulation requirements. This would operate by utilising groundwater from a bore in the area and pumping to a header tank. One would need to provide approximately 10m of head. Water for garden reticulation users would then be reticulated in a 'third pipe' throughout the development.

## TELECOMMUNICATIONS

Telstra has advised that cabling will be made available to the North Head development when requested.

## POWER SUPPLY

Power to the Jurien Bay town centre is currently supplied by Western Power. Based on preliminary discussions with Western Power, there is adequate capacity within the Jurien Bay high voltage system to service the proposed North Head development.

Underground power lines would be extended from the Jurien Bay town centre, along Indian Ocean Drive to the proposed North Head entrance road, a distance of approximately 6km. The 3-phase power lines would then continue underground along the entrance road and reticulated into each precinct. Padmount sites will be provided within the development, as required by Western Power.

As suggested in the EAR prepared by RPS there may be opportunity to research the potential for developing an alternative energy source for the site such as wind power, depending on the feasibility of such proposals.

## ROADS

Roads will be designed to Austroads Standards and to the standards required by Shire of Dandaragan. The main access road from Indian Ocean Drive to the North Head Tourist Node, as well as the connecting roads leading to the five residential/tourist precincts will be constructed as sealed uncurbed roads with shoulders.

Internal roads within the precincts will be sealed with a combination of flush and mountable kerbing depending on locations and drainage requirements.

## TRAFFIC OVERVIEW

Riley Consulting was commissioned to review the Structure Plan and provide an analysis of the anticipated traffic generation and distribution within the local context. The complete technical analysis is provided as a supplement to this report. The executive summary is provided below:

- The proposed development will provide a total of 550 tourist rooms and 2,215 residential lots. It is anticipated that the development will be predominantly investment and holiday homes with few permanent residents.
- The average weekday traffic generation from the development on completion is expected to be 4,984 vehicle movements per day (based on current dwelling occupancy levels in Jurien Bay). It is likely that a lower dwelling occupancy will occur at the site and therefore a lower level of traffic generation. During peak periods of holiday activity, such as Christmas and Easter, the development is expected to generate 8,295 vehicle movements per day if all dwellings and tourism units are occupied.
- Analysis of the external road network indicates that all roads will operate with acceptable Levels of Service. During the peak periods of holiday traffic the analysis indicates that acceptable Levels of Service are maintained. The analysis takes into account the existing traffic increases during the holiday periods and the proposed construction of Indian Ocean Drive to Lancelin.
- It is recommended that the access intersections to Indian Ocean Drive be provided with an Austroads type B turn treatment to maintain safety on Indian Ocean Drive.
- The access to Indian Ocean Drive will need to be constructed to a higher standard than internal roads to cater for the forecast peak traffic movements and tourist buses servicing the North Head Tourist Precinct. Internal roads can be provided with a 5.0 to 5.5 metre carriageway as traffic flows are unlikely to exceed 2,000vpd.

# 11 STAGING

The completion of Indian Ocean Drive will result in significant increased visitation to the Central Coast from both the residential and the tourist markets. The North Head development responds to this opportunity with an integrated residential and tourist development of a type not currently available to either Jurien Bay or the region.

The development will occur over a 5 – 20 year period and is intended to commence with the North Head precinct. The proponents are committed to the provision of public access to the key tourist area at North Head as a matter of priority. Construction of the main access road is proposed as part of the first stage.

Subsequent stages are anticipated to occur as described in the indicative staging plan with the Beekeepers precinct forming the final stage. It is anticipated that development of the Beekeepers precinct will commence in 2024. The development of individual precincts will be undertaken in response to market demand and this may result in modification to the proposed staging timetable. In particular, the construction of the tourist areas may occur concurrently with that of residential precincts to provide the market with a variety of product.

### PROVISION OF FACILITIES AND SERVICES

The North Head development will be a unique residential type quite unlike typical suburban developments. This will be reflected not only in the urban design and built form response to the site but also in the resident profile (an anticipated high proportion of retirees) and the nature of occupancy. As demonstrated in the Demand Assessment the current occupancy rate for Jurien Bay established at the time of the last census was approximately 50%. The Anticipated Occupancy Table identifies a possible development scenario contrasting the number of lots proposed with those that are expected to be occupied on a permanent basis (assuming 50% occupancy).

As the Anticipated Occupancy Table demonstrates the typical residential profile is unlikely to be replicated at the site and usual assumptions in respect of the provision of services and facilities need to be predicated on real demand.

As agreed between the proponents and the community at its inception, the project will include “facilities that complement but do not compete with existing services”. The development concept is consistent with this principle, recognising the key role of Jurien Bay in providing regional services and facilities. The profitability and viability of existing business and community facilities in the Jurien Bay town centre will be boosted due to the increased demand from the North Head development.

In accordance with the Scheme provisions for the site, Local Structure Plans will identify residential and tourist uses, including anticipated ancillary hospitality uses such as a café, as well as community purpose uses and convenience retail. Commercial uses will be deliberately restricted to meeting the day-to-day needs of residents and visitors and higher order commercial activities are not proposed. The flexibility built into the statutory planning framework provides the necessary opportunity for the development to evolve and for subsequent requirements for infrastructure and services to be met as they arise.

Analysis of the residential profile is particularly critical when considering the demand for community services such as a primary school. Liveable Neighbourhoods Version 3 (LN 3) was adopted as an operational policy of the WAPC in 2006. LN 3 identifies that one government primary school site is typically required for every 1,500 housing units. Notably, LN 3 also identifies that the provision of school sites must be assessed against actual need, having consideration for factors such as the availability of existing facilities and demographic profiles. On the basis of the projections set out in the Anticipated Occupancy Table the actual need for a primary school at the site (as per LN 3 requirements) would not be generated until the completion and “full occupancy” of the Beekeepers precinct (anticipated 2029). Currently the Jurien Bay District High School provides both primary and secondary education services to the Jurien Bay settlement area. It also takes in the broader catchment of Leeman, Green Head, Cervantes and the surrounding farming districts, although larger towns such as Cervantes have their own primary schools. Until such time as demand required an on-site facility, education services are likely to be provided from the Jurien Bay District High School. The development concept remains flexible enough to ensure that an appropriately located site can be allocated for a primary school if required.

Precinct	Year Developed	No. Lots	Aggregate Total Lots	No. Lots Permanently Occupied	Aggregate Total Lots
North Head	2013	390	390	195	195
The Valley	2015	155	545	77	272
South Head	2018	225	770	112	384
Pumpkin Hollow	2021	620	1390	310	694
Beekeepers	2024	825	2215	412	1106
TOTAL	-	2215	2215	1106	1106

FIGURE 11: ANTICIPATED OCCUPANCY



FIGURE 12: ANTICIPATED STAGING



# 12 IMPLEMENTATION

**APPROVAL PROCESS**

LPS 7 details a staged approval process to guide the planning and development in the ‘Special Development’ zone. This includes the preparation and approval of:

- a. District Structure Plan;
- b. Local Structure Plan; and
- c. Activity Centre Structure Plan (if required).

Where necessary the approval process also provides for the preparation and approval of Area Specific Plans to provide specific guidance in respect of particular areas or lots.

The staged approval process allows for the progressive refinement of development concepts and design from the macro to the micro level, as the basis for informing applications for subdivision and ultimately development.

**DISTRICT STRUCTURE PLAN**

In accordance with this framework, Local Structure Plans will be required for each of the precincts identified in the North Head District Structure Plan prior to the approval of subdivision and development.

LPS 7 identifies the range of additional information required to be addressed by Local Structure Plans, which includes:

- 1. Land use permissibility and zoning;
- 2. Residential density;
- 3. Detailed movement network for vehicles, cyclists and pedestrians;
- 4. Location of major land uses;
- 5. Indicative lot pattern and major buildings; and
- 6. Specifying areas where further comprehensive planning may be required through the preparation of an activity centre structure plan.

**Special Conditions Related to Special Development Zone No.2**

Development of the North Head Special Development Zone (SDev2) is also subject to a range of site specific conditions detailed at Schedule 12 of LPS7. These are applicable to different stages of the approval process as identified below:

**Local Structure Plan**

Prior to the final approval of a local structure plan, the following management plans are required to be prepared and approved:

- 1. Local Water Management Strategy
- 2. Environmental Management Plan
- 3. Fire Management Plan
- 4. Foreshore Management Plan
- 5. Design Guidelines and Development Controls

**Subdivision**

With respect to the whole of SDev2, the following conditions apply:

- 1. Council will not support an application for subdivision and will not approve an application for development until the proposed extension to boundaries of the Jurien Water Reserve have been adopted or there has been adoption of an appropriate agreement to ensure the provision of water between the Western Australian Planning Commission, Water Corporation, Council and the proponent.
- 2. At the first stage of subdivision, suitable access and egress roads are to be constructed to service the proposed lots. This may require the provision of two points of access to the surrounding movement network.

Prior to a stage of subdivision, the following management plans are required to be prepared and approved:

- 1. Urban Water Management Plan
- 2. Flora and Fauna Management Plan

**Development**

All development within SDev2 is to be assessed in accordance with the approved design guidelines which form part of the relevant local structure plan. Development which does not comply with the design guidelines requires planning consent from the local government and a person must not commence or carry out any development without first having applied for and obtained planning consent from the local government under Part 9 of the Scheme.