

Foreshore Management Plan Guidelines



Executive Summary

These Foreshore Management Plan (FMP) Guidelines have been prepared to outline the format and content that the City of Wanneroo requires for FMP's lodged with the City for approval, together with the assessment process the City will follow, in order to better streamline the FMP approval process and ensure consistent decision-making within the City.

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Foreshore Management Plan Guidelines

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1.0 Application and Purpose of the Guidelines

1.1 Application

The Foreshore Management Plan (FMP) Guidelines apply to all FMP's prepared within the City of Wanneroo (the City) and should be used in conjunction with the following documentation:

State Policy/Documents

- State Planning Policy No. 2.6 – State Coastal Planning Policy (2013) (SPP 2.6);
- State Coastal Planning Policy Guidelines (2013) (SPP 2.6 Guidelines) – refer to the most recent version;
- Coastal Planning and Management Manual – A Community Guide for Protecting and Conserving the Western Australian Coast (2003);
- State Planning Policy No. 3.7 – Planning in Bushfire Prone Areas (2015);
- Guidelines for Planning in Bushfire Prone Areas version 1.3
- Coastal Hazard Risk Management and Adaptation Planning Guidelines (2019);

City of Wanneroo Documentation

- Coastal Hazard Risk Mapping and Adaptation Plan;
- Coastal Management Plan Part 1;
- Local Planning Policy 4.21: Coastal Assets Policy (LPP 4.21);
- Local Planning Policy 4.3: Public Open Space (LPP 4.3);
- Local Planning Policy 3.3: Fauna Management (LPP 3.3);
- Local Planning Policy 4.4: Urban Water Management (LPP 4.4);
- Guidelines for the Subdivision of Land:
 - WD13C Land Development Landscape Submission Process and Requirements for guidance; and
 - WD13A Landscape Design Specification; and
- Park Sign Specifications.

1.2 Purpose of the Guidelines

The purpose of these guidelines is to provide advice to landowners and developers on the information required when preparing an FMP and outline the City's expectations on a number of different aspects of foreshore development. The guidelines also provide information on the assessment and approval process of FMP's.

1.3 How the Guidelines work

The Guidelines are split into three parts:

Preparation – Preliminary consultation with the City, submitting the Plan, and process for submitting a FMP.

Assessment – Assessment and determination process of FMP's.

Monitoring, Compliance and Maintenance – Monitoring, reporting, and compliance requirements as well as maintenance.

2.0 Preparation of a FMP

2.1 When to submit a FMP

A FMP may be required in the following instances:

- **As a requirement of a District Structure Plan or a Local Structure Plan:**

Listed as a provision of structure plan and prepared prior to subdivision or as a condition of subdivision.

- **As a condition of subdivision:**

The City or the Western Australian Planning Commission (WAPC) may request a condition to be applied for the preparation and implementation of a FMP at subdivision stage.

Where a FMP is required by the State or Federal Government as part of an approval under their respective legislation, input should be sought from the City (as the future land owner/manager) prior to final approval from the respective authority.

- **As a condition of Development Approval:**

The City may apply a condition for the preparation and implementation of a FMP in order to address potential or foreseen impacts of a proposed development.

2.2 Process for Submitting a FMP

Where a FMP is required, the following process should be followed when submitting the FMP:

- A pre-lodgement discussion with the City is recommended prior to submitting a FMP. This discussion will help to ensure the proponent and the City are in agreement on the scope, format and content of the document prior to drafting the FMP. The WAPC may also be included in pre-lodgement discussions.
- A pre-lodgement meeting can be arranged by contacting the City's Strategic Land Use Planning and Environment team on 9405 5000.
- Following preliminary discussions with the City, the FMP should be submitted electronically through the City's portal to the City's Strategic Land Use Planning and Environment team.
- Once received, the City will confirm the receipt of the FMP via an email to the submitter. The formal assessment process will then commence.

2.3 Content and Minimum Information Requirements for FMP's

Appendix 1 of the FMP Guidelines provides detail on the required content and information for all FMP's, with Section 4 of **Appendix 1** providing detail on what FMP's need to address as a minimum. Please refer to **Appendix 1** in order to determine what information needs to be included in the FMP.

3.0 Assessment of a FMP

3.1 Determining the approving authority

The Local Structure Plan (LSP) for the area covered by a FMP outlines the determining authority for the FMP itself. Notwithstanding this, final determination of all works within the foreshore is at the discretion of the WAPC as the foreshore is a regional reserve (i.e. Reserve for Parks and Recreation under the Metropolitan Region Scheme).

Once a FMP has been prepared to the satisfaction of the City, it is presented to Council for approval. From there, the FMP can be referred to the WAPC for endorsement; however this latter step is at the discretion of the submitter of the FMP.

Where a FMP is approved by the City and endorsed by the WAPC, subsequent development proposed within the foreshore reserve requires development approval from the City. Conversely, where a FMP has been approved by the City but has not been endorsed by the WAPC, subsequent development proposed within the foreshore reserve requires development approval from both the City and the WAPC.

Where development in the foreshore reserve proposes impacts to Bush Forever, development approval must be sought by both the City and the WAPC regardless of whether or not both organisations had approved/ endorsed the Plan (as per the Metropolitan Region Scheme (MRS) Text *Division 2 – Reserved Land Owned by or vested in a Public Authority*).

It should be noted that the City will generally advise that a FMP is to be referred to the WAPC for endorsement to ensure alignment with the WAPC's requirements for foreshore planning and to potentially streamline the development approvals process at later stages.

3.2 Process for assessing a FMP

Once submitted for approval, the City will follow the assessment process set out in **Figure 1** for determining FMPs. The below information details each step of the assessment process:

- 1) The City's Planning and Sustainability Directorate, specifically the Strategic Land Use Planning and Environment unit, will take custody of the FMP once received from the proponent.
- 2) The FMP will be referred to relevant internal service units of the City for comment for a period of 21 days.
- 3) All internal comments will be collated and where changes are considered necessary, the City will request the proponent to amend the FMP to the City's satisfaction. Additional meetings with City staff may be required where detailed comments require discussion.
- 4) Where updates are required to a FMP, a new revised FMP will be submitted to the City's Strategic Land Use Planning and Environment team.
- 5) Once the FMP has been prepared to the satisfaction of the City, City Administration will:
 - Prepare a report to Council recommending approval of the FMP; and
 - Recommend referral of the approved FMP to the WAPC.
- 6) Once an FMP has been approved, all relevant GIS data is to be provided to the City by the applicant.

3.3 Modifications or amendments to an endorsed FMP

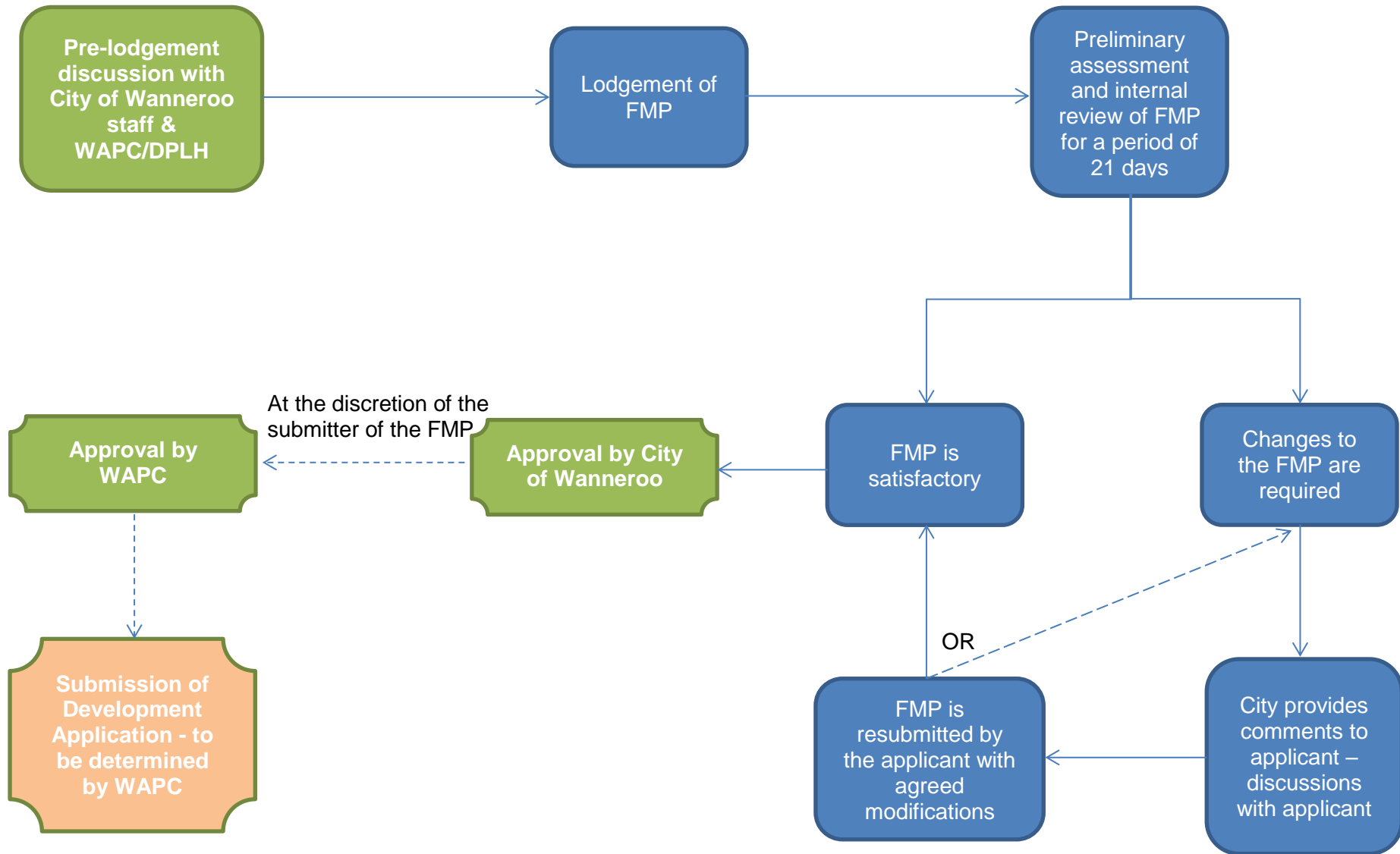
An amendment to a FMP may be required where the plans are no longer relevant to the area covered by the plan or where proposed development within the foreshore is not consistent with the approved FMP. The scale and nature of the changes that have occurred will determine whether there is a need to review and/or update the FMP and ensure its currency.

The currency of plans relates to their need for review based on factors such as continued relevance, the extent and nature of change and pressures operating in the area covered by the plan. The submission of a revised FMP will need to be considered by the WAPC on a case by case basis.

The approving authority of an amendment to a FMP is dependent on the original approving authority. Therefore, where the FMP has been endorsed by the WAPC, the revised FMP needs to be resubmitted to the WAPC in its entirety for approval.

Alternatively, development applications can be submitted for each amendment that is made within the FMP, to be approved by the WAPC prior to works commencing in the foreshore.

Figure 1: Process for the assessment and approval of FMP's



4.0 Monitoring, Compliance and Maintenance

4.1 Purpose of monitoring

Once approved, FMPs will require applicants to undertake a range of actions and monitor the success of their implementation with the aim of meeting the specified selection criteria as per the approved FMP.

Accordingly, the City requires a comprehensive monitoring program to be outlined in the submitted FMP. Any such monitoring program should include parameters to be monitored, targets, performance indicators, completion criteria, timing and location of monitoring. More information on monitoring is included in Appendix 2.

The purpose of monitoring the site is to ensure that the completion criteria are being met, and to identify any issues that require alternative measures.

A key component of the monitoring will be the submission of monitoring reports to the City which will summarise actions undertaken to date, and will provide the City with evidence of how the works undertaken as outlined in the approved FMP are tracking against the completion criteria. Monitoring reports will be submitted annually, or as otherwise agreed in an approved FMP.

4.2 Process and timing of monitoring

The process as set out in **Figure 2** on page 11 should be followed for the monitoring and review of FMP's.

The monitoring results are to be detailed in a report that is to be provided by the proponent annually or at intervals as agreed by the City. Monitoring Reports are to be submitted electronically to the City's Land Development team. This can be arranged by contacting the team on 9405 5000 or via email to CRMLandDevelopment@wanneroo.wa.gov.au.

Some actions will require photographic evidence to be provided to the City. In order to provide this evidence, a photo monitoring point will need to be established prior to the commencement of site works. Details of the photo monitoring point will need to be included in the FMP including location and methods (see Appendix 2 for more information on monitoring points).

The City will undertake the following measures to ensure that compliance to the management plan is being met:

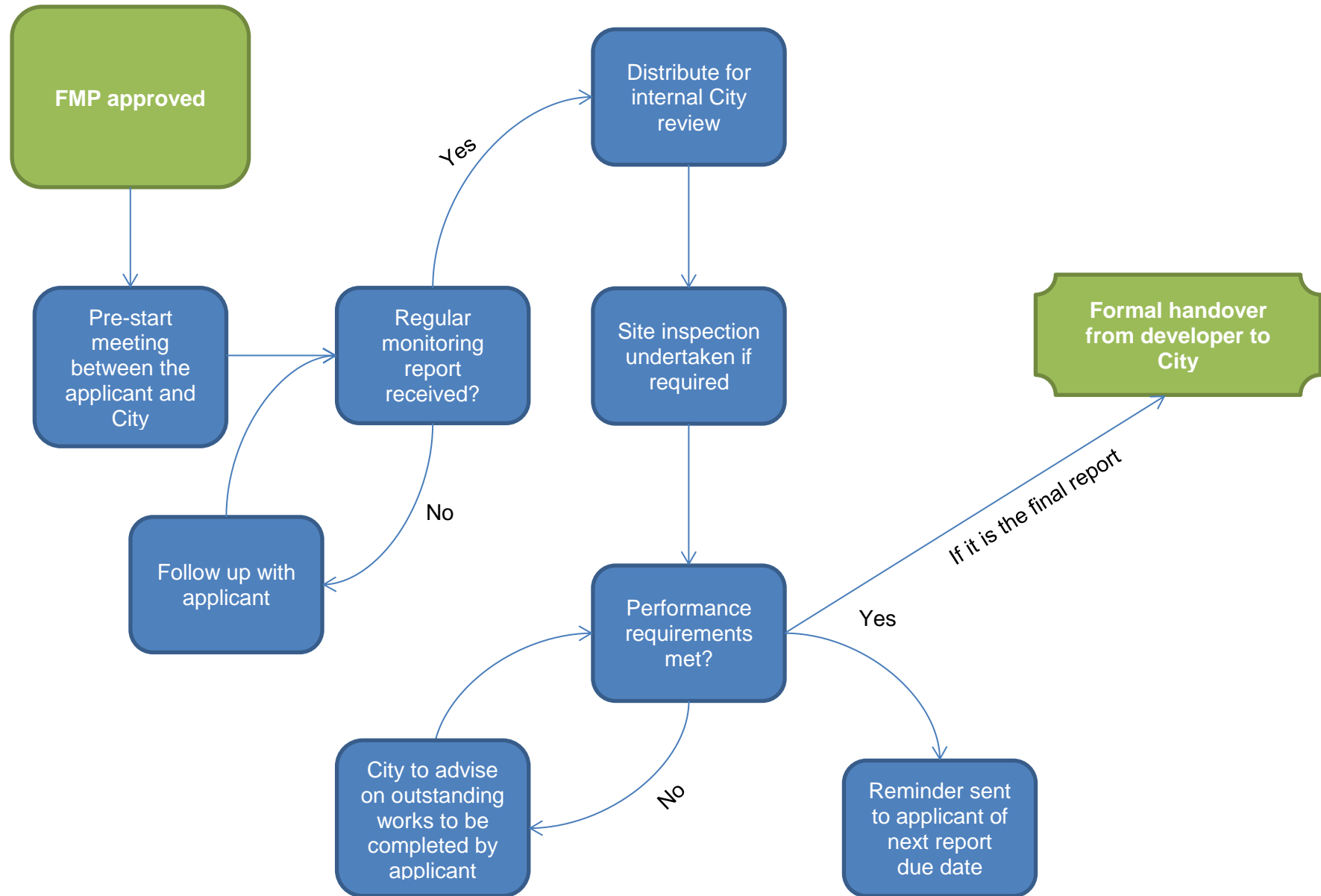
1. Send reminders, as appropriate, to consultants prior to the due date of the report.
2. File and review annual reports.
3. Review of annual reports may include referral to internal City Service Units and inspection as required.
4. Undertake site inspections to ensure monitoring reports are accurate and completion criteria are being met as per the approved management plan.

4.3 Maintenance

FMP's require applicants to undertake a range of actions and then monitor, manage and maintain the area of foreshore works (including all infrastructure, drainage, etc.) for a period of not less than 5 years commencing from the completion of all foreshore works, in accordance with State Planning Policy 2.6. Maintenance may include, but is not limited to, weed control, feral animal control, inspections and repair/replacement of infrastructure, erosion control, infill planting, pruning and monitoring.

- The City may consider the handover of the foreshore in a staged approach, if:
 1. each stage has been managed for a minimum of 5 years from Practical Completion (PC),
 2. the boundary of each stage is clearly delineated, is easily identifiable on site and all infrastructure within the stage is self-contained and not dependent on or connected to other stages;
 3. each stage has its own bore or where a bore covers multiple stages then all stages connected to that bore must be handed over once all stages have been maintained for a minimum of five years from PC;
 4. the City is satisfied that the maturity of vegetation, density of planting and species selection meets completion criteria or is of a satisfactory standard;
 5. the standard of infrastructure is acceptable to the City; and
 6. all other handover requirements are met in accordance with the City's Local Planning Policy 4.21, Coastal Assets Policy and Local Planning Policy 4.3 Public Open Space and the Guidelines for the Subdivision of Land (WD13A and 13C).

Figure 2: Process for the monitoring and review of FMP's



Appendix 1 – Foreshore Management Plan Template

The following template for FMPs sets out the minimum requirements for information to be provided within FMP's of the two types: 'detailed' and 'strategic', and applies to FMP's prepared as a condition of subdivision or as a requirement of a Local Structure Plan.

[Foreshore Management Plan template]
*[Title of Foreshore
Management Plan]*

[Organisation Name]
[Title of Development Area or Proposal (i.e.
Structure Plan Area or Subdivision)]
[Date]
[Document reference number]

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1 - INTRODUCTION

The introduction should provide a brief overview (1-2 pages) of the proposal, and include the following:

1.1 Title and Scope of Proposal

Include the title of the Structure Plan or development stage, and describe the area that the proposal applies to. This section should state who is preparing the Plan and who they are preparing it for.

1.2 Land details

Lot number, Title, Zoning, Structure Plan, subdivision number and vesting. Information should include – interim and/or future vesting identifying freehold and Crown Land (to be changed by the proponent where necessary, and with the potential for future land manager consent to be required) as well as management order details (purpose and details of leasing/licensing powers) and any intended use (including commercial uses, such as for a café or similar venue).

1.3 Background

History of the proposal

1.4 Purpose of the Plan

What are the statutory requirements that the Plan is being prepared for? This can be as a condition of subdivision, as a requirement of a Structure Plan, or in accordance with a Ministerial Statement. Specify the objectives of the Plan (i.e. what it is intending to achieve. For example: creation of a conservation area, fauna management, revegetation etc.).

1.5 Objectives

What is the intended outcome of the Plan?

2 - STATUTORY, PLANNING & POLICY CONTEXT

2.1 Compliance with guidelines, policy and legislation

Briefly outline all statutory documents that are relevant to the proposal. Provide detail on how this Management Plan is complying with all relevant Local, State and Federal Government statutory requirements and approvals, including but not limited to approvals under the Environmental Protection Act 1986 and the Environmental Protection and Biodiversity Conservation Act 1999.

2.2 Existing Approvals

Demonstrate alignment with existing approvals including state and federal approvals and any other approved Management Plans relevant to the site e.g. Bushfire Management Plans. Any relevant existing approvals should be included as appendices to the Management Plan.

3 - EXISTING ENVIRONMENT

This should provide a description of the existing values and limitations over the site, supported by relevant data and mapping. Values should be site specific and may include but are not limited to the following:

- a) Climate and rainfall – using the latest available data sourced from the Bureau of Meteorology.
- b) Vegetation – vegetation type (complexes), species list, location of threatened and/ or priority ecological linkages and communities and vegetation condition. To be supported by a flora survey and to include weed mapping for proposed conservation areas.
- c) Fauna – species list and numbers observed. To be supported by a fauna survey.
- d) Land use – historic and current land uses as well as adjacent and proposed land uses.
- e) Geography – location landform and topography.
- f) Geology – include information on karstic features and water quality.
- g) Soils – including land capability, existing development and infrastructure, marine resource use and access, the presence of acid sulphate/ dieback and surface and groundwater.
- h) Heritage – Aboriginal and European heritage site details including location, protection measures and outcomes of the Heritage Survey. Please also check with the City's Community Development Service Unit to determine if there are any additional un-registered sites in the area that are of value to the Noongar people.
- i) Potential Risks and Coastal Hazard Risks – consideration of any potential environmental impacts or risks over the site such as allocating a suitable portion of land as foreshore reserve to account for the 2120 coastal erosion hazard line, ensuring an accessible and functional foreshore area for public use will remain should this hazard extent be realised in the future.

All of the above should include relevant mapping where applicable.

4 - PLAN

This section will provide detail on how the natural environment will be managed in response to the proposed development. The following should be included as a minimum for all FMP's:

- Detail on meetings/discussion with City prior to drafting the Plan.
- Tenure and management of the coastal foreshore reserve, and coastal node(as defined in S.P.P 2.6) if included.
- Details on the form and scale of development – location and extent of public use, access and facilities including infrastructure and justification for location.
- Unauthorised access – Identification of potential and active access points and ongoing review of management methods to control unauthorised access.
- Vegetation & Fauna - protection of significant or threatened species and habitats, including significant trees, ecological communities and fauna habitat, migratory species including their nesting, breeding and roosting areas or other protected species of flora or fauna, and vegetation to be retained and cleared as well as how environmental impacts of development be minimised.
- Protection of significant views and vistas, natural landscape, seascape and topographical features.
- Dune stabilisation, erosion management, rehabilitation and revegetation.
- Protection and management of any Indigenous and European Heritage sites.
- Compliance with fire management requirements.
- Coastal hazard risk management and adaptation which, for coastal nodes must include a Coastal Hazard Risk Management and Adaptation Plan.
- Coastal processes and Coastal Aquatic Risk Assessment (CARA) – stable or accreting beach, safe for swimming or other activities as per recommendation by Surf Life Saving Western Australia (SLSWA). The provision of a supporting Geotechnical Report to be provided for areas containing unstable landform such as karst or cliffs.
- Relevant associated mapping of all spatial data.

4.1 Detailed Foreshore Management Plan:

- Detailed Plan showing: final ground levels and contours, location, form and scale of any development, land uses, location and function of POS, location of significant trees, and vegetation to be retained;
- Detailed Plans showing vegetation type and condition, the proposed subdivision or development layout, and landscape plans;
- A detailed report with clear recommendations pertaining to the retention of native vegetation and justification for the removal of native vegetation in good or better condition;
- Identification and protection of any significant natural landscapes or topographical features;
- Detail of fauna management, including containment, options for trapping and relocating, population control, and staged/ directional clearing. Fauna management shall consider fauna displacement in the broader context of available fauna habitat in the immediate and surrounding areas;
- Detail on seed collection, propagation, and where applicable, transplanting of vegetation as well as re-use of cleared material (such as brushing) for dune stabilisation and creation of fauna habitats;
- Detail on how the environmental impacts of the proposed development will be minimized, including coastal hazard risk management and adaption planning where appropriate;

- Where a vegetation, flora or fauna survey has not been conducted previously, or where an existing survey is more than 5 years old, one should be conducted with the results included in the FMP;
- Presence of pest and weed species and proposed management, including domestic animal control and community education;
- Identification, protection and management of any European or Indigenous Heritage sites.
- A design that enhances and protects the natural environment, while encouraging human interaction with it through controlled access, signage, and revegetation;
- An overall framework detailing the management of the Foreshore Reserve prior to, during, and after construction. Management measures should include fire, weeds, dieback, fauna protection, dune stabilisation and erosion control, revegetation and controlled access;
- Infrastructure – signage, fencing, pedestrian access, universal access/facilities (as appropriate to site), emergency vehicle and maintenance access, fire management, detail on any other infrastructure as approved by the City (e.g. lookouts, benches etc.);
- Detailed stormwater/drainage management - Water Sensitive Urban Design;
- Connection to the adjoining urban/commercial development and adjacent Foreshore Reserves.
- An Implementation and Management Schedule showing financial responsibilities (capital and current costs) for ongoing management of the foreshore area, including any foreshore protection structures, appropriate completion criteria to be met by the developer prior to handover of a Foreshore Reserve to the City for its management, and the relevant timeframes for each criterion;
- A report that details the relative success of the Plan's implementation against the completion criteria is to be prepared annually and provided to the City's Land Development team;
- Lifecycle and type of non-natural assets with associated mapping showing locations of these assets in addition to 'As Constructed' drawings to the satisfaction of the City; and
- In the absence of a Bushfire Management Plan approved by the City on advice from DFES, consultation with DFES should be undertaken and included in the Plan.

4.2 Foreshore Management Strategy (or Coastal Planning Strategy):

- A broad level strategy indicating the location, any coastal nodes, type of land use and major key elements associated with development in a foreshore reserve. This should be informed by similar criteria to a foreshore management plan;
- The Strategy will address those issues that are critical to development and validate elements that can be addressed in a subsequent detailed FMP;
- Outline general proposed management and monitoring and any required site specific investigations;
- Outline responsibilities for ongoing maintenance and management of foreshore area including any foreshore protection structures;
- Please note a Foreshore Management Strategy may be provided at the Structure Plan stage, or embedded within, and will require the provision of a Detailed FMP to support any subsequent Development Applications.

All of the above Plans should include maps indicating what the Management Plan is proposing including infrastructure, planting and clearing where applicable.

5 - IMPLEMENTATION

5.1 Implementation Schedule and Reporting

*A comprehensive implementation schedule, as shown in **Table 1** of the Foreshore Management Plan Guidelines needs to be included within the Management Plan.*

An implementation schedule should address the following key stages of development:

- Pre works – seed collection, weed management, fauna management, and installation of temporary fencing.
- During works – construction management actions such as ongoing fauna and weed management, erosion and dune stability control measures, construction of permanent fencing, revegetation works, and the installation of any approved infrastructure; and
- Post works – ongoing maintenance and management of a site prior to handover to the City and might include any combination of the above actions in addition to any other actions necessary to achieve the completion criteria, such as ongoing inspection of constructed assets.

Implementation of a FMP should also include, where applicable, any necessary stakeholder consultation and involvement.

5.2 Monitoring

In order to ensure that implementation is in accordance with the approved Plan, the proponent is required to undertake ongoing monitoring of the site for the duration of the management period (not less than 5 years as per SPP 2.6). For the purpose of keeping accurate records and tracking compliance with the approved FMP, a photo monitoring point(s) is/ are required to be established prior to the commencement of site works. This will be marked with a survey peg and will serve as the location from where photographic evidence of actions will be recorded.

The implementation of the approved Plan should be monitored by the proponent and demonstrated through the provision of reports to the City. Usually reports are supplied once a year following the spring monitoring event, however the frequency and level of reporting is to be agreed with the City through approval of the FMP and will be based on the amount and scope of work to be completed and the completion criteria to be met.

Successful monitoring will also include necessary contingencies should monitoring results not be satisfactory. In addition, monitoring should include details on any complaints received and the response to those complaints, as well as reporting any incidents as well as overall performance of the plan as it is being implemented.

5.3 Completion Criteria

This section of the Plan will provide a comprehensive list of the actions to be completed, and the standards to which actions are completed and assets are handed over to the City.

A final report will be required prior to handover that will address how the implementation of the approved Plan has been undertaken. Completion criteria and the final report addressing how these have been met shall include the following as a minimum:

Obligations for management – include information on the obligations of the developer to manage the site. This should include any relevant supplementary maintenance and Local Government responsibilities where applicable, and where agreed by the City.

Practical completion – minimum City of Wanneroo expectations at Practical Completion (PC) include but are not limited to:

- The proponent must refer to the City's Local Planning Policy 4.21 Coastal Assets Policy and Local Planning Policy 4.3 Public Open Space, for information pertaining to the City's expectations at PC. Please note the Foreshore Reserve cannot be included in the 10% Public Open Space Contribution.
- All approved Asset Data and As Constructed Drawings (ASPECS) must be submitted to the City for inclusion in the City's Asset Register.
- Detail on the infrastructure that has been installed including but not limited to fencing, access, signage and other infrastructure such as lookouts and benches where agreed by the City.

Handovers – minimum expectations at Handover include but are not limited to:

- The proponent must refer to the City's Local Planning Policy 4.21 Coastal Assets Policy and Local Planning Policy 4.3 Public Open Space, for information pertaining to the City's expectations at handover. Please note the Foreshore Reserve cannot be included in the 10% Public Open Space Contribution.
- Monitoring and Maintenance of the site for not less than 5 years in accordance with State Planning Policy 2.6.
- Completion Criteria has been met in accordance with the approved FMP and supported by the provision of supporting monitoring/compliance reports. An adequate and reasonable representation of revegetation across the site needs to be provided to the City prior to handover. Multiple survey quadrats need to be presented in order to demonstrate species diversity, coverage, condition and survival rates for areas subjected to revegetation works.
- Vegetation quality should be in a better condition than it was prior to construction. The approved Plan should include the intended final vegetation quality as agreed by the City.
- Acceptable weed cover should be demonstrated through on site observation (such as quadrats or flora surveys). Ongoing weed management actions should be demonstrated in the final report.
- The site should be free of all rubbish including building materials.
- All assets are to be in a condition that is acceptable to the City and installed to the City's satisfaction (as per approved drawings).
- Fauna shall have been adequately managed in accordance with approved Plan so that no fauna remains landlocked, and so that cumulative off-site impacts of habitat removal are minimised.

6 - APPENDICES

6.1 Approvals

Supporting documentation including statutory environmental approvals (state and federal) and any relevant planning approvals.

6.2 Mapping

Include all relevant mapping.

6.3 References

This is to include references to literature and related Plans.

6.4 Incidents

Detail explaining how incidents and non-compliance with the approved Plan will be communicated to the City and how they will be addressed.

Appendix 2: Implementation and Reporting Schedule Template

Legend:

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Pre – Construction					
A pre-lodgement meeting is held with the City's FMP Review Panel, comprising officers from Coastal relevant service units.	Prior to submission of Development Application	Meet with the City's Internal FMP Review Panel comprising officers from Assets Maintenance (Maintenance and Coastal Engineers), Trees and Conservation, Community Safety and Emergency Management (Fire Mitigation), Strategic Asset Management, Land Development (engineering and landscaping), Community Planning (Heritage and Accessibility), Strategic Environmental Planning and Planning Services.	Include details of pre-lodgement discussions in Development Application submission as appropriate.		Site inspection if required
Submission and Approval of Development Application in accordance with approved Foreshore Management Plan. <i>Please note</i> if there is no impact to Bush Forever then detailed Landscape and/or Revegetation Plans may be submitted to the City's Land Development Unit for Approval.	Prior to site works.	Landscaping and Engineering design elements, as well as any additional detail highlighted in the FMP, to be submitted as part of the Development Application and in accordance with any approved documents – BMP, LWMS, etc. Site inspection or meeting – discuss key points of Development Application Plans. Any battering required to obtain a soft edge interface between the foreshore reserve and adjacent development should be contained within the 'urban development', outside the Parks and Recreation. Generally a maximum batter gradient is 1:4 to minimise erosion. Suitable stabilisation techniques should be applied as appropriate. Development should minimise the clearing of Bush Forever and any existing native vegetation. Where development is proposed within a dune blowout, the dune system should be re-engineered appropriately, for example the foredune may be reinstated to reduce sand erosion and accretion into the developed area. All development is to consider erosion control prior to, during and following construction.	Receipt of application. Referral to WAPC/DPLH. Recommendation to WAPC/DPLH	The City sends referrals to internal Service Units. The City refers the application to WAPC/DPLH with 7 days of receiving application. The City may request additional information or amendments. Any issues will be resolved with internal Service Units prior to a recommendation being made to WAPC. The City makes a recommendation to the WAPC/DPLH within 42 days of receiving application.	Site inspection if required.
Monitoring	Prior to site works.	Establish photo monitoring points and quadrats for the purpose of revegetation and weed coverage monitoring. Establish photo monitoring points for the purpose of coastal monitoring to track shoreline/vegetation lines – to understand seasonal and longer term variations. Monitoring Program to be established and agreed with the City or as per the approved FMP.	Map showing locations in approved FMP.	As per approved monitoring plan/ schedule agreed with the City.	Nil.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Waste management	Prior to site works and ongoing.	Removal, transport and appropriate disposal of dumped rubbish, construction materials, asbestos and other contaminated waste at an approved facility in accordance with environmental and health regulations.	<p><u>Litter/ general waste</u> Before and after date stamped photographs and/ or invoices for disposal.</p> <p><u>Asbestos</u> Provision of validation report in accordance with environmental and health regulations for the removal of asbestos.</p> <p><u>Contaminated Waste</u> Provision of contaminated waste docket in accordance with environmental and health regulations for the removal of contaminated waste.</p>	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works as required.
Temporary Fencing and signage of conservation and rehabilitation areas, as well as heritage areas to prevent unauthorised access.	<p>To be installed pre-construction and prior to clearing occurring adjacent to the proposed development/clearing area.</p> <p>To be removed following construction works.</p>	<p>Using surveying techniques locate areas of native vegetation to be retained and install fencing and signage around these areas.</p> <p>Regularly inspect fencing and signage and provide maintenance where required including any additional measures for the prevention of unauthorised access.</p> <p>Replace temporary fencing with adequate long-term fencing.</p> <p>Replace signage around conservation areas with park name signage in accordance with LPP 4.3 Public Open Space. Appropriate safety signage and Beach Emergency Number (BEN) signage should be provided to beaches that are accessible to the public.</p> <p>*Note – areas of European or Indigenous heritage will need to be located and fenced, however signage may not be appropriate for Indigenous sites. Heritage management will need to be in accordance with approved FMP.</p>	Date stamped photographs at agreed photo monitoring points and mapping showing location of fencing and signage.	Evidence provided within 4 weeks of installation of fencing/ signage and also to be included in the annual report commencing from approval of FMP.	Potential CoW audit of works as required.
Establish temporary pedestrian and vehicle/emergency pathways/access.	Pre-construction	<p>Provide suitable temporary pedestrian access and/or vehicle/emergency access (in an area where permanent access is ultimately proposed) to allow safe access to the beach <u>during construction works</u> and to prevent unauthorised access to the Foreshore Reserve, <u>if appropriate</u>. Include universal access where possible.</p> <p>Path and access ways should align with existing tracks to minimise additional clearing.</p> <p>Where temporary access to the beach has been provided adequate Safety signage and Beach Emergency Number (BEN) Signage should be provided. For signage specifications refer to <u>Temporary fencing, gates and signage replaced with permanent fencing, gates and signage</u></p>	Date stamped photographs and mapping showing location of access.	Evidence provided within 4 weeks of installation of fencing/ signage and also to be included in the annual report commencing from approval of FMP.	Potential CoW audit of works as required

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Unauthorised Access.	Pre-construction and ongoing.	<p>Early identification of potential and active access points.</p> <p>Identification and ongoing review of management methods to prevent unauthorised access in consultation with the City.</p> <p>Ongoing communication of any reoccurring issues with City Rangers.</p> <p>Must be provided in accordance with approved documents.</p>	Date stamped photographs and mapping showing location.	Evidence provided and included in annual report commencing from the approval of the FMP.	Potential CoW audit of works as required.
Stabilisation of dune blow outs, degraded areas and of any cleared areas.	Pre-construction and ongoing.	<p>Early stabilisation measures to be undertaken, where possible, to prevent further degradation and erosion of site and to manage dust/sand drift associated with proposed clearing.</p> <p>Stabilisation measures in foreshore areas should consist of 900 GSM coir mesh and galvanised pins for areas with slopes (especially those adjacent to paths and tracks);</p> <p>Brushing material of a suitable type can be used as the sole stabilisation technique in relatively flat areas, or in conjunction with coir-mesh matting;</p> <p>Weed and disease free mulch may be considered in relatively flat areas, at the discretion of the City;</p> <p>A combination of the above methods of foreshore stabilisation should be used in areas where there are existing, informal tracks that need to be rehabilitated, and where there is unwanted public access; and</p> <p>Wind break fencing should be used where there is excessive sand drift. The City has a standard drawing for this, which should be used (TS 01-11).</p>	Date stamped photos and mapping showing location of various stabilisation techniques.	Included in first report following revegetation works.	Potential CoW audit of works as required.
Control the spread of weeds within the area of native vegetation to be retained in Foreshore Reserve.	Pre-construction.	<p>Areas of vegetation to be retained in Foreshore Reserve should be assessed for weed abundance and mapped accordingly.</p> <p>Undertake ongoing weed management of the conservation POS areas. Aiming for less than 10% weed coverage over the site.</p>	<p>Date stamped photos at agreed photo monitoring points showing indicator dye or invoice from contractor.</p> <p>Must provide mapping showing location and type of weeds present.</p>	To be included in the annual report commencing from approval of FMP.	Heavily weed infested areas or non-compliance with agreed weed management may result in increased frequency of reporting and/ or extended maintenance period.
Seed collection and vegetation management.	Several seasons prior to development.	<p>Build-up of local provenance seed collection over several seasons from the development area. Seed collected in accordance with industry standards.</p> <p>Seed collection of species that are able to be propagated.</p> <p>Propagation to occur during construction.</p> <p>Set up of agreed monitoring criteria within proposed revegetation area and in accordance with approved Foreshore Management Plan.</p> <p>Identify brushing that can be salvaged from cleared areas, as appropriate, for re-use in the stabilisation of revegetation areas.</p>	<p>Provide evidence from seed collection specialist of ability to propagate the seed collected.</p> <p>Copies of valid licences and processes to be provided.</p> <p>Schedule of seed collected – amount and species.</p> <p>Provide evidence of advanced trees and harvested vegetation.</p>	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Dieback/disease management	Pre-construction and ongoing.	<p>Personnel induction prior to entering site outlining management requirements.</p> <p>Hygiene control measures such as cleaning stations, use of dieback free construction materials, access control, information signs, and use of tubestock from an Accredited dieback free nursery for use in landscaping or propagated for use in revegetation areas.</p> <p>Management of dieback within rehabilitation sites.</p>	<p>Provide documented evidence (handbook/construction management plan) depicting personnel induction.</p> <p>Date stamped photographs and mapping showing location of cleaning stations/wash down bays.</p> <p>Provide accredited nursery certification.</p>	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works and ongoing consultation with the City as required.
Fauna Management	Pre-construction and ongoing.	<p>Undertake reconnaissance to determine fauna present on ground prior to site works (fauna survey ground-truthing).</p> <p>Install fauna proof fencing around entire perimeter of the relevant development stage prior to site works. Fauna proof fencing should be a minimum height of 1.8 metres, pegged into the ground with taught wire to keep the bottom of the fence flush with the ground.</p> <p>Mustering or trapping and Relocation – fauna relocated offsite. Offsite impacts remain the responsibility of the developer. Need to consider cumulative impacts of habitat removal.</p> <p>Feral animal control.</p> <p>Culling – prior to on ground works and with advice and approval from DPaW</p> <p>Fauna must be managed in accordance with the approved Vegetation and Fauna Management Plans.</p> <p>Information relating to populations (including sustainability of populations within subject area and adjacent, culling/ relocation areas), methodology and location should be included. A report should be submitted to the DBCA, and to the City, detailing fauna found on site and where they are relocated to. It is preferred that fauna is relocated to known existing, or proposed, conservation reserves rather than an area to be cleared for future development. The City can be contacted in regards to utilising any of its existing conservation reserves for relocation of fauna. Where the fauna has been located to a City reserve the species of fauna and location will be registered on the City's fauna database to assist with future management.</p>	<p>Date stamped photographs and mapping showing location of fencing.</p> <p>Report on fauna trapped by suitably qualified and licenced expert and in accordance with DPaW advice.</p>	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works and ongoing consultation with the City as required.
Fire mitigation works.	Pre-construction and ongoing.	<p>Must be in accordance with relevant legislation including State Planning Policy 3.7, guidelines and approved Bushfire Management Plans.</p> <p>Please note, an FMP should inform a BMP, and fire mitigation strategies should not be contained within the foreshore reserve as per <i>SPP 3.7 Guidelines for Planning in Bushfire Prone Areas</i> Section 2.3 Bushfire Risk Management and Environmental Conservation.</p>	Demonstrated compliance with SPP 3.7.	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works and ongoing consultation with the City as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Construction					
Waste management	During site works and ongoing.	Removal, transport and appropriate disposal of dumped rubbish, construction materials, asbestos and other contaminated waste at an approved facility in accordance with environmental and health regulations.	<u>Litter/ general waste</u> Before and after date stamped photographs and/ or invoices for disposal. <u>Asbestos</u> Provision of validation report in accordance with environmental and health regulations for the removal of asbestos. <u>Contaminated Waste</u> Provision of contaminated waste docket in accordance with environmental and health regulations for the removal of contaminated waste.	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works as required.
Temporary fencing, gates and signage replaced with permanent fencing, gates and signage.	At start of construction works and ongoing.	Resurvey foreshore development boundary and reinstate permanent fencing with controlled access points in accordance with approved FMP. <u>Fencing and Gate Specifications:</u> The City has three types of specifications for fencing that may be considered for use within the Foreshore Reserve: 1. Conservation Pine Rail Fencing – TS01-7 2. Coastal Foreshore and Beach Access Way Fencing - TS01-4 3. Windbreak Fencing – TS01-11 Conservation Fencing is to be installed in the following locations: <ul style="list-style-type: none"> • Around the legal property boundary of the Foreshore Reserve or along the interface of the foreshore reserve and development area/road reserve; and • On both sides of a Beach Access Way (BAW) that supports BOTH pedestrian and vehicle access. Coastal Foreshore and BAW Fencing may be used in the following locations: <ul style="list-style-type: none"> • On both sides of pedestrian ONLY BAW's; and • Along both sides of internal tracks, where the reserve boundary is fenced with Conservation Fencing. Wind Break Fencing should be used in rehabilitation sites. Other locations may be considered by the City on a case by case basis. All fencing must be offset 30cm from the edge of the 'path' AND native vegetation must be pruned 30cm off the fence lines and maintained to prevent accelerated ageing of the asset. The offset area adjacent the path may be crushed limestone, Emulsion Stabilised Limestone (ESL), stone pitching or other materials as appropriate to the site to reduce sand drift and erosion.	Date stamped photographs showing installed permanent, gates fencing and signage.	Included in first report following installation of permanent fencing, gates and signage.	Potential CoW audit of works as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
		<p>The use of gates is supported within the Foreshore Reserve and the locations of the gates must be on the land entrance side of the access way as far away from the high impact salt spray zone as possible. Generally a gate is not required, and therefore is not supported by the City, on the beach side of the access way as vehicles are not permitted on any beaches within the City of Wanneroo.</p> <p>There are two types of specifications for gates:</p> <ol style="list-style-type: none"> 1. Restricted Access Gate – TS01-14 Option 1 – preferred gate 2. Rural Field Gate – TS01-13 <p>A removable bollard may be used on a concrete/hard stand surface at the discretion of the City, however must be located on the land entrance side of the access way away from the high impact salt spray zone and avoid areas of high sand drift as this will impact the functionality of the bollard.</p> <p>Regularly inspect fencing and signage and provide maintenance where required including any additional measures for the prevention of unauthorised access.</p> <p>Temporary signage will be removed once permanent signage has been installed.</p> <p><u>Signage Specifications:</u></p> <p>There are four types of signage:</p> <ol style="list-style-type: none"> 1. Landmark signage is to be in accordance with the City's standard drawing TS06-5 and City of Wanneroo Park Sign Specification; 2. Interpretive signage – is to use a hardy and sustainable recycled plastic and be a standard size of 835mm x 435mm. The design is to be submitted to the City for approval; 3. Compliance Signage (such as dog, parking, activity restriction/control signs) to use standard symbols with wording designed and approved by the City. 4. Safety signage is to be in accordance with the following: <ul style="list-style-type: none"> i. <u>AS/NZS 2416.1:2010</u> Water safety signs and beach safety flags – Specifications for water safety signs used in workplaces and public areas (IS 20712-1:2008, MOD). ii. <u>AS/NZS 2416.3:2010</u> Water safety signs and beach safety flags – Guidance for use. iii. <u>National Aquatic and Recreation Signage Style Guide</u>; Third Edition (July 2006). iv. <u>ISO 7010:2011</u> Graphical symbols – safety colours and safety signs – Registered Safety Signs v. <u>Beach Emergency Number (BEN) signs</u> – to be designed and located in accordance with the Department of Primary Industry and Regional Developments (DPIRD) BEN guidelines, with the final location and design to be approved by the City. 			
Temporary access to be replaced with permanent access.	Construction	<p>Path and access ways should align with existing tracks to minimise additional clearing.</p> <p>Where possible paths are to be west to north-west alignment to avoid wind erosion, particularly at the point where the path connects to the beach.</p> <p>There should be no 'dead-end' areas within the foreshore reserve. For example, all lookouts should have two exit/entrance points.</p>	Date stamped photographs showing installed permanent pathways and access.	Include in report.	Potential Cow audit of works as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
		<p>In the absence of east/west linkages, emergency access ways are required to have a turn-around point every 500 metres.</p> <p>Where topography allows and a safe swimming beach exists, universal access should be provided to the beach with the level of provision and design in accordance with an Access Report or as per advice of an Accessibility Consultant.</p> <p>There are three basic types of beach access:</p> <ol style="list-style-type: none"> 1. Pedestrian access – minimum width 2.1 metres; 2. Emergency vehicle AND Pedestrian access – minimum width 3m; and 3. Access for machinery for ongoing beach maintenance – minimum width 3.5m. <p>Minimum widths should allow for a 30cm buffer either side of the 'path' to accommodate fencing. The offset area adjacent the path may be crushed limestone, Emulsion Stabilised Limestone (ESL), stone pitching or other materials, as appropriate to the site, to reduce sand drift and erosion.</p> <p>Staircases, ramps, boardwalks and lookouts will be considered where clearing is being avoided and/or where topography limits the provision of the basic types of access. The location of structures should be guided by a geotechnical report and the type of structure should be supported by a structural report. The position and design life of assets must be considered in conjunction with Coastal Hazard Risk and coastal beach profile changes (seasonal changes).</p> <p>Access ways may be constructed with the following material dependent on the site (to be agreed with the City):</p> <ol style="list-style-type: none"> 1. Marine grade concrete (50 MPa concrete) – may be used for all basic beach access ways. The end of the concrete closest to the wave/tidal zone is to extend below the existing sand level for an eroded beach profile (winter conditions). This will prevent the ramp from being undermined. Concrete is the preferred material in most circumstances due to its longevity. Emergency vehicle access should be concrete. 2. Sand - may be used for pedestrian access; and 3. Compacted/stabilised limestone – may be used for all the access types. The end of the compacted limestone closest to the wave/tidal zone is to extend below the existing sand level for an eroded beach profile (winter conditions) and backfilled with sand. This will prevent the ramp from being undermined. <p>All development must include a coastal dual use path that will continue Perth's regional coastal dual use path into the northern corridor.</p> <p>Pathways within coastal nodes may be pedestrian (1.5m wide made of concrete) or dual-use paths (2.1m wide made of concrete or bitumen/red Asphalt). The Coastal Dual Use path should be 3m wide. Where the pathways are hard up against a kerb or fence the path is to be widened by 300mm.</p>			
Unauthorised Access	Construction and ongoing.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Control the spread of weeds within the area of native vegetation to be retained and revegetation areas in conservation POS.	Construction.	Refer to information in preconstruction. Include weeding of constructed verges surrounding Foreshore Reserve or conservation areas.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Seed Collection and vegetation management.	From pre-development through to construction of POS and as required.	Build-up of local provenance seed collection over several seasons from the development area. Seed collected in accordance with industry standards. Seed collection of species that are able to be propagated Selection and availability of advanced trees needs to be considered prior to development and harvesting of vegetation ie Grass Trees and Zamia Palms. Propagation of collected seed to occur during construction. Salvaging of brushing for re-use in revegetation and stabilisation areas. Ideally to be placed in revegetation areas that are relatively flat immediately following clearing to avoid stockpiling and to make use of viable seed bank.	Refer to information in preconstruction and also include propagation invoice.	Refer to information in preconstruction.	Refer to information in preconstruction.
Dieback/disease management	Pre-construction and ongoing.	Hygiene control measures such as cleaning stations, use of dieback free construction materials, access control, information signs, and use of tubestock from an Accredited dieback free nursery for use in landscaping or propagated for use in revegetation areas. Management of dieback within rehabilitation sites.	Date stamped photographs and mapping showing location of cleaning stations/wash down bays. Provide accredited nursery certification.	To be included in the annual report commencing from approval of FMP.	Potential CoW audit of works and ongoing consultation with the City as required.
Fauna Management	Construction and ongoing.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Fire mitigation works	Construction and ongoing.	Must be in accordance with relevant legislation including State Planning Policy 3.7, guidelines, approved Bushfire Management Plans, and conditions of planning approval. Actions may include but are not limited to clearing and pruning for fire and maintenance access tracks, installation of formalised tracks as per specifications (see Emergency Vehicle and Maintenance Access section below). Formal community education and awareness of fire mitigation works in accordance with SPP 3.7. In accordance with the Guidelines for Planning in Bushfire Prone Areas, no fire mitigation measures for adjacent developments (such as low fire threat revegetation) are to be located within the foreshore reserve, including the coastal node.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Emergency Vehicle and Maintenance Access Tracks	Construction and ongoing.	Fire Access Tracks to be installed in accordance with approved Bushfire Management Plan. In the instance a BMP does not require a track to be installed, the minimum requirement is a 3 metre wide formalised access track.	Date stamped photographs showing installed tracks.	Included in first report following installation of tracks.	Potential CoW audit of works as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Revegetation works	Construction and ongoing.	<p>Planting areas are to be planted in a manner that imitates natural regeneration as closely as possible;</p> <p>A variety of species to the satisfaction of the City is to be used throughout the planting area, ensuring a mixture of species and structure (upper, middle and lower storey species) is achieved over the site;</p> <p>Completion Criteria for revegetation works are to include a minimum survival rate and weed coverage based on the characteristics of the site and to the satisfaction of the City;</p> <p>Species lists for revegetation shall be based on the species recorded in Flora Surveys conducted over the site. Planting shall reflect, as close as possible, the species found in adjacent or most closely located vegetation communities;</p> <p><u>Site Preparation:</u></p> <p>Stabilisation measures in foreshore areas should consist of 900 GSM coir mesh and galvanised pins for areas with slopes (especially those adjacent to paths and tracks);</p> <p>Brushing material of a suitable type can be used as the sole stabilisation technique in relatively flat areas, or in conjunction with coir-mesh matting;</p> <p>Weed and disease free mulch may be considered in relatively flat areas, at the discretion of the City.</p> <p>A combination of the above methods of foreshore stabilisation should be used in areas where there are existing, informal tracks that need to be rehabilitated, and where there is unwanted public access; and</p> <p>Wind break fencing should be used where there is excessive sand drift. The City has a standard drawing for this, which should be used (TS 01-11).</p> <p><u>Planting Densities:</u></p> <p><i>Spinifex longifolia</i> and <i>Spinifex hirsutus</i> are to be planted at a minimum rate of 4 plants per square metre; and</p> <p>All other species to be planted in foreshore reserves are to be planted at a minimum rate of 2 plants per square metre.</p> <p>Refer to WD13A Landscape Design Specification for planting density in landscaped recreational areas.</p>	<p>Date stamped photos and relevant data of revegetation site in accordance with approved success criteria monitoring.</p> <p>Must provide mapping showing location of revegetation.</p>	Included in first report following revegetation works.	Potential CoW audit of works and ongoing consultation with the City as required.
Drainage	Construction	<p>Coastal development should manage water resources in accordance with the principles of water sensitive urban design and integrated water cycle management. This includes treating all urban water flows as potential resources, and giving consideration to all water users, including the community, industry and the environment.</p> <p>Drainage should maintain or restore pre-existing or desirable environmental flows and hydrological cycles, and detention/infiltration areas and overland flow paths onto the beach for major flow events subject to minimal landform modification within the dune system (as per SPP 2.6).</p>	<p>Date stamped photographs showing installed assets.</p> <p>'D-Spec' in accordance with City requirements.</p>	Whole point inspections in accordance with IPWEA Guidelines	Potential CoW audit of works as required.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
		<p>Where discharging or containing stormwater suitable scour and erosion protection and mitigation measures need to be considered.</p> <p>Management of urban water resources should consider L.P.P 4.4 Urban Water Management.</p> <p>There is a general presumption against the use of coastal foreshore reserves for the management of wastewater or to accommodate any portion of infrastructure or site works used for wastewater management.</p>			
Assets	Construction and ongoing.	<p>Suitable assets to install in the foreshore reserve will depend on the beach/coastal node hierarchy which are identified in the Coastal Management Plan or in the Local Structure Plan.</p> <p>The position and design life of assets must be considered in conjunction with Coastal Hazard Risk and coastal beach profile changes (seasonal changes).</p> <p>The location of structures should be guided by a geotechnical report and the type of structure should be supported by a structural report.</p> <p>Asset Specification in foreshore areas:</p> <ul style="list-style-type: none"> • Materials must be salt, rust resistant and marine grade and are generally restricted to recycled plastics (or similar), concrete and metals (aluminium or stainless steel) and composite materials suitable to the subject environment. • The City encourages the use of sustainable products, where possible, in accordance with the City's Waste Management Plan – with an aim to reduce waste to landfill and encourage recycling practises whilst considering the longevity of the product. <p>An example of suitable assets within the Foreshore Reserve are bench seating, outdoor shower, drinking fountain, 2-3 beach access points, bike rack, lookout shelter and picnic table. For a full list of suitable assets within the Foreshore Reserve according to beach hierarchy please refer to L.P.P 4.21: Coastal Assets Policy.</p> <p>Consideration should be made for the provision of universal access and facilities based on topography and the suitability of area for such provisions, and should be either supported by the provision of an Access Report or as per the advice of an Accessibility Consultant.</p>	<p>Date stamped photographs showing installed assets.</p> <p>Provision of any structural reports and geotechnical reports.</p> <p>Provision of Access Report/advice of Accessibility Consultant</p> <p>The City of Wanneroo is a member of A-SPEC and as such has a requirement that during the asset handover process, asset data be provided in accordance with the A-SPEC requirements. All asset data is to be provided for assets associated with the following 4 areas.</p> <ol style="list-style-type: none"> 1. B-Spec A common specification outlining the details of building asset data that is to be supplied in a machine readable format. 2. D-Spec A common specification outlining the details of stormwater drainage and Water Sensitive Urban Design (WSUD) asset data that is to be supplied in a machine readable format. 3. O-Spec A common specification outlining the details of assets within open space and recreation reserves that is to be supplied in a machine readable format. 4. R-Spec 	<p>Included in first report following installation of assets.</p> <p>Provided at PC.</p>	<p>Potential CoW audit of works as required.</p>

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
			<p>A common specification outlining the details of assets within a road reserve that is to be supplied in a machine readable format.</p> <p>Access to the above references specifications is via a request through the A-SPEC website. https://www.a-specstandards.com.au</p> <p>Provide audit of all materials, colours & brands used for improvements.</p>		
Post – Construction					
Waste management	Post construction works and during maintenance period.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Weed Management	Post construction works and during maintenance period.	Refer to information in preconstruction. Include weeding of constructed verges surrounding Conservation POS.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Revegetation works	Post construction works and during maintenance period.	Ongoing revegetation works including infill planting to ensure attainment of completion criteria. Seed collection and propagation works is to be included as part of ongoing revegetation requirements.	Refer to information in preconstruction and also include propagation invoice.	Refer to information in preconstruction.	Refer to information in preconstruction.
Unauthorised Access	Post construction works and during maintenance period.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Fauna Management	Post construction works and during maintenance period.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.
Fire mitigation works	Post construction works and during maintenance period.	Refer to information in construction.	Refer to information in preconstruction.	Refer to information in preconstruction.	Refer to information in preconstruction.

Action	Timing	Description of Works	Evidence of Completion	Target/ Action Date - Reporting	Further Action Required?
Maintenance and replacement of assets	Post construction works and during maintenance period.	Assets include fencing, signage, gates, emergency vehicle and maintenance access tracks, lookouts, benches, boardwalks, and information shelters. Assets to be maintained to ensure no risk to public safety and include condition rating.	Date stamped photographs (before and after maintenance works) showing maintenance works or replacement of assets and written description of works undertaken.	To be included in the annual report.	Refer to information in construction.
Drainage	Post construction works and during defects and liability period.	Monitoring and maintenance in accordance with Urban Water Management Plan.	Date stamped photos and maintenance records. Data logs.	Structural elements to be in accordance with Civil Drawings. Monitoring and maintenance to be in accordance with Urban Water Management Plan	Site inspections and on-going timeframes as per UWMP and rectification requirements.
Monitoring	Post construction works and during maintenance period.	Ongoing data provided from established quadrats. Vegetation Condition. Revegetation and completion criteria. Weed coverage and completion criteria. Beach maintenance to deal with wind-blown sand accretion or coastal erosion issues and any issues during the maintenance period. Coastal monitoring to track shoreline/vegetation lines and any impacts on assets.	Mapping. Date stamped photos. Maintenance records.	Final report demonstrating how all completion criteria have been adequately met in accordance with the approved Plan.	Potential CoW audit of works and ongoing consultation with the City as required prior to handover.

Appendix 3: Conceptual Designs for the Foreshore Reserve

The following drawings demonstrate potential designs that allow for maximum retention of native vegetation and sensitive design of coastal nodes for Foreshore Reserve areas.

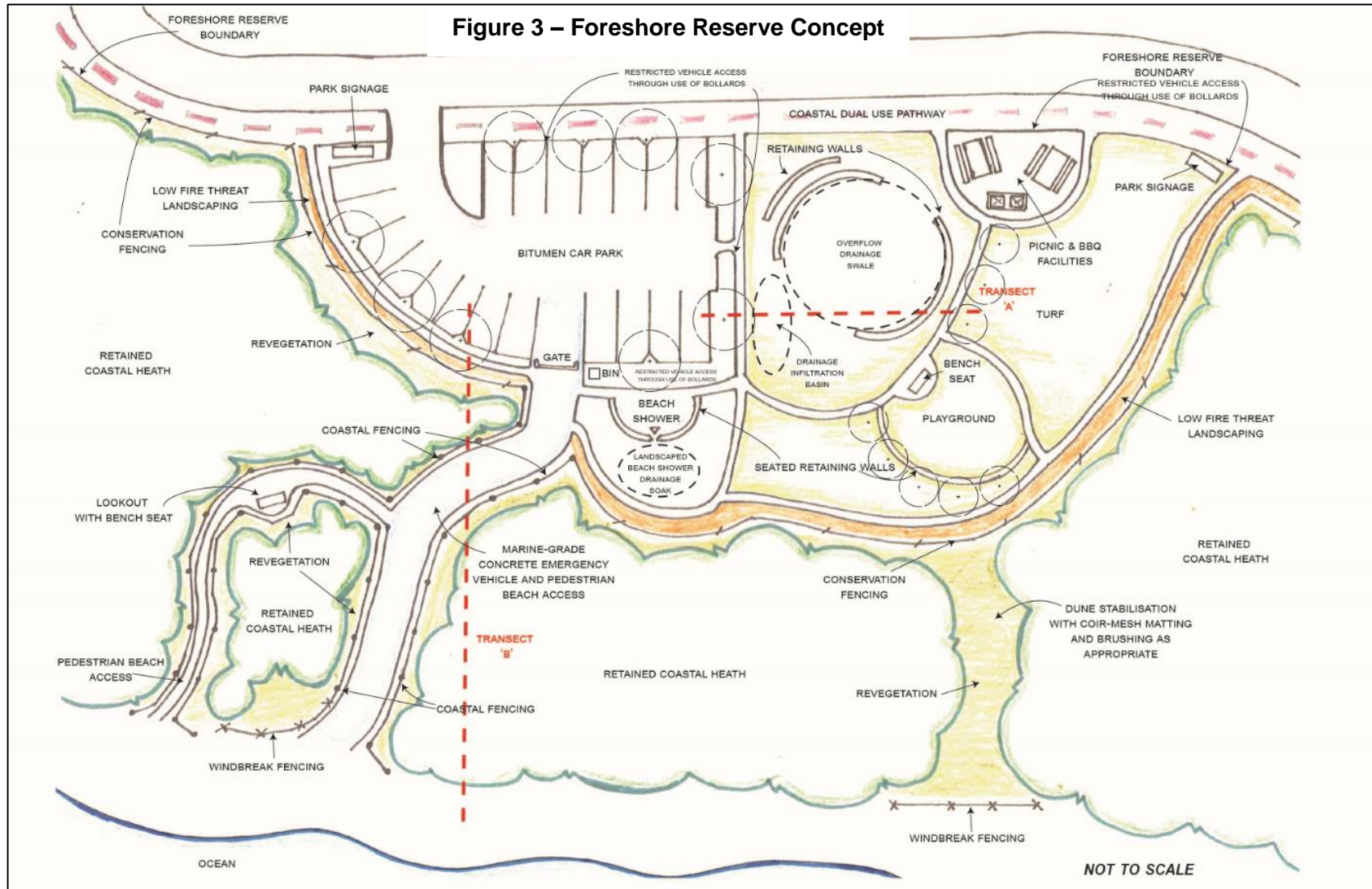


Figure 4 – Foreshore Reserve Concept - Transect A

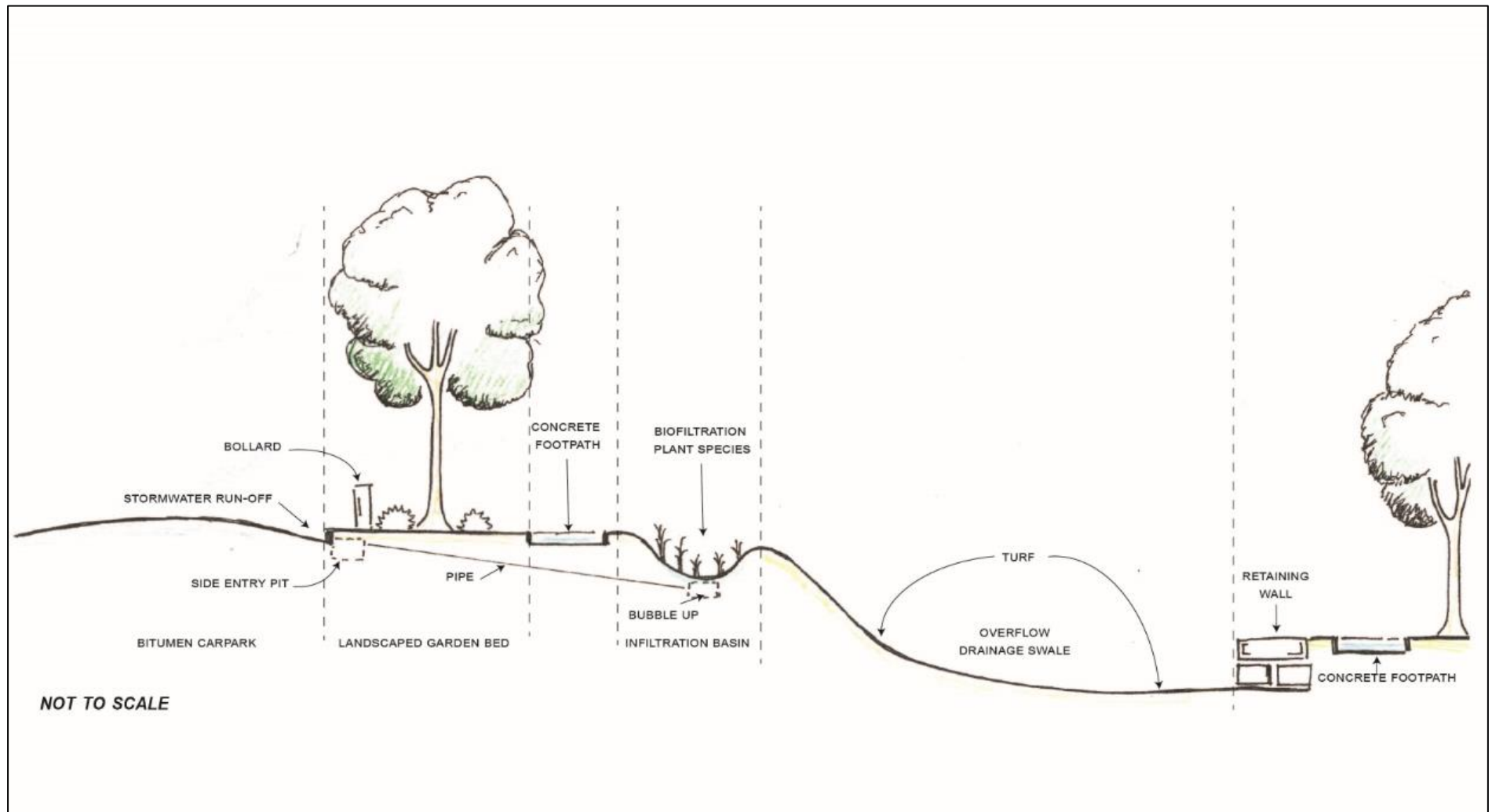


Figure 5 – Foreshore Reserve Concept - Transect B

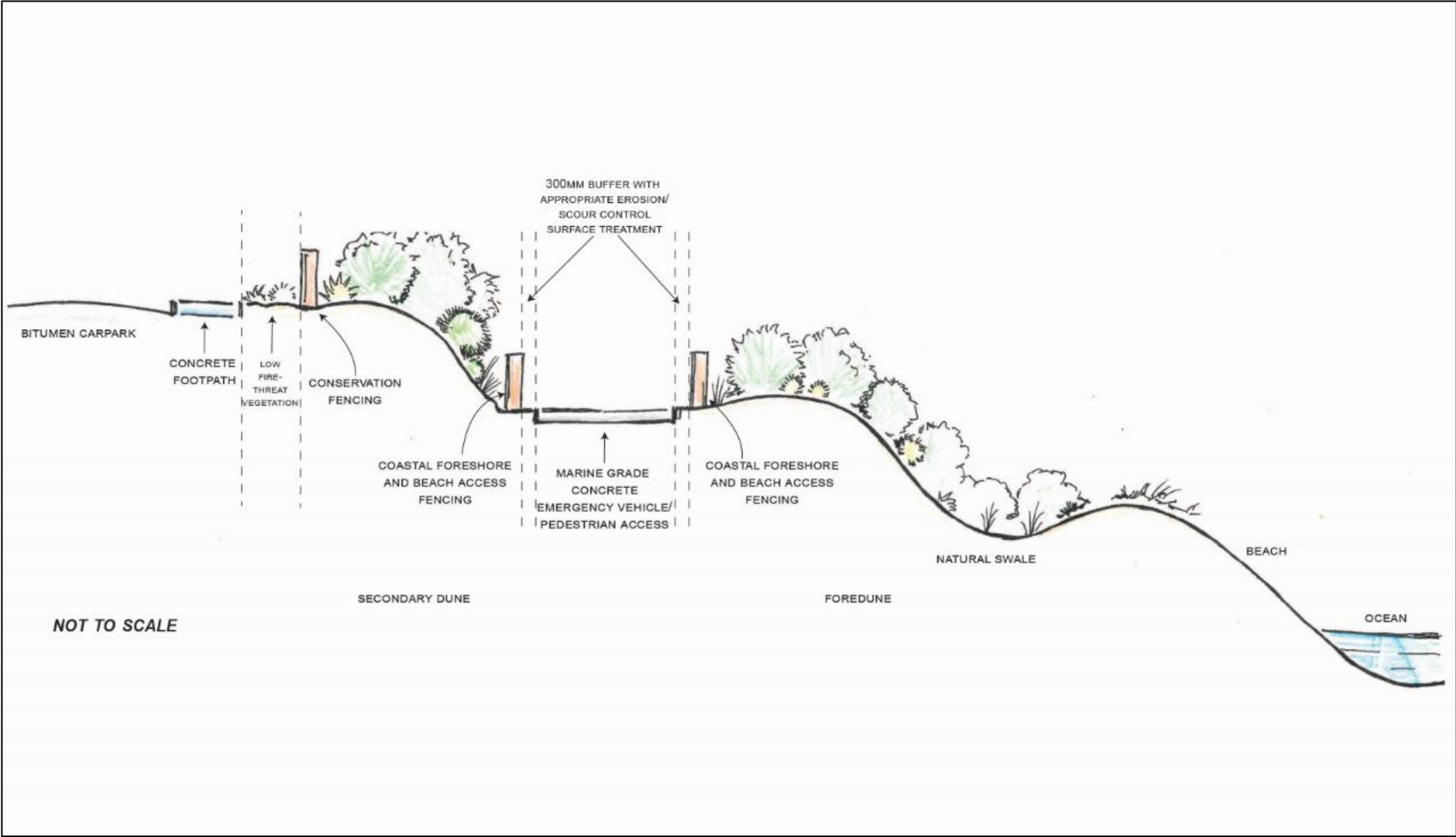


Figure 6 – Foreshore Reserve Interface Cross-section

