

NOTICE OF MEETING

PLANNING AND COMMUNITY CONSULTATION COMMITTEE

Members of the Planning and Community Consultation Committee are advised that a meeting of the Committee will be held in the Council Chambers, 83 Mandurah Terrace, Mandurah on:

**Tuesday 10 May 2022
at 5.30pm**

MARK R NEWMAN

Chief Executive Officer
5 May 2022

Committee Members

Councillor D Pember [Chairperson]
Mayor R Williams
Councillor P Jackson
Councillor C Knight
Councillor B Pond
Councillor A Zilani

Councillor R Burns
Councillor J Green
Councillor A Kearns
Councillor D Schumacher
Councillor D Wilkins

AGENDA

1 OPENING OF MEETING AND ANNOUNCEMENT OF VISITORS

2 APOLOGIES

3 IMPORTANT NOTE:

Members of the public are advised that the decisions of this Committee are referred to Council Meetings for consideration and cannot be implemented until approval by Council. Therefore, members of the public should not rely on any decisions of this Committee until Council has formally considered the resolutions agreed at this meeting.

4 RESPONSES TO QUESTIONS TAKEN ON NOTICE

5 AMENDMENT TO STANDING ORDERS

Modification to *Standing Orders Local Law 2016* - electronic attendance at meeting.

6 PUBLIC QUESTION TIME

Public Question Time provides an opportunity for members of the public to ask a question of Council. For more information regarding Public Question Time please visit the City's website mandurah.wa.gov.au or telephone 9550 3787.

7 PRESENTATIONS

8 DEPUTATIONS

Any person or group wishing to make a Deputation to the Committee meeting regarding a matter listed on this agenda for consideration must complete an application form. For more information regarding making a deputation please visit the City's website mandurah.wa.gov.au or telephone 9550 3787.

NB: Persons making a deputation to this Committee meeting will not be permitted to make a further deputation on the same matter at the successive Council meeting, unless it is demonstrated there is new, relevant material which may impact upon the Council's understanding of the facts of the matter.

9 CONFIRMATION OF MINUTES: 12 APRIL 2022

Minutes available on the City's website via mandurah.wa.gov.au/council/council-meetings/agendas-and-minutes

10 DECLARATIONS OF FINANCIAL, PROXIMITY AND IMPARTIALITY INTERESTS**11 QUESTIONS FROM COMMITTEE MEMBERS WITHOUT DISCUSSION**

11.1 Questions of which due notice has been given

11.2 Questions of which notice has not been given

12 BUSINESS LEFT OVER FROM PREVIOUS MEETING**13 REPORTS:**

<i>No.</i>	<i>Item</i>	<i>Page No</i>	<i>Note</i>
1	Local Planning Policy 1: Residential Development: Final Approval	3-21	
2	Proposed Amendment to Madora Bay North Local Structure Plan	22-137	

14 LATE AND URGENT BUSINESS ITEMS**15 CONFIDENTIAL ITEMS****16 CLOSE OF MEETING**

1	SUBJECT: DIRECTOR: MEETING: MEETING DATE:	Local Planning Policy 1: Residential Development: Final Approval Business Services Planning & Community Consultation Committee Meeting 10 May 2022
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Summary

State Planning Policy 7.3 - Residential Design Codes Volume 1 ('R-Codes') were updated in July 2021 in an effort to simplify provisions and streamline the approval of single and grouped dwellings. The State Government fast-tracked changes in order to assist in the economic recovery of the COVID-19 pandemic.

Council's Local Planning Policy 1 – Residential Design Codes Policy (LPP1) deals with supplementary provisions to the previous version of the R-Codes and current planning scheme provisions dealing with residential development.

At the January 2022 Ordinary Council Meeting, Council resolved to adopt the revised LPP1 for advertising purposes. LPP1 now only addresses developments relating to outbuildings, canal lots and lots abutting foreshore reserves, which are important in the local context. There were no submissions received and there has been no changes to the LPP1 that was advertised.

It is recommended that Council resolves to approve LPP1 as detailed in Attachment 1.1.

Disclosure of Interest

Nil

Previous Relevant Documentation

- G.18/5/10 25 May 2010 Council approved LPP10 – Residential Design Codes Policy.
- G.10/8/17 8 August 2017 Council approved revised LPP – re-numbered to LPP1 and updated to reflect "Deemed Provisions" and 2015 R-Codes.
- G.9/1/22 25 January 2022 Council adopted revised LPP1 for advertising purposes.

Background

LPP1 operates as a guiding document for residential development. LPP1 now only provides guidance on the development of lots that abut foreshore reserves and canals, as the R-Codes do not have any provisions that reflect the characteristics of these type of lots which are common in the City of Mandurah.

The objectives of LPP1 are to provide further interpretation of the R-Codes, and provide the basis for consistent assessment and decision making.

LPP1 in its current format was approved by Council in 2017, however LPP1 has existed in various iterations since 2002.

Comment

State Planning Policy 7.3 – Residential Design Codes (Volume 1)

The purpose of State Planning Policy 7.3 – Residential Design Codes – Volume 1 (or R-Codes) are to:

- Provide comprehensive, consistent design provisions for residential development throughout WA; and
- Offer a streamlined “deemed-to-comply” pathway (exempt from development approval), or an alternative approval pathway via a development application.

In considering a development application and making an exercise of judgement, the assessment of development applications are reviewed by the R-Code Review Group – an internal working group consisting of representatives from the Statutory Planning and Building Services teams.

The Department of Planning, Lands and Heritage (DPLH) commenced a review of the R-Codes in the second half of 2020, as part of the Minister’s efforts to assist with the economic recovery from the COVID-19 pandemic. Amendments were made to the R-Codes in an effort to simplify provisions and further streamline the approval process. These amendments were made operational in July 2021. A more comprehensive review is underway as part of Design WA. Design WA is a State Government initiative to ensure good design is at the centre of all development in Western Australia and includes reviews of the suite of state planning documents.

LPP1 Review

Officers undertook a review of LPP1 and identified the following key findings:

- Given that the R-Codes specify the scope in which a Local Planning Policy can amend/replace provisions, changes to the R-Codes has resulted in a number of current LPP provisions now requiring WAPC approval if they are to continue;
- A number of current LPP1 provisions are superseded by the 2021 version of the R-Codes;
- Historically, where further relaxations are made to elements such as setbacks and open space under LPP1, applicants tend to treat the relaxed provision as the “starting point” and seek further discretion.

To streamline the approval of single houses it is argued that LPP1 should be reduced in scale to put more of an emphasis on the application of the R-Codes which apply State-wide, however it is important to retain provisions relating to local context (e.g. canal development, outbuildings and lots abutting foreshore reserves).

Revised LPP1

The revised Policy seeks to remove all provisions which would require Western Australian Planning Commission (WAPC) approval, allowing the Policy to be adopted at Council level. Since the gazettal of the revised R-Codes (2021), City officers considered a number of current LPP1 provisions to have been superseded or would no longer align with the objectives of the R-Codes (i.e. potentially no longer aligned with what the R-Codes is trying to achieve). Furthermore, Clause 7.3 of the R-Codes specifies which provisions of the R-Codes may either be amended/replaced via a Local Planning Policy, and notes that those provisions not listed must be approved by the WAPC after the Council has demonstrated a particular local need.

For example, LPP1 has historically allowed a 5% discretion to the open space requirement “as of right” – applicants tend to use this as a “starting point” and potentially then attempt to utilise the design principles to justify further discretion. In contrast, the R-Codes now introduces a requirement for a deep soil tree planting area, and puts a greater emphasis on the functionality of outdoor living area. Notwithstanding, any provisions amending the R-Codes open space provisions would require WAPC approval.

In summary, the intent of the City officers is to amend the Local Planning Policy by only including provisions which are not captured by Clause 7.3 (Scope of Local Planning Policies) of the R-Codes, and either removing/revising conditions to reflect the most recent version of the R-Codes (2021). The revised LPP1

can be approved by Council as it is consistent with the R-Codes, and would not require WAPC approval in its current format.

Local Context

The R-Codes identify the ability to implement development standards specific to a locality where the amendment:

- Is warranted due to a specific need related to that particular locality or region;
- Is consistent with the objectives and design principles of the R-Codes; and,
- Can be properly implemented and audited by the decision maker as part of the ongoing approval process.

Mandurah has a high number of boat and caravan owners resulting in larger shed requests, given the standard R-Codes provisions allow for a conservative shed size. The LPP has traditionally facilitated larger sheds on larger lots, given the impact can be managed through greater separation.

Mandurah has a number of canal lots and lots abutting foreshore reserves which are not specifically dealt with by standard R-Code provisions, therefore a number of localised design provisions are required.

As detailed above, LPP1 does not propose to remove any provisions relating to outbuildings, canal lots and lots abutting a foreshore – given they provide an important assessment tool.

Consultation

Consultation of the revised Local Planning Policy was undertaken in accordance with the *Planning and Development (Local Planning Schemes) Regulations 2015*, including publishing on Mandurah Matters, and direct engagement with relevant stakeholders (e.g. builders and designers). There were a number of telephone and email queries, however no submissions were received.

Statutory Environment

A Local Planning Policy is adopted pursuant to Part 2 Division 2 of the Deemed Provisions for Local Planning Schemes (as set out in Schedule 2 of the *Planning and Development (Local Planning Schemes) Regulations 2015*) in respect to any matter related to the planning and development of the scheme area.

A Local Planning Policy does not bind Council in respect of any application for development approval but Council is to have due regard to the provisions of the Policy and the objectives which the Policy is designed to achieve before making its determination.

The modification of the subject Local Planning Policy will assist in the assessment of residential development and is intended to ensure closer alignment with the Residential Design Codes.

Financial Implications

Nil

Risk Analysis

Given that the revised document recommends the removal of a number of long-standing provisions, there is a risk that this will result in an increase in required Development Applications. However, Officers consider these provisions to be no longer aligned with the objectives of the R-Codes and would require WAPC approval to implement. As is the case with any policy change, builders and designers will adapt to the new policy direction.

Strategic Implications

The following strategy from the City of Mandurah Strategic Community Plan 2020 – 2040 is relevant to this report:

Social:

- Facilitate safe neighbourhoods and lifestyles by influencing the built form through urban design.

Organisational Excellence:

- Listen to and engage with our community in the decision-making process.

Conclusion

A revised Local Planning Policy has been prepared to provide a more streamlined document in an effort to strengthen its alignment with the R-Codes and ensure that residential development remains consistent with the intent and objectives of the R-Codes. Furthermore, the revised Local Planning Policy will continue to provide specific development standards relating to canal lots, foreshore reserves and outbuildings.

NOTE:

- Refer ***Attachment 1.1 Local Planning Policy 1 – Residential Development (January 2022)***

RECOMMENDATION

That the Planning and Community Consultation Committee recommend that in accordance with Schedule 2, Part 2, Clause 4 of the Deemed Provisions for Local Planning Schemes, that Council resolves to approve with Local Planning Policy No 1 – Residential Development without modification, and publish a notice on the City of Mandurah website giving effect to the Policy.

Local Planning Policy No 1

Residential Development

ATTACHMENT 1.1



January 2022



Record of Adoption

Stage	Document Version	Approval Date
Draft for Council Adoption	Version 1	16 June 2009
Final	Version 1	25 May 2010

Schedule of Modifications

No	Summary of Modifications	Document Version	Approval Date
1	Renumbered Policy to LPP1	Version 2 July 2015	28 July 2015 (Advertising)
	Reformatted and Updated to reflect LPS (Deemed Provisions)		
	Reformatted to Reflect 2015 R-Codes	Version 3 August 2017	8 August 2017
1A	Minor Adjustments to Text to Reflect Operative Requirements	Version 4 June 2018	13 September 2018
2	Major Review Arising from 2021 R-Codes (Vol 1)	Version 5 January 2021	



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1. Introduction

1.1 Policy Objectives

The objectives of this Local Planning Policy are to:

- (a) Provide further interpretation of the Residential Design Codes in the assessment of residential developments.
- (b) Provide the basis for consistent assessment and decision making.

1.2 Background

State Planning Policy 7.3 – Residential Design Codes (R-Codes) includes provisions for decision-makers to prepare local planning policies to replace certain development standards of the R-Codes where a specific local need arises.

The R-Codes acknowledge that applications which do not satisfy the deemed-to-comply provisions of the R-Codes may need to rely more specifically on local housing requirements and design objectives. This policy provides flexibility and clear direction to relevant deemed-to-comply provisions of the R-Codes to assist in their implementation.

This policy should be read in conjunction with the R-Codes, including Explanatory Guidelines and Practice Notes that provide a guide for assessment.

This version of Local Planning Policy No 1 – Residential Development replaces the September 2018 version of the Policy in accordance with Clause 6(a) of the *Planning and Development (Local Planning Schemes) Regulations 2015* Deemed Provisions.

1.3 Application of the Policy

- (a) This Local Planning Policy is prepared, advertised and adopted pursuant to Part 2 Division 2 of the *Deemed Provisions for Local Planning Schemes (as set out in the Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2)* 'Deemed Provisions'.
- (b) Clause 3(5) and Clause 67(g) of the Deemed Provisions state that the local government is to have due regard to a local planning policy in making a determination under the local planning scheme and applications for development approval.
- (c) Development approval will not be required for a single dwelling that complies with the provisions of this policy (and all other deemed-to-comply requirements of the R-Codes), in accordance with Clause 61(4)(c) of the Deemed Provisions.



2. Single and Grouped Dwellings (Part 5 of the R-Codes)

Policy Reference	Acceptable Deemed-to-Comply Criteria
2.1 Street Setback	Secondary Street <ul style="list-style-type: none">(a) For lots R12.5 and higher, walls with an overall length of 9.0m or less are permitted to be setback 1.0m subject to:<ul style="list-style-type: none">• The wall being setback a minimum of 3.0m from a side boundary, and,• The roof and gutter being setback a minimum of 0.5m from the secondary street boundary.(b) For lots R12.5 and higher, a patio with an overall length of 10m or less is permitted to have supporting posts up to a secondary street boundary subject to:<ul style="list-style-type: none">• A maximum height of post and beam up to the boundary being 2.7m above the existing ground level on the property and the roof and gutter being setback a minimum of 0.5m from the secondary street boundary; and• Setback a minimum of 3.0m from a side boundary; and,• A 1.8m high fence, either solid or visually permeable, must be installed on the secondary street side of the posts.
2.2 Lot Boundary Setback	Walls up to a Lot Boundary: <ul style="list-style-type: none">(a) For lots R12.5-R17.5, walls built up to a lot boundary are permitted in accordance with R20 requirements (R-Codes clause C3.2ii);
2.3 Building Height	<ul style="list-style-type: none">(a) Category B of Table 3 is applicable where the R-Code Density is R30 and lower;(b) Category C of Table 3 is applicable where the R-Code Density is R35 and higher;(c) Skillion or Flat Roofs (as determined by the City) are assessed as per the Concealed Roof Requirements of Table 3.



Policy Reference	Acceptable Deemed-to-Comply Criteria
2.4 Outbuildings	<ul style="list-style-type: none">(a) For lots greater than 600 square metres, a 60m² outbuilding plus 2.5m² for every 100m² of land area in excess of 600m² is permitted;(b) Where R-Code Density is R10 and higher, a wall height of 3m and building height of 4.2m is permitted;(c) Where R-Code Density is R5 and lower, a wall height of 4m and building height of 5m is permitted;(d) A "lean to", carport or similar structure that is open on at least two full sides and not less than 50% of its perimeter is excluded when calculating the area of an outbuilding(e) Where R-Code Density is R2 and R2.5, setback to side and rear boundaries is assessed against Table 2a (replacing Table 1);(f) External walls of outbuildings having materials and colours consistent with the dwelling and/or in the immediate area;(g) Walls with a height of 2.4m or greater must not have a raw material finish such as fibre cement, zincalume or uncoloured metal finish;(h) Sea containers and/or similar structures are permitted for use as an outbuilding subject to being clad in materials consistent with the standard of materials already established within the locality, and where there is an existing dwelling on the property, in materials that complement the existing dwelling.

Outbuildings on vacant 'Residential' lots:

Where it is proposed that an outbuilding be erected on a vacant property, an application for development approval must be submitted and may be approved subject to:

- *A temporary approval in accordance with Clause 70 of the Deemed Provisions for a period of 12 months; and*
- *A condition being imposed that the owner be required to construct a new dwelling on the lot within 12 months of the approval, or remove the outbuilding and clear the property of all materials and building debris.*



Policy Reference	Acceptable Deemed-to-Comply Criteria
2.5 Wall Height	<p>The height of a wall is to be calculated from the greater of either:</p> <ul style="list-style-type: none">(a) The natural ground level as determined by the R-Codes, or(b) On a canal property, the level of the flat part of the lot created at the time of subdivision as determined by the City.(c) The minimum finished ground level (i.e. minimum floor level minus 150mm) to achieve the required flood protection level required by the Building Codes of Australia and recommended by the Department of Water and Environmental Regulation.



3. Canal Lots

In addition to the provisions provided in Part 2 of this Policy, the following provisions outline acceptable alternatives to the deemed-to-comply criteria of the Residential Design Codes or provide clarifications and/or interpretations of the provisions of the local planning scheme as they apply to lots with a boundary adjoining a canal:

Policy Reference	Acceptable Deemed-to-Comply Criteria
3.1 Street Setback	(a) A side loaded garage is permitted to be setback 1.5m, subject to the wall facing the street incorporating at least two unobscured windows consistent with the size and design of other windows in the dwelling facing the street.
3.2 Lot Boundary Setback	Walls up to a Lot Boundary: (a) Lot boundary length that is used to calculate the length of a wall up to a lot boundary includes the section of the boundary that extends into the water (where applicable).
3.3 Visual Privacy	(a) The canal setback (6m) shall be treated as the “street setback” for the purpose of applying visual privacy setback requirements. <i>Note: The Visual Privacy requirements do not apply to the portion of the property between the canal setback (6m) and the canal wall.</i>
3.4 Canal Setbacks	(b) A dwelling and structures (except swimming pools and retaining walls) are required to achieve a 4m minimum and 6m average setback to the canal wall. The exceptions are Port Mandurah Stage 1 and Waterside Estates, which shall maintain a minimum 6m setback to the canal wall. (c) Decks are permitted to be setback minimum of 1.0m from the canal, subject to being no higher than 0.5m above the established flat level of the lot (as determined by the City) and the floor level being no more than 1.5m above the top of the canal wall, otherwise a minimum setback of 2.0m applies. (d) Properties with two boundaries adjoining a canal require one primary canal frontage to achieve the 6.0m minimum or average specified by the Scheme, with the secondary canal frontage(s) to achieve



Policy Reference	Acceptable Deemed-to-Comply Criteria
	<p>the 4.0m minimum requirement (no average required). The primary and secondary canal frontage is at the discretion of the City.</p> <p><i>Note: The canal average setback shall be calculated using the same method as is used for the street setback average as provided in Clause 5.1.2 (C2.1) of the R-Codes, except that the area behind structures is not included;</i></p> <p><i>Note: The setback of a building from the waterway face of the canal wall is to be measured from either:</i></p> <ul style="list-style-type: none"><i>(i) The external wall of the building; and</i><i>(ii) A supporting pillar/post of a verandah, patio or balcony; and</i><i>(iii) The edge of a cantilevered balcony that has a floor level more than 500mm above the natural ground level.</i>
3.5 Pergolas	<p>Unroofed pergolas (no roof cover of any form other than timber slats spaced a minimum of 500mm apart and/or shade cloth, with a maximum height of 3.5m) shall be setback a minimum of 3m from the canal wall and will not be included in the canal setback subject to:</p> <ul style="list-style-type: none">(a) A maximum of one structure per lot, limited to a maximum width of 50% of the width of the lot at the location of the structure; and(b) Setback 1m minimum from a side boundary.
3.6 Retaining Walls	<ul style="list-style-type: none">(a) Retaining walls are permitted to a 1m minimum canal setback subject to:<ul style="list-style-type: none">(i) First retaining wall adjacent to the canal having a maximum height of 1.5m and minimum setback 1.0m from the canal;(ii) Second retaining wall in from the canal having a maximum height of 0.5m above the Natural (Established) Ground Level and minimum setback of 2.0m from the canal;(b) Terracing of walls to be used as a feature for landscaping to break up large retaining wall faces and to improve the amenity from the canal waterway. <p><i>Note The 'Natural (Established) Ground Level' is defined as</i></p>



Policy Reference	Acceptable Deemed-to-Comply Criteria
	<p>(i) <i>The level of the flat part of the lot created at the time of subdivision as determined by the City of Mandurah, or</i></p> <p>(ii) <i>The minimum finished ground level (i.e. minimum floor level minus 150mm) to achieve the required flood protection level required by the Building Codes of Australia and recommended by the Department of Water and Environmental Regulation.</i></p>
3.7 Storerooms/ Undercrofts/ Balconies At Ground Level	<p>(b) Undercroft storage areas and cantilevered balconies or similar structures are excluded when calculating the rear average setback, where the roof or ground level above the store or floor level of a cantilevered balcony is a maximum of 500mm above the natural (established) ground level of the lot.</p> <p>(c) Size / Specifications shall be as follows:</p> <p>Minor (less than 5 square metres):</p> <ul style="list-style-type: none">• 1.5m minimum setback from canal wall• 1.5m maximum depth• 1.5m maximum height• Accessible primarily from outside of storeroom only <p>Small (5-10 square metres):</p> <ul style="list-style-type: none">• 1.8m minimum ceiling height;• 3m minimum canal setback;• 50% maximum width of lot;• Sanitary facilities are not permitted (W/C, shower etc.). <p>Medium to Large (greater than 10 square metres):</p> <ul style="list-style-type: none">• 2.1m minimum ceiling height;• 4m minimum canal setback except 6m minimum applies in Port Mandurah Stage 1, Waterside Canals; <p>(d) The minimum finished floor level permitted for non-habitable undercroft stores is 1.14m Australian Height Datum (AHD);</p>



Policy Reference	Acceptable Deemed-to-Comply Criteria
	<ul style="list-style-type: none">(e) Where floor areas are greater than 20m², a Notification under Section 70A of the Land Transfer Act is required confirming that the store has been constructed at a level that is subject to flooding and is for non-habitable purposes only;(f) Certification from a professional engineer is required where a building (including retaining walls, pools etc.) is located within 6m of the canal wall to confirm that the structure will not impact on the structural integrity of the canal wall.(g) Any building or incidental structure with a floor level greater than 500mm below the natural ground level shall be setback a distance equal to the depth of the building below the natural ground level.
3.8 Fencing	<ul style="list-style-type: none">(a) Front fences are permitted to incorporate infill panels of solid construction, provided that the width of the solid fence does not exceed 50% of the street frontage and provided that surveillance of the entry to the dwelling and from at least one window of a habitable room is achieved.(b) Site boundary fences located within 4.0m/6.0m of the canal wall must comply with the requirements for fences located within the street setback area specified by the R-Codes. <i>(Note: restrictive covenants may also apply).</i>



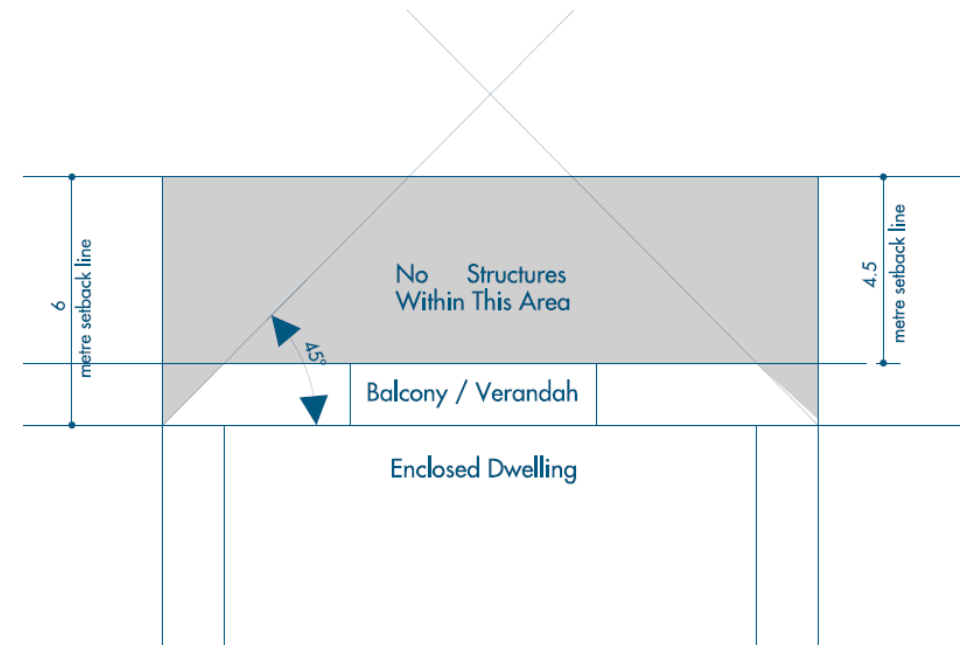
4. Lots Adjoining Foreshore Reserves

The following provisions outline clarification and/or interpretations of the provisions of the local planning scheme as they apply to lots with boundaries adjoining foreshore reserves:

- (a) Where a lot abuts onto a foreshore reserve, the minimum setback to a dwelling shall be 4.5m to an open balcony, verandah and/or the like, and 6m to the main building.

A 45-degree visual truncation shall be maintained from adjoining properties at the 6m setback line.

- (b) For the purpose of this provision of the Scheme, a 'foreshore reserve' shall mean land reserved as 'Regional Open Space' in the Peel Region Scheme and as shown on the Scheme Maps.
- (c) The provisions apply unless otherwise varied through a Local Structure Plan and Local Development Plan.
- (d) For clarification, the adjoining figure provides an interpretation of the Scheme development standards.



5. Medium Density Single Houses in Structure Plan Areas (R-MD Codes)



The following provisions will apply in Structure Plan areas where the plan identifies that the relevant R-MD Codes local planning policy applies, providing for acceptable development outcomes as a replacement to the deemed-to-comply criteria of the Residential Design Codes ([Reference Appendix 1 of Planning Bulletin 112/2016](#)).

Appendix 1

Single house standards for medium density housing in development zones (R-MD Codes)

R-Code	Lot type and size	Street setback and front fences		Lot boundary setback		Open space		Garage setback and width and vehicular access		Parking		Overshadowing		Privacy	
		R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision
R-MD – R60	<p><u>Rear load</u> 5m x 30m – 150m² 6m x 30m – 180m²</p> <p><u>Front load</u> 8.5m x 20m – 170m² 7.5m x 25m – 187.5m²</p>	2m	<p>2m minimum, no average</p> <p>1m to porch / veranda no maximum length</p> <p>1m minimum to secondary street</p> <p>Front fences within the primary street setback area being a maximum height of 900mm above natural ground level, measured from the primary street side of the front fence</p>	<p><u>Boundary setbacks</u> 1 to 1.5m for wall height 3.5m and less (subject to wall length and major openings)</p> <p><u>Boundary walls</u> 2/3 length one side boundary, max 3.5m high and 3m average height</p>	<p><u>Boundary setbacks</u> 1.2m for wall height 3.5m or less with major openings</p> <p>1m for wall height 3.5 or less without major openings</p> <p><u>Boundary walls</u> No maximum length to both side boundaries</p>	<p>40% open space (60% site cover)</p> <p>16m² courtyard</p> <p>1/3 required outdoor living area (OLA) may be covered</p> <p>Minimum dimension 4m</p>	<p>An outdoor living area (OLA) with an area of 10% of the lot size or 20m², whichever is greater, directly accessible from a habitable room of the dwelling and located behind the street setback area</p> <p>At least 70% of the OLA must be uncovered and includes areas under eaves which adjoin uncovered areas</p> <p>The OLA has a minimum 3m length or width dimension</p> <p>No other R-Codes site cover standards apply</p>	<p><u>Rear load</u> Nil – provided laneway is minimum of 6m wide</p> <p><u>Front load</u> 4.5m or 0.5m behind dwelling alignment subject to averaging requirements</p> <p>Garage width limited to maximum 50% of lot frontage where garage in front of or within 1m of building</p>	<p><u>Rear load</u> 0.5m garage setback to laneway</p> <p><u>Front load</u> 4.5m garage setback from the primary street and 1.5m from a secondary street</p> <p>The garage setback from the primary street may be reduced to 4m where an existing or planned footpath or shared path is located more than 0.5m from the street boundary</p> <p>For front loaded lots with street frontages between 10.5 and 12m, a double garage is permitted to a maximum width of 6m as viewed from the street subject to:</p> <ul style="list-style-type: none"> - Garage setback a minimum of 0.5m behind the building alignment - A major opening to a habitable room directly facing the primary street - An entry feature consisting of a porch or veranda with a minimum depth of 1.2m; and - No vehicular crossover wider than 4.5m where it meets the street <p>Lots with a frontage less than 10.5m or not compliant with above require single or tandem garaging</p>	Two on-site bays	One on-site bay where dwelling has two bedrooms or less	50% of the adjoining site area	No maximum overshadowing	3m to bedrooms and studies	No privacy provisions apply
R-MD – R40	<p><u>Rear load</u> 7.5m x 30m – 225m²</p> <p><u>Front load</u> 8.5m x 30m – 255m² 8.5m x 25m – 212.5m² 10 x 20m – 200m² 10 x 25m – 250m² 12.5m x 20m – 250m²</p>	4m	<p>2m minimum, no average</p> <p>1.5m to porch / veranda no maximum length</p> <p>1m minimum to secondary street</p> <p>Front fences within the primary street setback area being a maximum height of 900mm above natural ground level, measured from the primary street side of the front fence</p>	<p><u>Boundary setbacks</u> 1 to 1.5m for wall height 3.5m and less (subject to wall length and major openings)</p> <p><u>Boundary walls</u> 2/3 length one side boundary, maximum 3.5m high and 3m average height</p>	<p><u>Boundary setbacks</u> As per R-MD – R60</p> <p><u>Boundary walls</u> To both side boundaries subject to:</p> <p>No maximum length to one side boundary, 2/3 max length to second side boundary for wall height 3.5m or less</p>	<p>45% open space (55% site cover)</p> <p>20m² courtyard</p> <p>1/3 required OLA area may be covered</p> <p>Minimum dimension 4m</p>	As per R-MD – R60	<p><u>Rear load</u> Nil – provided laneway is minimum of 6m wide</p> <p><u>Front load</u> 4.5m or 0.5m behind dwelling alignment subject to averaging requirements</p>	As per R-MD – R60	Two on-site bays	As per R-Codes	35% of the adjoining site area	<p>No maximum overshadowing for wall height 3.5m or less</p> <p>No maximum overshadowing for wall height greater than 3.5m where overshadowing is confined to the front half of the lot. If overshadowing intrudes into rear half of the lot, shadow cast does not exceed 35%</p>	<p>4.5m to bedrooms and studies</p> <p>6m to all other major openings</p> <p>7.5m to balconies or similar</p>	R-Codes clause 5.4.1 C1.1 applies, however the setback distances are 3m to bedrooms and studies, 4.5m to major openings to habitable rooms other than bedrooms and studies and 6m to unenclosed outdoor active habitable spaces

Appendix 1

Single house standards for medium density housing in development zones (R-MD Codes)

R-Code	Lot type and size	Street setback and front fences		Lot boundary setback		Open space		Garage setback and width and vehicular access		Parking		Overshadowing		Privacy	
		R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision	R-Codes	R-MD provision
R-MD – R30	<u>Rear load</u> 10m x 30m – 300m ² <u>Front load</u> 10m x 30m – 300m ² 15m x 20m – 300m ²	4m	2m minimum, no average 1.5m to porch / veranda no maximum length 1m minimum to secondary street Front fences within the primary street setback area being a maximum height of 900mm above natural ground level, measured from the primary street side of the front fence	<u>Boundary setbacks</u> 1 to 1.5m for wall height 3.5m and less (subject to wall length and major openings) <u>Boundary walls</u> 2/3 length one side boundary, maximum 3.5m high and 3m average height	<u>Boundary setbacks</u> As per R-MD – R60 <u>Boundary walls</u> To both side boundaries subject to: 2/3 length to one side boundary, 1/3 max length to second side boundary for wall height 3.5m or less	45% open space (55% site cover) 24m ² courtyard 1/3 required OLA area may be covered Minimum dimension 4m	As per R-MD – R60	<u>Rear load</u> Nil – provided laneway is minimum of 6m wide <u>Front load</u> 4.5m or 0.5m behind dwelling alignment subject to averaging requirements	As per R-MD – R60	Two on-site bays	As per R-Codes	35% of the adjoining site area	As per R-MD – R40	4.5m to bedrooms and studies 6m to all other major openings 7.5m to balconies or similar	As per R-MD – R40
R-MD – 25	<u>Front load</u> 12.5m x 25m – 312.5m ² 15m x 25m – 375m ² 12.5m x 30m – 375m ²	6m	3m 1.5m to porch / veranda no maximum length 1.5m minimum to secondary street Front fences within the primary street setback area being a maximum height of 900mm above natural ground level, measured from the primary street side of the front fence	<u>Boundary setbacks</u> 1 to 1.5m for wall height 3.5m and less (subject to wall length and major openings) <u>Boundary walls</u> 2/3 length one side boundary, max 3.5m high and 3m average height to one side boundary	<u>Boundary Setbacks</u> As per R-MD – R60 <u>Boundary walls</u> As per R-MD – R30	50% open space (50% site cover) 30m ² courtyard 1/3 required OLA area may be covered Minimum dimension 4m	As per R-MD – R60	<u>Rear load</u> Nil – provided laneway is minimum of 6m wide <u>Front load</u> 4.5m or 0.5m behind dwelling alignment subject to averaging requirements	As per R-MD – R60	Two on-site bays	As per R-Codes	25% of the adjoining site area	As per R-MD – R40, however if overshadowing intrudes into rear half of the lot, shadow cast does not exceed 25%	4.5m to bedrooms and studies 6m to all other major openings 7.5m to balconies or similar	As per R-MD – R40

2	SUBJECT: DIRECTOR: MEETING: MEETING DATE:	Proposed Amendment to Madora Bay North Local Structure Plan Business Services Planning and Community Consultation Committee 10 May 2022
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Summary

Council is requested to consider an amendment to the approved Madora Bay North Local Structure Plan (Structure Plan). This amendment has been lodged by CLE Town Planning and Design on behalf of the owner of the subject site.

In summary, the proposed amendment includes the following changes:

- Redistribution of public open space within the Structure Plan area;
- Reconfiguration of the Commercial and Mixed Use zones;
- Introduction of the RMD Codes (Medium density single house development standards);
- Relocation of the school site to reflect existing subdivision approvals; and
- Formatting changes and updated references to policies to reflect changes within the planning framework.

The Structure Plan was advertised to surrounding landowners, and via signs on-site and publishing on the City's website Mandurah Matters. Fourteen submissions were received. The primary concerns raised within the submissions were regarding the road network and quantity of public open space.

It is recommended that Council provide this report to the WAPC recommending that the Structure Plan be approved, subject to modifications.

Disclosure of Interest

Nil

Location



Property Details

Applicant:	CLE Town Planning and Design
Owner:	Satterley Property Group
Scheme No 12 Zoning:	Urban Development
Peel Region Scheme Zoning:	Urban
Lot Size:	132ha
Topography:	Mixed topography, levels range between 0m and 25m AHD
Land Use:	Vacant land

Previous Relevant Documentation

- G.24/11/15 10 November 2015 Council determined not to support the Madora Bay North Local Structure plan
- G.16/10/14 28 October 2014 Council resolved to adopt the Madora Bay North Local Structure plan for final approval.
- G.23/05/14 27 May 2014 Council resolved to adopt the Madora Bay North Local Structure plan for advertising purposes.

Background

Local Planning Scheme

The subject site is zoned Urban Development under the City's Local Planning Scheme No 12 (Scheme 12) which requires a Structure Plan to guide land use, subdivision and development.

North Mandurah District Structure Plan

Under the district-level North Mandurah Structure Plan, the subject site is identified for "Residential Development" with some community purpose / mixed-use opportunities within the Madora Bay Regional Beach area. The site also has vast areas noted as "Environmental / Landscape Assessment Area", however these have since been approved as 'urban' under the existing Structure Plan. Whilst the District Structure Plan provides some guidance to the overall district, the localised Madora Bay North Structure Plan provides greater detail, local level planning framework to the subject site.

Madora Bay North Local Structure Plan

The first version of the Madora Bay North Local Structure Plan (previously Outline Development Plan) was supported by Council, subject to modifications, and endorsed by the WAPC in July 2015. The applicant appealed the WAPC's decision with the State Administrative Tribunal. As part of the mediation process, the City was requested to reconsider an amended Structure Plan. At the Council Meeting on 10 November 2015, Council determined not to support the amended Structure Plan.

The Structure Plan was subsequently approved by the Western Australian Planning Commission in March 2016. The approved Structure Plan is primarily low-medium density residential (R20-R40), with a strip of higher density residential (R60), mixed use and commercial zones connecting Mandurah Road to the Foreshore Node.

Proposal

The purpose of the amendment is to reconfigure the commercial area and public open space in response to design concepts progressed for the Coastal Node. The proposed modifications to the approved Madora Bay North Local Structure Plan are as follows:

- Redistribution of public open space within the Structure Plan area, to provide a better distribution of POS across the area rather than being concentrated in the central-western part of the site;
- Reconfiguration of the Commercial and Mixed Use zones, to maximise the frontage and opportunities for interaction with the Coastal Node;
- Introduction of the RMD Codes (Medium density single house development standards);
- Relocation of the school site to reflect existing subdivision approvals; and
- Formatting changes and updated references to policies to reflect changes within the planning framework.

Comment

Public Open Space

The primary purpose of the proposed amendment is the redistribution of Public Open Space (POS). The applicant has stated that the amendments are being sought to provide a better distribution of POS across the Structure Plan area rather than being concentrated in the central-western part of the site.

It is acknowledged that the amendment would result in a reduction of POS from the existing Structure Plan, however the proposed POS will equate to 10.8 per cent of the site area, achieving the minimum 10 percent requirement as per Liveable Neighbourhoods. The applicant has provided a POS schedule within the Explanatory Report (Refer Attachment 2.2).

The proposal has been assessed against the objectives of Liveable Neighbourhoods and the POS is considered to be of appropriate quantity and quality to contribute to the recreational and social needs of the future community. The amended POS layout results in an even distribution of public parkland across the Structure Plan area with acceptable walking distances from all future residential properties.

There is some disappointment from the community, as evident in submissions, in relation to the reduction of POS within the Structure Plan area, however the proposal must be assessed on its merits against the relevant policies, in this case Liveable Neighbourhoods. The proposed POS meets the statutory requirements relating to local and neighbourhood parks and are located for the majority of residents they are intending to serve. Water management has been integrated into the POS, with an acceptable balance of useable space (eight percent for active and passive recreational purposes and two per cent for drainage/restricted use). It is also noted the developer is proposing additional investment and upgrading of the reserve as part of the coastal node. This continues to be assessed separately, however does augment the POS amenity for the area.

Overall, Officers consider the provided POS to be acceptable, however are suggesting one change which may have been an error on the mapping. It is recommended that the Landscape Public Open Space Master Plan is amended to ensure that the landscape buffer extends from POS4 to POS5.

Road and Pedestrian Network

In order to facilitate the proposed changes to the POS and local centre, there are subsequent changes to the transport network within the Structure Plan area. The major roads (integrator and neighbourhood connectors) are generally as per the original Structure Plan, however 'Integrator B' would now connect all the way from Mandurah Road to the Foreshore Node rather than being routed around the POS. This streetscape can be designed to create a desirable and attractive entrance to the Madora Bay North local

centre and Foreshore Node. The specific design of the road reserve, including street tree planting, will be determined at subdivision stage.

Through the advertising process, some submissions were received highlighting traffic and road safety concerns along Sabina Drive through the Structure Plan area. The Structure Plan includes a neighbourhood connector running adjacent to the foreshore connecting the existing Madora Bay suburb to Singleton. This road connection is on the existing Structure Plan and is not proposed to be altered. A number of submissions have suggested that this road should be rerouted around the local centre to create a pedestrian only environment. As an alternative option, Officers recommend that traffic calming methods be implemented to slow traffic along this road, as well as the introduction of pedestrian priority areas. A pedestrian priority area can be implemented in between the local centre and foreshore and can be marked via raised entry and exit points. The City has also requested that this 'Coastal Drive' has a dual use path on one side with a footpath on the other side (rather than only one side as stated within the Structure Plan). Liveable Neighbours allow for footpaths to be omitted from one side of the road for lower order access streets, however this road will be a neighbourhood connector and frequently used.

In regards to local roads, the existing connections have been retained within the concept plan in the explanatory report, however some are no longer depicted on the Structure Plan as 'key local roads'. In a submission from the City of Rockingham, it has been requested that the road connection to Treasure Road be returned to the Structure Plan to avoid confusion. This request has been reflected within the recommendation to the WAPC.

Due to the proposed amendments to the road network, the City has requested that a Local Traffic Management Plan be submitted, particularly for an assessment of the Angalore Road, Caspar Road and Sabina Drive connections. The City can request that the WAPC do not finalise the Structure Plan until this information has been received and endorsed.

Zoning and Land Use

Subsequent to the lodgement of this application, the City's Scheme 12 came into effect. As a result, the proposed Structure Plan text and map will need to be updated to reflect the new land use definitions and zones.

The Commercial zone referred to in the Structure Plan no longer exists within Scheme 12 and the closest alternative has been determined to be Local Centre. The applicant has reviewed land use table and in general supports the change to Local Centre, however has requested that the 'Tavern' land use be discretionary within the Structure Plan Local Centre rather than not permitted. Under the existing Structure Plan, a 'Tavern' is a currently an AA use, meaning it can be considered subject to an application. Officers consider that a Tavern could be appropriate within this location, provided it was designed and built to adequately protect the overall residential amenity of the area. Whilst a Structure Plan does not go into specific development standards, including the land use as discretionary will allow for greater flexibility in the future. It should be noted, that if 'Tavern' is changed to an 'X' (not permitted) use, the City is unable to accept an application for this land use in the future and there is no flexibility on this. It is recommended that the Commercial zone be amended to Mixed Use, with 'Tavern' as an additional discretionary ('A' – must be advertised) land use.

Previously, there was no Mixed Use zone within Town Planning Scheme No 3 (Scheme 3) and as such, a specific land use table was incorporated into the Structure Plan. Scheme 12 has introduced a Mixed Use zone and associated land use table which can now be utilised within the Structure Plan. As with the above, the applicant has reviewed the land use table and is generally in agreement with the change, however has requested that 'Restaurant/Cafe' be a discretionary land use and 'Single House' be a permitted land use for the Mixed Use zone within the Structure Plan. This is consistent with the existing Structure Plan and is supported by Officers.

Within the Structure Plan text, the applicant has suggested that they would like the R-MD Codes (Medium-density single house development standards) to apply to the residential properties within the Structure Plan area for R25 and higher. These development standards have been applied to many of the newer

residential estates within Mandurah, including Madora Bay, Lakelands and Florida. Previously, the developer has been required to implement the R-MD Codes via Local Development Plans. In order to reduce the number of planning layers, it is recommended that the density codes on the Structure Plan be amended to the associated R-MD Code (e.g. R25 amended to RMD25).

Urban Water Management Plan

The City and the Department of Water and Environmental Regulation (DWER) have both raised concerns in relation to the submitted Local Water Management Strategy (LWMS) Addendum. The concerns relate to the disposal of runoff into underground cells / adjacent POS and also the proposed disposal of stormwater into the foreshore area. City's Officers have advised that runoff into the foreshore reserve is not supported and is inconsistent with the Foreshore Management Plan and the Flora and Fauna Assessments.

DWER have advised that the proposed Structure Plan amendment should not be finalised prior to the endorsement of a satisfactory LWMS by the DWER and the City. Finalisation of the LWMS has been included as a recommendation to the WAPC.

Foreshore Management Plan

The applicant submitted a Foreshore Management Plan (FMP) for the Madora Bay North area to be reviewed concurrently with the Structure Plan amendment, the assessment of which does not form part of this application. The City's Environmental Services department is reviewing the FMP and have requested additional information. Whilst it is mentioned within the Structure Plan, the Foreshore Management Plan is subject to further detailed review and approval.

The assessment of the Structure Plan must follow the statutory timeframes specified within the *Planning and Development (Local Planning Schemes) Regulations 2015* (Deemed provisions for local planning schemes) and cannot be delayed to await the Foreshore Management Plan and as a result, as previously mentioned, is being considered independently. It is considered appropriate; however, the Foreshore Management Plan is finalised as a matter of priority and as such a recommendation for this to occur prior to any subdivision or development occurring is included.

Bushfire Management Plan

In accordance with State Planning Policy No 3.7 – Planning in Bushfire Prone Areas, the applicant has submitted an updated Bushfire Management Plan (BMP) for the Structure Plan area. The City has reviewed the BMP and had some concerns regarding the implications of dust management on the fuel loading, clarification on the road verge fuel management responsibility and details of clearing/management of public open space. Officers are working with the applicant to review the details of the BMP in order to reach an acceptable outcome. It is recommended that the endorsement of the BMP by the City and the Department of Fire and Emergency Services be included in the response to the WAPC.

MEAG Comment

This item was considered by the Mandurah Environmental Advisory Group at its meeting on 25 March 2022 and the following recommendations were made:

- 1. MEAG members have significant concerns around the reduction and quality of POS allocation within this plan. Members acknowledge that the developer has achieved the 10% minimum of POS allocation however, the group advise Council to negotiate for additional POS allocation to ensure a balance of amenity and biodiversity functions can be achieved.*

Officer Comment:

The concerns regarding the provision of POS are noted. The proposed POS is considered to meet the objectives of Liveable Neighbourhoods in regards to the quantity and quality. The assessment is

to be based on the relevant planning legislation, in this case Liveable Neighbourhoods and as such, Officers do not feel that there are grounds for a negotiation.

2. *Concerns were also raised that POS and streetscapes will be landscaped to a non-vegetated low threat state (refer to Fire Management Plan). Detailed plans of the POS have been requested from the developer/planning consultant.*

Officer Comment:

Officers have also raised concerns regarding the Bushfire Management Plan and have recommended this be reviewed prior to endorsement by the WAPC.

3. *MEAG recommends that the bushland located on the north east boundary to be retained as bushland and not cleared.*

Officer Comment:

The applicant has proposed retention of the dune landform and vegetation, where possible, within this pocket of POS (Landscape Public Open Space Master Plan – POS No 9). The specific details of the vegetation retention will be agreed at subdivision stage.

Consultation

The Structure Plan was advertised for public comment for 44 days from 23 February 2022 to 8 April 2022 via the following methods:

- Letters/emails to landowners surrounding the site;
- Three signs on site;
- Online via the Mandurah Matters Website; and
- Emails to a number of external government agencies.

A total of 14 submissions were received. The individual submissions have been summarised and responded to in the Schedule of Submissions (refer Attachment 2.3).

Internal Consultation

The application was referred internally to Engineering, Landscaping, Environmental Services and Strategic Planning. Comments received have been incorporated into the assessment above.

It was also presented at the City's fortnightly multi-disciplinary technical groups (TDM – Technical Discussion Meeting)

Statutory Environment

The procedures for preparing a structure plan are prescribed by the *Planning and Development (Local Planning Schemes) Regulations 2015*. The local government is required to forward a report to the decision maker (being the WAPC).

Policy Implications

Nil

Financial Implications

The proposal has the potential to facilitate additional employment opportunities within the Local Centre.

Risk Analysis

Nil

Strategic Implications

The following strategies from the City of Mandurah Strategic Community Plan 2020 – 2040 are relevant to this report:

Economic:

- Promote and foster business investment aimed at stimulating economic growth.
- Facilitate and advocate for sustainable local job creation and industry diversification.

Social:

- Facilitate safe neighbourhoods and lifestyles by influencing the built form through urban design.

Health:

- Provide and facilitate quality infrastructure that is accessible, and conducive to a healthy, active community.

Environment:

- Advocate for and partner with all levels of Government and other agencies to ensure environmental impacts are considered in all strategy development and decision making.
- Protect and manage our local natural environment and ensure that our actions to manage land-based assets don't adversely impact our waterways.

Organisational Excellence:

- Listen to and engage with our community in the decision-making process.

Conclusion

Council is requested to consider an amendment to the approved Madora Bay North Local Structure Plan. The primary reason for the application is for the redistribution of POS and Commercial / Mixed Use zones to respond to design concepts for the coastal node. Other proposed modifications include the relocation of the school to reflect existing subdivision approvals, introduction of the RMD Codes and formatting changes to reflect changes within the planning framework.

Whilst the amendments result in a reduction in the amount of POS provided, the proposed POS is considered to meet the objectives of Liveable Neighbourhoods in regards to the minimum area, location and types of public parkland.

Further review is required for a number of the technical reports, as included within the recommendation. Due to statutory timeframes, the City is unable to resolve these issues prior to sending a recommendation to the WAPC, however the City can request that the WAPC hold off on endorsing the amended Structure Plan until these technical reports have been endorsed by the City.

Overall, the proposed Structure Plan is considered to be in keeping with the objectives of Liveable Neighbourhoods and it is recommended that Council support the proposal, subject to modifications.

NOTE:

- Refer **Attachment 2.1 Proposed Madora Bay North Local Structure Plan**
Attachment 2.2 Applicant's Explanatory Report
Attachment 2.3 Schedule of Submissions
Attachment 2.4 Existing Madora Bay North Local Structure Plan

RECOMMENDATION

That the Planning and Community Consultation Committee recommend that Council under Clause 20(2) of Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, provides this report to the Western Australian Planning Commission for the Madora Bay North Local Structure Plan (Plan Dated October 2021) recommending that the proposed Structure Plan should be approved, subject to the following modifications:

- a) A Local Traffic Management Plan (LTMP) shall be submitted to and endorsed by the City of Mandurah, prior to approval of the Structure Plan. The purpose of the LTMP is to address concerns regarding the connections to Angalore Road, Caspar Road and Sabina Drive.
- b) An amended Local Water Management Strategy Addendum shall be submitted to and endorsed by the City of Mandurah and the Department of Water and Environmental Regulation, addressing concerns regarding the disposal of runoff into underground cells and adjacent public open space and also the proposed disposal of stormwater into the foreshore area.
- c) An amended Bushfire Management Plan shall be submitted to and endorsed by the City of Mandurah and the Department of Fire and Emergency Services, addressing concerns regarding responsibility for road verge fuel management and clearing/management of public open space.
- d) Landscape Boulevard and Connector Masterplan amended to include “dual use path to one verge with footpath on the opposite verge” for the ‘Coastal Drive’ and to incorporate a pedestrian priority area connecting the Local Centre to the Coastal Node.
- e) Identify the road connection to Treasure Road as a ‘Key Local Road’ on the Structure Plan (Plan 1)
- f) Replace the Commercial zone with Local Centre zone and include the following additional use within the Structure Plan:
 - i. Tavern is an ‘A’ land use within the Local Centre zone.
- g) Delete the Mixed Use land use table and refer to the land use table within Local Planning Scheme No 12. Include the following additional use for the Mixed Use zone within the Structure Plan:
 - i. Single House is a ‘P’ land use within the Mixed Use zone
 - ii. Restaurant/Café is a ‘D’ land use within the Mixed Use zone
- h) Replace all references to Town Planning Scheme No 3 with Local Planning Scheme No 12.
- i) Include reference to the R-MD Codes on the Structure Plan (Plan 1).
- j) Landscape Public Open Space Master Plan amended to extend the Mandurah Road Buffer from POS 4 to POS 5.
- k) An amended Foreshore Management Plan shall be submitted to and approved by the City of Mandurah prior to any subdivision or development. The amended Foreshore Management Plan is required to include additional information requested by the City, including, but not limited to, the final foreshore location and design, areas of revegetation, current weed species/extent and presence of priority species.

MADORA BAY NORTH Local Structure Plan

Part One - Implementation Report

OCTOBER 2021

CLE Town Planning + Design

SeASide



Title: Madora Bay North Local Structure Plan
Part One | Implementation Report

Prepared for: Satterley Property Group

CLE Reference: 962Rep227

Date: 27 October 2021

Status: Final

Review date: 27 October 2021

Prepared by: CLE Town Planning + Design

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Endorsement page

This structure plan is prepared under the provisions of the City of Mandurah Town Planning Scheme No. 3 (incorporating Schedule 2 'Deemed Provisions for Local Planning Schemes' of the *Planning and Development (Local Planning Schemes) Regulations 2015*).

IT IS CERTIFIED THAT THE MADORA BAY NORTH LOCAL STRUCTURE PLAN WAS APPROVED BY
RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

.....

Signed for and on behalf of the Western Australian Planning Commission

.....

an officer of the Commission duly authorised by the Commission pursuant to section 16 of the Planning and Development Act 2005 for that purpose, in the presence of:

..... Witness Date

..... Date of Expiry

Table of Amendments

AMENDMENT NO.	DESCRIPTION OF AMENDMENT	DATE APPROVED BY WAPC
	Reconfigure the Commercial zone and central public open space in response to design concepts progressed for the Coastal Node.	
1	Introduce reference to City of Mandurah Local Planning Policy No. 1.	TBC
	Make formatting changes in Part 1 to reflect the Structure Plan Framework (2015).	

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6.0	LOCAL DEVELOPMENT PLANS
7.0	ADDITIONAL INFORMATION

Plans

Plan A	Madora Bay North Local Structure Plan Map
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1.0 STRUCTURE PLAN AREA

This structure plan applies to Lot 101 Mandurah Road, Madora Bay, being the land within the line identified as the 'Structure Plan Boundary' on Plan A: Madora Bay North Local Structure Plan ('the structure plan map').

2.0 STRUCTURE PLAN CONTENT

This structure plan consists of:

- Part One – Implementation (as amended) (this section);
- Part Two – Explanatory Section; and
- Appendices – Technical reports supporting the structure plan, and planning reports supporting the amendments to the structure plan.

Part One of the structure plan comprises the structure plan map and planning provisions. Part Two and all Appendices are references provided to guide the interpretation and implementation of Part One.

3.0 STRUCTURE PLAN OPERATION

This structure plan is prepared in accordance with Part 4 of Schedule 2 (Deemed Provisions) in the *Planning and Development (Local Planning Schemes) Regulations 2015* ('the Regulations'). It is a Local Structure Plan fulfilling the requirements of City of Mandurah Town Planning Scheme No. 3 ('TPS 3') for the applicable 'Urban Development' zone.

The Regulations require decision-makers to have due regard for the provisions of this structure plan, which takes effect on the date on which it is approved by the Western Australian Planning Commission ('WAPC').

Unless otherwise specified by this Part, all words and expressions used in this structure plan have the same meaning as the same words and expressions in the Regulations and TPS 3.

4.0 STAGING

Subdivision and development of land within the structure plan area has commenced from the south-eastern part of the site and will proceed generally in a westward direction. Future staging will be influenced by, *inter alia*:

- Provision of a Wastewater Pump Station ('WWPS') near the Coastal Node to service the portion of the structure plan area that does not connect into the established Lakelands WWPS.
- Provision of a new intersection on Mandurah Road at the location shown on the structure plan map, connecting into the under-construction Everest Parkway intersection.
- Specific timing for these and other aspects will be confirmed at the subdivision stage.

5.0 SUBDIVISION AND DEVELOPMENT REQUIREMENTS

5.1 Zones and Reserves

Subdivision and development of land within the structure plan area should be generally in accordance with the structure plan and the corresponding zone or reserve under TPS 3.

5.2 Residential Zone

- a. Residential subdivision and development should accord with the requirements for the Residential Density Code specified by the structure plan map.
- b. The City of Mandurah Local Planning Policy No. 1: Residential Design Codes Policy ('LPP 1') sets out acceptable variations to the deemed-to-comply provisions of the R-Codes for lots coded R25-R60. Except to the extent of any inconsistency with an approved Local Development Plan ('LDP'), LPP 1 applies within the structure plan area.

5.3 Commercial Zone

- a. The intent of the Commercial zone is to accommodate a Local Centre, as defined in the City of Mandurah Activity Centres Strategy. Land use permissibility is as per Table 2 of TPS 3.
- b. The Net Lettable Area of retail floorspace within the Commercial zone shall be in accordance with the City of Mandurah Activity Centres Strategy.
- c. A residential density code of R60 applies within the Commercial zone.
- d. The development of the Commercial zone should be in accordance with approved Local Development Plans. These should be based on 'main street' design principles promoting development to be built up to or close to the street, providing good surveillance of the primary street/s with coordinated parking areas located at the rear.

5.4 Mixed Use Zone

- a. The intent of the Mixed Use zone is to accommodate residential development, low-key tourist accommodation and/or a range of non-residential land use (predominantly at ground floor level) which are complementary to residential development. Within the Mixed Use zone, the following land use permissibility applies for non-residential land uses:

Arts and Craft Display	AA
Bed and Breakfast Accommodation	AA
Car Park	IP
Child Care Premises	SA
Club Premises	SA
Community Purpose	AA
Consulting Room	AA
Corner Shop	AA
Cultural Use	SA
Dwelling	P
Family Day Care	P
Guesthouse	AA
Home Occupation	AA
Hotel	SA
Kindergarten	SA
Land Sales Office	P
Medical Centre	SA
Museum	SA
Office	AA
Public Utility	P
Public Worship - place of	SA
Restaurant	SA
Serviced Apartment	SA
Shop (max. 300m ² NLA per tenancy)	AA
Short Stay Accommodation	AA
Takeaway Food Outlet (excl. 'drive through' facilities)	SA

- b. A residential density code of R60 applies within the Mixed Use zone.
- c. The development of the Mixed Use zone should be in accordance with approved Local Development Plans. These should be based on 'main street' design principles promoting development to be built up to or close to the street, providing good surveillance of the primary street/s with coordinated parking areas located at the rear.

5.5 Public Open Space

A minimum of 10 percent public open space is to be provided in accordance with *Liveable Neighbourhoods*. Public open space is to be provided generally in accordance with the structure plan map. An updated public open space schedule should be provided at the subdivision stage for assessment by the City and the WAPC.

6.0 LOCAL DEVELOPMENT PLANS

At the subdivision stage, the City of Mandurah may request that the WAPC impose a condition/s of approval requiring LDPs to be prepared, submission and approval, in accordance with Part 6 of the Regulations, for lots that:

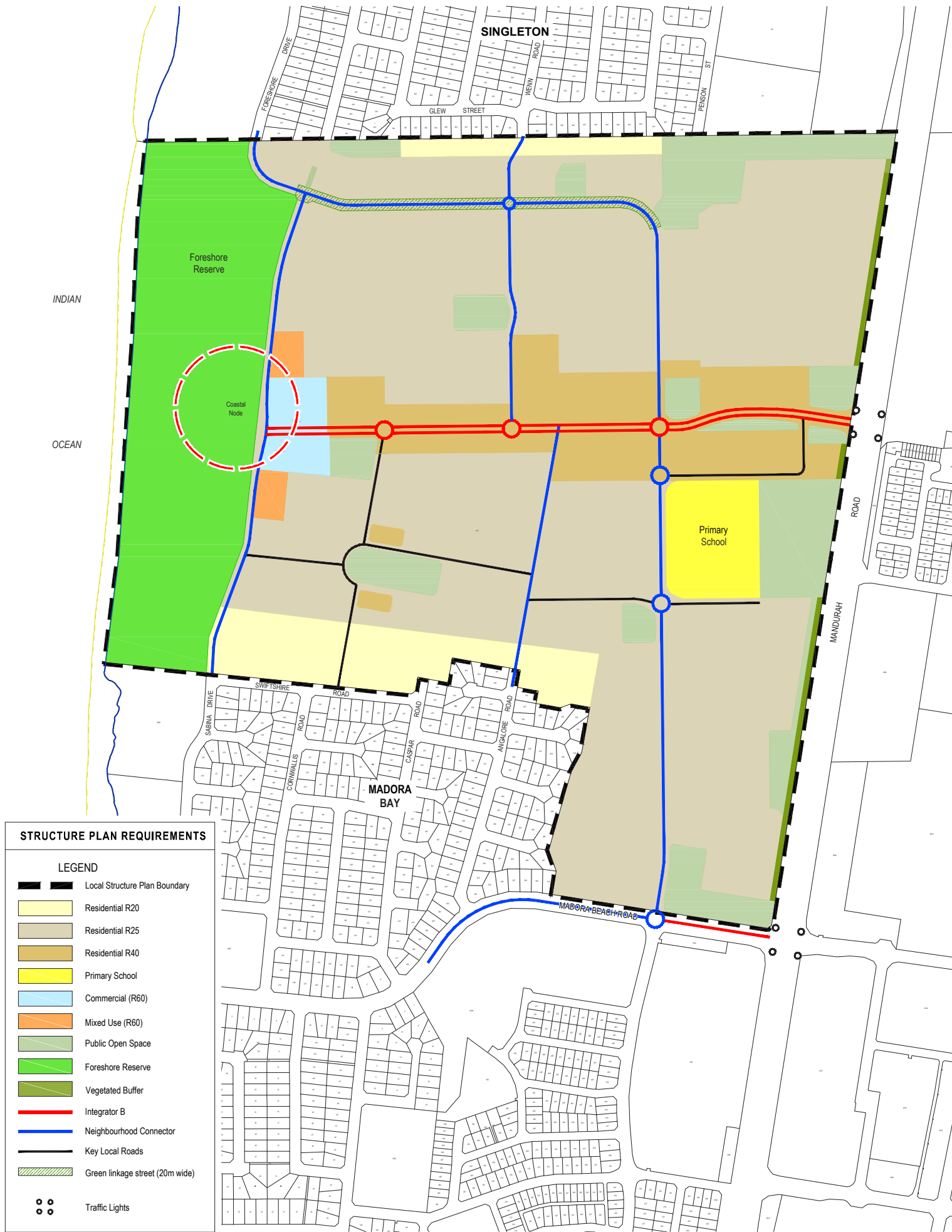
- a. Are rear-loaded (take vehicle access from a laneway);
- b. Abut POS;
- c. Require site-specific R-Code variations;
- d. Are zoned 'Commercial' or 'Mixed Use'. Provisions addressing built form, access and parking will be required;
- e. Require application of 'Quiet House' design features as recommended by a Transport Noise Assessment;
- f. Are immediately adjacent to existing residential lots in Singleton: to address site levels and boundary fencing to existing abutting lots; or
- g. Are immediately adjacent to existing residential lots in Madora, east of Angalore Road: to address site levels and boundary fencing to existing abutting lots.

Local Development Plans required for lots abutting an existing residential lot outside of the structure plan area will be advertised to the relevant landowner/s through direct written correspondence in accordance with the Regulations.

7.0 ADDITIONAL INFORMATION

At the subdivision stage, the WAPC may require and/or impose a condition/s of approval requiring the preparation, submission and approval of the following technical reports:

- a. Foreshore Management Plan;
- b. Environmental Management Plan;
- c. Urban Water Management Plan;
- d. Public Open Space Schedule;
- e. Landscape plan for the planting and treatment of the 'green linkage street';
- f. Any safety improvements and traffic calming to existing roads that provide direct through connection into the structure plan area that may be required to accommodate the additional traffic generated by the structure plan, with reference to an approved Transport Impact Assessment;
- g. Design and construction of the intersection of the 'Integrator B' road with Mandurah Road to the satisfaction of the WAPC, in consultation with Main Roads WA and the City of Mandurah;
- h. Design and construction of the upgrade to the intersection of Madora Beach Road and Mandurah Road to the satisfaction of the WAPC, in consultation with Main Roads WA and the City of Mandurah; and
- i. Uniform fencing and/or a noise attenuation wall, with reference to an approved Transportation Noise Assessment.





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MADORA BAY NORTH Local Structure Plan

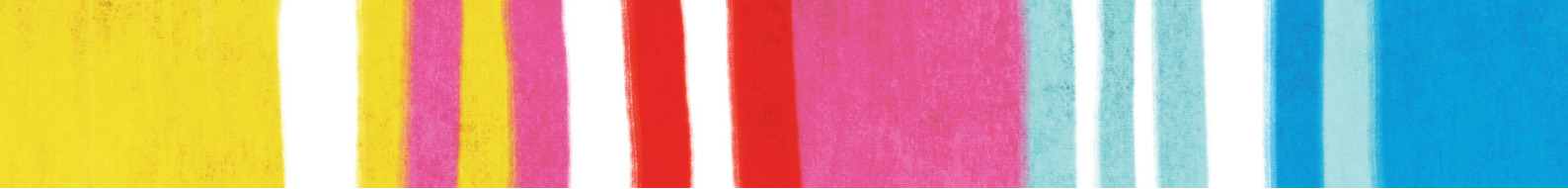
APPENDIX 10

Explanatory Report for Amendment 1,
with Attachments

OCTOBER 2021

CLE Town Planning + Design

SeASide



Title: Madora Bay North Local Structure Plan
Part Two | Explanatory Report for Amendment 1, with Attachments

Prepared for: Satterley Property Group

CLE Reference: 962Rep228

Date: 27 October 2021

Status: DFinal

Review date: 27 October 2021

Prepared by: CLE Town Planning + Design

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1.0 PURPOSE OF AMENDMENT

The primary purpose of Amendment 1 is to redistribute some of the public open space ('POS') in the western and north-western parts of the structure plan area, to improve the accessibility of various POS types for future residents. Amendment 1 is being progressed concurrently with a Foreshore Management Plan, and the two are related in terms of outcomes.

The opportunity is also being taken to:

- Introduce a reference to the City of Mandurah Local Planning Policy No. 1: Residential Design Codes Policy ('LPP 1') to enable implementation of the R-MD Codes; and
- Refresh the format and content of the structure plan to accord with contemporary planning policies and practices, and recent subdivision approvals issued for the structure plan area.

Approval of the amendment will facilitate the progression of design and development for the proposed Coastal Node and urban development within the north-western quarter of the structure plan area.

2.0 BACKGROUND

The structure plan was approved by the WAPC in March 2016 and covers one parent lot (Lot 101 Madora Beach Road, Madora Bay) in its entirety. The approval was obtained by CLE for the previous owner of Lot 101, H&N Perry, and one subdivision approval (WAPC Ref. 155645) was subsequently issued to that owner.

In March 2020, Lot 101 transferred in ownership to the Satterley Property Group, which is developing the 'Seaside' estate on the site. Four subdivision approvals (WAPC Refs. 159127, 159342, 160214 and 160476) have been issued to Satterley since then and a fifth, for the north-eastern quarter of the structure plan area, is in preparation (as at October 2021). The applications lodged to date cover land generally outside of the north-western quarter of Lot 101.

Within the north-western quarter of Lot 101, the key proposals of the structure plan are:

- A coastal node within the foreshore reserve (reserved under the Peel Region Scheme for 'Parks and Recreation');
- A land parcel zoned 'Commercial' and intended to accommodate a Local Centre; and
- An array of small- to medium-sized POSs and a 'green linkage' street, the collective purpose of which is to provide local residents with convenient access to local parks that complement, in function, the larger, district-scale recreational spaces provided within the foreshore reserve.

A Foreshore Management Plan for the foreshore reserve was recently lodged with the City of Mandurah by Strategen-JBS&G (refer to Attachment 4 for an extract). Among other things, a substantial open green space for informal active recreation and public events is proposed. This justifies reconsideration of the 5ha rectangular POS located on the landward side of the foreshore road, which is the primary purpose of this amendment.

3.0 PROPOSED POS REDISTRIBUTION

If retained, the above-mentioned rectangular POS, combined with the open space within the coastal node, would result in a significant proportion of the POS provided for Seaside being concentrated in the central-western part of the site. The existing structure plan has been deemed to be generally compliant with *Liveable Neighbourhoods* by virtue of its approval by the WAPC, and there is an acceptable degree of POS accessibility for all residents across the future estate. However, Satterley considers that this can be improved, and preliminary discussions with the City of Mandurah indicate that there is some scope to amend the structure plan with this outcome in mind.

The existing and proposed POS networks are shown at Attachment 2, including a breakdown of POS sizes and the creditable POS calculation. The following comments apply in this respect:

- The Local Centre has been reconfigured to maximise its frontage and opportunities for interaction with the Coastal Node. Its status and floorspace are not proposed to change relative to the existing structure plan.
- To enable the Local Centre to be reconfigured and to reflect the provision of open space within the Coastal Node, POS 'B' is proposed to be reduced in size and relocated in a north-easterly direction, improving POS accessibility for local residents.
- POS 'A' has been reduced in size. Provision of POS against side boundaries (as is the case for POS 'A' where it abuts lots in Singleton) is unusual, however, POS 'A' is not recommended for deletion because it assists to manage, visually, the interface between Seaside and Singleton.
- POSs G and H have been amalgamated into one consolidated, more useable POS labelled 'G', consistent with the subdivision plan lodged under WAPC Ref. 160476. The POS 'H' designation has been repurposed for the POS approved under WAPC Ref. 160214.
- The primary school has been relocated northward into the location approved under WAPC Ref. 160214, with associated changes made to POSs 'I' and 'K'.
- New POSs, 'M' and 'N' have been created to facilitate, respectively, an entry statement and a local park providing a green outlook for a future row of townhouses and accommodate the wastewater pump station required to service most of the Seaside estate outside of the area covered by WAPC Ref. 159127.

The above-mentioned POS changes result are mostly approved already through existing subdivision approvals. Collectively, the changes deliver a creditable POS total of 12.45 hectares, or 10.8% of the gross subdivisible area of the structure plan area. This is compliant with the 10% required under *Liveable Neighbourhoods*. A copy of the POS Schedule appears at Attachment 2 of this report.

4.0 FORESHORE MANAGEMENT PLAN

As stated above, this structure plan amendment has been prepared in parallel with that of a Foreshore Management Plan ('FMP') for the 'Parks and Recreation' reserve along the coast. Key parameters for the FMP were investigated comprehensively through the original structure plan and remain valid. The most noteworthy site factor is the presence of quandong trees, which are culturally significant for the local Aboriginal people. The Coastal Node location shown on the existing structure plan avoids these, and no change to the location is proposed.

Preparatory work for the Foreshore Management Plan, which has the Coastal Node as its centrepiece, has involved extensive engagement with the City of Mandurah and background research. This included consideration of the characteristics of good coastal node development in Florida, South Australia and elsewhere in Western Australia, and a site tour of the Amberton Beach, Shorehaven and Eden Beach coastal nodes was conducted in February 2021. These case study exercises revealed the following common characteristics, regardless of the scale of the place:

- The node is located at the termination of a major access street;
- A foreshore access road provides a hard edge to the foreshore. This serves a number of purposes including:
 - Providing access to carparking within the foreshore;
 - Providing a road interface for development overlooking the foreshore and the ocean;
 - Bushfire hazard separation.
- The adjacent street block network has streets that run perpendicular to the foreshore in order to provide terminating view lines to the ocean;
- There are visual cues to the beachfront through signage / landscaping / structures;
- Commercial and retail uses are at the core of the node;
- Higher-density residential is located within a short walk of the beach access and the commercial / retail node;
- Car parking is located on the periphery of the node, and traffic calming is implemented through piazzas and other paving techniques. This fosters a pedestrian-friendly environment;
- There is space to accommodate events, markets, food vans and the like.

The Coastal Node concept shown at Attachment 4 is guided by these learnings, and features:

- Two open spaces, providing options for large and small events;
- Peripheral car-parking areas, drawing vehicles away from the heart of the Coastal Node and supporting a pedestrian-friendly environment;
- Hardscaped areas terracing down from the foreshore road, creating a transition from the urban-feeling Local Centre to the natural greenery of the foreshore;
- Provision for a surf lifesaving club close to the ocean, responding to a recommendation of the Mandurah North District Structure Plan;

- A mix of formal (sealed) and less formal (limestone) tracks to and through the foreshore reserve, similar to the examples at Eden Beach.
- A tight cluster of commercial buildings at the heart of the Coastal Node, maximising opportunities for synergies with users of the foreshore (and other patrons);
- Active, permeable frontages to all commercial buildings east of the foreshore road, fostering a human-scaled, pedestrian-oriented Local Centre;
- Opportunities for medium-density residential development (up to the R60 density), which is likely to comprise rear-loaded townhouses and potentially small maisonettes, along with traditional freehold product further afield.
- Provision for the above-mentioned wastewater pump station in POS 'N'.

The foreshore components of the Coastal Node concept are detailed fully in the Foreshore Management Plan lodged recently by Strategen-JBS&G. Detail on built form within the Local Centre will be provided in Local Development Plan/s prepared pursuant to conditions of subdivision approval, as provided in Section 6 of Part 1 of this structure plan.

5.0 LOCAL WATER MANAGEMENT STRATEGY

The POS network proposed in this structure plan amendment has been designed to offer a range of local recreational opportunities to residents and also accommodate stormwater detention basins. This aspect of the design has been informed by an Addendum (Hyd2o, October 2021; 'the Addendum', refer to Attachment 5) to the approval Local Water Management Strategy. The purpose of the Addendum is to, by its own description, "*review and refine the overall stormwater management strategy and stormwater modelling across the LSP area*" and "*guide subdivision planning and the development of Urban Water Management Plans (UWMPs)*". It should be read in conjunction with the approved LWMS that forms part of the original structure plan, which remains valid for all matters not covered by the Addendum.

The Addendum confirms that stormwater management will be undertaken consistent with the Water Sensitive Urban Design principles advocated by the Department of Water and Environmental Regulation. The drainage network will comprise lot soakwells, underground storages within road reserves, and ephemeral bioretention swales within POS for water quality treatment and infiltration. One-year Average Recurrence Interval ('ARI') events are proposed to be infiltrated close to source, with no specific basin allowance for such events. The drainage basins shown in the Addendum are for five-year ARI events and above, with is reflected in the POS Schedule included at Attachment 2. These constitute Restricted POS as required by *Liveable Neighbourhoods*.

6.0 BUSHFIRE HAZARD MANAGEMENT

The majority of the structure plan area is identified in the bushfire hazard mapping maintained by the Department of Fire and Emergency Services as being bushfire-prone. As such, State Planning Policy 3.7: Planning for Bushfire-Prone Areas ('SPP 3.7') applies. In accordance with SPP 3.7, recent subdivision applications lodged over land within the structure plan area (listed in Section 2.0) have included Bushfire Management Plans incorporating BAL Contour Plans. In addition, this structure plan amendment is accompanied by a Bushfire Management Plan (Strategen-JBS&G, October 2021; 'the BMP', refer to Attachment 6) covering the areas that have not yet been covered by a subdivision approval.

The BMP has been informed by, among other things, the Public Open Space Master Plan that appears at Attachment 3, and assesses off-site hazards as required by SPP 3.7. It concludes that there are no bushfire hazards applicable to the site that cannot be managed in accordance with SPP 3.7 at the subdivision stage. Most of the structure plan amendment area is concluded to have a bushfire hazard level ('BHL') of 'Low', whilst a BHL of 'Moderate' applies to land adjacent to the foreshore reserve, Mandurah Road and the north-eastern POS. The hazard posed by the north-eastern POS is acceptable in the context of SPP 3.7, however, the project team intends to investigate opportunities to reduce the hazard it poses through the final landscape design. Development planned to the east of Mandurah Road will, in time, remove the 'Moderate' BHL that applies to land in that area, and the Coastal Node component of the foreshore reserve may reduce the BHL applicable to adjacent land. These matters will be investigated further at the subdivision stage in the context that there have been no insurmountable issues identified at the structure plan stage. BAL ratings for individual lots will be confirmed at the subdivision stage ahead of final certification prior to the issue of titles. These steps will be taken in accordance with SPP 3.7 in the normal manner.

7.0 CONCLUSION

Progression of this amendment to the Madora Bay North Local Structure Plan will facilitate subdivision and development of the north-western portion of the 'Seaside' estate and the Coastal Node. The latter will provide a centrepiece for the estate and cater for district-level demand for beach facilities and access, complementing other coastal nodes in the Rockingham to Mandurah coastal corridor. The associated POS refinements are logical actions that support the equitable distribution of public space for all future residents.

Attachments

Attachment 1	Development Concept Plan
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Attachment 4	Coastal Node Concept Plan from Foreshore Management Plan (Plan E)
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Attachment 1

Development Concept Plan

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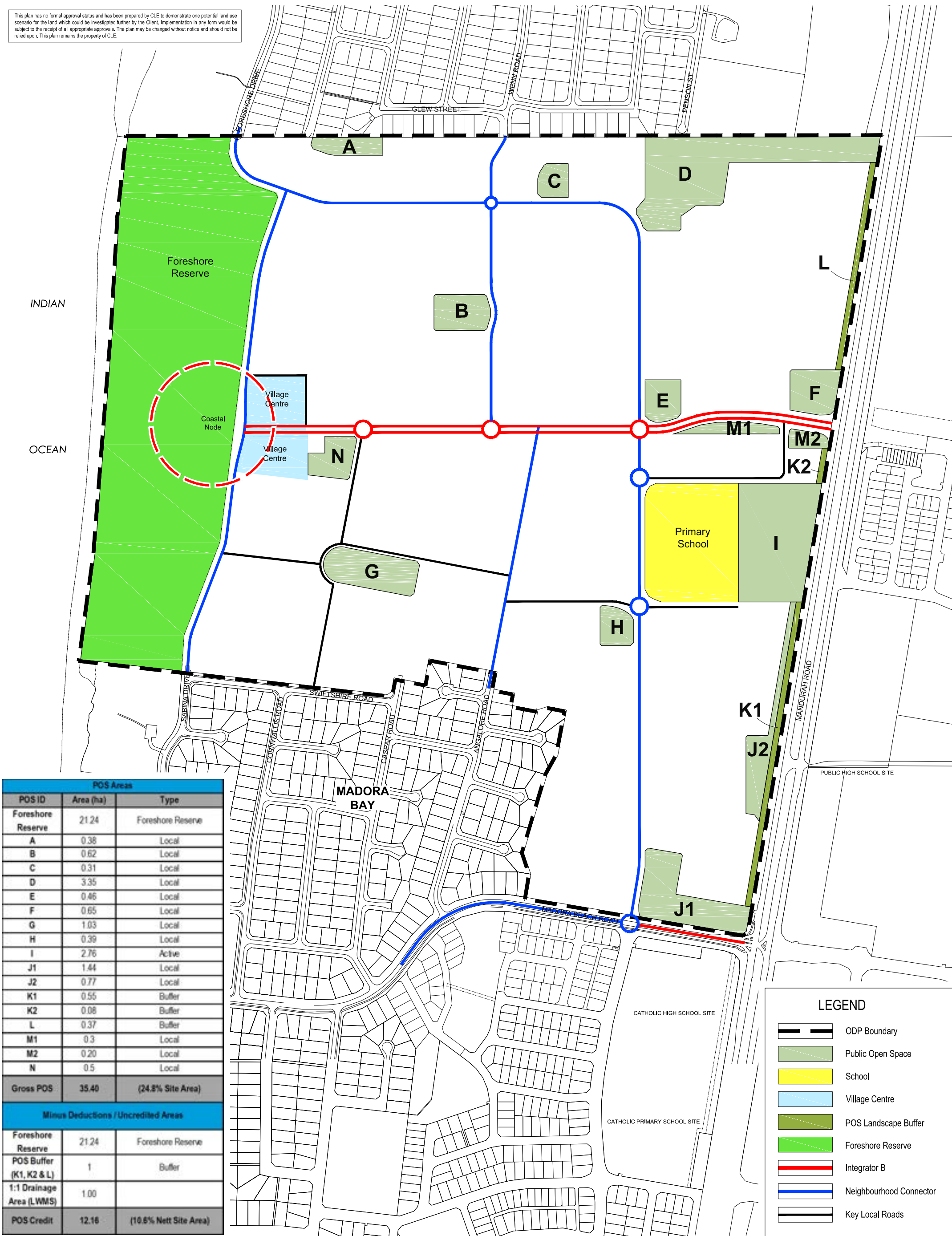


All proposals and designs outside Phase 1 are subject to review and approval.

Attachment 2

Public Open Space Plan and Schedule

This plan has no formal approval status and has been prepared by CLE to demonstrate one potential land use scenario for the land which could be investigated further by the Client. Implementation in any form would be subject to the receipt of all appropriate approvals. The plan may be changed without notice and should not be relied upon. This plan remains the property of CLE.



Public Open Space (POS) Schedule
Lot 101 Mandurah Road, Madora Bay

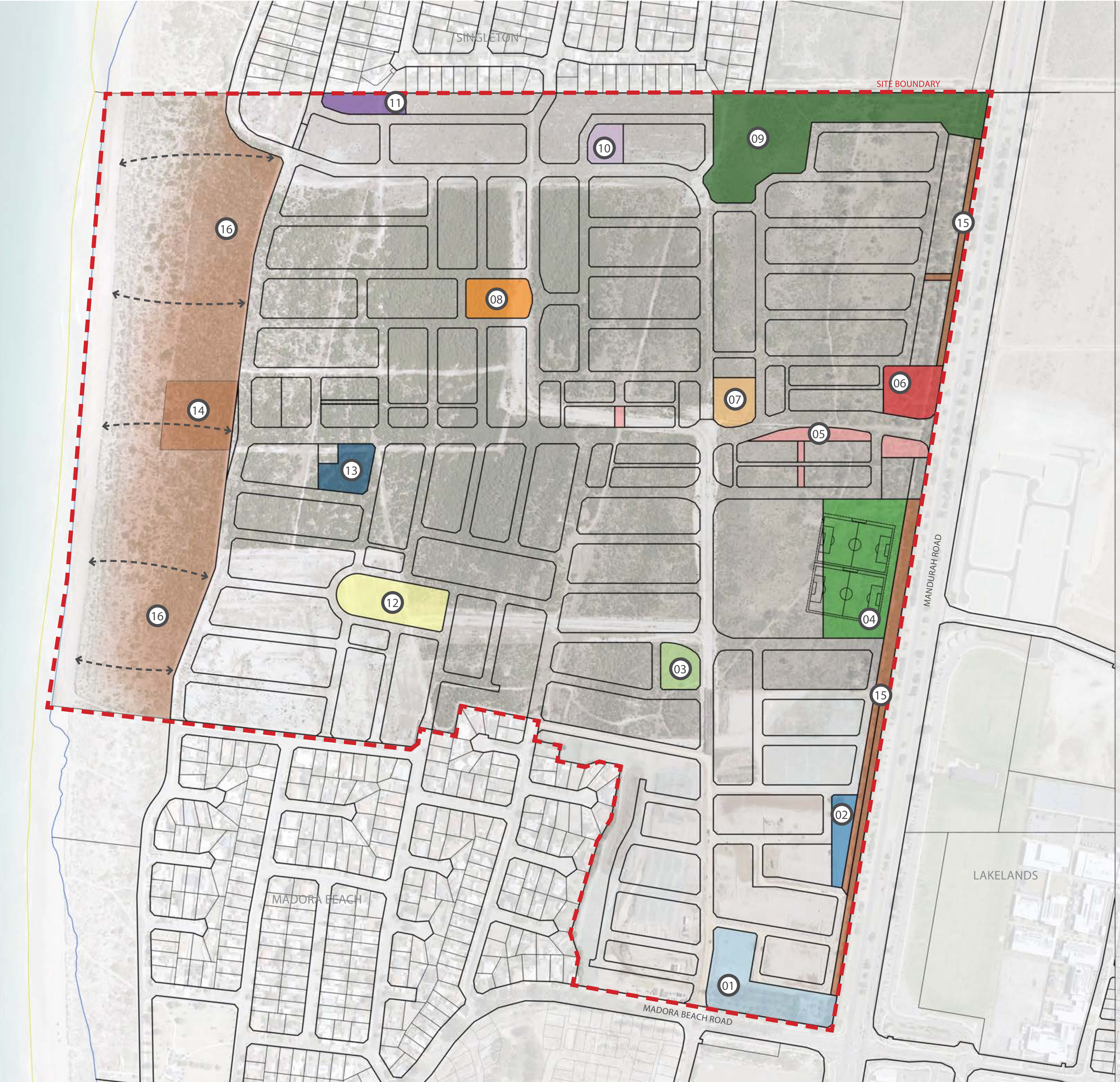
Public Open Space Schedule (all areas are in hectares)		
Site Area		142.7
Existing Deductions		
PRS Parks and Recreation (foreshore) reserve	21.20	
Total existing deductions	21.20	
Net Site Area		121.5
Structure Plan and Subdivision Deductions		
Village Centre	1.00	
Primary School	3.50	
POS Buffer (POS K1, K2 & L)	1.00	
1:1 Drainage within POS	0.72	
Restricted Open Space Surplus	0.00	
Total Structure Plan Deductions	6.22	
Gross Subdivisible Area		115.28
POS @ 10%		11.53
Public Open Space Requirement		
May Comprise:		
Min 8% unrestricted POS	9.22	
Max 2% restricted POS	2.31	
TOTAL POS REQUIRED		11.53
Public Open Space Provided	Unrestricted POS Area	Restricted POS Area
POS A (drainage P)	0.34	0.04
POS B (drainage M)	0.28	0.34
POS C (drainage R)	0.29	0.02
POS D (drainage Q)	3.33	0.02
POS E (no drainage)	0.41	0.05
POS F (drainage G)	0.47	0.18
POS G (drainage J and H)	0.81	0.22
POS H (no drainage)	0.39	0.00
POS I (drainage D)	2.55	0.04
POS J1 (drainage B and C)	0.84	0.26
POS J2 (drainage A)	0.43	0.14
POS M1 (drainage E)	0.24	0.06
POS M2 (no drainage)	0.20	0.00
POS N (drainage L)	0.31	0.19
TOTAL (ha)	10.90	1.55
Additional Deductions		
Restricted Open Space Surplus		0.00
Revised Public Open Space Contribution		
Min 8% unrestricted POS provided	10.90	9.5%
Max 2% restricted POS provided	1.55	1.3%
Total Creditable POS Provided	12.45	10.8%

1. In accordance with Liveable Neighbourhoods: the area subject to inundation more frequently than a one year average recurrence interval rainfall event is not included as restricted or unrestricted open space and is a deduction from the net site area (LN R33); areas for the detention of stormwater for a greater than one year average recurrence interval up to the five year recurrence interval is restricted open space up to 20%, the area greater than 20% is a deduction (not applicable in this case) (LN R26 & Table 11); areas for the detention of stormwater for a greater than five year average recurrence interval is within unrestricted open space (LN R25).

2. This Schedule is for plan CLE Refs. 962-213F-01. It is informed by the LWMS by Hyd2o approved as part of the LSP and for Phase 1-3 drainage and the technical note dated 12 October 2021 for Phase 4 onward.

Attachment 3

Landscape Master Plan (Plan E)



LEGEND

- 01

LOCAL VILLAGE PARK - 1.70 Ha - 80% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - FULLY IRRIGATED
- 02

LOCAL VILLAGE BASIN - 0.38 Ha - 0% IRRIGATED

 - SMALL INFORMAL PARK
 - PRIMARY PURPOSE AS DRAINAGE BASIN
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - INFORMAL SEATING NODES
 - ADVANCED TREE PLANTING WITH AREAS OF LOW SHRUB & GROUNDCOVERS PLANTING
 - NOT IRRIGATED
- 03

LOCAL VILLAGE PARK - 0.39 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 04

SHARED COMMUNITY & PRIMARY SCHOOL OVAL
2.33 Ha - 80% IRRIGATED

 - TURF SPORTS FIELD, ACCOMODATING A VARIETY OF SPORTING CODES
 - SHARED USE WITH THE COMMUNITY & ADJACENT PRIMARY SCHOOL
 - MATURE TREE PLANTING TO EDGES
 - LARGE SHELTER WITH SEATING, BBQ, WATER FOUNTAIN
 - LARGE PLAYGROUND
 - POSSIBLE COMMUNITY FACILITY / SPORTING CLUB ROOMS
 - DRAINAGE BASIN(S)
 - FULLY IRRIGATED
- 05

COMMUNITY CONNECTOR PARKS - 0.62 Ha - 80% IRRIGATED

 - SMALL INFORMAL PARKS
 - PATH CONNECTIONS INTO SURROUNDING STREETS WITH SEATING AND SMALL SHELTERS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB & GROUND COVER PLANTING
 - SMALL ARTWORK PEICES, LIT DURING NIGHT TIME.
 - FULLY IRRIGATED
- 06

ENTRY PARK - 0.65 Ha - 0% IRRIGATED

 - INFORMAL ENTRY PARK
 - SEASIDE ENTRY WALLS WITH SIGNS & ARTWORKS
 - PATH CONNECTIONS INTO SURROUNDING STREETS WITH SEATING
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB & GROUND COVER PLANTING
 - DRAINAGE BASIN(S)
 - NOT IRRIGATED
- 07

LOCAL VILLAGE PARK - 0.46 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 08

NEIGHBOURHOOD PARK - 0.58 Ha - 50% IRRIGATED

LARGE INFORMAL PARK

 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - PLAY AREA & OUTDOOR EXERCISE EQUIPMENT
 - PUBLIC ARTWORK
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 09

DUNE PARK - 2.33 Ha - 30% IRRIGATED

 - COASTAL DUNE PARK
 - RETENTION OF DUNE LANDFORM & VEGETATION WHERE PRACTICABLE
 - CONNECTIONS TO SINGLETON TO THE NORTH & MANDURAH ROAD
 - SMALL NODES AT KEY LANDFORMS & VANTAGE POINTS WITH SHELTER, SEATING, INTERPRETATION SIGNS & SMALL ARTWORKS
 - DRYLAND DUNAL REVEGETATION PLANTING
 - PARTIALLY IRRIGATED
- 10

LOCAL VILLAGE PARK - 3.48 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 11

LOCAL VILLAGE BASIN - 0.38 Ha - 0% IRRIGATED

 - SMALL INFORMAL PARK
 - PRIMARY PURPOSE AS DRAINAGE BASIN
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - INFORMAL SEATING NODES
 - ADVANCED TREE PLANTING WITH AREAS OF LOW SHRUB & GROUNDCOVERS PLANTING
 - NOT IRRIGATED
- 12

NEIGHBOURHOOD PARK - 1.03 Ha - 60% IRRIGATED

 - LARGE INFORMAL PARK
 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - PLAY AREA & OUTDOOR EXERCISE EQUIPMENT
 - PUBLIC ARTWORK
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 13

LOCAL VILLAGE PARK - 0.5 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 14

CENTRAL SEASIDE PARK - 2.5 Ha

 - LARGE REGIONAL PARK
 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - DUAL USE INTERNAL PATH NETWORK WITH CONNECTIONS INTO SURROUNDING STREETS
 - LARGE PLAY AREA WITH HALF COURT & INFORMAL SPORT FACILITIES E.G. SKATE PARK
 - FENCED DOG PARK
 - OFF STREET PARKING
 - PUBLIC ARTWORKS
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - FULLY IRRIGATED
- 15

MANDURAH ROAD BUFFER (NORTH & SOUTH)

 - RETAIN, PROTECT & TIDY UP EXISTING VEGETATION ALONG MANDURAH ROAD
 - PATH CONNECTIONS TO MANDURAH ROAD DUAL USE PATH
 - INFILL MATURE TREE PLANTING WITH TUBESTOCK PLANTING OF LOW SHRUBS & GROUND COVERS
 - BUSH LAND FENCE ON BOUNDARY
 - NO IRRIGATION

NORTH BUFFER: 0.39 Ha

SOUTH BUFFER: 1.49 Ha
- 16

FORESHORE RESERVE

 - BEACH FRONT DUNES
 - RETAIN & PROTECT EXISTING DUNAL LANDSCAPE & VEGETATION
 - ESTABLISH PERMANENT FENCED PATH CONNECTIONS TO BEACH WITH INTERPRETATION / WAYFINDING SIGNS
 - DRYLAND REVEGETATION PLANTING WORKS TO DEGRADED SITES
 - NO IRRIGATION

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE PUBLIC OPEN SPACE MASTER PLAN
OCTOBER 2021

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LEGEND

- FULLY IRRIGATED POS

 - TURF
 - TREES
 - GARDEN BEDS
 - DRAINAGE BASIN PLANTING
- PARTIALLY IRRIGATED POS

2-3 YEARS FULLY IRRIGATED FOR ESTABLISHMENT. AFTER, DRAINAGE BASINS & GARDEN BEDS TO BE DISCONNECTED & NON IRRIGATED.

 - TREES
 - FEATURE GARDEN BEDS
 - SMALL TURF AREAS IF APPLICABLE

ALTERNATIVELY, HAND WATERING DURING MAINTENANCE TO THE ITEMS ABOVE, SUBSTITUTING OR REDUCING THE ALLOTMENT OF WATER TO THAT POS.
- NO IRRIGATION TO POS

HAND WATERING TO TREES AND PLANTING FOR ESTABLISHMENT ONLY.

WATER USED FOR IRRIGATION:

01 AREA: 1.36 Ha	03 AREA: 0.20 Ha	10 AREA: 0.15 Ha	02 AREA: 0 Ha
04 AREA: 1.8 Ha	07 AREA: 0.23 Ha	12 AREA: 0.62 Ha	06 AREA: 0 Ha
05 AREA: 0.50 Ha	08 AREA: 0.29 Ha	13 AREA: 0.25 Ha	11 AREA: 0 Ha
14 AREA: 1.4 Ha	09 AREA: 0.70 Ha	15 AREA: 0 Ha	16 AREA: 0 Ha
SUB TOTAL: 5.06 Ha	SUB TOTAL: 2.44 Ha		

TOTAL GROUND WATER ALLOCATION ALLOWS FOR 7.5 Ha IRRIGATED PUBLIC OPEN SPACE.

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE IRRIGATION MASTERPLAN
OCTOBER 2021

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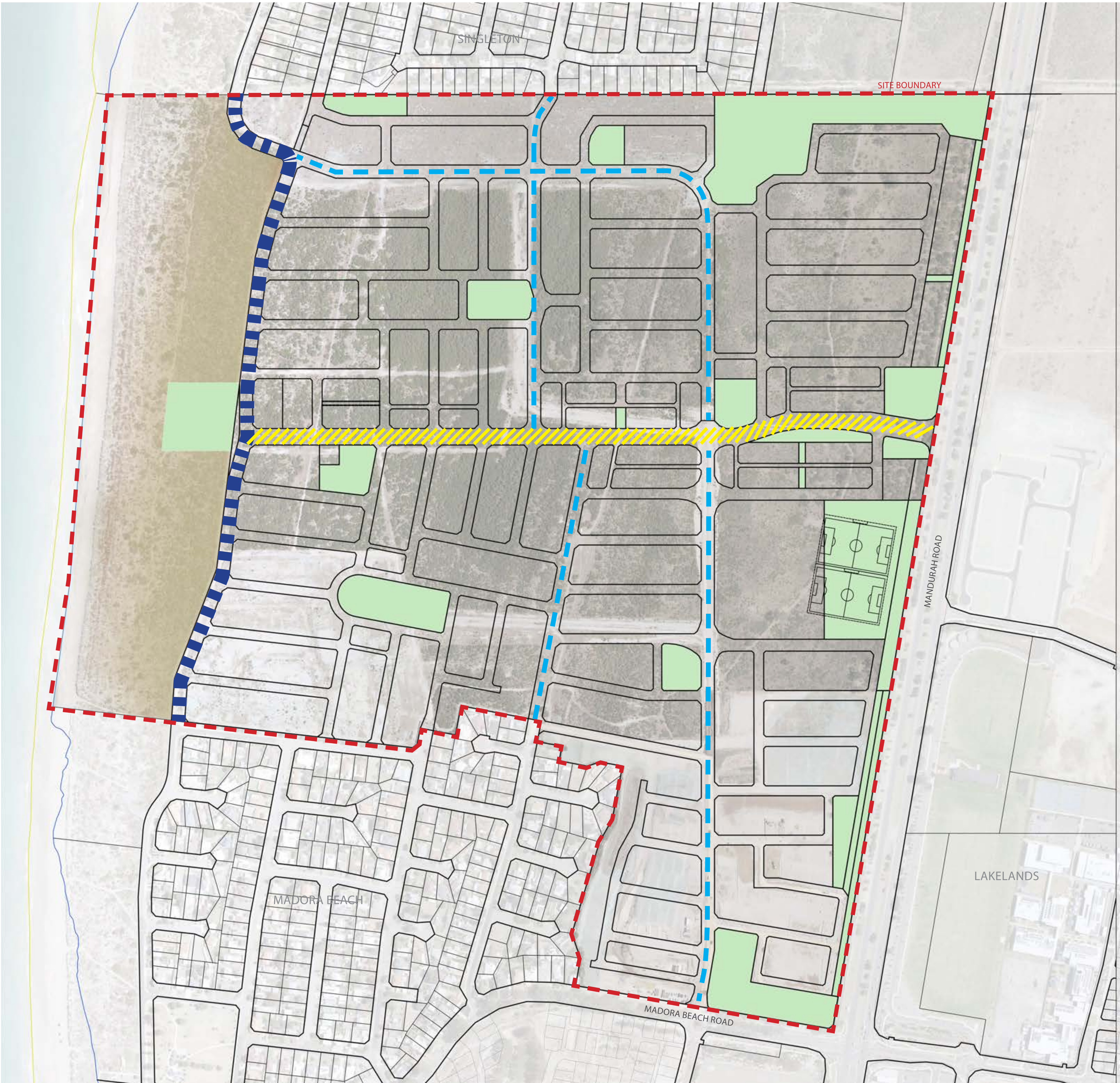
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Planning and Community Consultation Committee
10 May 2022

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LEGEND



COASTAL DRIVE

- NORTH - SOUTH COASTAL CONNECTION
- DUAL USE PATH TO WEST SIDE
- LOW COASTAL PLANTED VERGE TREATMENT
- STREET TREES TO BOTH SIDES
- IRRIGATED WITH WATER CART / TRUCK & RESIDENTAIL LOT MAINS WATER SUPPLY



ENTRY BOULEVARD

- EAST - WEST CENTRAL CONNECTION & MAIN SEASIDE ENTRY ROAD
- DUAL USE PATH TO ONE VERGE WITH FOOTPATH ON OPPOSITE VERGE
- PLANTED & TURF VERGE TREATMENT
- PLANTED MEDIAN TREATMENT
- STREET TREES TO VERGE & MEDIAN
- FULLY IRRIGATED WITH BORE WATER SUPPLY



NEIGHBOURHOOD CONNECTORS

- MAIN NEIGHBOURHOOD CONNECTORS
- FOOTPATH TO BOTH SIDES
- STREET TREE PLANTING TO BOTH VERGES WITH 1 STREET TREE PER LOT & TREE PLANTING TO MEDIAN WHERE APPLICABLE
- TURF VERGE TREATMENT
- PLANTED MEDIAN TREATMENT
- VERGE & TREE IRRIGATED WITH WATER TRUCK & RESIDENTAIL LOT MAINS WATER SUPPLY
- MEDIAN PLANTING FULLY IRRIGATED WITH BORE WATER SUPPLY



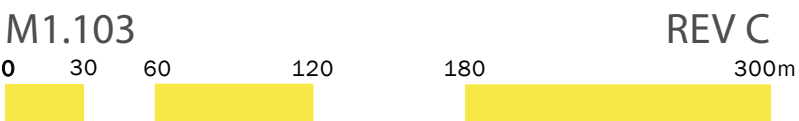
LOCAL STREETS

- TURF & MULCH VERGE TREATMENT
- 1 STREET TREE PER LOT
- TURF VERGE & TREE PLANTING IRRIGATED WITH WATER CART / TRUCK & RESIDENTAIL LOT MAINS WATER SUPPLY

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE BOULEVARD & CONNECTOR MASTERPLAN
OCTOBER 2021

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Attachment 4

Coastal Node Concept Plan from Foreshore Management Plan (Plan E)



SEASIDE MADORA BAY

PREPARED FOR SATTERLEY

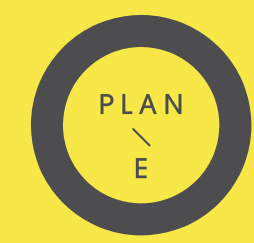
LANDSCAPE FORESHORE MASTERPLAN

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Attachment 5

Local Water Management Strategy - Technical Note (Hyd2o)

15 October 2021

Your Ref:
Our Ref: H21055Av2

Department of Water and Environmental Regulation
107 Breakwater Pde
Mandurah, WA 6210
ATTENTION: Brett Dunn

Dear Brett,

RE: SEASIDE MADORA BAY LOCAL WATER MANAGEMENT STRATEGY ADDENDUM

This Local Water Management Strategy (LWMS) addendum has been prepared by Hyd2o on behalf of Satterley Property Group in support of the revised Lot 101 Mandurah Rd, Madora Bay North Local Structure Plan (LSP).

The addendum report has been initiated through amendments made to the LSP and has been prepared to review and refine the overall stormwater management strategy and stormwater modelling across the LSP area. This modelling will later be used to guide subdivision planning and the development of Urban Water Management Plans (UWMPs) within the site. Subdivision development has already occurred within the LSP area and is with drainage outcomes provided in the Seaside Precinct 1 Urban Water Management Plan (Hyd2o, 2020)

This report is intended to be read in conjunction with the previously approved Lot 101 Mandurah Rd, Madora Bay North Local Water Management Strategy (Hyd2o, 2013). The modelling outcomes in this report supersede post development modelling outcomes detailed in the previous LWMS. The key principles and objectives of the approved LWMS remain current. The revision of stormwater modelling has also used the current 2016 design rainfalls consistent with Australian Rainfall & Runoff standards.

The LSP area (herein referred to as the site) is approximately 123 ha in size and located within the City of Mandurah. The site is bound by Mandurah Road to the east, Madora Beach Road to the south, the Indian Ocean to the west and urban development to the north (Figure 1).

This document provides a total water cycle management approach to development and has been prepared consistent with the approved LWMS (Hyd2o, 2013), DWMS (JDA, 2011) and Better Urban Water Management (Western Australian Planning Commission, 2008).

1. Local Structure Plan

The revised LSP for the site is included as Figure 2. Proposed land use within the site is generally consistent with that shown in the LWMS (Hyd2o, 2013), albeit with realignment of roads, lots and POS across the site. These changes have resulted in modification to post development drainage routes and local catchment boundaries.

2. Site Characteristics

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The site is generally described as having the following predevelopment characteristics:

- The site is partially cleared in preparation for subdivision with some natural and planted vegetation.
- The topography of the site ranges from 6 mAHD to 10 mAHD in western and central lower areas, with the chaotic dunes rising to peaks of 20 mAHD to 23 mAHD along the eastern portion of the site.
- Golder undertook two geotechnical investigations during March 2018 and July 2020, installing 7 boreholes, 23 cone penetration tests, and 12 permeability test pits within the site area. The field investigation characterised the site as calcareous sands and Tamala Limestone. The soil profile was generally consistent with the Rockingham Sheets 2033 II and 2033 III of the Environmental Geology Series (Gozzard, 1983) (Figure 4). The sand, derived from Safety Bay Sands (Qhs) and Tamala Limestone (Qtl) is classified as having high permeability (Gozzard, 1986).
- Hyd2o (2013) undertook permeability testing at three locations (P1, P2, and P3) to depths of 0.4 m (Figure 5). Field recorded saturated hydraulic conductivity ranged from 1.57 m/day to 12.21 m/day. Field permeability was consistent with the geotechnical investigation undertaken by Golder (2018) which indicated permeability ranged from 15 m/day to 45 m/day across the site. Golder Geotechnical (2018) considered the site suitable for the disposal of stormwater by infiltration and concluded that soakwells can be adopted at lot level. For design and modelling purposes, an infiltration rate of 5 m/day has been recommended.
- A groundwater monitoring program was undertaken in 2011/2012 which determined that groundwater across the site varied from 1.7 mAHD to 2.07 mAHD.
- The site is located within the Peel-Harvey Estuary Catchment. The site does not contain any surface water features including waterways, drains, lakes or ponded water.
- DBCA's Geomorphic Wetlands of the Swan Coastal Plan dataset indicates there are no geomorphic wetlands or wetland buffers within the site.

3. Stormwater Management

Stormwater modelling for the site was performed using the PONDS infiltration model. PONDS is a numerical model specifically designed for modelling ground water/surface water interactions for the design of stormwater infiltration areas, based on the finite difference computer program MODFLOW, developed by the U.S. Geological Survey.

This modelling determines conceptual flood storage requirements and provides an assessment of the local structure plan area required for drainage purposes at a level of detail consistent with requirements for an LWMS.

Stormwater management is proposed to be undertaken consistent with DWER water sensitive design practices. The system will consist of a series of lot soakwells, underground storages within road reserves, and ephemeral bioretention swales within POS for water quality treatment and infiltration.

The first 15 mm event infiltrated close to source. Lot runoff will be managed through the use of soakwells and road drainage will be infiltrated through the use of Stormtech underground infiltration cells or discharge to adjacent POS. There is no piped drainage proposed in road reserves.

Storage areas were designed to contain and infiltrate runoff for up to the 1%AEP storm event. Eleven infiltration areas were designed within POS with respect to the contributing catchment areas.

Stormwater modelling parameters used to design the stormwater storages are as follows:

- The invert of the infiltration areas were established at existing natural surface assuming minimal earthworks required in public open space.
- Base of superficial aquifer at -15 mAHD from the Perth Groundwater Atlas (DoE, 2004).
- Side slope for the infiltration area of 1:6.
- A saturated horizontal hydraulic conductivity and vertical unsaturated hydraulic conductivity for modelling purposes of 5 m/day based on recommendations in Golder Geotechnical (2018).
- A runoff coefficient of 90% from road reserve areas, 75% for commercial and small lots, and 10% from lot area has been assumed.

Based on the revised structure plan, updated post-development drainage catchments are shown in Figure 2, with modelling results summarised in Table 1. Note that storage shapes shown in Figure 2 are indicative only for determination of area requirements and representation of the storage area required.

The final flood attenuation area configuration (side slopes and shape), locations and elevations will be documented in future UWMPs and will be dependent on final earthworks, drainage, landscaping and road design levels for the development. Minor refinements to catchment areas in this report are considered likely to occur as detailed design proceeds and stormwater modelling will be updated accordingly during the UWMP process.

Table 2: Stormwater Management

Catchment	G	H	I	J	K	L	M	N	O	P	Q	R	S
Lots (ha) @10%RO	7.15	9.98	0.98	2.97	1.32	2.37	15.84	1.30	0.85	1.99	0.82	1.18	1.69
Small Lots (ha) @75%RO	1.16	0.03	-	0.35	-	2.07	1.37	-	-	-	-	-	-
Commercial Lots (ha) @75%RO	-	-	-	-	0.14	0.99	-	0.19	0.00	-	-	-	-
Road & Road Reserve (ha) @90%RO	3.69	3.79	0.22	1.31	1.04	3.11	7.38	1.08	0.53	0.83	0.55	0.37	0.61
POS (ha) @0%RO	1.00	0.48	-	0.55	0.01	0.58	1.14	-	-	0.38	3.32	0.31	-
Total Area (ha)	13.00	14.28	1.20	5.19	2.51	9.12	25.73	2.57	1.38	3.20	4.69	1.85	2.31
Equivalent Impervious Area (EIA) (ha)	4.19	4.44	0.29	1.74	1.18	5.33	9.26	1.25	0.56	0.95	0.58	0.45	0.72
Storage Design Parameters													
Storage Invert (mAHD)	9.0	5.0	7.0	5.0	7.0	6.0	9.0	6.0	6.0	6.0	9.0	6.0	6.0
Base Area (m ²)	1290	1210	3	323	180	1440	2750	192	42	120	40	21	72
Side Slopes (v:h)	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6	1:6
First 15 mm													
Road & Road Reserve (ha) @60%RO	2.22	2.28	0.13	0.79	0.62	1.87	4.43	0.65	0.32	0.50	0.33	0.22	0.37
Volume (m³)	332	341	20	118	93	280	664	97	47	75	49	33	55
20%AEP Event													
Flood Rise (m)	0.46	0.54	0.71	0.61	0.63	0.51	0.48	0.64	0.68	0.65	0.69	0.69	0.67
Top Water Level (TWL) Area (m ²)	1784	1603	105	634	449	1943	3416	445	222	360	228	176	285
Volume (m ³)	796	731	30	282	192	859	1539	186	84	149	86	61	117
Critical Storm (hr)	6	6	6	6	6	6	6	6	6	6	6	6	6

Table 2: Stormwater Management (continued)

Catchment	G	H	I	J	K	L	M	N	O	P	Q	R	S
1% AEP Event													
Flood Rise (m)	0.99	1.01	0.99	1.01	0.99	0.99	0.99	1.01	0.99	1.00	1.00	0.99	1.00
TWL Area (m ²)	2310	2080	196	189	660	2496	4154	408	342	540	352	285	420
Volume (m ³)	1776	1576	76	72	396	1944	3428	672	168	306	172	129	222
Critical Storm (hr)	6	6	6	6	6	6	6	6	6	6	6	6	6

4. Conclusions/Recommendations

This addendum provides revised stormwater modelling for the site to address proposed changes to the LSP since the approval of the Local Water Management Strategy (Hyd2o, 2013).

The updated stormwater management strategy and modelling takes into consideration the soil profiles and infiltration testing results documented in Golder Geotechnics (2018, 2020). It is recommended that modelling contained in this addendum be used as the basis for further subdivision development within the site and the development of future UWMPs.

Aside from the revised stormwater strategy and modelling detailed in this report, all principles and objectives of the approved LWMS (Hyd2o, 2013) remain valid for implementation. Detailed engineering design and landscaping of each POS including a revision of the stormwater modelling will be provided in future UWMPs.

5. References

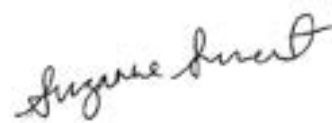
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- JDA (2011). Lot 100 Mandurah Road Madora Bay North District Water Management Strategy.

Western Australian Planning Commission (2003). Planning Bulletin No. 64: Acid Sulphate Soils. Western Australian Planning Commission, November 2003.

Western Australian Planning Commission (2008). Better Urban Water Management, October 2008.

Should you have any queries regarding this report, please do not hesitate to contact Georgia Ross or Suzanne Smart of this office.

Yours sincerely,



Suzanne Smart

Principal Environmental Hydrologist

Attachments

Figure 1: Location Plan

Figure 2: Stormwater Management Plan

This document is published in accordance with and subject to an agreement between Hyd2o and the Client for whom it has been prepared, and is restricted to those issues that have been raised by the Client in its engagement of Hyd2o. It has been prepared using the skill and care ordinarily exercised by hydrologists in the preparation of such documents.

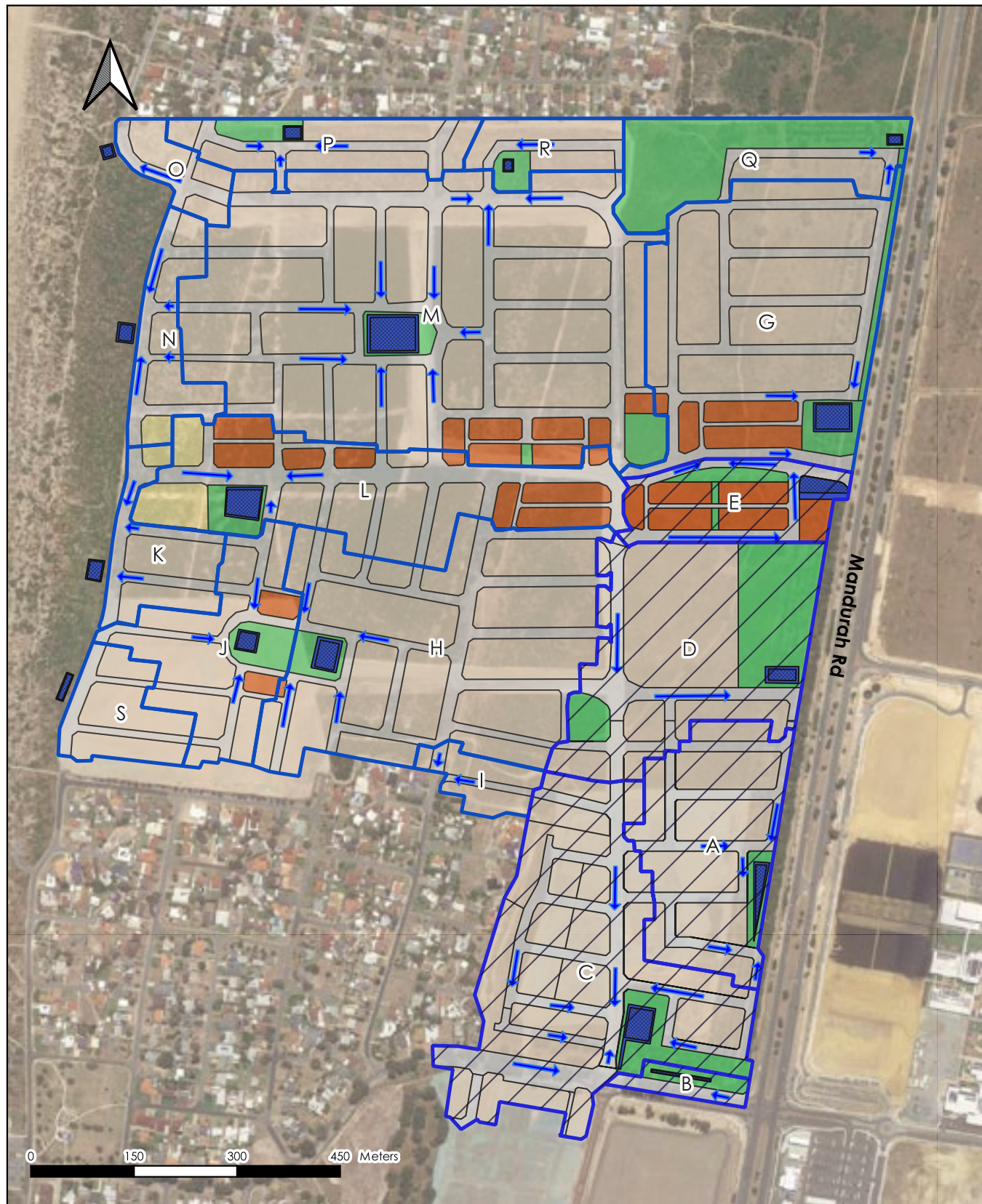
Hyd2o recognise site conditions change and contain varying degrees of non-uniformity that cannot be fully defined by field investigation. Measurements and values obtained from sampling and testing in this document are indicative within a limited timeframe, and unless otherwise specified, should not be accepted as conditions on site beyond that timeframe.

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- Precinct 1
- Balance Lot (LWMS Addendum Area)

hyd2o
Seasode Madora Bay LWMS Addendum
Location Plan
Figure 1



- | | |
|----------------------|-------------------------------|
| Lots | Catchments |
| Small Lots | Flow Direction |
| Commercial Lots | 1%AEP |
| Roads & Road Reserve | 20%AEP |
| POS | Existing Subdivision Approval |

Seaside Madora Bay
 North LWMS Addendum
Stormwater Management Plan
Figure 2

Attachment 6

Bushfire Management Plan (Strategen-JBS&G)

Bushfire Management Plan Coversheet

This Coversheet and accompanying Bushfire Management Plan has been prepared and issued by a person accredited by Fire Protection Association Australia under the Bushfire Planning and Design (BPAD) Accreditation Scheme.

Bushfire Management Plan and Site Details

Site Address / Plan Reference: Lot 9101 Mandurah Road

Suburb: Madora Bay

State: WA

P/code: 6210

Local government area: City of Mandurah

Description of the planning proposal: Structure Plan amendment

BMP Plan / Reference Number: 60703/138,604

Version: R01 Rev 0

Date of Issue: 26/10/2021

Client / Business Name: Satterley Property Group

Reason for referral to DFES

	Yes	No
Has the BAL been calculated by a method other than method 1 as outlined in AS3959 (tick no if AS3959 method 1 has been used to calculate the BAL)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Have any of the bushfire protection criteria elements been addressed through the use of a performance principle (tick no if only acceptable solutions have been used to address all of the BPC elements)?	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Is the proposal any of the following special development types (see SPP 3.7 for definitions)?		
Unavoidable development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Strategic planning proposal (including rezoning applications)	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Minor development (in BAL-40 or BAL-FZ)	<input type="checkbox"/>	<input checked="" type="checkbox"/>
High risk land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>
Vulnerable land-use	<input type="checkbox"/>	<input checked="" type="checkbox"/>

If the development is a special development type as listed above, explain why the proposal is considered to be one of the above listed classifications (E.g. considered vulnerable land-use as the development is for accommodation of the elderly, etc.)?
The proposed Structure Plan amendment is considered to be a strategic planning proposal.

Note: The decision maker (e.g. local government or the WAPC) should only refer the proposal to DFES for comment if one (or more) of the above answers are ticked "Yes".

BPAD Accredited Practitioner Details and Declaration

Name	Accreditation Level	Accreditation No.	Accreditation Expiry
Zac Cockerill	Level 2	37803	31/08/2022
Company		Contact No.	
JBS&G Australia Pty Ltd T/A Strategen JBS&G		(08) 9792 4797	

I declare that the information provided within this bushfire management plan is to the best of my knowledge true and correct

Signature of Practitioner



Date: 26/10/2021

Satterley Property Group
Bushfire Management Plan (Structure Plan
Amendment)

Lot 9101 Mandurah Road, Madora Bay

26 October 2021

60703/138,604 (Rev 0)

JBS&G Australia Pty Ltd T/A Strategen-JBS&G

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Appendix F	City of Mandurah Firebreak Notice

1. Proposal details

1.1 Background

Satterley Property Group is seeking to lodge a Structure Plan amendment to facilitate future residential development within Lot 9101 Mandurah Road, Madora Bay (the project area), located in the City of Mandurah. The Structure Plan amendment map is provided in Figure 1, with the concept layout provided in Figure 2. The concept layout depicts Phase 1–5 subdivision areas, which already have WAPC subdivision approval and are not the subject of the Structure Plan amendment. On this basis, the approved Phase 1–5 subdivision areas are not within the scope of this report and will not be referenced further.

The balance of the site that is subject to the Structure Plan amendment is depicted in Figure 1 and Figure 2 as comprising the following land uses:

- residential
- commercial
- Public Open Space (POS)
- foreshore reserve
- public roads.

1.2 Site description

The project area is within Lot 9101 Mandurah Road, Madora Bay and is surrounded by (see Figure 3):

- coastal foreshore reserve to the west
- existing urban residential development to the north
- approved Phase 1–5 subdivision areas, existing urban residential development and Madora Beach Road to the south
- Mandurah Road and existing/proposed urban residential development to the east.

The project area is designated as bushfire prone on the *Map of Bush Fire Prone Areas* (DFES 2019; see Plate 1).

1.3 Purpose

This Bushfire Management Plan (BMP) has been prepared to address requirements under *Policy Measure 6.3 of State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015) and *Guidelines for Planning in Bushfire-Prone Areas* (the Guidelines; WAPC 2017).

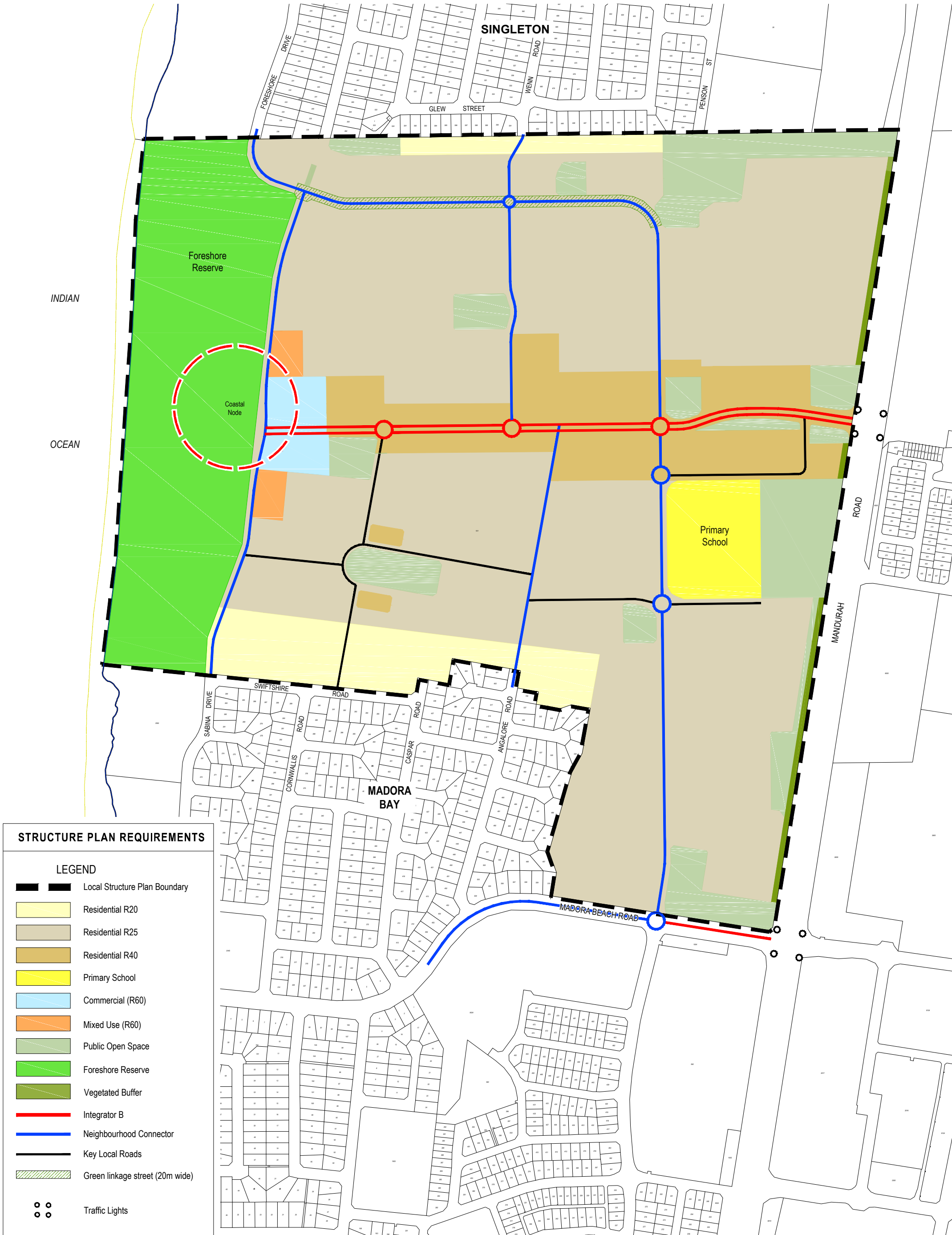
1.4 Other plans/reports

Other reports that have been prepared for the project area include:

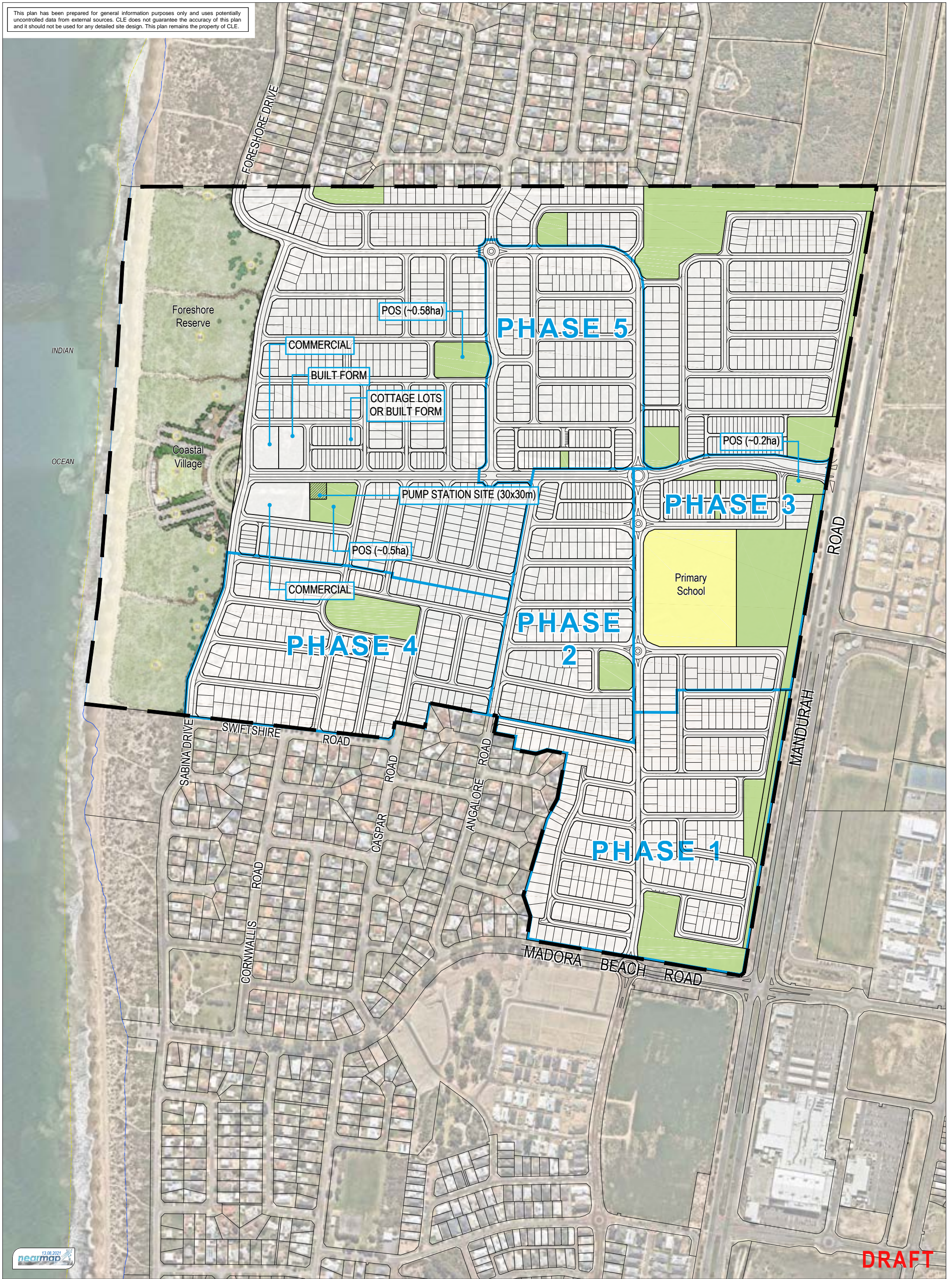
- BMP for Phase 1 subdivision prepared by Strategen-JBS&G (2020a)
- BMP for Phases 2–3 subdivision prepared by Strategen-JBS&G (2020b)
- BMP for Phases 4–5 subdivision prepared by Strategen-JBS&G (2021a)
- Environmental Assessment for Part Lot 100 Mandurah Road prepared by Endplan Environmental (2013)
- Foreshore Management Plan for Structure Plan amendment prepared by Strategen-JBS&G (2021b).

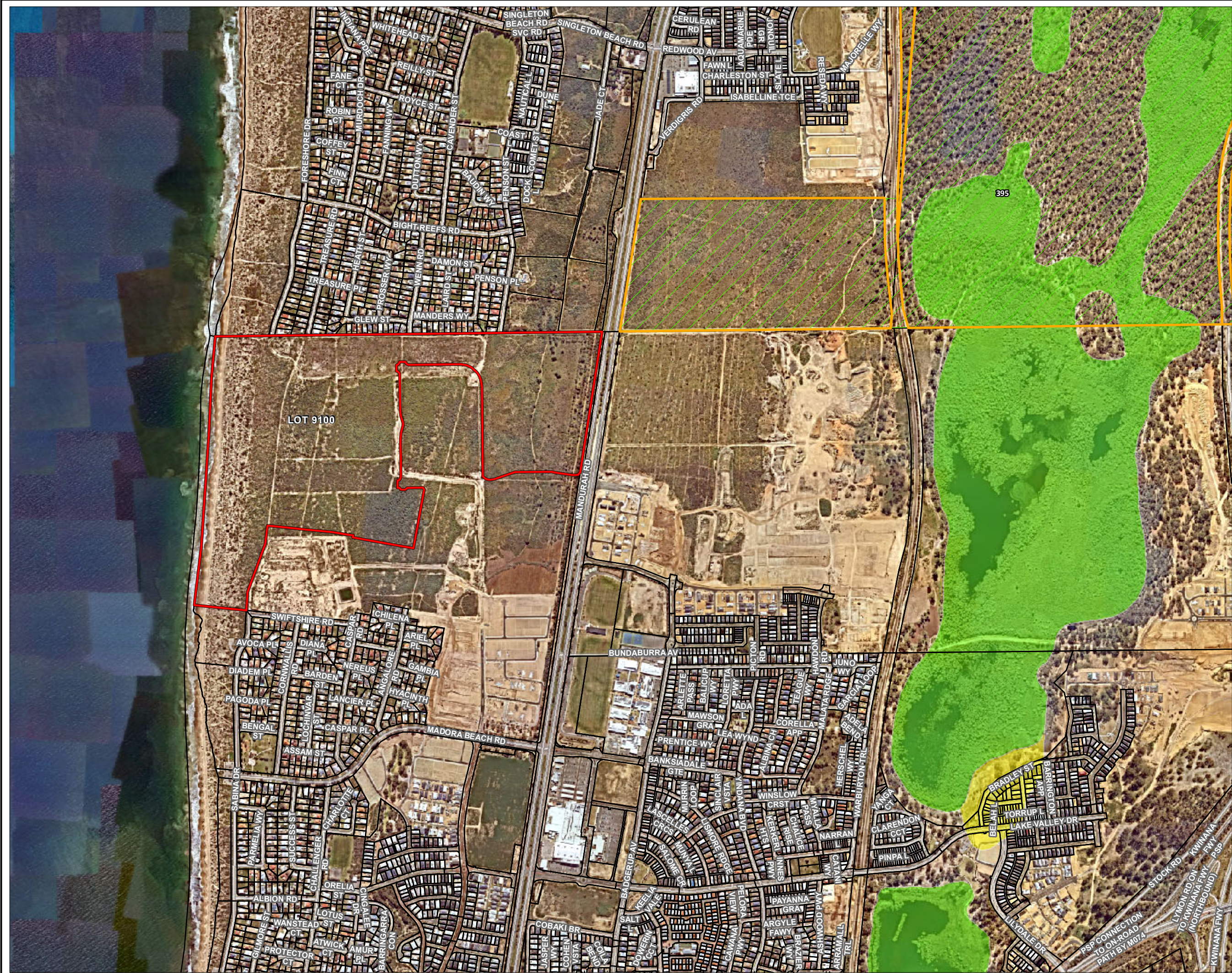


Plate 1: Map of Bush Fire Prone Areas (DFES 2019)



This plan has been prepared for general information purposes only and uses potentially uncontrolled data from external sources. CLE does not guarantee the accuracy of this plan and it should not be used for any detailed site design. This plan remains the property of CLE.





- Legend**
- Project area
 - Cadastral boundary
 - Legislated lands and waters (DBCA)
 - Crown Freehold - Dept Managed
 - Bush Forever site (DPLH)
 - Geomorphic wetlands (DBCA)
 - Conservation
 - Resource enhancement
 - Multiple use
 - Not applicable
 - Not assessed
 - Roads (MRWA)



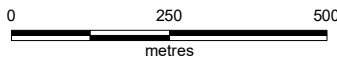
Job No: 60703

Client: Satterley Property Group

Version: A Date: 08-Oct-2021

Drawn By: jcrute Checked By: CT

Scale 1:12,000 at A3



Coord. Sys. GDA 1994 MGA Zone 50

**Seaside Estate,
Madora Bay, WA**

SITE OVERVIEW

FIGURE 3

2. Environmental considerations

2.1 Native vegetation - modification and clearing

Aside from the majority of vegetation within the foreshore reserve, as well as vegetation proposed to be retained within POS 9 in the northeast and the Mandurah Road buffer in the east, the project area will be cleared on a staged basis in preparation for proposed urban development throughout the site. Strategen-JBS&G understands that all relevant environmental approvals have or will be sought prior to any clearing associated with the proposal.

The key environmental features of the project area and future development areas to the north, south and east were identified in the Environmental Assessment Report (EAR) prepared by Endplan Environmental (2013), which include:

- approximately 97% of the vegetation is in a Degraded to Completely Degraded condition reflecting the past rural nature of the property
- no Threatened Flora, Threatened Ecological Communities or Priority Ecological Communities are present
- two Priority 4 flora species were identified during the flora and vegetation survey, which have no specific protection status; however, retention is proposed where possible within POS areas
- the site is identified as a Regional Significant Natural Area by the Swan Bioplan mapping. As such, detailed flora and fauna surveys have been undertaken to document the site-specific ecological features. These investigations have found that the vegetation on-site is generally degraded with limited fauna habitat values present
- no Black Cockatoos were sighted or located on site. Two species of Black Cockatoo may occasionally forage on-site, although this is highly unlikely given the very limited areas of the species' preferred food sources and absence of any roosting or nesting trees of an appropriate size
- no known Aboriginal or European heritage sites on either the State or Commonwealth Heritage Registers are listed as occurring on-site
- land use to the north, south and east comprises existing or proposed future urban development.

Based on the findings of the Endplan Environmental (2013) EAR, the project area does not contain any critical environmental values. An updated summary of environmental values is provided in Table 1, determined via desktop assessment of available environmental datasets.

Table 1: Summary of environmental values

Environmental value	Mapped as occurring within or adjacent to the project area		Description
	Within	Adjacent	
Environmentally Sensitive Area	✗	✓	An Environmentally Sensitive Area (ESA) is mapped as occurring approximately 100 m northeast of the project area associated with Paganoni Swamp Reserve.
Swan Bioplan Regionally Significant Natural Area	✓	✓	The project area and adjacent land to the south and east are mapped as a Swan Bioplan Regionally Significant Natural Area.

Environmental value	Mapped as occurring within or adjacent to the project area		Description
	Within	Adjacent	
Ecological linkages	✗	✓	A Perth Regional Ecological Linkage is located approximately 2 km east-northeast of the project area
Wetlands	✗	✓	A Conservation Wetland is mapped as occurring approximately 1.2 km to the east of the project area. No Ramsar sites are recorded as occurring.
Waterways	✗	✓	Paganoni Swamp occurs 1.2 km to the east of the project area.
Threatened Ecological Communities listed under the EPBC Act	✓	✓	Threatened Ecological Communities are mapped as occurring within and adjacent to the project area. Banksia Woodlands are mapped as possibly occurring throughout the project area and adjacent land. However, given site specific environmental assessment results, no TECs are present within the project area.
Fauna habitat listed under the EPBC Act	✓	✓	Possible Quenda habitat is mapped as occurring in the project area and adjacent land. With respect to Carnaby's Black Cockatoo, the project area and adjacent areas are mapped as containing: <ul style="list-style-type: none"> possible breeding areas confirmed roosting areas. Potential feeding areas (Swan Coastal Plain) occur in the east of the project area. However, given site specific environmental assessment results, the project area is unlikely to contain significant EPBC Act species habitat.
Threatened and priority fauna	✗	✗	Mapping layer not available at time of report preparation.
Bush Forever Site	✗	✓	Bush Forever Site 395 is mapped as occurring approximately 100 m northeast of the project area associated with Paganoni Swamp.
DBCA managed lands and waters (includes legislated lands and waters and lands of interest)	✗	✓	DBCA Legislated Lands and Waters are mapped as occurring approximately 1 km northeast of the project area. Paganoni Swamp Reserve is mapped as DBCA Managed Land.
Conservation covenants	✗	✗	N/A.
Heritage	✗	✗	No Aboriginal or European heritage sites on either the State or Commonwealth Heritage Registers are listed as occurring on site.

2.2 Revegetation / Landscape Plans

Vegetation retention, revegetation and/or rehabilitation that is likely to result in a classified vegetation extent and subsequent BAL response is proposed within the Foreshore Reserve to the west and POS 9 in the northeast (refer to Landscape POS Master Plan contained in Appendix A). Although the Mandurah Road buffer in the east is also proposed for vegetation retention, revegetation and/or rehabilitation, it is anticipated that this narrow (less than 20 m wide) strip of screening vegetation will achieve exclusion under Clause 2.2.3.2 (d) of AS3959, with future subdivision to be designed appropriately to deliver this exclusion.

The Foreshore Reserve is also proposed to have low threat POS treatments in accordance with the Landscape Foreshore Master Plan (also contained in Appendix A) and Foreshore Management Plan (Strategen-JBS&G 2021). Given the conceptual level of detail available, the extent of these low threat areas has not been captured as part of this BMP; however, future subdivision stage BMPs will need to incorporate accurate boundaries of any proposed low threat landscaping proposed within the Foreshore Reserve in accordance with more detailed landscape plans.

All other areas of POS and streetscaping will be landscaped to a non-vegetated/low threat state, excludable under Clauses 2.2.3.2 (e) and (f) of AS3959 and Schedule 1 of the Guidelines, as per the Landscape POS Master Plan contained in Appendix A. Detailed POS landscape plans will need to be prepared at the subdivision/clearance stage in accordance with the provisions of this BMP to demonstrate that the necessary low threat exclusions have been delivered.

3. Bushfire assessment results

3.1 Assessment inputs

3.1.1 Vegetation classification

Strategen-JBS&G assessed classified vegetation and exclusions within 150 m of the project area through on-ground verification on 22 June 2021 in accordance with AS 3959—*2018 Construction of Buildings in Bushfire-Prone Areas* (AS 3959; SA 2018) and the *Visual Guide for Bushfire Risk Assessment in Western Australia* (DoP 2016). Georeferenced site photos and a description of the vegetation classifications and exclusions are contained in Appendix B and depicted in Figure 4 (for pre-development conditions) and Figure 5 (for anticipated post-development conditions). Vegetation classification/exclusion inputs are also summarised in Table 2 (for pre-development conditions) and Table 3 (for anticipated post-development conditions).

Predominant vegetation throughout the project area and adjacent 150 m was identified as:

- Class A forest abutting the western interface of Mandurah Road
- Class B woodland throughout a small pocket of retained canopy to the north
- Class D scrub throughout the central and eastern portions of the project area, as well as to the north
- Class C shrubland throughout western coastal/foreshore and northern portions of the project area
- Class G grassland opposite Mandurah Road to the east.

3.1.2 Effective slope

Strategen-JBS&G assessed effective slope under classified vegetation within the 150 m assessment area through on-ground verification on 22 June 2021 in accordance with AS 3959. Results were cross-referenced with DPIRD 2m contour data and are depicted in Figure 4 (for pre-development conditions) and Figure 5 (for anticipated post-development conditions). Effective slope under classified vegetation is also summarised in Table 2 (for pre-development conditions) and Table 3 (for anticipated post-development conditions).

Site observations indicate that slope throughout the project area and adjacent 150 m fluctuates from flat land in the east and west, to undulating throughout a central north/south ridgeline containing slopes of 5–10 degrees.

3.1.3 Pre-development inputs

A summary of the assessed pre-development classified vegetation, exclusions and effective slope within the project area and adjacent 150 m are listed in Table 2 and illustrated in Figure 4.

Table 2: Pre-development vegetation classifications/exclusions and effective slope

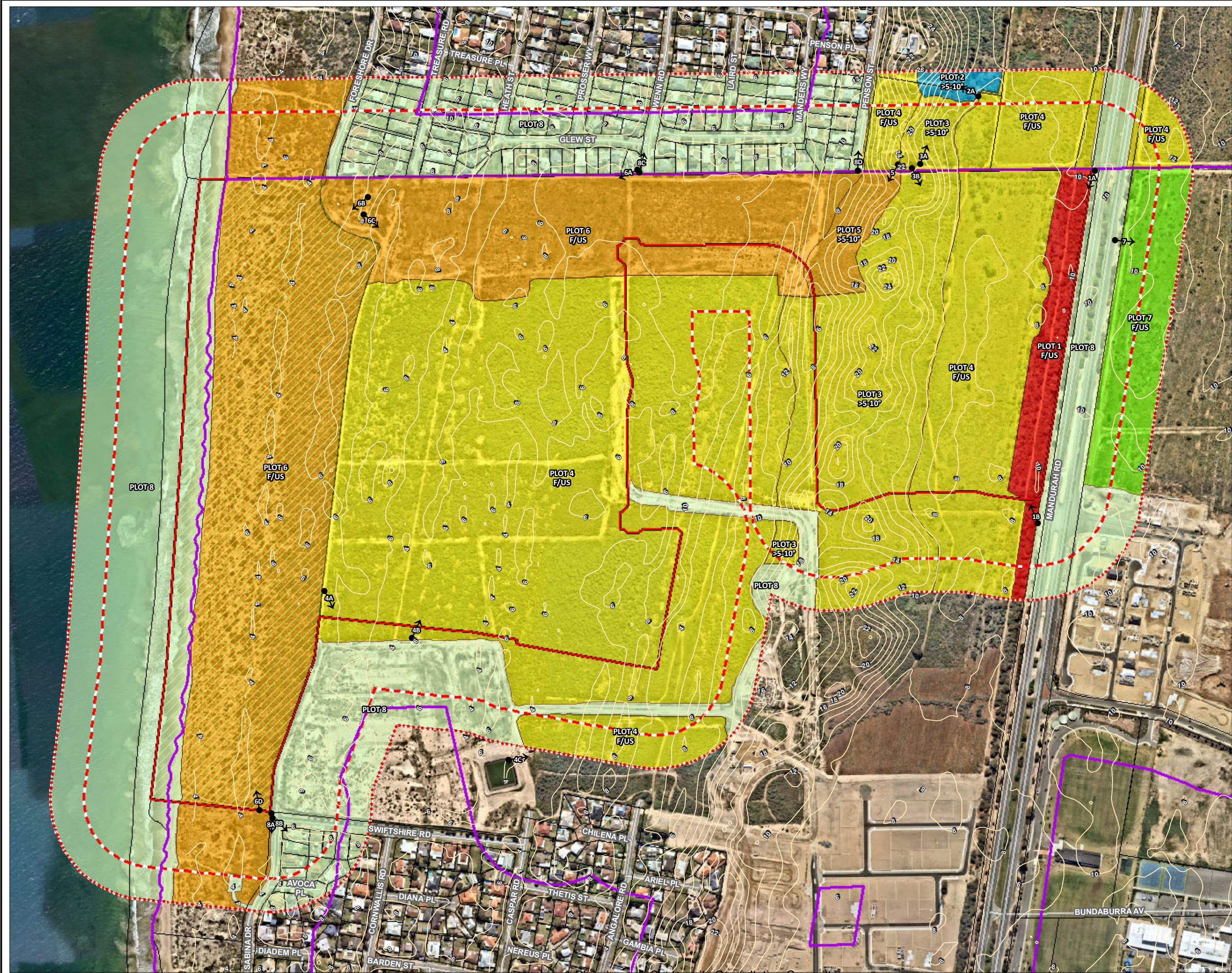
Vegetation plot	Vegetation classification	Effective slope	Comments
1	Class A Forest	Flat/upslope (0°)	Forest vegetation along the eastern boundary within the project area
2	Class B Woodland	Downslope >5–10°	A small pocket of sparse pine canopy over grass north of the project area
3	Class D Scrub	Downslope >5–10°	Shrubs between 2–6 m high; 10-30% foliage cover with a mixed species composition typical of coastal areas
4	Class D Scrub	Flat/upslope (0°)	Shrubs between 2–6 m high; 10-30% foliage cover with a mixed species composition typical of coastal areas
5	Class C Shrubland	Downslope >5–10°	Costal sand dune vegetation consisting of shrubland no more than 2 m high, typical of coastal areas
6	Class C Shrubland	Flat/upslope (0°)	Costal sand dune vegetation consisting of shrubland no more than 2 m high, typical of coastal areas
7	Class G Grassland	Flat/upslope (0°)	Grass and weeds >10 cm in height located on a current development lot east of the project area
8	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	A combination of existing non-vegetated areas and low threat managed vegetation within and adjacent to the project area

3.1.4 Post-development inputs

A summary of the anticipated post-development classified vegetation, exclusions and effective slope within the project area and adjacent 150 m are listed in Table 3 and illustrated in Figure 5.

Table 3: Post-development vegetation classifications/exclusions and effective slope

Vegetation plot	Vegetation classification	Effective slope	Comments
1	Class A Forest	Flat/upslope (0°)	Forest vegetation retained within POS 9 in the northeast
2	Class B Woodland	Downslope >5–10°	A small pocket of sparse pine canopy over grass north of the project area
3	Class D Scrub	Downslope >5–10°	Shrubs between 2–6 m high; 10-30% foliage cover with a mixed species composition typical of coastal areas (some retained within POS 9)
4	Class D Scrub	Flat/upslope (0°)	Shrubs between 2–6 m high; 10-30% foliage cover with a mixed species composition typical of coastal areas (some retained within POS 9)
5	Class C Shrubland	Downslope >5–10°	Costal sand dune vegetation consisting of shrubland no more than 2 m high, typical of coastal areas (retained within POS 9)
6	Class C Shrubland	Flat/upslope (0°)	Costal sand dune vegetation consisting of shrubland no more than 2 m high, typical of coastal areas (some retained within POS 9 and the Foreshore Reserve)
7	Class G Grassland	Flat/upslope (0°)	Costal sand dune vegetation consisting of shrubland no more than 2 m high, typical of coastal areas
8	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])	N/A	A combination of existing non-vegetated areas and low threat managed vegetation within and adjacent to the project area
9	Excluded – Low threat (Clause 2.2.3.2 [f])	N/A	Area to be modified to low threat as part of proposed development



- Legend**
- Project area
 - 100m assessment area
 - 150m assessment area
 - Cadastral boundary
 - Bushfire prone areas
 - POS Foreshore
- Vegetation classification**
- Class A Forest
 - Class B Woodland
 - Class C Shrubland
 - Class D Scrub
 - Class G Grassland
 - Clause 2.2.3.2 (e) & (f)
- Photo point directions
- Topographic contours (mAHd)
- Roads (MRWA)



Job No: 60703

Client: Satterley Property Group

Version: A

Date: 20-Oct-2021

Drawn By: jcrute

Checked By: CT

Scale 1:5,200 at A3



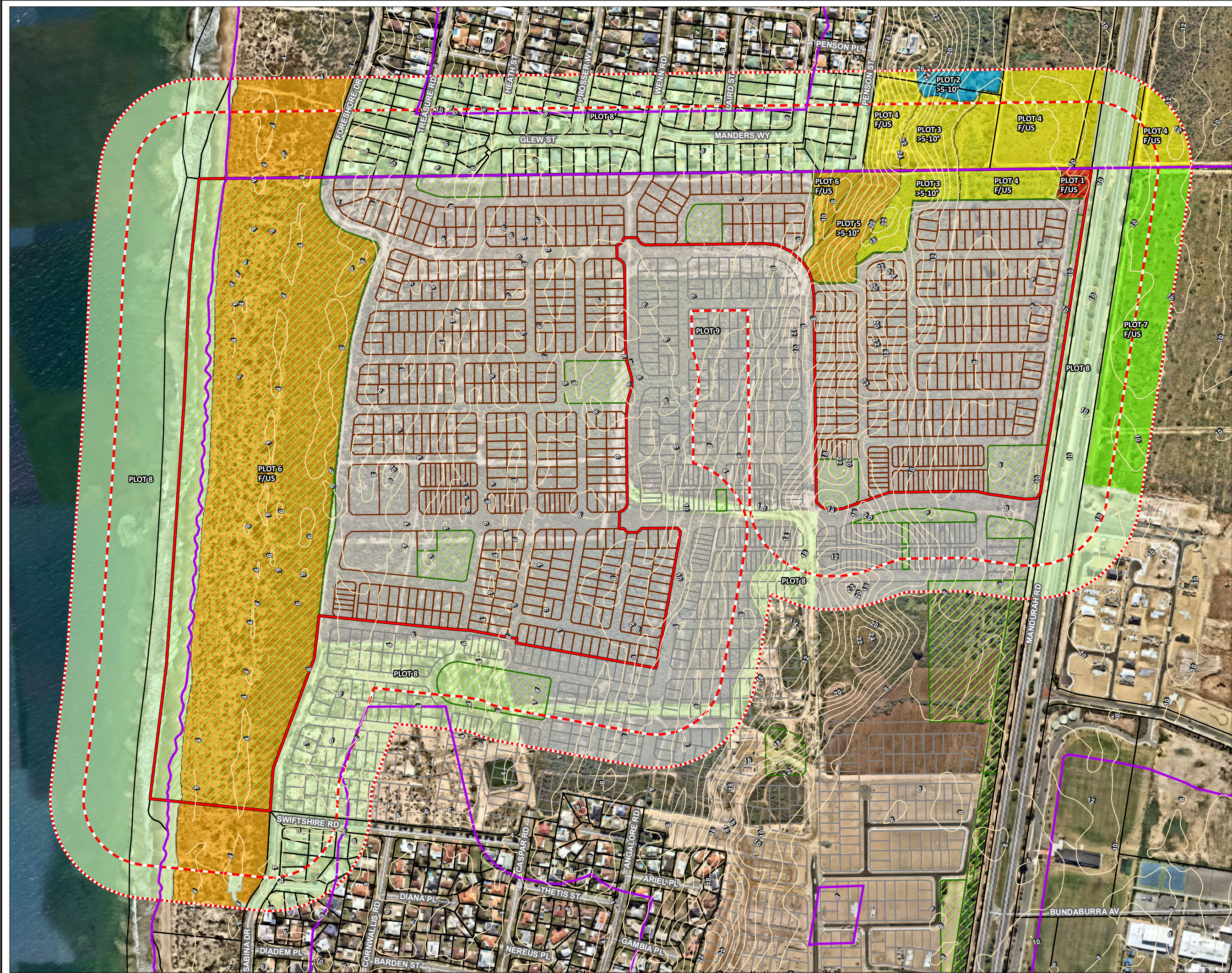
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**Seaside Estate,
Madora Bay, WA**

**PRE-DEVELOPMENT
VEGETATION CLASSIFICATION
AND EFFECTIVE SLOPE**

FIGURE 4

86



- Legend**
- Project area
 - 100m assessment area
 - 150m assessment area
 - Cadastral boundary
 - Bushfire prone areas
 - POS
- Vegetation classification**
- Class A Forest
 - Class B Woodland
 - Class C Shrubland
 - Class D Scrub
 - Class G Grassland
 - Clause 2.2.3.2 (e) & (f)
 - Area to be modified to non-vegetated and low threat state
- Proposed lots
 - Indicative future subdivisions
 - Topographic contours (mAHd)
 - Roads (MRWA)



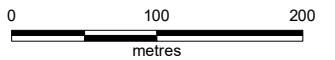
Job No: 60703

Client: Satterley Property Group

Version: A Date: 19-Oct-2021

Drawn By: jcrute Checked By: CT

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**Seaside Estate,
Madora Bay, WA**

**POST-DEVELOPMENT
VEGETATION CLASSIFICATION
AND EFFECTIVE SLOPE**

FIGURE 5

3.2 Assessment outputs

3.2.1 Bushfire Hazard Level (BHL) assessment

Pre and post-development vegetation extents have been assigned a bushfire hazard level in accordance with the methodology detailed in Appendix Two of the Guidelines as outlined in Table 4.

Table 4: Bushfire hazard levels and characteristics

Bushfire hazard level	Characteristics*
Extreme	<ul style="list-style-type: none"> Class A Forest Class B Woodland (05) Class D Scrub Any classified vegetation with a greater than 10° slope.
Moderate	<ul style="list-style-type: none"> Class B Low woodland (07) Class C Shrubland Class E Mallee/Mulga Class G Grassland, including sown pasture and crops Class G Grassland: Open woodland (06), Low open woodland (08), Open shrubland (09) Vegetation that has a low hazard level but is within 100 metres of vegetation classified as a moderate or extreme hazard, is to adopt a moderate hazard level.
Low	<ul style="list-style-type: none"> Low threat vegetation may include areas of maintained lawns, golf courses, public recreation reserves and parklands, vineyards, orchards, cultivated gardens, commercial nurseries, nature strips and windbreaks Managed grassland in a minimal fuel condition (insufficient fuel is available to significantly increase the severity of the bushfire attack). For example, short-cropped grass to a nominal height of 100 millimetre Non-vegetated areas including waterways, roads, footpaths, buildings and rock outcrops.
*Vegetation classifications from AS 3959-2018 Table 2.3.	

3.2.1.1 Pre-development BHL

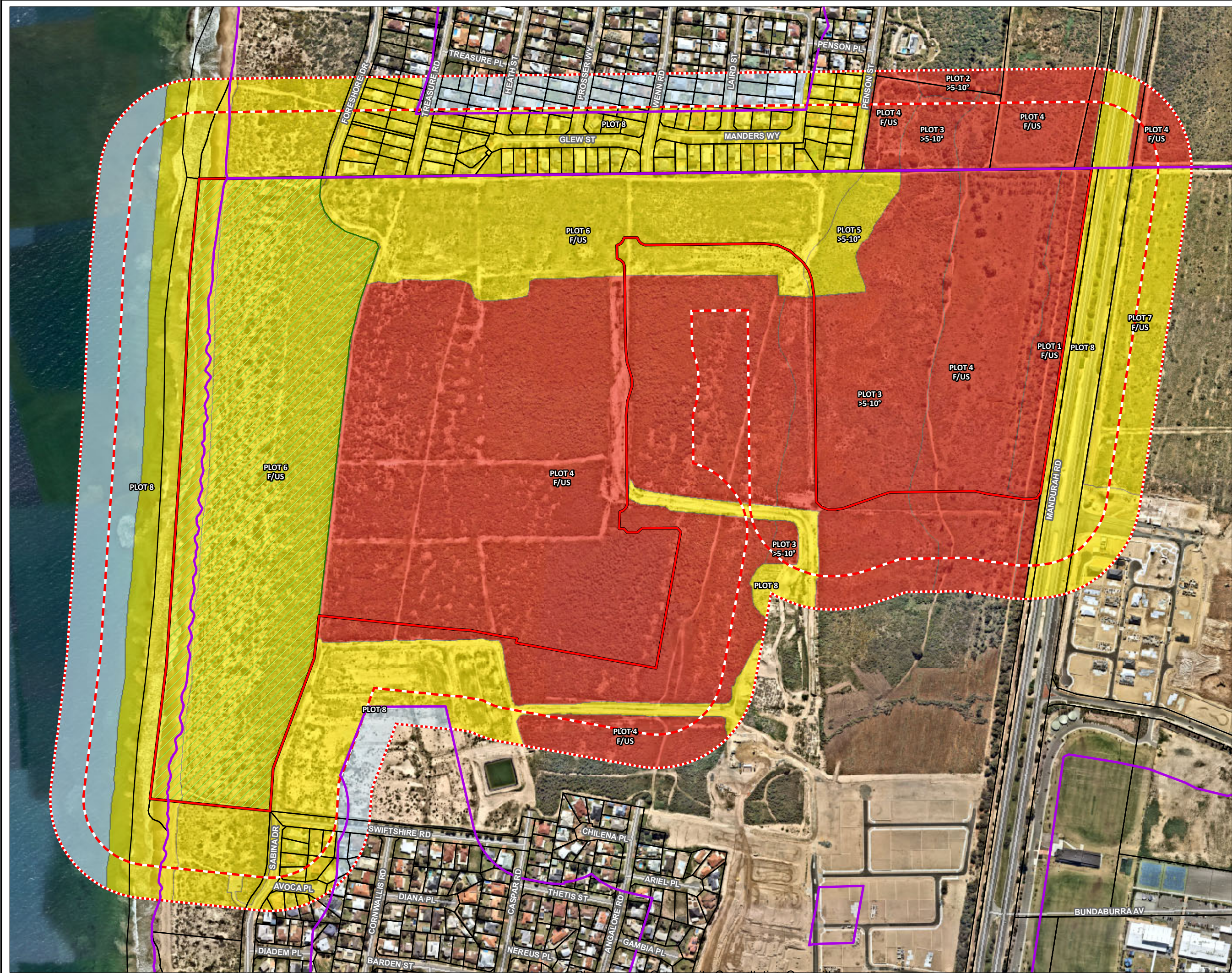
Strategen-JBS&G has mapped the pre-development bushfire hazard levels within the project area and adjacent 150 m wide assessment area. The bushfire hazard levels have been assessed on the basis of the vegetation discussed in Section 3.1.3 (i.e. the current pre-development extent of vegetation within and surrounding the project area).

The pre-development BHL assessment (refer to Figure 6) shows that based on the existing vegetation, the project area and adjacent 150 m contains land with low, moderate and extreme bushfire hazard levels.

3.2.1.2 Post-development BHL

Strategen-JBS&G has mapped the anticipated post-development bushfire hazard levels to demonstrate that the future bushfire hazard levels will be acceptable for future development to occur within the project area. The bushfire hazard levels have been assigned on the basis of the vegetation discussed in Section 3.1.4 and the future expected vegetation extent within and surrounding the project area.

The post-development BHL assessment (refer to Figure 7) demonstrates that all future habitable development will be located on land with either a low or moderate bushfire hazard level, which is sufficient to address the requirements of acceptable solution A1.1 of Guideline bushfire protection criteria.



- Legend**
- Project area
 - 100m assessment area
 - 150m assessment area
 - Cadastral boundary
 - Bushfire prone areas
 - POS Foreshore
 - Hazard level
 - Extreme
 - Moderate
 - Low
 - Roads (MRWA)



Job No: 60703

Client: Satterley Property Group

Version: A Date: 19-Oct-2021

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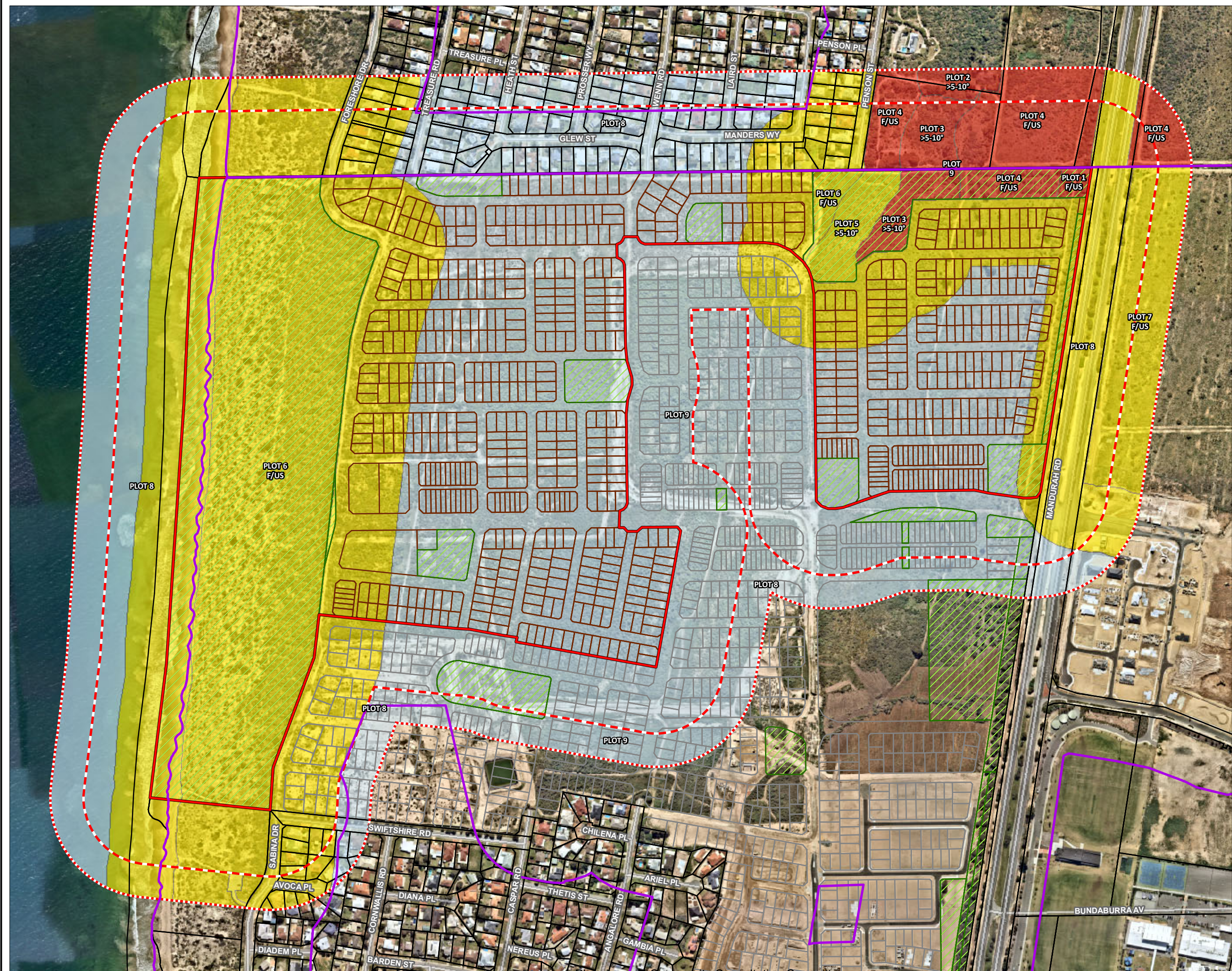
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0 100 200 metres

Coord. Sys. GDA 1994 MGA Zone 50

**Seaside Estate,
Madora Bay, WA**

**PRE-DEVELOPMENT
BUSHFIRE HAZARD LEVELS**



- Legend**
- Project area
 - 100m assessment area
 - 150m assessment area
 - Cadastral boundary
 - Bushfire prone areas
 - POS
 - Hazard level
 - Extreme
 - Moderate
 - Low
 - Proposed lots
 - Indicative future subdivisions
 - Roads (MRWA)



Job No: 60703

Client: Satterley Property Group

Version: A Date: 19-Oct-2021

Drawn By: jcrute Checked By: CT

Scale 1:5,200 at A3

0 100 200 metres

Coord. Sys. GDA 1994 MGA Zone 50

**Seaside Estate,
Madora Bay, WA**

**POST-DEVELOPMENT
BUSHFIRE HAZARD LEVELS**

FIGURE 7

4. Identification of bushfire hazard issues

4.1 Bushfire context

The project area is surrounded by existing urban development to the north and south in the form of constructed dwellings, roads, commercial precincts and low threat managed landscaping. Land to the east of the project area is in the process of being developed, with the vegetation being progressively cleared in accordance with staged development.

The greatest bushfire threat to the proposed development is from remnant scrub vegetation retained within the project area itself (noting this will be progressively removed as part of staged subdivision) and to the northeast of the project area. The fire run to the northeast is substantial (up to 4.5 km) throughout scrub vegetation retained within Bush Forever sites. Although fragmented by significant infrastructure corridors (i.e. from east to west being Kwinana Freeway, powerline corridor, Mandurah railway line and Mandurah Road), this vegetation has the potential to escalate to exhibit steady state bushfire behaviour and impact the project area with moderate to high levels of radiant heat and ember attack at the northeast development interface.

The foreshore reserve also has the potential to pose a bushfire threat to the project area, albeit the expected impacts from shrubland vegetation are expected to be significantly moderated compared to the long scrub fire runs to the northeast.

On the basis of the above, low threat separation, BAL rated construction (where required) and vehicular access should be prioritised at the key hazard interfaces to the west and northeast, with staging buffers to be employed to manage the risk from any temporary internal hazards.

4.2 Bushfire hazard issues

It is considered that the bushfire risk to the proposed development posed by the abovementioned hazards can be managed through application of standard acceptable solutions under the Guidelines, as well as through a direct bushfire suppression response if required. Examination of the bushfire hazards to the project area has identified the following bushfire hazard issues:

1. The ability for the proposed residential lots to achieve a compliant rating of BAL-29 or lower is dependent on the implementation and maintenance of non-vegetated/low threat public roads, POS and 100 m wide low threat staging buffers at the interface with classified vegetation. The required separation distances for BAL-29 to be achieved is provided for each of the abutting vegetation classifications depicted in Figure 5 as follows:
 - a. Plot 1 Class A forest (flat/upslope): 21 m
 - b. Plot 3 Class D scrub (downslope >5–10 degrees): 17 m
 - c. Plot 4 Class D scrub (flat/upslope): 13 m
 - d. Plot 5 Class C shrubland (downslope >5–10 degrees): 11 m
 - e. Plot 6 Class C shrubland (flat/upslope): 9 m.
2. Two different access routes that connect to the public road network will need to be provided throughout the development, including during stages development.
3. Reticulated water and a network of street hydrants will need to be provided for proposed development in accordance with DFES and Water Corporation design standards.

A compliance assessment against acceptable solutions of the bushfire protection criteria of the Guidelines is provided in Section 5.1 to demonstrate that each relevant acceptable solution can be delivered as part of future staged subdivision.

5. Assessment against the bushfire protection criteria

5.1 Compliance table

An acceptable solutions assessment against the bushfire protection criteria is provided in Table 5.

Table 5: Compliance with the bushfire protection criteria of the Guidelines

Bushfire protection criteria	Method of compliance Acceptable solutions	Proposed bushfire management strategies
Element 1: Location	A1.1 Development location	The post-development BHL assessment (Figure 7) identifies that on completion of development, all proposed areas of habitable developable will comprise either a Low or Moderate BHL. All areas of habitable development will be avoided on land with an extreme BHL.
Element 2: Siting and design	A2.1 Asset Protection Zone	It is not anticipated that any formal Asset Protection Zones (APZs) will be required as part of proposed development since non-vegetated/low threat perimeter roads and POS will be provided at all interfaces with classified vegetation sufficient to achieve BAL-29 or lower for all proposed habitable development. Notwithstanding, should any minor APZ setbacks be required within proposed lots, these will be enforced via R-code setbacks, LDP provisions and/or restrictive covenants on title and established and maintained in accordance with Schedule 1 (APZ standards) of the Guidelines (refer to Appendix C). In addition, any low threat POS and staging buffers established as part of development will be required to achieve the relevant exclusion clauses under As3959 and/or Schedule 1 of the Guidelines.
Element 3: Vehicular access	A3.1 Two access routes	The proposed concept layout depicted in Figure 2 demonstrates that ultimately, the proposed public road network will provide through access throughout the development with no dead ends, with proposed connections to adjacent existing developments to the north and south, as well as a primary connection to Mandurah Road to the east.
	A3.2 Public road	All public roads will be constructed to the relevant technical requirements of the Guidelines (see Appendix D).
	A3.3 Cul-de-sac (including a dead-end-road)	No permanent cul-de-sacs are proposed, and the project area is not serviced by an existing cul-de-sac. However, any temporary cul-de-sacs required to achieve compliance during internal staging will be less than 200 m in length, will include minimum 17.5 m diameter turn-around heads and will be constructed to the relevant technical requirements of the Guidelines (see Appendix D).
	A3.4 Battle-axe	N/A – no battle-axes are proposed as part of the development and the project area is not serviced by an existing battle-axe.
	A3.5 Private driveway longer than 50 m	N/A – the proposed lots are of size where all future habitable development will be located within 50 m of a public road.
	A3.6 Emergency access way	No permanent emergency access ways (EAW) are proposed; however, if development and vehicular access construction is to be staged, any proposed temporary EAW is to be constructed to the relevant technical requirements of the Guidelines (see Appendix D).
	A3.7 Fire service access routes (perimeter roads)	N/A – the proposed subdivision design does not require fire service access routes (FSARs) to achieve access within and around the perimeter of the project area.
	A3.8 Firebreak width	Lot boundary firebreaks will not be required for proposed residential lots under firebreak notice provisions; however, lot boundary firebreaks may be required around the perimeter of vegetated POS areas (e.g. POS 9 and the Foreshore Reserve). This is to be determined at the subdivision/clearance stage in consultation with local government.

Bushfire protection criteria	Method of compliance	Proposed bushfire management strategies
	Acceptable solutions	
Element 4: Water	A4.1 Reticulated areas	The proposed development will be connected to reticulated water supply via extension of services from surrounding development in accordance with Water Corporations Design Standard 63 requirements (refer to Appendix E).
	A4.2 Non-reticulated areas	N/A – the proposed subdivision is located within an existing reticulated area.
	A4.3 Individual lots within non-reticulated areas (Only for use if creating 1 additional lot and cannot be applied cumulatively)	N/A – the proposed subdivision is located within an existing reticulated area.

6. Responsibilities for implementation and management of the bushfire measures

This BMP has been prepared as a strategic guide to demonstrate how development compliance will be delivered at future planning stages in accordance with the Guidelines. Aside from the preparation of future BMPs to accompany future subdivision and/or Development Applications (DAs) where appropriate, there are no further items to implement, enforce or review at this strategic stage of the planning process.

Future BMPs prepared for subsequent subdivision and/or DAs are to meet the relevant commitments outlined in this strategic level BMP, address the relevant requirements of SPP 3.7 (i.e. Policy Measures 6.4 or 6.5 where applicable) and demonstrate in detail how the proposed development will adopt the relevant acceptable solutions and meet the bushfire protection criteria of the Guidelines. Future BMPs are to include the following detailed information:

- proposed lot layout, including any public open space (POS)
- detailed landscaping design in regard to POS/Foreshore Reserve to demonstrate the intended classified vegetation and exclusions
- post-development classified vegetation extent, effective slope and separation distances
- post-development BAL application requirements
- BAL contour map demonstrating that proposed development areas will achieve a rating of BAL-29 or lower
- width and alignment of any required APZ setbacks into lots
- confirmation of how bushfire management will be addressed regarding temporary bushfire hazards on adjacent development stages, including low threat staging buffers or temporary quarantining of lots where required
- proposed approach to fuel management or AS 3959 application in response to on-site POS
- vehicular access provisions, including demonstration that a minimum of two access routes will be achieved for each stage of development (may require consideration of temporary compliant cul-de-sacs/EAWs)
- future requirements for any high-risk or vulnerable land uses, such as provision of Bushfire Risk Management Plans or Bushfire Emergency Evacuation Plans
- provisions for notification on Title for any future lots with a rating of BAL-12.5 or greater as a condition of subdivision
- compliance requirements with the annual City firebreak notice
- assessment against the bushfire protection criteria
- proposed implementation and audit program outlining all measures requiring implementation and the appropriate timing and responsibilities for implementation.

On the basis of the information contained in this BMP, Strategen-JBS&G considers the bushfire hazards within and adjacent to the site and the associated bushfire risks are readily manageable through application of standard acceptable solutions outlined in the Guidelines, which will be implemented as required throughout future planning stages. Strategen-JBS&G considers that on implementation of the proposed management measures, the site will be able to be developed with a manageable level of bushfire risk whilst maintaining full compliance with the Guidelines.

7. References

- Department of Fire and Emergency Services (DFES) 2019, *Map of Bush Fire Prone Areas*, [Online], Government of Western Australia, available from: <https://maps.slip.wa.gov.au/landgate/bushfireprone/>, [18/06/2021].
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- Endplan Environmental 2013, *Environmental Assessment: Part Lot 100 Mandurah Road, Madora Bay North*, North Fremantle.
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- Strategen-JBS&G 2020a, *Bushfire Management Plan (Subdivision Application): Lot 101 Mandurah Road, Mandurah*, Bunbury/Perth.
- Strategen-JBS&G 2020b, *Bushfire Management Plan (Subdivision Application): Precinct 2 - Lot 101 Mandurah Road, Mandurah*, Bunbury/Perth.
- Strategen-JBS&G 2021a, *Bushfire Management Plan (Subdivision Application): Phase 4 (Lot 101 Mandurah Road) Madora Bay*, Bunbury/Perth.
- Strategen-JBS&G 2021a, *Seaside Estate Foreshore Management Plan, Lot 101 on Plan 37957 Madora Bay, Mandurah*, Bunbury/Perth.
- Western Australian Planning Commission (WAPC) 2015, *State Planning Policy 3.7 Planning in Bushfire Prone Areas*, Western Australian Planning Commission, Perth.
- Western Australian Planning Commission (WAPC) 2017, *Guidelines for Planning in Bushfire Prone Areas*, Version 1.3 August 2017, Western Australian Planning Commission, Perth.

8. Limitations

Scope of services

This report ("the report") has been prepared by Strategen-JBS&G in accordance with the scope of services set out in the contract, or as otherwise agreed, between the Client and Strategen-JBS&G. In some circumstances, a range of factors such as time, budget, access and/or site disturbance constraints may have limited the scope of services. This report is strictly limited to the matters stated in it and is not to be read as extending, by implication, to any other matter in connection with the matters addressed in it.

Reliance on data

In preparing the report, Strategen-JBS&G has relied upon data and other information provided by the Client and other individuals and organisations, most of which are referred to in the report ("the data"). Except as otherwise expressly stated in the report, Strategen-JBS&G has not verified the accuracy or completeness of the data. To the extent that the statements, opinions, facts, information, conclusions and/or recommendations in the report ("conclusions") are based in whole or part on the data, those conclusions are contingent upon the accuracy and completeness of the data. Strategen-JBS&G has also not attempted to determine whether any material matter has been omitted from the data. Strategen-JBS&G will not be liable in relation to incorrect conclusions should any data, information or condition be incorrect or have been concealed, withheld, misrepresented or otherwise not fully disclosed to Strategen-JBS&G. The making of any assumption does not imply that Strategen-JBS&G has made any enquiry to verify the correctness of that assumption.

The report is based on conditions encountered and information received at the time of preparation of this report or the time that site investigations were carried out. Strategen-JBS&G disclaims responsibility for any changes that may have occurred after this time. This report and any legal issues arising from it are governed by and construed in accordance with the law of Western Australia as at the date of this report.

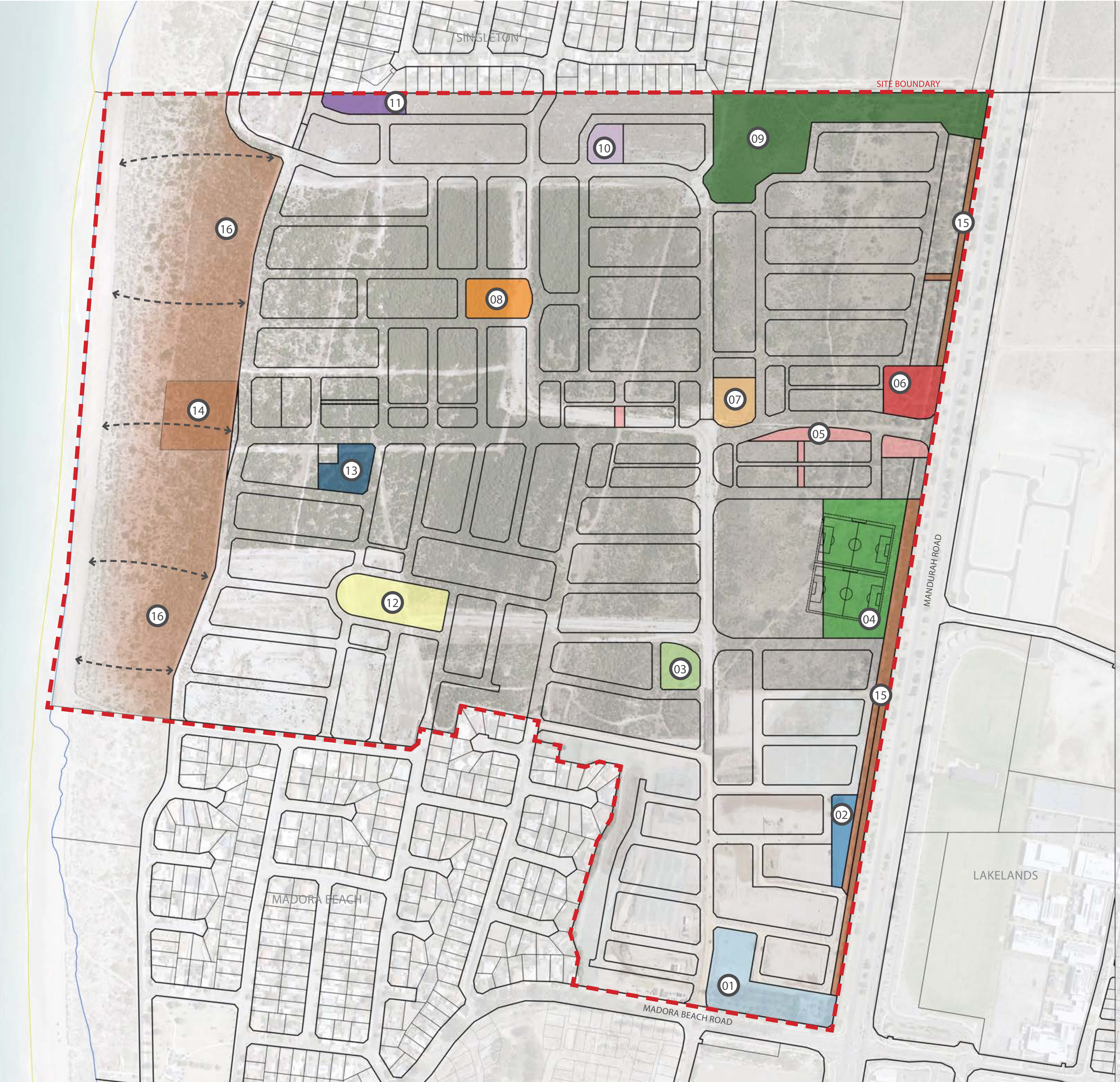
Environmental conclusions

Within the limitations imposed by the scope of services, the preparation of this report has been undertaken and performed in a professional manner, in accordance with generally accepted environmental consulting practices. No other warranty, whether express or implied, is made.

The advice herein relates only to this project and all results conclusions and recommendations made should be reviewed by a competent person with experience in environmental investigations, before being used for any other purpose.

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Appendix A Landscape Plan



LEGEND

- 01

LOCAL VILLAGE PARK - 1.70 Ha - 80% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - FULLY IRRIGATED
- 02

LOCAL VILLAGE BASIN - 0.38 Ha - 0% IRRIGATED

 - SMALL INFORMAL PARK
 - PRIMARY PURPOSE AS DRAINAGE BASIN
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - INFORMAL SEATING NODES
 - ADVANCED TREE PLANTING WITH AREAS OF LOW SHRUB & GROUNDCOVERS PLANTING
 - NOT IRRIGATED
- 03

LOCAL VILLAGE PARK - 0.39 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 04

SHARED COMMUNITY & PRIMARY SCHOOL OVAL
2.33 Ha - 80% IRRIGATED

 - TURF SPORTS FIELD, ACCOMMODATING A VARIETY OF SPORTING CODES
 - SHARED USE WITH THE COMMUNITY & ADJACENT PRIMARY SCHOOL
 - MATURE TREE PLANTING TO EDGES
 - LARGE SHELTER WITH SEATING, BBQ, WATER FOUNTAIN
 - LARGE PLAYGROUND
 - POSSIBLE COMMUNITY FACILITY / SPORTING CLUB ROOMS
 - DRAINAGE BASIN(S)
 - FULLY IRRIGATED
- 05

COMMUNITY CONNECTOR PARKS - 0.62 Ha - 80% IRRIGATED

 - SMALL INFORMAL PARKS
 - PATH CONNECTIONS INTO SURROUNDING STREETS WITH SEATING AND SMALL SHELTERS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB & GROUND COVER PLANTING
 - SMALL ARTWORK PEICES, LIT DURING NIGHT TIME.
 - FULLY IRRIGATED
- 06

ENTRY PARK - 0.65 Ha - 0% IRRIGATED

 - INFORMAL ENTRY PARK
 - SEASIDE ENTRY WALLS WITH SIGNS & ARTWORKS
 - PATH CONNECTIONS INTO SURROUNDING STREETS WITH SEATING
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB & GROUND COVER PLANTING
 - DRAINAGE BASIN(S)
 - NOT IRRIGATED
- 07

LOCAL VILLAGE PARK - 0.46 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 08

NEIGHBOURHOOD PARK - 0.58 Ha - 50% IRRIGATED

LARGE INFORMAL PARK

 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - PLAY AREA & OUTDOOR EXERCISE EQUIPMENT
 - PUBLIC ARTWORK
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 09

DUNE PARK - 2.33 Ha - 30% IRRIGATED

 - COASTAL DUNE PARK
 - RETENTION OF DUNE LANDFORM & VEGETATION WHERE PRACTICABLE
 - CONNECTIONS TO SINGLETON TO THE NORTH & MANDURAH ROAD
 - SMALL NODES AT KEY LANDFORMS & VANTAGE POINTS WITH SHELTER, SEATING, INTERPRETATION SIGNS & SMALL ARTWORKS
 - DRYLAND DUNAL REVEGETATION PLANTING
 - PARTIALLY IRRIGATED
- 10

LOCAL VILLAGE PARK - 3.48 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 11

LOCAL VILLAGE BASIN - 0.38 Ha - 0% IRRIGATED

 - SMALL INFORMAL PARK
 - PRIMARY PURPOSE AS DRAINAGE BASIN
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - INFORMAL SEATING NODES
 - ADVANCED TREE PLANTING WITH AREAS OF LOW SHRUB & GROUNDCOVERS PLANTING
 - NOT IRRIGATED
- 12

NEIGHBOURHOOD PARK - 1.03 Ha - 60% IRRIGATED

 - LARGE INFORMAL PARK
 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - PLAY AREA & OUTDOOR EXERCISE EQUIPMENT
 - PUBLIC ARTWORK
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - PARTIALLY IRRIGATED
- 13

LOCAL VILLAGE PARK - 0.5 Ha - 50% IRRIGATED

 - SMALL INFORMAL PARK
 - PATH CONNECTIONS INTO SURROUNDING STREETS
 - SMALL SHELTER WITH SEATING
 - INFORMAL PLAY ELEMENTS
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - DRAINAGE BASIN(S)
 - PARTIALLY IRRIGATED
- 14

CENTRAL SEASIDE PARK - 2.5 Ha

 - LARGE REGIONAL PARK
 - LARGE & SMALL SHELTERS WITH SEATING, BBQ'S & PICNIC FACILITIES
 - DUAL USE INTERNAL PATH NETWORK WITH CONNECTIONS INTO SURROUNDING STREETS
 - LARGE PLAY AREA WITH HALF COURT & INFORMAL SPORT FACILITIES E.G. SKATE PARK
 - FENCED DOG PARK
 - OFF STREET PARKING
 - PUBLIC ARTWORKS
 - OPEN INFORMAL RECREATION SPACE
 - MATURE TREE PLANTING WITH AREAS OF LOW SHRUB, GROUND COVER PLANTING & TURF
 - FULLY IRRIGATED
- 15

MANDURAH ROAD BUFFER (NORTH & SOUTH)

 - RETAIN, PROTECT & TIDY UP EXISTING VEGETATION ALONG MANDURAH ROAD
 - PATH CONNECTIONS TO MANDURAH ROAD DUAL USE PATH
 - INFILL MATURE TREE PLANTING WITH TUBESTOCK PLANTING OF LOW SHRUBS & GROUND COVERS
 - BUSH LAND FENCE ON BOUNDARY
 - NO IRRIGATION

NORTH BUFFER: 0.39 Ha

SOUTH BUFFER: 1.49 Ha
- 16

FORESHORE RESERVE

 - BEACH FRONT DUNES
 - RETAIN & PROTECT EXISTING DUNAL LANDSCAPE & VEGETATION
 - ESTABLISH PERMANENT FENCED PATH CONNECTIONS TO BEACH WITH INTERPRETATION / WAYFINDING SIGNS
 - DRYLAND REVEGETATION PLANTING WORKS TO DEGRADED SITES
 - NO IRRIGATION

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE PUBLIC OPEN SPACE MASTER PLAN
OCTOBER 2021

JOB NO. 1910901
1:3000 @ A1

M1.101

0 30 60 120 180 300m

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LEGEND

- FULLY IRRIGATED POS

 - TURF
 - TREES
 - GARDEN BEDS
 - DRAINAGE BASIN PLANTING
- PARTIALLY IRRIGATED POS

2-3 YEARS FULLY IRRIGATED FOR ESTABLISHMENT. AFTER, DRAINAGE BASINS & GARDEN BEDS TO BE DISCONNECTED & NON IRRIGATED.

 - TREES
 - FEATURE GARDEN BEDS
 - SMALL TURF AREAS IF APPLICABLE

ALTERNATIVELY, HAND WATERING DURING MAINTENANCE TO THE ITEMS ABOVE, SUBSTITUTING OR REDUCING THE ALLOTMENT OF WATER TO THAT POS.
- NO IRRIGATION TO POS

HAND WATERING TO TREES AND PLANTING FOR ESTABLISHMENT ONLY.

WATER USED FOR IRRIGATION:

01 AREA: 1.36 Ha	03 AREA: 0.20 Ha	10 AREA: 0.15 Ha	02 AREA: 0 Ha
04 AREA: 1.8 Ha	07 AREA: 0.23 Ha	12 AREA: 0.62 Ha	06 AREA: 0 Ha
05 AREA: 0.50 Ha	08 AREA: 0.29 Ha	13 AREA: 0.25 Ha	11 AREA: 0 Ha
14 AREA: 1.4 Ha	09 AREA: 0.70 Ha	15 AREA: 0 Ha	16 AREA: 0 Ha
SUB TOTAL: 5.06 Ha	SUB TOTAL: 2.44 Ha		

TOTAL GROUND WATER ALLOCATION ALLOWS FOR 7.5 Ha IRRIGATED PUBLIC OPEN SPACE.

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE IRRIGATION MASTERPLAN
OCTOBER 2021

JOB NO. 1910901
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0 30 60 120 180 300m

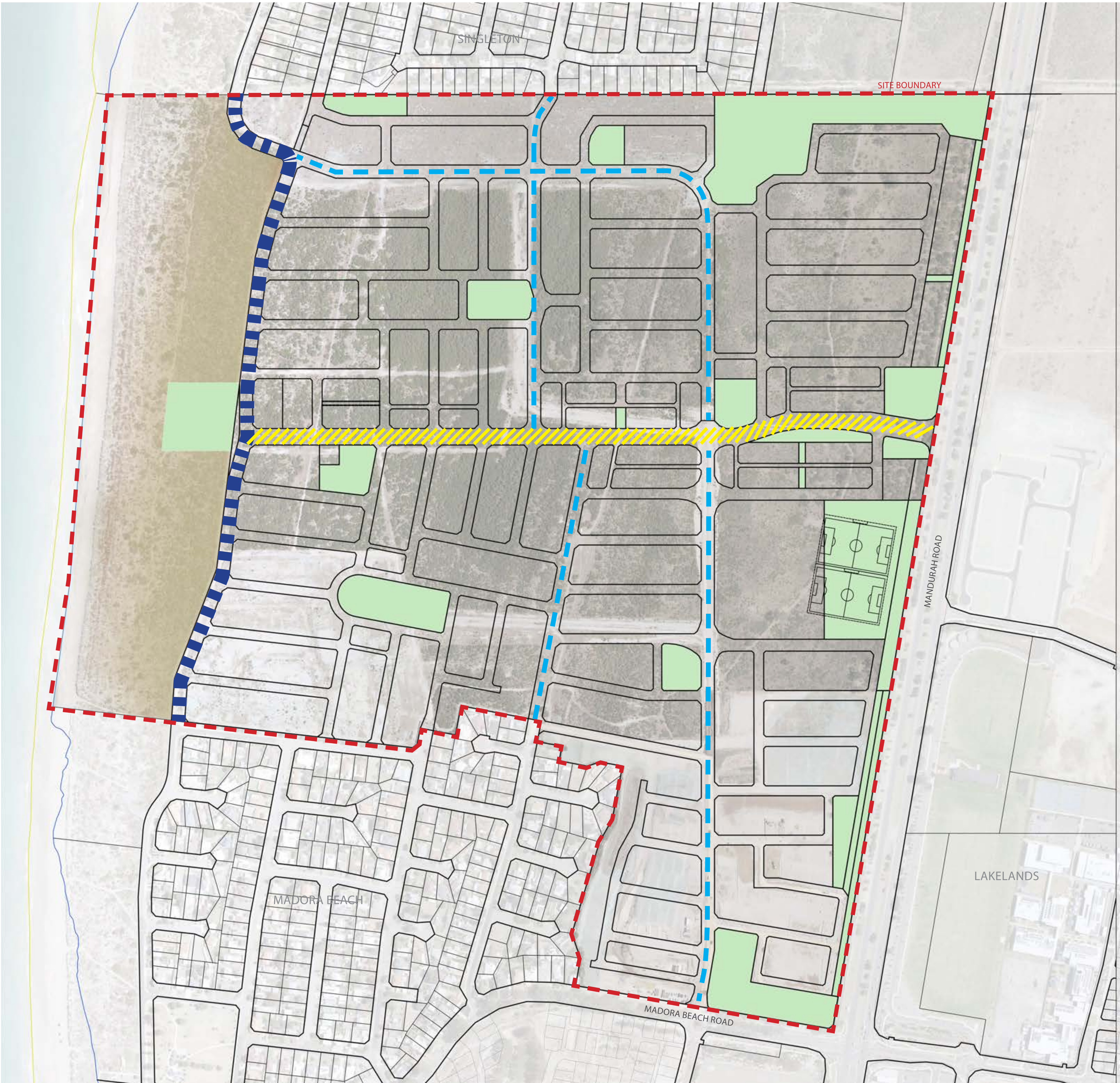
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Planning and Community Consultation Committee
10 May 2022

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LEGEND



COASTAL DRIVE

- NORTH - SOUTH COASTAL CONNECTION
- DUAL USE PATH TO WEST SIDE
- LOW COASTAL PLANTED VERGE TREATMENT
- STREET TREES TO BOTH SIDES
- IRRIGATED WITH WATER CART / TRUCK & RESIDENTIAL LOT MAINS WATER SUPPLY



ENTRY BOULEVARD

- EAST-WEST CENTRAL CONNECTION & MAIN SEASIDE ENTRY ROAD
- DUAL USE PATH TO ONE VERGE WITH FOOTPATH ON OPPOSITE VERGE
- PLANTED & TURF VERGE TREATMENT
- PLANTED MEDIAN TREATMENT
- STREET TREES TO VERGE & MEDIAN
- FULLY IRRIGATED WITH BORE WATER SUPPLY



NEIGHBOURHOOD CONNECTORS

- MAIN NEIGHBOURHOOD CONNECTORS
- FOOTPATH TO BOTH SIDES
- STREET TREE PLANTING TO BOTH VERGES WITH 1 STREET TREE PER LOT & TREE PLANTING TO MEDIAN WHERE APPLICABLE
- TURF VERGE TREATMENT
- PLANTED MEDIAN TREATMENT
- VERGE & TREE IRRIGATED WITH WATER TRUCK & RESIDENTIAL LOT MAINS WATER SUPPLY
- MEDIAN PLANTING FULLY IRRIGATED WITH BORE WATER SUPPLY



LOCAL STREETS

- TURF & MULCH VERGE TREATMENT
- 1 STREET TREE PER LOT
- TURF VERGE & TREE PLANTING IRRIGATED WITH WATER CART / TRUCK & RESIDENTIAL LOT MAINS WATER SUPPLY

SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

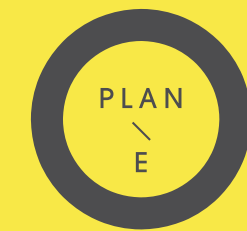
LANDSCAPE BOULEVARD & CONNECTOR MASTERPLAN
OCTOBER 2021

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SEASIDE MADORA BAY
PREPARED FOR SATTERLEY

LANDSCAPE FORESHORE MASTERPLAN
OCTOBER 2021

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10 May 2022

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Appendix B Vegetation plot photos and description



Photo ID: 1a



Photo ID: 1b

Plot number	Plot 1
Vegetation classification	Class A Forest
Description / justification	Trees up to 30 m high; 30–70% foliage cover (may include understory of low trees or shrubs).



Photo ID: 2a

Plot number	Plot 2
Vegetation classification	Class B Woodland
Description / justification	A small pocket of sparse pine canopy over grass north of the project area.



Plot number	Plot 3
Vegetation classification	Class D Scrub
Description / justification	Shrubs greater than 2 m high; 10–30% foliage cover with a mixed species composition.



Photo ID: 4a



Photo ID: 4b



Photo ID: 4c (background)

Plot number	Plot 4
Vegetation classification	Class D Scrub
Description / justification	Shrubs between 2–6 m high; 10–30% foliage cover with a mixed species composition.



Photo ID: 5

Plot number	Plot 5
Vegetation classification	Class C Shrubland
Description / justification	Shrubs <2 m high; greater than 30% foliage cover. Understory may contain grasses.



Photo ID: 6a

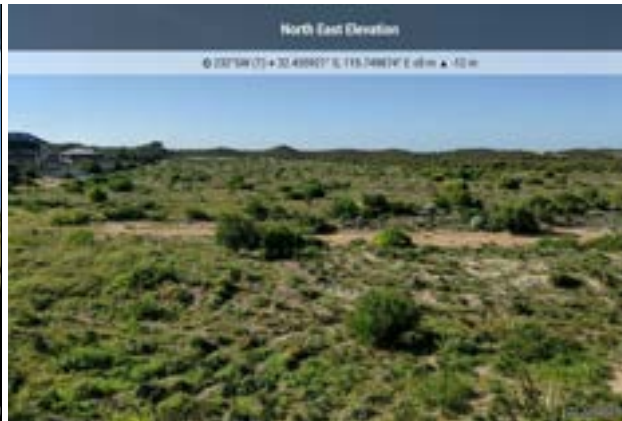


Photo ID: 6b



Photo ID: 6c



Photo ID: 6d

Plot number	Plot 6
Vegetation classification	Class C Shrubland
Description / justification	Shrubs <2 m high; greater than 30% foliage cover. Understory may contain grasses.



Photo ID: 7

Plot number	Plot 7
Vegetation classification	Class G Grassland
Description / justification	Unmanaged grassland and weeds greater than 10 cm in height.



Photo ID: 8a



Photo ID: 8b



Photo ID: 8c



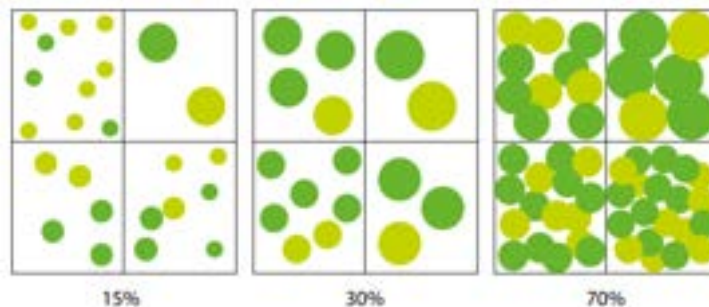
Photo ID: 8d

Plot number	Plot 8
Vegetation classification	Excluded – Non-vegetated and Low threat (Clause 2.2.3.2 [e] and [f])
Description / justification	A combination of existing non-vegetated areas and low threat managed vegetation.

Appendix C APZ standards (Schedule 1 of the Guidelines)


Schedule 1: Standards for Asset Protection Zones

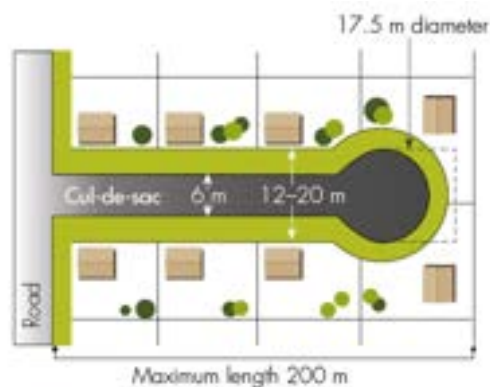
- **Fences:** within the APZ are constructed from non-combustible materials (e.g. iron, brick, limestone, metal post and wire). It is recommended that solid or slatted non-combustible perimeter fences are used.
- **Objects:** within 10 metres of a building, combustible objects must not be located close to the vulnerable parts of the building i.e. windows and doors.
- **Fine Fuel load:** combustible dead vegetation matter less than 6 millimetres in thickness reduced to and maintained at an average of two tonnes per hectare.
- **Trees (> 5 metres in height):** trunks at maturity should be a minimum distance of 6 metres from all elevations of the building, branches at maturity should not touch or overhang the building, lower branches should be removed to a height of 2 metres above the ground and or surface vegetation, canopy cover should be less than 15% with tree canopies at maturity well spread to at least 5 metres apart as to not form a continuous canopy.

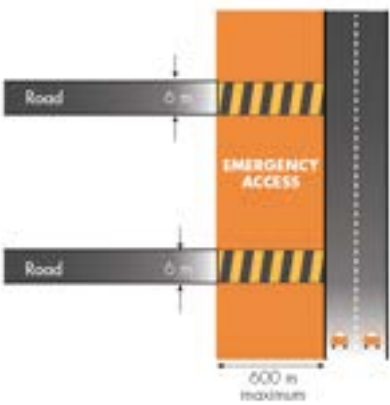


- **Shrubs (0.5 metres to 5 metres in height):** should not be located under trees or within 3 metres of buildings, should not be planted in clumps greater than 5m² in area, clumps of shrubs should be separated from each other and any exposed window or door by at least 10 metres. Shrubs greater than 5 metres in height are to be treated as trees.
- **Ground covers (<0.5 metres in height):** can be planted under trees but must be properly maintained to remove dead plant material and any parts within 2 metres of a structure, but 3 metres from windows or doors if greater than 100 millimetres in height. Ground covers greater than 0.5 metres in height are to be treated as shrubs.
- **Grass:** should be managed to maintain a height of 100 millimetres or less.

Appendix D Vehicular access technical standards of the Guidelines

Public roads	
Acceptable solution A3.2	A public road is to meet the requirements in Table 1, Column 1.
Explanatory note E3.2	<p>Trafficable surface: Widths quoted for access routes refer to the width of the trafficable surface. A six metre trafficable surface does not necessarily mean paving width. It could, for example, include four metre wide paving one metre wide constructed road shoulders. In special circumstances, where eight lots or less are being serviced, a public road with a minimum trafficable surface of four metres for a maximum distance of 90 metres may be provided subject to the approval of both the local government and Department of Fire and Emergency Services.</p> <p>Public road design: All roads should allow for two-way traffic to allow conventional two-wheel drive vehicles and fire appliances to travel safely on them.</p>  <p>The diagram illustrates a cross-section of a public road. It shows a central paved area with a dashed white line down the middle, flanked by solid white lines. On either side of the paved area are shoulders. A red fire truck is shown on the left shoulder, and a blue car is on the right shoulder. A vertical dimension line on the left indicates a 4m height clearance. A horizontal dimension line at the bottom indicates a 4m paving width. Another horizontal dimension line below the paving indicates a 1m shoulder on either side.</p>

Cul-de-sac (including a dead-end road)	
Acceptable solution A3.3	<p>A cul-de-sac and/ or a dead end road should be avoided in bushfire prone areas. Where no alternative exists (i.e. the lot layout already exists and/ or will need to be demonstrated by the proponent), the following requirements are to be achieved:</p> <ul style="list-style-type: none"> • Requirements in Table 1, Column 2 • Maximum length: 200 metres (if public emergency access is provided between cul-de-sac heads maximum length can be increased to 600 metres provided no more than eight lots are serviced and the emergency access way is no more than 600 metres) • Turn-around area requirements, including a minimum 17.5 metre diameter head.
Explanatory note E3.3	<p>In bushfire prone areas, a cul-de-sac subdivision layout is not favoured because they do not provide access in different directions for residents. In some instances it may be possible to provide an emergency access way between cul-de-sac heads to a maximum distance of 600 metres, so as to achieve two-way access. Such links must be provided as right of ways or public access easements in gross to ensure accessibility to the public and fire services during an emergency. A cul-de-sac in a bushfire prone area is to connect to a public road that allows for travel in two directions in order to address Acceptable Solution A3.1.</p>  <p>The diagram illustrates a cul-de-sac layout. A vertical road on the left connects to a horizontal cul-de-sac. The cul-de-sac has a semi-circular head at the right end with a diameter of 17.5 m. The length of the cul-de-sac is labeled as 12-20 m. The maximum length of the cul-de-sac is indicated as 200 m. The diagram also shows several lots along the cul-de-sac, represented by small brown rectangles, and some green circles representing trees or vegetation.</p>

Emergency access way	
Acceptable solution A3.6	<p>An access way that does not provide through access to a public road is to be avoided in bushfire prone areas. Where no alternative exists (this will need to be demonstrated by the proponent), an emergency access way is to be provided as an alternative link to a public road during emergencies. An emergency access way is to meet all of the following requirements:</p> <ul style="list-style-type: none"> • Requirements in Table 1, Column 4 • No further than 600 metres from a public road • Provided as right of way or public access easement in gross to ensure accessibility to the public and fire services during an emergency • Must be signposted.
Explanatory note E3.6	<p>An emergency access way is not a preferred option however may be used to link up with roads to allow alternative access and egress during emergencies where traffic flow designs do not allow for two-way access. Such access should be provided as a right-of-way or easement in gross to ensure accessibility to the public and fire emergency services during an emergency.</p> <p>The access should comply with minimum standards for a public road and should be signposted. Where gates are used to control traffic flow during non-emergency periods, these must not be locked. Emergency access ways are to be no longer than 600 metres and must be adequately signposted where they adjoin public roads.</p> <p>Where an emergency access way is constructed on private land, a right of way or easement in gross is to be established.</p> 

Technical requirement	1	2	3	4	5
	Public road	Cul-de-sac	Private driveway longer than 50 m	Emergency access way	Fire service access routes
Minimum trafficable surface (m)	6*	6	4	6*	6*
Horizontal distance (m)	6	6	6	6	6
Vertical clearance (m)	4.5	N/A	4.5	4.5	4.5
Maximum grade <50 m	1 in 10	1 in 10	1 in 10	1 in 10	1 in 10
Minimum weight capacity (t)	15	15	15	15	15
Maximum crossfall	1 in 33	1 in 33	1 in 33	1 in 33	1 in 33
Curves minimum inner radius	8.5	8.5	8.5	8.5	8.5
* Refer to E3.2 Public roads: Trafficable surface					

Appendix E Water technical standards of the Guidelines

Reticulated areas	
Acceptable solution A4.1	The subdivision, development or land use is provided with a reticulated water supply in accordance with the specifications of the relevant water supply authority and Department of Fire and Emergency Services.
Explanatory note E4.1	Water supply authorities in Western Australia include the Water Corporation, Aqwest and the Busselton Water Board. The Water Corporation's 'No. 63 Water Reticulation Standard' is deemed to be the baseline criterion for developments and should be applied unless local water supply authorities' conditions apply.

Appendix F City of Mandurah Firebreak Notice

Fire Compliance Notice



Burning during the prohibited and restricted burning period

This section relates specifically to fuel hazard reduction burns or running burns. Fuel hazard reduction burns or running burns are generally not permitted within the district of Mandurah. Any exemption is based on a full assessment of the hazard by a City authorised Bush Fire Control Officer in consultation with City's Chief Bush Fire Control Officer. Full demonstration of appropriate risk mitigation planning is required and a Permit to Burn must be issued by an authorised Bushfire Control Officer prior to commencing of any fuel hazard reduction or running burn.

The following sets out the Prohibited and Restricted Burning Periods as Gazetted by the Fire and Emergency Services Commissioner.

RESTRICTED PERIOD 1/4/2021 – 30/11/2021
PERMIT REQUIRED

PROHIBITED BURNING 1/12/2021 – 31/3/2022

RESTRICTED PERIOD 1/4/2022 – 30/11/2022
PERMIT REQUIRED

Burning garden refuse

In accordance with the requirements of Section 24G of the Bush Fires Act 1954 the City notifies that it prohibits the burning of garden refuse or rubbish at all times within the district of Mandurah with the following exemptions:

Land zoned rural residential under the City of Mandurah Town Planning Scheme No. 3, and on all land 4000m² and greater. A Permit to Burn is required and permits will only be issued between **1 May and 31 October** annually.

NOTE: Only those properties that are 4000m² or greater are able to obtain permits to burn, all other sized properties are unable to have a fire to burn garden waste.

Fire Compliance Notice

Preparing for fire is a shared responsibility

The City of Mandurah has a role in setting the requirements for fire preparation on properties within its boundaries.

Owners are encouraged to contact Ranger Services to discuss fire management measures in the lead up to fire season, or seek further information from the City's website.

What is required?

According to Section 33 of the Bush Fires Act 1954 you are required to carry out fire prevention work on land you own. Work must be carried out by 17 November 2021 or within 14 days of becoming the owner, and maintained until 31 May 2022.

Who can enter my property?

An appointed Bush Fire Control officer is authorised under Section 39 of the Bush Fires Act 1954 and can enter your property to inspect firebreaks and/or anything they consider to be a fire hazard.

Firebreak variations

If it is impractical to clear firebreaks or if natural features make firebreaks unnecessary, you may apply to the City by 1 November 2021 for an alternate solution.

Fire Management Plans

Where an approved Fire Management Plan relates to a property, owners are required to fully comply with the requirements of that approved plan.

It can happen to you...

All properties within Mandurah may be subject to ember attacks from nearby fires. Preparing your property can help prevent damage and loss.

If you do not meet your fire prevention responsibilities as a property owner, you could be liable for a **maximum penalty of \$5,000** plus costs.

The City may access a property and undertake required work at the expense of the owner.

Property preparation requirements

Larger Blocks



Occupied or unoccupied land 4000m² and over

When the area of land is 4000m² and over, provide a trafficable mineral earth firebreak of 4m wide, with a height clearance of 4.2m:

- Inside all external boundaries on the property.
- Surrounding all outbuildings erected on the property.
- Surrounding haystacks, fuel storage or other flammable materials.
- A vertical height clearance of 4.2m must be maintained on driveway access.
- On all land 4000m² and greater a minimum 2m gap between trees shrubs and any dwelling must be maintained.
- In addition no part of any tree should overhang any dwelling.



Urban Areas



Occupied or unoccupied land less than 4000m²

- Have the entire property clear of all flammable material, this does not include green standing trees, growing bushes and plants in gardens, and/or lawns.
- Mowing, slashing, whipper snipping to a height of no more than 4cm as far as reasonably practical over the entire area of land.
- Ploughing, cultivating, scarifying or chemical spraying, followed by slashing to 4cm or other approved method by the City.
- A four metre firebreak is not acceptable.

Asset Protection Zones (APZ)

On all land 4000m² and greater a minimum 2m gap between trees, shrubs and any building, and to ensure that no trees overhang any dwelling.

An authorised Bush Fire Control Officer may issue a variation from Asset Protection Zone requirements where it is considered that adequate risk mitigation measures have been implemented, such as the reduction of fuel loads and appropriate management of understorey vegetation.

Property owners are encouraged to contact the City to discuss the installation of an APZ.

Applications can be made to the City to remove trees or vegetation in order to create an Asset Protection Zone within a tree preservation area as designated in the City's Town Planning Scheme No 3.

NOTE: Properties with dense vegetation will also need to be thinned out to reduce any significant fire risk, to the satisfaction of the City.

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Document Status

Report version	Rev No.	Purpose	Author	Reviewed and Approved for Issue	
				Name	Date
Draft Report	Rev A	For review by client	Ben Musitano	Zac Cockerill (BPAD 37803, Level 2)	21 October 2021
Final Report	Rev 0	Issued for use: to accompany Structure Plan submission	Zac Cockerill (BPAD 37803, Level 2)	Zac Cockerill (BPAD 37803, Level 2)	26 October 2021



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Schedule of Submissions – Madora Bay North Local Structure Plan

Owner / Address	Submission (Summarised comments)	Comment
1. A Dent	<p>a. Reducing open public space is both a detriment to the environment and for social welfare and health.</p> <p>b. Strongly disapprove of the reduction in public open space, particularly in the north of the development</p> <p>c. The new plan removes a potential wildlife corridor between the north end to the road along which is going to be revegetated.</p>	<p>a. The proposed Structure Plan complies with the minimum requirement for POS under Liveable Neighbourhoods.</p> <p>b. Noted. The redistribution of POS results in a more equal distribution of parkland across the Structure Plan area.</p> <p>c. The amended Structure Plan does not seek to remove the 20m wide “green linkage street” or the vegetation buffer along Mandurah Road. The existing plan does not have an additional north-south wildlife corridor.</p>
2. M Haynes	<p>a. Currently the dog beach access stretches from Avoca Place, Madora Bay to the City’s northern boundary. Is this to be retained?</p>	<p>a. No amendments are proposed to dog beach access. Should the City wish to review the dog access, consultation will be undertaken with the community.</p>
3. M Kelley	<p>a. Why is more land being developed, removing green space when the original lots within Madora Bay are not connected to deep sewerage and cannot be developed further.</p> <p>b. If the original Madora Bay lots were connected to deep sewerage, the green space surrounding these lots will not need to be lost.</p>	<p>a. The subject site is privately owned and zoned for urban development. The proposal seeks to modify the existing structure plan which currently allows for residential development across the site.</p> <p>b. The Water Corporation are the responsible authority for expanding the reticulated sewer network.</p>
4. A Shepherd	<p>a. Part One appears to have been copy/pasted by CLE Town Planning from another document.</p> <p>b. The submission mentions a number of ‘typos’ within the submitted document.</p> <p>c. Why does POS “A” get retained against the Singleton boundary as a “visual interface”, but POS “C” and “D” can’t be reworked to fix the height discrepancy if current earthworks levels are maintained.</p> <p>d. The submission raises a number of points regarding the irrigation plan.</p>	<p>a. The header on the Part One Implementation Report is incorrect should have read ‘Madora Bay North Local Structure Plan. The content of the report is specific to the Madora Bay North Local Structure Plan.</p> <p>b. Noted.</p> <p>c. The City is required to assess the submitted plan. The existing Structure Plan has been approved by the WAPC in 2016 and as such, the City cannot require that other aspects are amended.</p> <p>d. The comments have been noted. The specific details of the</p>

	<p>e. When reviewing the concept for the Coastal Node and Reserve, please give adequate thought to the dangers of the flush road and pedestrian paving indicated as Item 10 on the Foreshore Master Plan.</p> <p>f. Sabina Drive is going to be a major shortcut for traffic in the event of disruptions on Mandurah Road.</p> <p>g. Questioned the environmental assessment within the Bushfire Management Plan in regards to the description of the status of the existing vegetation. The current report does not accurately portray the historic status of the vegetation.</p> <p>h. Raises concerns regarding fill levels adjacent to the properties within Singleton and why site works were commenced prior to consultation. The submission also raises various flow on impacts from the site works and construction.</p> <p>i. Questioned the location of the wastewater pump station. It should not be located in the main aesthetic entry boulevard, in the heart of the coastal node and commercial district.</p>	<p>irrigation will be determined during subdivision stage and within development applications for the POS design.</p> <p>e. Noted. This will be considered by the City's relevant officers.</p> <p>f. Traffic calming methods are implemented during the subdivision civil design stage.</p> <p>g. The assessment is required to be based on the current status of the vegetation and must follow specific assessment criteria stipulated within State Planning Policy 3.7.</p> <p>h. The City is aware of significant site works that occurred following a subdivision approval issued by the WAPC to facilitate the gravity sewer. The City has been involved in negotiations and is intending to require a local development plan to address these issues. These site works are not material to the proposed Structure Plan amendments.</p> <p>i. The location of the pump station is not proposed to be amended as part of this application.</p>
5. G Goddard	a. Questioned when the old Madora Bay lots will be connected to reticulated sewer	a. The Water Corporation are the responsible authority for expanding the reticulated sewer network.
6. K Dartnall	<p>a. Disappointed that no traffic calming measures had been implemented to slow traffic from speeding North/South where the new development interfaces with existing Madora Bay. Suggest that the road alignment be altered, stop/give way signs implemented or Sabina Drive be amended to a cul-de-sac to separate the new development with the existing Madora Bay area.</p> <p>b. Proposes that this foreshore road does not dissect the planned shopping precinct (from the coastal node) and instead deviates to go to the east of the shopping precinct.</p>	<p>a. Noted. Traffic calming methods (e.g. speed humps) are generally implemented during the subdivision stage. Cul-de-sacs are not recommended under Liveable Neighbourhoods.</p> <p>b. The proposed road layout in this particular aspect of the Structure Plan is consistent with the existing Structure Plan. It has been recommended that a</p>

	<p>This would then allow traffic free, safe pedestrian movement between the new proposed coastal node area and through the shopping precinct.</p>	<p>pedestrian priority area be implemented to connect the local centre to the foreshore node.</p>
7. A Ward	<p>a. The amended plan is an improvement on the original and I would support the proposed changes to POS, increased density as well as the foreshore node concept.</p> <p>b. The development would benefit from the road not being designed "in front" of the commercial zone area, which would interfere with pedestrian access from the commercial zone to the foreshore node. A far better solution to improve amenity, safety and create a pedestrian friendly environment would be to design the foreshore road to "go around" the commercial zone (eastern side) and not create a barrier between the commercial zone and foreshore.</p> <p>c. Disappointed to see that no traffic calming measures had been implemented to slow traffic from speeding North/South where the new development interfaces with existing Madora Bay (at the "T" intersection with Swiftshire Rd). Suggestion could be to offset the alignment of Sabina Drive or create a cul-de-sac.</p>	<p>a. Noted.</p> <p>b. The proposed road layout in this particular aspect of the Structure Plan is consistent with the existing Structure Plan. It has been recommended that a pedestrian priority area be implemented to connect the local centre to the foreshore node.</p> <p>c. Noted. Traffic calming methods (e.g. speed humps) are generally implemented during the subdivision stage. Cul-de-sacs are not recommended under Liveable Neighbourhoods.</p>
8. W & D Szymeczko	<p>a. Concerns regarding the connection of Sabina Drive through the new development to connect to Singleton. There is an increase in speeding in the area and this road may be used as a "rat run".</p> <p>b. Suggest that a cul-de-sac is created for Sabina Drive. Foot or cycle traffic could still be allowed through.</p> <p>c. Alternatively replicate an arrangement at Ormsby Tce between Wade Street and Orion Rd with three slow-down measures at Sabina Drive between Madora Beach Road and Swiftshire Road.</p>	<p>a. Noted. This road layout is consistent with the existing Structure Plan. Traffic calming methods (e.g. speed humps) are generally implemented during subdivision stage.</p> <p>b. Cul-de-sacs are not desirable from a planning perspective and are not recommended under Liveable Neighbourhoods.</p> <p>c. As per point (a) above.</p>
9. L Bovell	<p>In regards to Section 6 – Local Development Plans:</p> <p>a. The amendment proposes to change the wording from "will require" to "may request" when outlining the various situations for when local development plans should be prepared.</p>	<p>a. The amended wording reflects changes to the planning framework. The City cannot require a Local Development Plan to be prepared, but rather "requests" to the WAPC that a</p>

		LDP be prepared via a condition of subdivision approval.
10. P Venditti	<p>a. Questioned the height of the retaining walls at the rear of their property</p> <p>b. Questioned what fencing would be installed on top of the retaining walls.</p>	<p>a. A structure plan does not go into this level of detail and the retaining wall levels have been approved via a Local Development Plan.</p> <p>b. Fencing is covered under the <i>Dividing Fences Act 1961</i> and is a civil matter between the landowners.</p>
11. I Roberts	<p>a. Questioned the height of the retaining walls at the rear of their property</p> <p>b. Questioned what fencing would be installed on top of the retaining walls.</p>	<p>a. A structure plan does not go into this level of detail and the retaining wall levels have been approved via a Local Development Plan.</p> <p>b. Fencing is covered under the <i>Dividing Fences Act 1961</i> and is a civil matter between the landowners</p>
12. R Meade	<p>a. Is the pump station in the commercial area a petrol station?</p> <p>b. Have the green areas been reduced?</p> <p>c. Do the ponds in each of the green areas count as green?</p> <p>d. Have the green spaces been traded for roads (neighbourhood connectors)?</p> <p>e. Won't the coastal node make a wind tunnel for the sea breezes?</p> <p>f. Will the coastal node also contribute to an avenue for tidal storms to enter the development?</p> <p>g. Will the coastal node also destroy the dunes formation, as the earth moving has changed the</p>	<p>a. The pump station is a wastewater pump station.</p> <p>b. Yes, there has been a reduction in public open space, however the proposal still meets the minimum requirement of 10% of the entire structure plan area.</p> <p>c. Yes, the requirement is for public open space which can be provided in many different forms.</p> <p>d. There has been a reconfiguration of the roads, public open space and residential/commercial areas, however the proposal still meets the minimum 10% public open space requirements.</p> <p>e. The design of the coastal node has not yet been formalised and the Foreshore Management Plan is under review by the City's Environmental Services team. Through this assessment environmental factors such as this will be considered.</p> <p>f. As per point 'e' above, these elements will be considered in greater detail by the City's environmental services with the Foreshore Management Plan not being considered as part of this application.</p> <p>g. As per point 'e' above, these elements will be considered in greater detail by the City's environmental services with the</p>

	<p>topography of the area already past this?</p> <p>h. What will be done about the mosquito problem in the area, especially as there seems a dependence on storm water drains?</p>	<p>Foreshore Management Plan not being considered as part of this application.</p> <p>h. The City has a successful mosquito management program in place. However, given Mandurah's natural environment and proximity to mosquito breeding sites, mosquitos will always be prevalent.</p>
13. Department of Water and Environmental Regulation	<p>a. The proposed structure plan should not be finalised prior to the endorsement of a satisfactory Local Water Management Strategy by the Department and the City of Mandurah. Further detail is required, specifically relating to the management of road runoff, infiltration systems, capacity of underground storage cells and discharge outside the development footprint (into foreshore).</p>	<p>a. Noted. This has been included in the recommended response to the WAPC.</p>
14. City of Rockingham	<p>a. Request that the road connection to Treasure Road be depicted on the Structure Plan Map for clarity.</p>	<p>b. Noted. This has been included in the recommended response to the WAPC.</p>

MADORA BAY NORTH



LOCAL STRUCTURE PLAN

MARCH 2016



MADORA BAY NORTH

LOCAL STRUCTURE PLAN

PART 1 – IMPLEMENTATION SECTION


Endorsement Page

This structure plan is prepared under the provisions of the City of Mandurah Town Planning Scheme No. 3 (incorporating the Schedule 2 'Deemed Provisions for Local Planning Schemes' of the *Planning and Development (Local Planning Schemes) Regulations 2015*).

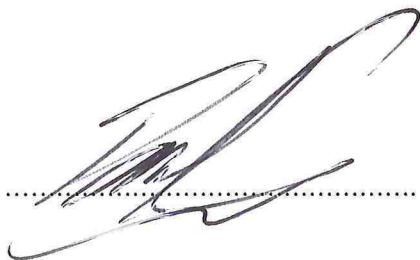
IT IS CERTIFIED THAT THE MADORA BAY NORTH LOCAL STRUCTURE PLAN WAS ADOPTED BY
RESOLUTION OF THE WESTERN AUSTRALIAN PLANNING COMMISSION ON:

22 MARCH 2016

Signed for and on behalf of the Western Australian Planning Commission


.....

an officer of the Commission duly authorised by the Commission pursuant to section 16 of the
Planning and Development Act 2005 for that purpose, in the presence of:


.....

Witness

9/4/16..... Date

22 MARCH 2026..... Date of Expiry

TABLE OF AMENDMENTS

Amendment No.	Summary of the Amendment	Amendment Type	Date approved by WAPC

PART 1 IMPLEMENTATION SECTION

TABLE OF CONTENTS

- 1.0 STRUCTURE PLAN AREA**
- 2.0 STRUCTURE PLAN CONTENT**
- 3.0 INTERPRETATIONS AND SCHEME RELATIONSHIP**
- 4.0 OPERATION**
- 5.0 LAND USE, SUBDIVISION AND DEVELOPMENT REQUIREMENTS**
 - 5.1 Land Use Permissibility**
 - 5.2 Residential**
 - 5.3 Commercial**
 - 5.4 Public Open Space**
 - 5.5 Conditions of Subdivision Approval**
 - 5.6 Local Development Plans**

PLAN 1 LOCAL STRUCTURE PLAN

PART 1 - IMPLEMENTATION SECTION

1. STRUCTURE PLAN AREA

This structure plan applies to Lot 101 Mandurah Road, Madora Bay being the land contained within the inner edge of the line denoting the structure plan boundary shown on Plan 1 - Local Structure Plan.

2. STRUCTURE PLAN CONTENT

This structure plan comprises:

- a) Part One - Implementation Section
This section contains the structure plan map and the requirements that will be considered when assessing subdivision and development applications within the structure plan area.
- b) Part Two - Explanatory Section
This section is to be used as a reference guide to interpret and justify the implementation of Part One.
- c) Appendices to Part Two – Technical Reports and supporting plans and maps.

3. INTERPRETATIONS & SCHEME RELATIONSHIP

Pursuant to the *Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 - Deemed provisions for local planning schemes*, a decision maker of an application for development approval or subdivision approval is to have due regard to the provisions of this structure plan, including the Structure Plan map, Implementation Section, Explanatory Section and Technical Appendices.

4. OPERATION

In accordance with Clause 22 of the *Planning and Development (Local Planning Schemes) Regulations 2015 Schedule 2 - Deemed provisions for local planning schemes*, this structure plan comes into operation when it is certified by the Western Australian Planning Commission pursuant to sub-clause 22.1.

5. LAND USE, SUBDIVISION AND DEVELOPMENT REQUIREMENTS

5.1 Land Use Permissibility

Land use permissibility within the structure plan area shall be in accordance with the corresponding zone or reserve under the Scheme except as varied as follows:

5.1.1 Commercial Zone

Within the Commercial Zone, discretionary uses will be considered against their consistency with the objectives of a Local Activity Centre with the exception that low-key tourism-related uses such as 'Bed and Breakfast' and 'Short Stay Accommodation' shall be encouraged. Short Stay Accommodation shall be 'AA' within the Commercial Zone.

A residential density code of R60 shall apply within the Commercial Zone.

5.1.2 Mixed Use Zone

The intent of the Mixed Use Zone is to accommodate residential development, low-key tourist accommodation and/or a range of non-residential land use (predominantly at ground floor level) which are complementary to residential development, within a flexible framework. Any non-residential development within the Mixed Use zone should complement but not compete with the primacy of Commercial-zoned sites which provide the focus for commercial activity.

Within the Mixed Use Zone, the following land use permissibility shall apply:

Arts and Craft Display	AA
Bed and Breakfast Accommodation	AA
Car Park	IP
Child Care Premises	SA
Club Premises	SA
Community Purpose	AA
Consulting Room	AA
Corner Shop	AA
Cultural Use	SA
Dwelling	P
Family Day Care	P
Guesthouse	AA
Home Occupation	AA
Hotel	SA
Kindergarten	SA
Land Sales Office	P
Medical Centre	SA
Museum	SA
Office	AA
Public Utility	P
Public Worship – place of	SA
Restaurant	SA
Serviced Apartment	SA
Shop (max. 300m ² NLA per tenancy)	AA
Short Stay Accommodation	AA
Takeaway Food Outlet (excludes 'drive through' facilities)	SA

A residential density code of R60 shall apply within the Mixed Use Zone.

5.2 Residential

Residential subdivision and development shall accord with the requirements for the Residential Density Code specified by the Local Structure Plan map.

5.3 Commercial and Mixed Use

Net Lettable Retail floorspace within the Commercial Zone is to be in accordance with the City of Mandurah's Activity Centres Strategy.

The development of Commercial and Mixed Use zoned sites is to be in accordance with approved Local Development Plans. These should be based on 'main street' design principles promoting development to be built up to or close to the street, providing good surveillance of the primary street/s with coordinated parking areas located at the rear.

5.4 Public Open Space

A minimum of 10 percent public open space is to be provided in accordance with the WAPC policy. Public open space is to be provided generally in accordance with Plan 1, with an updated public open space schedule to be provided at the time of subdivision for determination by the WAPC, upon the advice of the City of Mandurah.

5.5 Conditions of Subdivision Approval

At the time of subdivision, conditions may be recommended, as applicable, requiring the preparation and / or implementation of the following:

- i) Foreshore Management Plan (LA);
- ii) Environmental Management Plan (LA);
- iii) Urban Water Management Plan (LA);
- iv) Public Open Space Schedule (LA / WAPC);
- v) Landscape plan for the planting and treatment of the 'green linkage street' (LA);
- vi) Any safety improvements and traffic calming to existing roads providing direct through connection into the structure plan area required to accommodate the additional traffic generated by the structure plan;
- vii) Design and construction of the intersection of the Integrator B road with Mandurah Road to the satisfaction of the WAPC, in consultation with Main Roads WA and the City of Mandurah;
- viii) Design and construction of the upgrade to the intersection of Madora Beach Road and Mandurah Road to the satisfaction of the WAPC, in consultation with Main Roads WA and the City of Mandurah; and
- ix) Uniform fencing and/or noise attenuation wall as determined by a transport noise assessment report.

5.6 Local Development Plans

At the time of subdivision, a condition will require the preparation of Local Development Plans for the following sites:

- i) The Village Centre / Commercial zoned site/s: to address built form, access and parking;
- ii) Mixed Use zoned sites: to address built form, access and parking;
- iii) Lots requiring application of 'Quiet House Design' provisions under the recommendations of a Transport Noise Assessment;
- iv) Lots immediately adjacent to existing residential lots in Singleton: to address site levels and boundary fencing to existing abutting lots;
- v) Lots immediately adjacent to existing residential lots in Madora, east of Angalore Road: to address site levels and boundary fencing to existing abutting lots.

(Footnote: The expectation is that the boundary fences adjacent to Lots 532 and 533 Ariel Place will be no higher than the existing structures on the boundary).

Local Development Plans required for lots abutting an existing residential lot outside of the structure plan area to address site levels and boundary fencing shall be subject to direct written consultation with the existing lot owner in accordance with Clause 50 (2 a) of *Planning and Development (Local Planning Schemes) Regulations 2015 – Schedule 2 Deemed provisions of local planning schemes*, prior to adoption.

Development of sites the subject of an approved Local Development Plan shall comply with that Local Development Plan unless otherwise approved by City.

