



MCMAHON ESTATE STRUCTURE PLAN

DECEMBER 2025

Revision Letter	Date	Reason for Issue	CM
A	28 Feb 2025	Technical reports and draft Structure Plan	NS
B	26 March 2025	Draft MESP	BM
C	12 May 2025	Final draft MESP incorporating Traffic, BMP and Shire feedback (excluding LWMS information)	BM
D	16 May 2025	Final draft MESP incorporating LWMS information	BM
E	3 June 2025	Final draft MESP incorporating second round of Shire feedback	BM
F	25 June 2025	Minor updates to MESP following council endorsement to advertise	BM
G	1 Dec 2025	Minor updates - Schedule of Mods received by WAPC	RS

Project No: 44833

Project Name: McMahon Estate Structure Plan

Prepared for: The Shire of Broome



Prepared by:

COMPANY	ROLE
Hames Sharley	Lead Consultant - Planning and Urban Design
Shape Urban	Stakeholder Engagement Outcomes Report
AECOM	Traffic Impact Assessment Local Water Management Strategy
Bushfire Prone Planning	Bushfire Management Plan
Colliers International	Utilities and Servicing Strategy Market Analysis

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ENDORSEMENT PAGE

This Structure Plan is prepared under the provisions of the Shire of Broome Local Planning Scheme No.7.

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

13 January 2026

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:

Anne Woodin Witness

21 January 2026 Date

21 January 2036 Date of Expiry

TABLE OF AMENDMENTS

AMENDMENT NO.	SUMMARY OF THE AMENDMENT	AMENDMENT TYPE	DATE APPROVED BY WAPC

TABLE OF DENSITY PLANS

DENSITY PLAN NO.	AREA OF DENSITY PLAN APPLICATION	DATE ENDORSED BY WAPC

EXECUTIVE SUMMARY

The McMahon Estate Structure Plan has been prepared to coordinate future subdivision and development of a strategic infill site in the Broome Townsite.

The site presents an excellent opportunity to provide much needed housing, integrated with upgraded drainage and public parkland infrastructure. The proposed design allows for revitalisation of the site by providing residential infill to help cater for population growth and provide housing diversity and choice. This will be supported by the provision of high quality, site responsive public open space that will service future residents as well as the surrounding community.

Key components of the McMahon Estate Structure Plan include:

- A range of residential densities to promote a variety of housing typologies;
- Provision of quality public open space that responds to the site as well as addressing a need for such amenity within the wider locality; and
- An integrated urban water management approach which enables retention of existing ecological corridors.

The McMahon Estate Structure Plan will assist with future detailed planning and design of the site and will also allow for the preparation of Local Development Plans on key sites.

The vision is for:

A development that respects the existing qualities of the site and surrounding neighbourhood while providing an appropriate mix of housing options. New development is connected with nature through large open spaces and ecological corridors, supported by safe and accessible linkages which enhance connectivity to and through the site.

The primary objectives in achieving this vision are set out in **Section 2.2** of this document.

The McMahon Estate Structure Plan has been informed by detailed site and context analysis, and a robust engagement process. The document has prepared in accordance with the following key State planning documents:

- Liveable Neighbourhoods; and
- WA Planning Manual - Guidance for Structure Plans.

It incorporates the following:

- **Part One - Implementation:** Sets out the structure plans purpose / objectives, staging considerations, and includes provisions to help guide preparation and assessment of future subdivision applications.
- **Part Two - Explanatory Section:** Includes detailed background investigations, this includes a thorough analysis of the community, governance, and physical context. These findings inform the design approach, framed around six key elements of Liveable Neighbourhoods.
- **Supporting Technical Appendices:** Includes the following documents:
 - Stakeholder Engagement Outcomes Report
 - Traffic Impact Assessment
 - Local Water Management Strategy
 - Bushfire Management Plan
 - Utilities and Servicing Strategy
 - Market Analysis

STRUCTURE PLAN SUMMARY TABLE

ITEM	DATA	STRUCTURE PLAN REF
Total area covered by the structure plan	10.42 ha	Part Two: Section 1.1
Area of each land use proposed		Part Two: Section 5.3
• Residential	• 4.57 hectares	
Total Estimated Lot Yield	94 lots	Part Two: Section 5.3
Estimated Number of Dwellings	Approximately 115 Dwellings	Part Two: Section 5.3.1
Estimated Residential Site Density	11 dwellings per hectare (total) 16 dwellings per hectare (excluding POS)	Part Two: Section 5.3.1
Estimated Population	312 (based on average household size of 2.72)	Part Two: Section 5.3.1
Estimated Area and Percentage of Public Open Space given over to:	3.22 ha (29.5%)	
• Local Park	• 0.35 ha	Part Two: Section 5.4.2
• Natural Bushland	• 1.10 ha	
• Ecological Corridors / Drainage	• 1.77 ha	
Estimated Percentage of Natural Area:	2.87 ha (27.5%)	Part Two: Section 5.4.2

PART ONE: IMPLEMENTATION

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ABBREVIATIONS

ABS	Australian Bureau of Statistics
ASS	Acid Sulfate Soils
BAL	Bushfire Attack Level
BMP	Bushfire Management Plan
EPA	Environmental Protection Authority
CPTED	Crime Prevention Through Environmental Design
DBCA	Department of Biodiversity, Conservation and Attractions
DPLH	Department of Planning Lands and Heritage
DWER	Department of Water and Environmental Regulation
LPP	Local Planning Policy
LPS	Local Planning Strategy
LPS7	Shire of Broome Local Planning Scheme No.7
MESP	McMahon Estate Structure Plan
NBY	Nyamba Buru Yawuru
PAW	Public Access Way
POS	Public Open Space
REIWA	Real Estate Institute of Western Australia
SCP	Strategic Community Plan
SEIFA	Socio-Economic Indexes for Areas
SPP	State Planning Policy
TIA	Traffic Impact Assessment
UHI	Urban Heat Island
WAPC	Western Australian Planning Commission
WMS	Water Management Strategy
WSUD	Water Sensitive Urban Design

01

STRUCTURE PLAN AREA AND OPERATION



1.1 STRUCTURE PLAN AREA

The McMahon Estate Structure Plan (MESP) shall apply to the land contained within the inner edge of the line denoting the structure plan boundary as shown on **P1 - Figure 1**.

1.2 OPERATION

The MESP is in effect from the date stated on the cover and for a period of 10 years (or for any other period approved by the WAPC).

The MESP is prepared pursuant to the Shire of Broome Local Planning Scheme No.7.



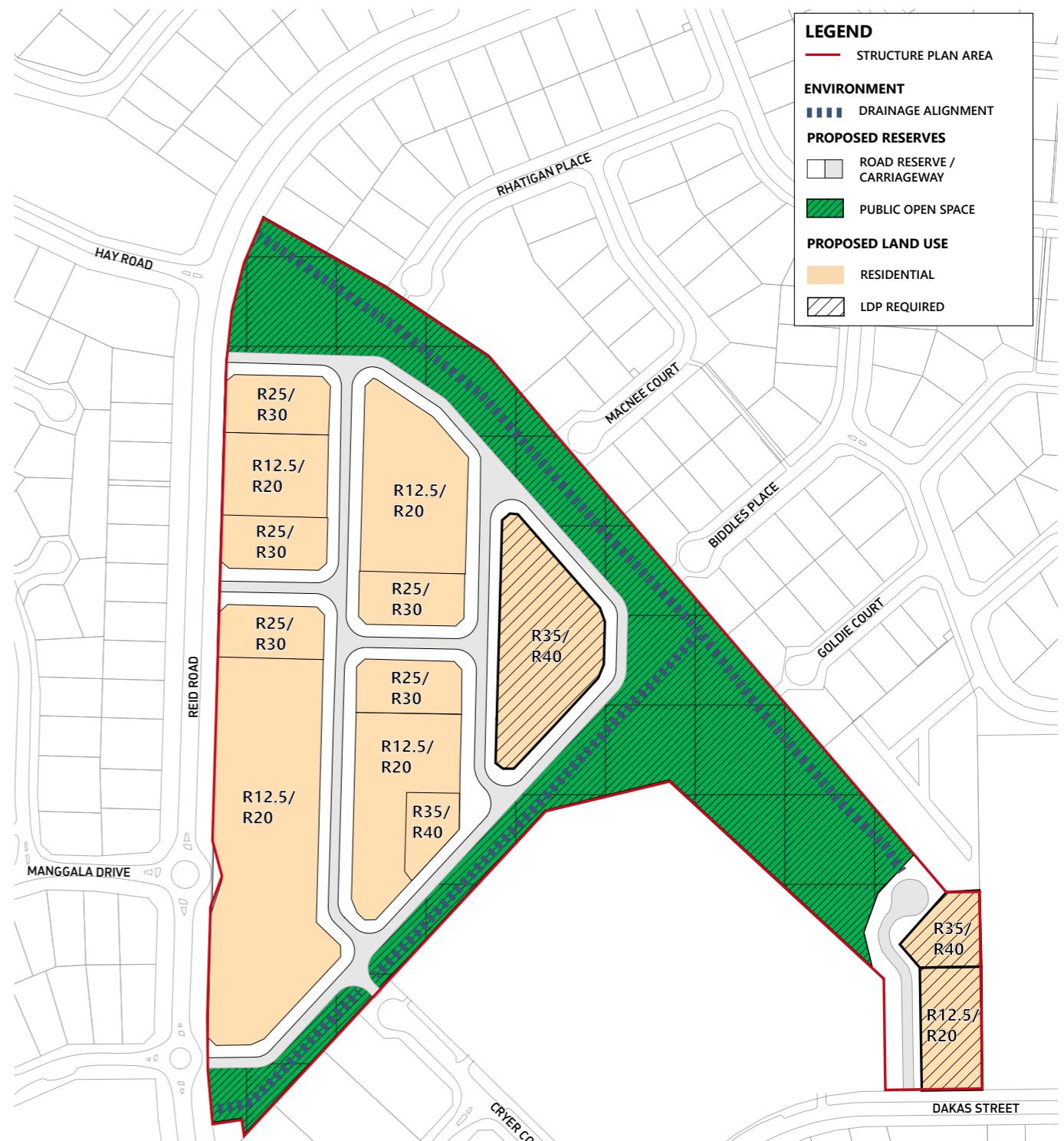
P1 - Figure 1: Site Plan

PURPOSE

2.1 PURPOSE

The MESP site was previously zoned 'Residential R40' and 'Parks, Recreation and Drainage' in Local Planning Scheme No. 6. The zoning was updated to 'Urban Development' in Local Planning Scheme No.7 (LPS7) in 2023 to improve design and deliver a context responsive development on the site. Under the provisions of LPS7, this requires a Structure Plan to be prepared and approved prior to any future subdivision/development taking place.

The MESP site is also identified as Planning Area 0 in the Shire's approved Local Planning Strategy (LPS) and preparation of a structure plan was identified as a short-term priority. Unlocking the development potential of the site is a critical issue in the Shire, however, a Structure Plan was necessary to ensure this is coordinated with the water management, landscape, movement, environmental, and infrastructure needs.



P1 - Figure 2: MESP Structure Plan Map

2.2 OBJECTIVES

VISION

A development that respects the existing qualities of the site and surrounding neighbourhood while providing an appropriate mix of housing options. New development is connected with nature through large open spaces and ecological corridors, supported by safe and accessible linkages which enhance connectivity to and through the site.

OBJECTIVES

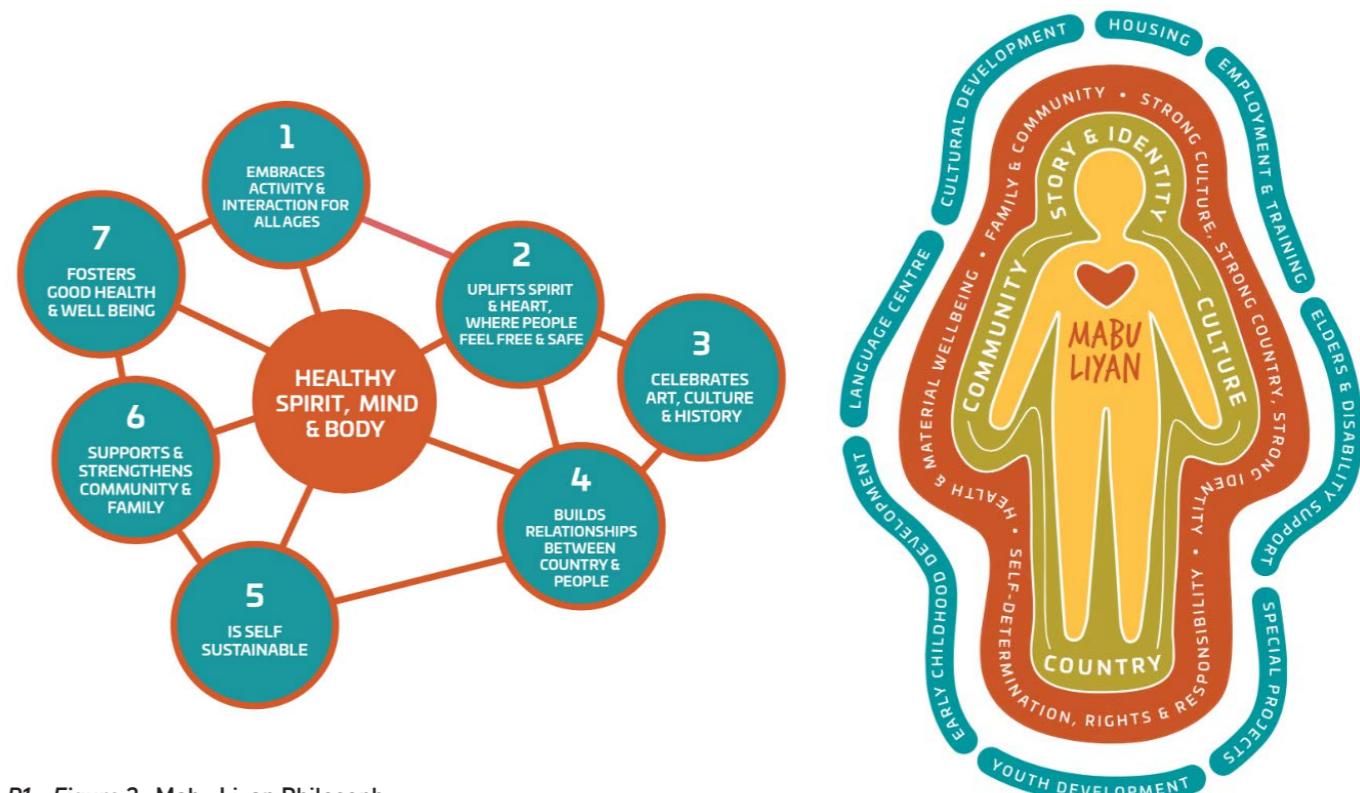
The MESP vision is to be implemented through the following objectives:

- + **Contextual Sensitivity** – Ensure new development responds to the scale, character, and existing qualities of the site and surrounding neighbourhood.
- + **Housing Delivery and Diversity** – Provide an urban structure that enables delivery of a mix of housing options which support diverse community needs.
- + **Ecological Integration** – Retain and enhance ecological corridors with native vegetation, shade trees, and natural bushland to support biodiversity, stormwater management, and community wellbeing.
- + **Open Space Preservation** – Provide generous and accessible open spaces that balance passive and active recreation, incorporating retained bushland, nature play, grassed areas, and shaded seating.
- + **Connected Movement Network** – Establish a well-designed pedestrian and cycling network that ensures safe, direct, and enjoyable connections within the development and to key local destinations.
- + **Integrated Water Management Solutions** – Implement water-sensitive urban design principles to manage stormwater effectively, reducing hard surface impacts while enhancing green spaces and ecological function.
- + **Community-Centred Design** – Create inviting and inclusive public spaces that encourage social interaction, safety, and a strong sense of place through thoughtful landscaping, lighting, and passive surveillance from new homes.

MABU LIYAN

Engagement with NBY identified that there was an opportunity for the MESP to align with the [Mabu Liyan philosophy](#), how this relates to the MESP objectives is summarised overleaf.

ITEM	MESP OBJECTIVES ALIGNMENT
1. Embraces activity and interaction for all ages	<ul style="list-style-type: none"> + Allocate density ranges which are flexible enough to accommodate a range of housing types in response to existing and changing community needs. + Provide guidance on the size, type, and functionality of open spaces facilitating interaction and exploration for people of all ages.
2. Uplifts spirit & heart, where people feel free and safe	<ul style="list-style-type: none"> + Roads and housing designed to maximise views out onto bushland providing visual and physical connections to nature and public open spaces (passive surveillance for safety). + Significant areas of natural bushland and public open space are being retained.
3. Celebrates art, Culture and history	<ul style="list-style-type: none"> + Subdivision design stage to consider community involvement in public art and public realm design exploring opportunities to celebrate culture and history.
4. Builds relationships between Country and people	<ul style="list-style-type: none"> + Significant areas of natural bushland and public open space are being retained, including two defined ecological corridors which provide an opportunity for people to engage with Country. + Future stages of the project to consider community involvement in public realm design through planting of endemic plants to re-establish lost ecosystems. + Open space areas to be used for events and/or education, including partnerships with local schools and organisations.
5. Is self-sustainable	<ul style="list-style-type: none"> + Precinct is designed for climate resilience, with an urban structure and future lot layouts that reduce the impacts of urban heat island effect. + Urban water is managed on site to ensure no adverse downstream impacts towards Cable Beach.
6. Supports and strengthens community and family	<ul style="list-style-type: none"> + Introduction of new houses and public spaces breathes new life into the site supporting opportunities to build community.
7. Fosters good health and wellbeing	<ul style="list-style-type: none"> + Urban structure includes multiple spaces which encourage exercise and physical activity, with a clear network of connected and shaded pathways to local parks and destinations.



P1 - Figure 3: Mabu Liyan Philosophy

03

STAGING



3.1 STAGING

As indicated on **P1 - Figure 4**, potential staging of the MESP is proposed to be carried out as follows:

STAGE 1A:

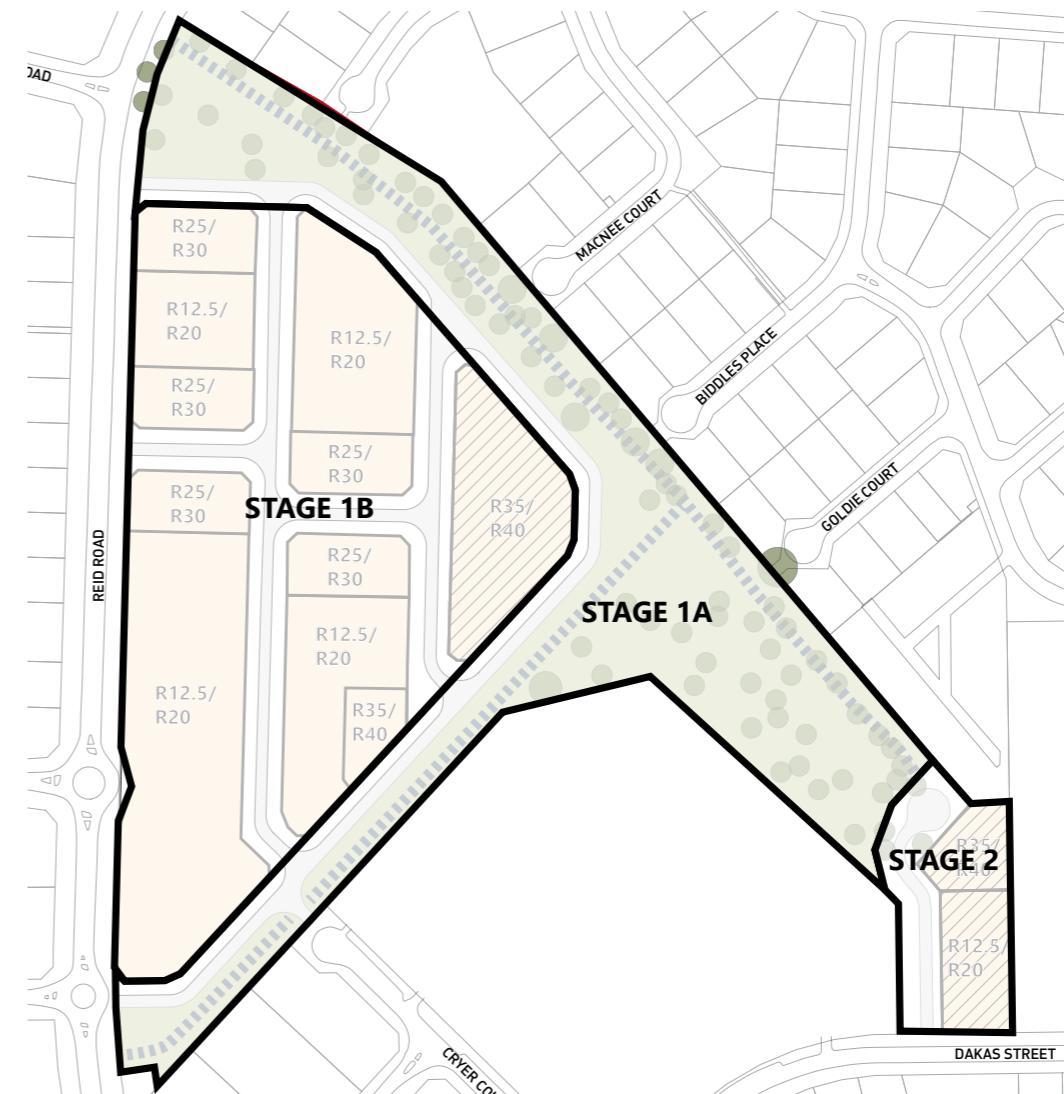
- Bulk earthworks will be undertaken, drainage infrastructure construction, and road connections provided to Reid Road and Cryer Court.
- Construction of local park and drainage infrastructure, including pedestrian bridges over drainage infrastructure.
- Connections to existing services on the western boundaries of the Site.

STAGE 1B:

- Internal road construction, retaining walls (where required), and lot creation.
- Final road connection to Reid Road.

STAGE 2:

- New road connection to Dakas Street and completion of pedestrian connections.
- Bulk earthworks and lot creation.



P1 - Figure 4: Staging

04

SUBDIVISION AND DEVELOPMENT REQUIREMENTS



4.1 LAND USE ZONES AND RESERVES

The proposed land use zones and reserves for the MESP are identified on the Structure Plan Map ([P1 - Figure 2](#)). Further details are provided below.

4.1.1 ZONES

In the MESP, the following land use zones are proposed:

- + Residential

Land use and development within the MESP is to be consistent with the prescribed land use zones as detailed on the Structure Plan Map. Land use permissibility is to be in accordance with the relevant zone and the land use permissibility's of the Zoning Table of LPS7.

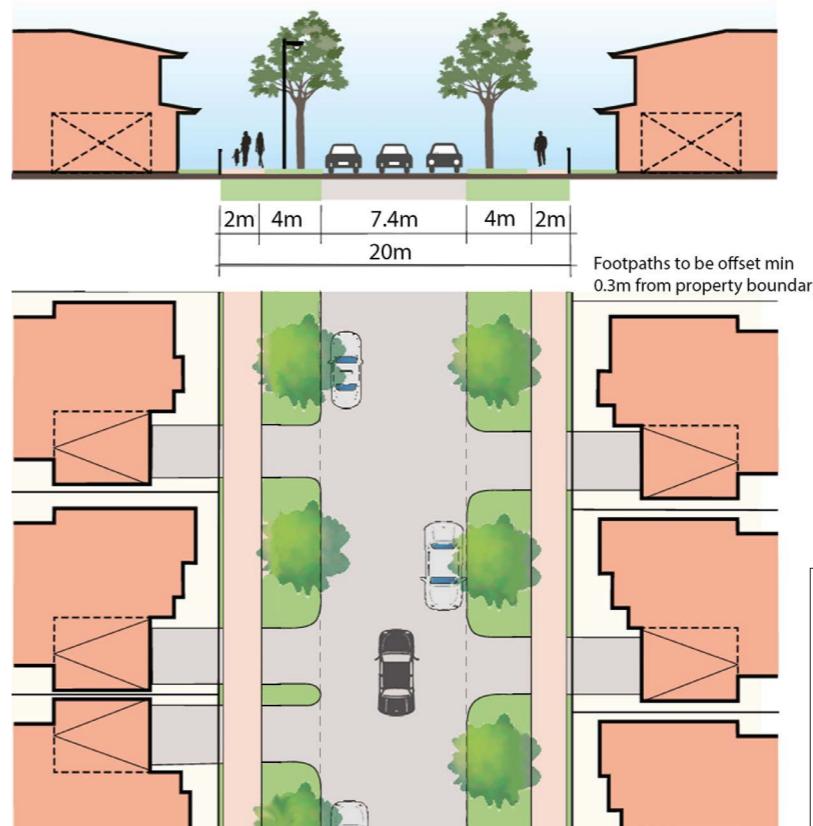
4.1.2 ROAD RESERVES

Five (5) new access points are proposed into the MESP Site as follows:

- + 3 x new connections from Reid Road.
- + 1 x new connection from Cryer Court.
- + 1 x new connection from Dakas Street.

The treatment of all new intersections particularly those on Reid Road will require detailed design at subdivision stage.

All new internal roads are classified as 'access streets'. Subdivision must demonstrate that all 'access streets' provide a minimum road reserve width of 20m and minimum carriageway of 7.4m as shown on [P1 - Figure 5](#).



[P1 - Figure 5: Access Street Typical Cross Section](#)

Cross section and plan are intended to provide guidance only. Minimum road reserve and carriageway widths should not be varied at subdivision stage. Where a road adjoins public open space, the provision of a footpath on both sides of the street will be at the Shire of Broome's discretion.

4.1.3 PUBLIC OPEN SPACE

The provision of a minimum of 10% public open space will be provided in accordance with the WAPC's Liveable Neighbourhoods. Public open space is to be provided generally in accordance with **P1 - Figure 2** and the Public Open Space Schedule included in Part 2.

An updated Public Open Space Schedule is to be provided at the time of subdivision for determination by the WAPC, upon the advice of the Shire of Broome.

4.2 DENSITY AND DEVELOPMENT

4.2.1 DENSITY AND R-CODES

GENERAL

P1 - Figure 2 designates the R-Codes applicable to subdivision and development in the MESP:

- Lot specific residential densities, within the defined residential density ranges, are to be subsequently assigned in accordance with an R-Codes Plan approved by the WAPC.

4.2.2 LOCATIONAL CRITERIA

- The R-Codes Plan is to be submitted at the time of subdivision to the WAPC and shall be consistent with the MESP and the Residential Density Ranges identified on **P1 - Figure 2**.
- The R-Codes plan is to be submitted at the time of subdivision for the entire MESP area. The plan will allocate R-Codes for proposed street-blocks/lots (as the case requires). Once approved by the WAPC, the R-Codes plan forms part of the structure plan.

4.2.3 LOCAL DEVELOPMENT PLANS

Local Development Plans are to be prepared in accordance with Part 6 of Schedule 2 - Deemed Provisions for Local Planning Schemes, Planning and Development (Local Planning Schemes) Regulations 2015, prior to development. Sites requiring an LDP are identified on **P1 - Figure 2**, intended development outcomes are summarised in **P1 - Table 1**.

P1 - Table 1: MESP LPD Requirements

LDP NO. DEVELOPMENT OUTCOMES	
LDP 1	<p>BUILT FORM</p> <p>Passive surveillance over park frontages Demonstrate how lot boundaries with a park frontage are optimised with major openings to habitable rooms and private open spaces / courtyards / balconies which maximise eyes into the public realm.</p> <p>Articulate corner lots Demonstrate that corner lots are to equally articulate both street frontages, avoiding long blank walls and including major openings to habitable rooms on each street-facing facade.</p> <p>MOVEMENT AND ACCESS</p> <p>Garages / Carports not visible from public realm Due to the size of the site, LDP to demonstrate how parking and access can be managed primarily from the rear of the site. Garages and carports should not be visible from park frontages.</p>

SUBDIVISION AND DEVELOPMENT REQUIREMENTS

LDP NO. DEVELOPMENT OUTCOMES

LDP 2	<p>BUILT FORM</p> <p>Passive surveillance over park frontages Demonstrate how lot boundaries with a park frontage are optimised with major openings to habitable rooms and private open spaces / courtyards / balconies which maximise eyes into the public realm.</p> <p>Articulate corner lots Demonstrate that corner lots are to equally articulate both street frontages, avoiding long blank walls and including major openings to habitable rooms on each street-facing facade.</p> <p>Bushfire mitigation These properties are likely to require additional built form requirements to mitigate bushfire risk</p>
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4.2.4 INTERFACE WITH ADJOINING AREAS

The MESP proposes residential land uses and indicative density ranges of R12.5/R20 for future lots which will have an interface with established residential development along Reid Road. This will facilitate future development outcomes which are consistent with the scale and character of the established residential development to the west.

The retention of the established green corridors along the northern, southern and eastern boundaries of the MESP provide a natural boundary and transition to adjoining land uses. This retains the established relationship between Cable Beach Primary School and the green space along its northern and western boundaries and reduces the impact of new residential development on established residential dwellings to the north-east and south, in particular, softening the impact of the R35/40 coded on established surrounding low density residential developments.

4.2.5 HERITAGE

NON-ABORIGINAL HERITAGE

The MESP site is not subject to any state or local heritage listing as per the State Heritage Office and the Shire's Municipal Heritage Inventory. As such no mechanisms to protect heritage features have been proposed as part of the MESP.

ABORIGINAL HERITAGE

The Aboriginal Heritage Inquiry System and enquiries made with the Aboriginal Heritage team at DPLH have confirmed that there are no registered Aboriginal heritage sites contained within the MESP site. As such no mechanisms to protect aboriginal heritage features have been proposed as part of the MESP. Noting that there is opportunity to recognise Yawuru connections to the land and culture through infrastructure, landscaping and artwork treatments in public spaces developed as part of the MESP.

4.3 OTHER REQUIREMENTS

4.3.1 BUSHFIRE PROTECTION

Lots declared identified as being bushfire prone on **P1 - Figure 6** and in the Bushfire Management Plan (BMP) included in **Appendix 4** are required to be constructed in accordance with the identified Bushfire Attack Level to AS3959 requirements.

Development will have regard to the BAL Assessment contained in **Appendix 4**. The Shire will recommend to the WAPC that a condition be imposed on the grant of subdivision approval for a notification to be placed on the Certificate of Title of the proposed lot(s) with a Bushfire Attack Level (BAL) rating of 12.5 or above, advising of the existence of a hazard or other factor. Notice of this notification is to be included on the diagram or plan of survey (deposited plan).

4.3.2 INFRASTRUCTURE ARRANGEMENTS

The MESP proposes five road access/egress points for the site to the surrounding road network. Two on the southern edge, one linking to Dakas Street and the one linking to Cryer Court, which will provide a new link from the MESP directly to the local primary school and child care centre on the same street. On the western edge of the MESP there are three access/egress points, linking to Reid Road/Banu Avenue roundabout, and two directly to Reid Road, between Manggala Drive and Hay Road. An assessment of the transport impacts of the MESP are set out in the Transport Impact Assessment contained in **Appendix 2**. The Transport Impact Assessment indicates that peak trip generation from the MESP will remain below 100 vehicles per hour and as such further analysis to understand necessary road upgrades is not required in accordance with the Transport Impact Assessment Guidelines.

Details of utility upgrades to service the structure plan area are contained within Appendix 5.

4.3.3 DEVELOPMENT CONTRIBUTIONS

Local Planning Scheme No. 7 does not make reference to any additional requirements or modifications for developer contributions outside of those set out in State Planning Policy 3.6 - Infrastructure Contributions.

4.3.4 PROTECTION OR MANAGEMENT OF ENVIRONMENTAL OR LANDSCAPE FEATURES

All trees identified on **P1 - Figure 2** for potential protection are to be considered during subdivision and development works.

A feature survey and arboricultural assessment will be required to determine which trees can be retained.

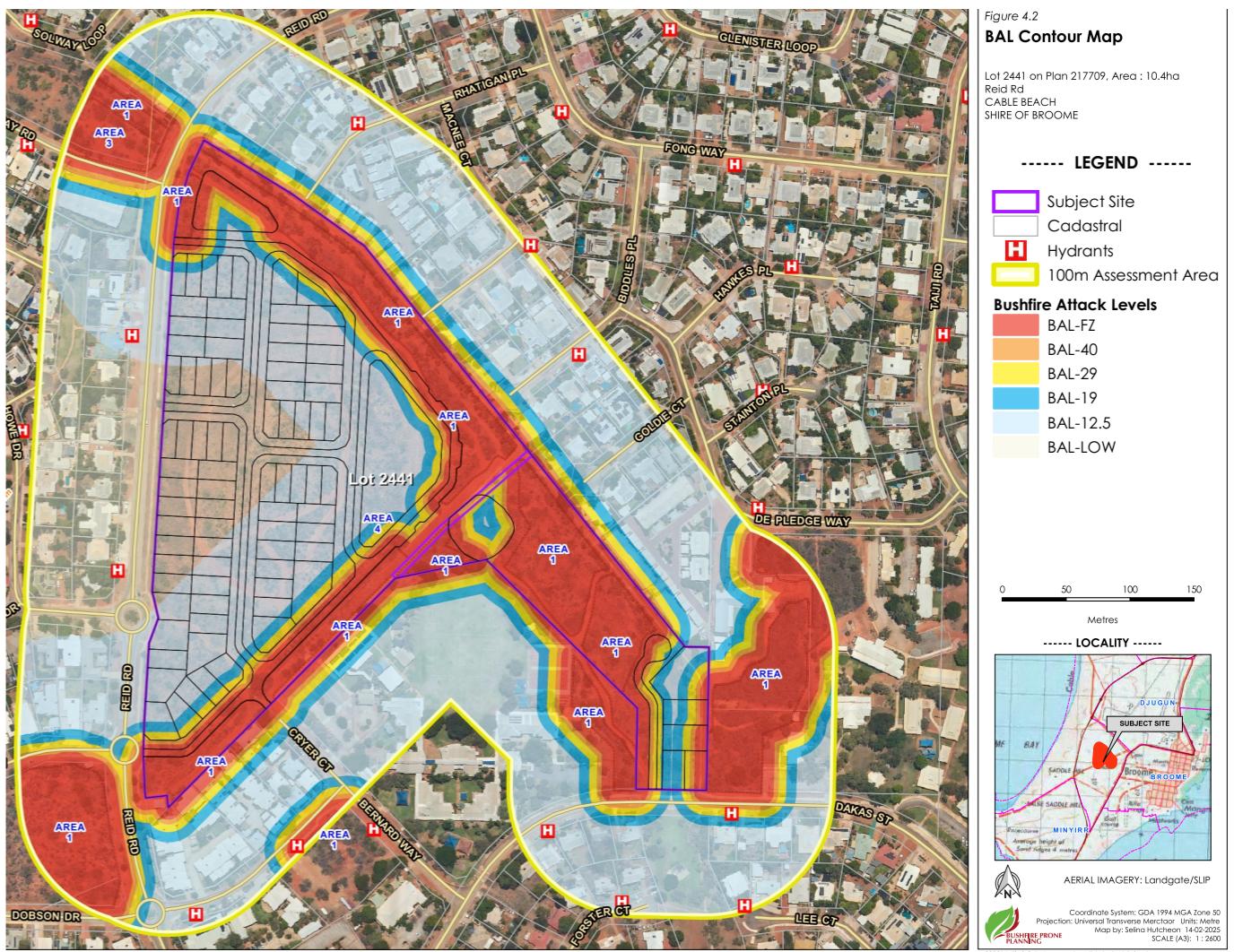
Refer to **Section 05** for further details.

4.3.5 WATER RESOURCE MANAGEMENT

The requirement to undertake preparation of more detailed Urban Water Management Plan (UWMPs) to support subdivision will be imposed as a condition of subdivision.

Refer to **Section 05** for further details.

SUBDIVISION AND DEVELOPMENT REQUIREMENTS



P1 - Figure 6: BAL Assessment Map

05

ADDITIONAL DETAILS



5.1 ADDITIONAL DETAILS

5.1.1 INFORMATION TO BE SUBMITTED WITH AN APPLICATION

P1 - Table 2: Additional Information Requirements

ADDITIONAL INFORMATION / PURPOSE	APPROVAL STAGE	RESPONSIBLE AGENCY
Shire of Broome Structure Plan and Subdivision Standards Applications are to demonstrate full compliance with the relevant standards set out in the Shire's <i>Local Planning Policy 5.22 Shire of Broome Structure Plan and Subdivision Standards</i> .	Subdivision	Shire of Broome

5.1.2 STUDIES TO BE REQUIRED UNDER CONDITION OF SUBDIVISION / DEVELOPMENT APPROVAL

P1 - Table 3: Additional Information Requirements

CONDITIONS OF SUBDIVISION APPROVAL	RESPONSIBLE AGENCY
Bushfire Prone Areas The notification is to state as follows: <i>"This land is within a bushfire prone areas as designated by an Order made by the Fire and Emergency Services Commissioner and is/may be subject to a Bushfire Management Plan. Additional planning and building requirements may apply to development on this land." (Western Australian Planning Commission)</i>	Shire of Broome / Department of Fire and Emergency Services
UWMP While strategies have been provided in the LWMS that address planning for water management, it is a logical progression that future subdivision design will clarify details not provided within the LWMS. UWMPs will be required at subdivision stage and associated detailed design. The UWMP will be required to include: <ul style="list-style-type: none">+ WSUD measures.+ Landscaping design.+ Earthworks design: imported fill and subsoil drainage specifications and requirements.+ Implementation of water conservation strategies.+ Non-structural water quality improvement measures.+ Management and maintenance requirements.+ Construction period management strategy.+ Monitoring and evaluation program.	Shire of Broome / Department of Water and Environmental Regulation

PART TWO: EXPLANATORY SECTION

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01

INTRODUCTION AND PURPOSE



1.1 STRUCTURE PLAN PURPOSE

1.1.1 PROJECT PURPOSE

McMahon Estate (the Site) is a 10.42 ha parcel of land located centrally within the suburb of Cable Beach (south), adjacent to a local centre and Cable Beach Primary School (**P2 - Figure 1**). It was originally designed to accommodate a district level oval, however, the decision to develop the Broome Recreational & Aquatic Centre (BRAC) in 2000 has made the Site's district recreation function redundant. The MESP site was previously zoned 'Residential R40' and 'Parks Recreation and Drainage' in Local Planning Scheme No. 6 (LPS6). The zoning was updated to 'Urban Development' in Local Planning Scheme No.7 (LPS7) in 2023 to improve design and deliver a context responsive development on the site. Under the provisions of LPS7, this requires a Structure Plan to be prepared and approved prior to any future subdivision/development taking place.

The Site is identified as Planning Area 0 in the Shire's approved Local Planning Strategy (LPS) and preparation of a structure plan was identified as a short-term priority. Unlocking the development potential of the Site is a critical issue in the Shire, it will help contribute to the resolution of two primary issues being faced in the Broome Townsite.

- Broome is currently experiencing a major housing shortage across the townsite, it has become a significant problem causing multiple issues for the local community. Rental properties are scarce, and rental prices have risen dramatically, making it challenging for many residents to find diverse and affordable housing. This shortage has also made it difficult for employers to attract workers to the area, which is having a negative impact on the local economy.
- Broome has above average concentrations of social housing in certain areas. The Broome Urban Renewal Strategy (BURS) identified that three key areas of Broome, the Woods Drive, Anne Street and Dora Street Precincts have concentrations of social housing ranging from 50-70%. The Minister for Housing has publicly said that social housing percentages should be no more than 20%. With a lack of supply, it is difficult to relocate social housing to other areas.

To help manage subdivision and development for the site, it is necessary to establish a contemporary planning framework, this will be through the McMahon Estate Structure Plan (MESP). This planning framework will guide future subdivision and development.



P2 - Figure 1: Site Plan

02



SITE AND CONTEXT ANALYSIS

2.1 GOVERNMENT CONTEXT

2.1.1 ENVIRONMENT

P2 - Table 1: Environmental considerations

DOCUMENT	OVERVIEW	RELEVANCE TO MESP
Draft SPP 2.9 - Planning for Water	<p>SPP 2.9 and the associated SPP 2.9 Planning for Water Guidelines outline how water resource management should be integrated into planning processes, such as the preparation of structure plans.</p> <p>It recognises that planning should contribute to the protection and management of water resources through the implementation of policy measures that identify significant water resources, prevent the degradation of water quality and wetland vegetation, promote restoration and environmental repair and avoid incompatible land uses.</p> <p>It also provides guidance on how future development can be better suited to addressing climate change, and protect public health by ensuring appropriate delivery of wastewater infrastructure. As such, when finalised, the policy will replace existing guidelines such as the Government Sewerage Policy, and Better Urban Water Management.</p>	<p>Guidance is provided on the preparation of Local Water Management Reports which is generally a requirement of all structure plans.</p> <p>A Local Water Management Strategy (LWMS) has been included in the scope for the LSP, this will be prepared in accordance with relevant requirements to meet SPP 2.9.</p>
SPP 3.4 - Natural Hazards and Disasters	<p>SPP 3.4 encourages local governments to adopt a systemic approach to the consideration of natural hazards and disasters. The objectives of this policy are to include planning for natural disasters as a fundamental element in the preparation of planning documents, and through these planning documents, minimise the adverse impacts of natural disasters on communities, the economy and the environment.</p> <p>SPP 3.4 sets out considerations for decision makers in relation to hazards including flood, bush fire, landslides, earthquakes, cyclones and storm surges. Consideration of these hazards should be undertaken in conjunction with issue-specific state planning policies which supplement SPP 3.4.</p>	<p>Flooding, cyclonic activity and bushfires are of particular relevance in Broome. The Shire aims to mitigate the impacts of natural disasters through its local planning framework.</p> <p>The potential hazards associated with McMahon Estate at the structure plan stage are primarily related to flood and bushfire mitigation which will be addressed through SPP 2.9 and SPP 3.7 respectively.</p>
SPP 3.7 - Bushfire	<p>SPP 3.7 provides a framework in which to implement effective, risk-based land use planning and development outcomes to preserve life and reduce the impact of bushfire on property and infrastructure.</p> <p>The policy emphasises the need to identify and consider bushfire risks in decision-making at all stages of the planning and development process whilst achieving an appropriate balance between bushfire risk management measures, biodiversity conservation and environmental protection.</p> <p>The policy applies to all land that has been designated as bushfire prone by the Fire and Emergency Services Commissioner as well as areas that may have not yet been designated as bushfire prone but is proposed to be developed in a way that introduces a bushfire hazard.</p> <p>SPP 3.7 should be read in conjunction with the deemed provisions, Guidelines for Planning in Bushfire in Prone Areas and Australian Standard 3959: Construction of buildings in Bushfire Prone Areas.</p>	<p>The entire McMahon Estate area is identified on the Department of Fire and Emergency Services (DFES) as being bushfire prone. As such the requirements of SPP 3.7 apply.</p> <p>Under SPP 3.7 a structure plan is identified as being a 'higher order strategic planning document' it must therefore ensure specific requirements can be met to mitigate any potential bushfire risks.</p> <p>The LSP design will be supported by inputs from an accredited bushfire specialist to assist with this process.</p>

2.1.2 PLANNING

P2 - Table 2: Planning Framework

DOCUMENT	OVERVIEW	RELEVANCE TO MESP
SPP 7.0 – Design of the Built Environment	<p>SPP 7.0 is a broad sector policy relevant to all local governments. The policy sets out the objectives, measures, principles, and processes which apply to the design and assessment of built environment proposals through the planning system. It is intended to apply to activity precinct plans, structure plans, local development plans, subdivision, development, and public works.</p> <p>The policy contains ten design principles which set out specific considerations for decision-makers when considering the above proposals. These include, context and character, landscape quality, built form and scale, functionality and build quality, sustainability, amenity, legibility, safety, community and aesthetics. The policy also encourages early and on-going discussion of design quality matters and the use of design review.</p>	<p>The LSP will be required to be delivered with consideration for the 10 Principles of good design, this will be managed with consideration for the requirements of Liveable Neighbourhoods (see below).</p>
SPP 7.3 – Residential Design Codes Volumes 1 and 2	<p>SPP 7.3 – Residential Design Codes Volume 1 and 2 provides the basis for the control of residential development throughout Western Australia for single houses, grouped dwellings and multiple dwellings. The purpose of the policy is to address emerging design trends, promote sustainability, improve clarity, and highlight assessment pathways to facilitate better outcomes for residents. They are also used for the assessment of residential subdivision proposals.</p> <p>The policy outlines various objectives for residential development, planning governance and development process and sets out information and consultation requirements for development proposals. The policy also makes provision for aspects of specified design elements to be varied through the local planning framework.</p> <p>SPP 7.3 – Residential Design Codes Volume 1 and 2 should be read in conjunction with the supporting Guidelines.</p>	<p>As a 'Standard Structure Plan' the LSP will not be required to include guidance on built form outcomes, application of the R-Codes will be limited primarily to the designations of residential densities (R-Codes) to help guide minimum and average lot size.</p> <p>The R-Code designations will therefore be linked to the overall concept design which will show indicative lot layouts.</p>
Liveable Neighbourhoods	<p>Liveable Neighbourhoods was prepared to implement the objectives of the State Planning Strategy which aims to guide the sustainable development of Western Australia to 2029.</p> <p>Liveable Neighbourhoods is an operational policy for the design and assessment of structure plans (regional, district and local) and subdivision, for new urban (predominantly residential) areas in the metropolitan area and country centres, on greenfield and large urban infill sites.</p>	<p>As the primary document for guidance on preparation of Standard Structure Plans, including core design elements which need to be addressed Liveable Neighbourhoods has a crucial role.</p> <p>Refer to Section 2.1.4 for further information</p>
WA Planning Manual – Guidance for Structure Plans (Structure Plan Guidance)	<p>The Structure Plan Guidance applies to the preparation, assessment and use of structure plans, standard structure plans and precinct structure plans. Practitioners and decision makers should read the Guidance together with Schedule 2, Part 4 of the Planning and Development (Local Planning Schemes) Regulations 2015 (Regulations) and any policies or policy sections relevant to structure plans (outlined below).</p> <p>The Regulations require structure plans to:</p> <ul style="list-style-type: none"> + Be prepared in a manner and form approved by the Western Australian Planning Commission (WAPC); and + Include maps, information and any other material required by the WAPC. <p>Appendix 1 of the Structure Plan Guidance sets out the WAPC's approved manner and form, and the information requirements for structure plans.</p> <p>The Structure Plan Guidance further outlines the need and purpose of a structure plan as well as guiding principles, formulation steps and the WAPC's expectations for optimal subdivision and development outcomes. The appendices include templates and provide additional guidance on certain procedural steps.</p>	<p>As the primary document for guidance on preparation of Structure Plans consideration for the planning manual is essential as it represents the most contemporary advice having been operational since August 2023.</p>

DOCUMENT	OVERVIEW	RELEVANCE TO MESP
Local Planning Strategy	<p>The Shire of Broome's Local Planning Strategy was reviewed concurrently with the Shire's Scheme and was recently approved by the WAPC in October 2023. The Strategy sets out the long-term planning directions for the Shire of Broome, provides the rationale for any zoning or classification of land under the Local Planning Scheme, and forms the strategic basis for the preparation and implementation of Local Planning Scheme No. 7 (LPS7). The Strategy outlines a 15-year vision for how land use change and development will occur within the Shire of Broome, consistent with the Shire of Broome Strategic Community Plan 2021-2031.</p>	<p>The LPS has identified McMahon Estate as Planning Area 0. Future structure planning should have consideration for</p> <ul style="list-style-type: none"> + Provision of affordable housing and active open space; + Improved connectivity with a focus on safety and legibility; and + Integration of drainage through water sensitive urban design principles. <p>The development of the Broome Recreation and Aquatic Centre (BRAC) has replaced the role of McMahon Oval of being a major recreational oval. Therefore the site was partly rezoned 'Residential R40' in LPS6. The site has subsequently been rezoned 'Urban Development' in LPS7 in 2023 to require a Structure Plan to be prepared to ensure a context responsive development is achieved over the site.</p>
Local Planning Scheme 7	<p>The Shire has a contemporary planning scheme, having prepared LPS7 which was gazetted in September 2023. LPS7 is Model Scheme Text compliant and sets out the following Parts:</p> <ul style="list-style-type: none"> + Part 1 – Preliminary + Part 2 – Reserves + Part 3 – Zones and the use of land + Part 4 – General development requirements + Part 5 – Special Control Areas + Part 6 – Terms Referred To In Scheme + Tables + Schedules 	<p>Under LPS7, the following key zones are identified LPS7, 'Urban Development'. The objectives of which are as follows:</p> <ul style="list-style-type: none"> + To provide an intention of future land use and a basis for more detailed structure planning in accordance with the provisions of this Scheme. + To provide for a range of residential densities to encourage a variety of residential accommodation. + To provide for the progressive and planned development of future urban areas for residential purposes and for commercial and other uses normally associated with residential development.
LPP 5.14 – Public Consultation – Planning Matters	<p>The purpose of this Policy is to clearly define consultation required to meet the statutory and 'standard' consultation requirements for planning matters.</p>	<p>Under LPP 5.14, a Structure Plan is identified as 'Consultation Level C'. Extensive stakeholder engagement was undertaken over two phases to inform the development of the MESP. This included two workshops with the CSRG to inform the design of the MESP.</p>
LPP 5.22 – Shire of Broome Structure Plan and Subdivision Standards	<p>This policy provides a clear framework for the preparation and assessment of Structure Plans and applications for subdivision within the Shire, it also outlines variations to state planning documents specific to local Broome conditions.</p>	<p>The Policy sets out variations to Liveable Neighbourhoods and establishes additional planning matters to be addressed to ensure that subdivision and development is planned and designed to meet local conditions.</p> <p>It also includes specific information regarding the design of stormwater drainage systems to ensure they address local conditions.</p>

LIVEABLE NEIGHBOURHOODS

Liveable Neighbourhoods is an operational policy for the design and assessment of structure plans and subdivision, for new urban (predominantly residential) areas across WA. Under the WA Planning Manual the primary role of Liveable Neighbourhoods is to guide the design approach for standard structure plans and it will be used by the

Liveable Neighbourhoods is currently under review and will eventually be replaced by State Planning Policy 7.1 – Neighbourhood Design. However, there is no timeframe for its release and gazettal. Therefore, the LSP will be guided by the current version of Liveable Neighbourhoods. WAPC to assess this LSP.

Under Liveable Neighbourhoods, the LSP will generally be expected to cover the Eight Elements which are summarised below:

P2 - Table 3: Liveable Neighbourhood Requirements

ELEMENT	LSP FOCUS
1 - Community Design	<ul style="list-style-type: none"> + Define sense of place and/or identity of village + Design response to site and context analysis + Land use distribution and rationale + Design objectives + Density targets.
2 - Movement Network	<ul style="list-style-type: none"> + Traffic volumes and street hierarchy + Connectivity of proposed street system with activity nodes + Street cross-sections + Traffic management + Clear network based on function, traffic volumes, vehicle speed, type, public safety and amenity + Pedestrians, cyclists and universal accessibility + Provision for safe/convenient pedestrian, cyclist and vehicular access + Accessibility to public open spaces, shops, bus stops, primary schools
3 - Lot Layout	<ul style="list-style-type: none"> + Lot size and variety + Land use description + Retention of existing vegetation + Minimise effects on local and/or nearby amenity + Provision of and/or proximity to school site(s) in the area + Climate-responsive design + Density target.
4 - Public Parkland	<ul style="list-style-type: none"> + Size and distribution of public open space + Public open space schedule (size and distribution of active and passive) + Public open space to satisfy expected demographics of the development, integration with activity nodes) + Ongoing management arrangements and responsibilities
5 - Urban Water Management	<ul style="list-style-type: none"> + Urban water management strategy (control of stormwater quality and/or quantity at source) + Define best planning practices (use of natural stormwater systems) + Ongoing management arrangements and responsibilities
6 - Utilities	<ul style="list-style-type: none"> + Servicing report + Power, gas pipelines and/or easement(s) + Telecommunications infrastructure <p>Impacting land uses/activities and buffer requirements</p> <ul style="list-style-type: none"> + Aircraft, industrial activities, fire hazards, and flooding and/or inundation.
7 - Activity Centres and Employment	<ul style="list-style-type: none"> + Additional housing to support existing businesses and catalyse investment in the nearby local centre. + Provision of higher density housing options to provide density in proximity to the nearby local centre. + Ensure walkability and good access to nearby local centre.
8 - Schools	<ul style="list-style-type: none"> + Ensure appropriate interface with Cable Beach Primary School. + To provide improved street access to the Cable Beach Primary School site. + Ensure walkability to nearby local centre.

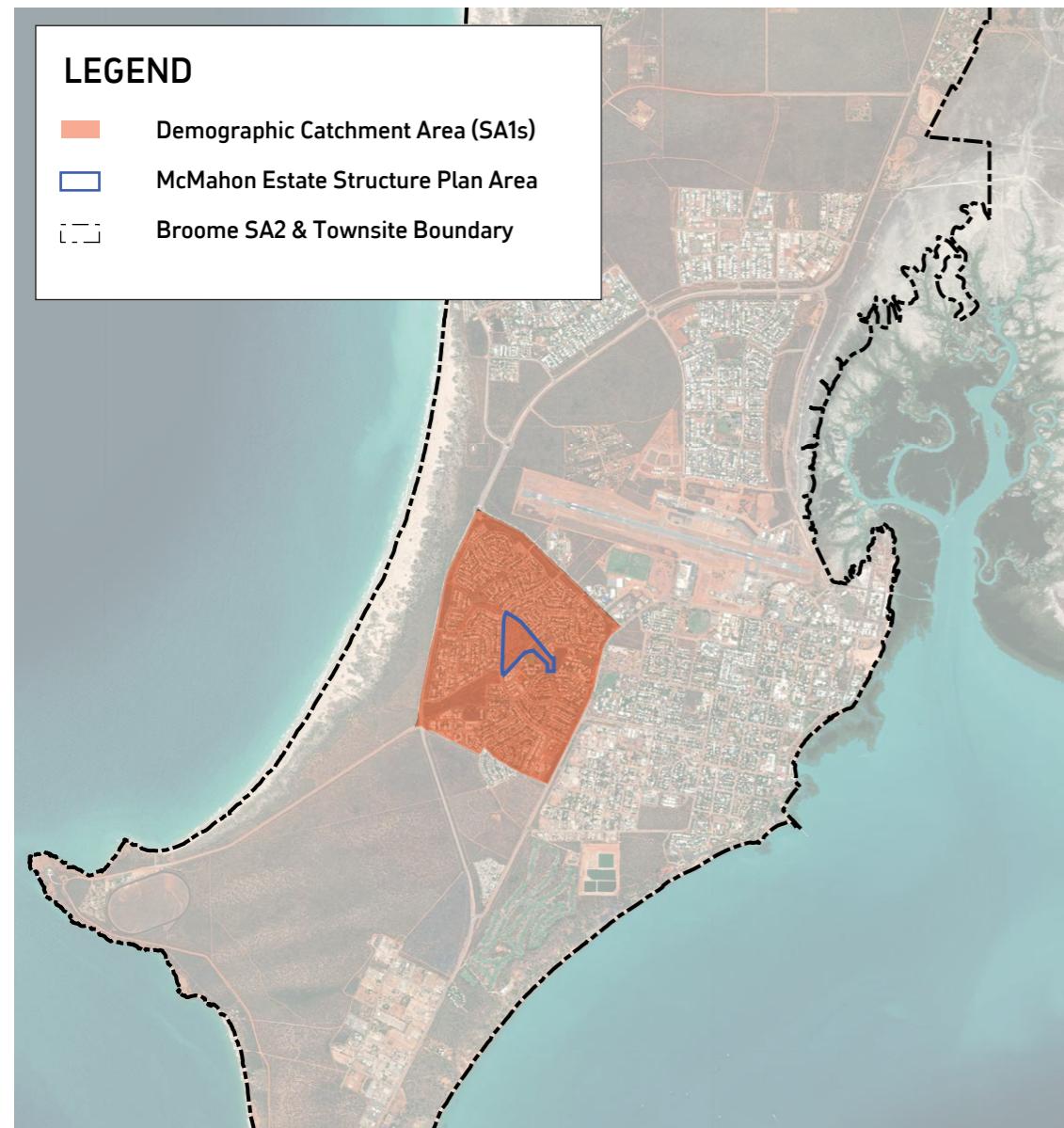
2.1.3 ECONOMIC AND COMMUNITY DEVELOPMENT

The Local Planning Framework comprises all strategic, statutory and policy planning documents which collectively outline the planning for an area and development requirements for sites and of the decision-maker. It generally includes a Strategic Community Plan, Local Planning Scheme (as well as deemed provisions), Local Planning Strategy, and Local Planning Policies, as well as any other documents that will impact planning for McMahon Estate.

P2 - Table 4: Community Development Considerations

DOCUMENT	OVERVIEW	RELEVANCE TO MESP
Strategic Community Plan 2023-2033	<p>The Shire of Broome's Strategic Community Plan 2023-2033 is the overarching document that details the long-term vision for the Shire. The documents outline the aspirations, objectives of the community based on the four core pillars of people, place, prosperity, and performance, and provide a number of actions to achieve them.</p>	<p>To achieve the vision which has been set out by the Shire, the following aspirations of the SCP will be taken into consideration of this MESP:</p> <p>PEOPLE</p> <ul style="list-style-type: none"> + Everyone has a place to call home + Promote access to safe, affordable accommodation to meet all needs, including itinerants, homeless people, those at risk, youth and the elderly <p>PLACE</p> <ul style="list-style-type: none"> + Responsible management of natural resources. + Mitigate climate change and natural disaster risks. + Responsible growth and development with respect for Broome's natural and built heritage. 6.1 Promote sensible and sustainable growth and development. + Create attractive, sustainable streetscapes and green spaces + Safe, well connected, affordable transport options. + Provide safe and efficient roads and parking. + Provide safe, well connected paths and trails to encourage greater use of active transport

2.2 COMMUNITY CONTEXT



P2 - Figure 2: Demographic Catchment Map

The MESP area is located within the Broome Townsite as shown on **P2 - Figure 2**. To determine a statistical profile which best matches the Site, a number of Australian Bureau of Statistics (ABS) Statistical Area 1 (SA1) boundaries have been merged. The purpose is to ensure a demographic catchment which best captures the community context and its neighbouring context. This demographic catchment has been benchmarked against Broome (SA2) and Western Australia (WA) data to provide local and state comparisons.

The purpose of the socio-economic and housing analysis is to highlight some of the anticipated needs of the resident population that the MESP can potentially address.

2.2.1 POPULATION

For the period of 2016-2021, the catchment area experienced a population increase of 117 people or 3% according to Census data.

P2 - Table 5: Broome SA2 Population

	2006	2011	2016	2021	2026 estimate	2031 estimate
BROOME POPULATION	11,546	12,766	13,984	14,660	15,610	16,340
POPULATION INCREASE		1,220	1,218	676	950	730
GROWTH RATE		11%	10%	5%	6%	5%

By projecting the past Census data between periods, Broome's local (SA2) residential population can be expected at a growth rate of 5% (see **P2 - Table 5**) which might indicate future demand of housing and services, however the seasonal visitors and non-residents into Broome will cause temporary fluctuation demand. And to fully understand the actual demand for facilities and infrastructure, Broome's "service" population (combining permanent and non-permanent resident population) should be considered.

Accounting for tourism visitors, short-stay workers, business travellers, other workers and people from outer communities around the Kimberley and North West using Broome as a base, the service population of Broome can reach in excess of 20,000 people on any given day and sometimes as high as 30,000.

This MESP will act as a planning instrument to guide and implement for the coordination of future zoning, subdivision and development of the Site to address the current housing shortage and social housing concentration occurring in the Shire.

2.2.2 PEOPLE

P2 - Table 6 provides a comparative summary of the key social characteristics of the catchment area, with consideration for elements such as cultural diversity, age structure, income, and education.

CULTURAL DIVERSITY

- + A defining characteristic of the catchment area is its cultural diversity, with a significant proportion of residents (28%) identified as being Aboriginal or Torres Strait Islander (ATSI). This is more than nine times higher than the WA average (3%).
- + These statistics highlight the significant importance of Aboriginal people and cultural heritage has in Broome, as well as the post-settlement cultural heritage of both the Aboriginal and non-Aboriginal settlements are an intrinsic part of the Shire's character.
- + This differences and diversity in culture will create needs of housing and services of varying communities, and housing which meets the diverse needs of the local community should be considered during the design concept stage.

AGE AND LIFE CYCLE

- + The catchment area broadly has a relatively young population with a median age of 31.8 years (below the WA average of 38 years). This is in part driven by strong growth in the Aboriginal population of the Shire which trends younger than non-Aboriginal residents. In terms of key age groups, there is a predominance of adults aged 25-34 years. Together with people aged 35-49, who are typically parents who have young children.
- + In contrast, Broome has a significantly lower share of residents aged 65 and over. This is linked to constraints in the capacity of local health and aged care service.
- + In order to reduce the loss of local residents and key workers, providing the right facilities and infrastructure such as aged care, childcare and housing.

HOUSEHOLD AND FAMILY COMPOSITION

- + In the catchment area, the most common household type is family households, consistent with WA and Kimberley averages. When compared to WA averages, the primary differences are slightly less couples without children and slightly more one parent families.
- + The above culminates in a median household size of 2.72 people (compared to the WA median of 2.5). It is important to note that in Broome, this is even higher in Aboriginal households with an average of 3 people compared to 2.5 people in non-Aboriginal households.
- + Although this larger household number in Broome might indicates the needs for future houses and lots to accommodate larger families. It is also worth noting that providing housing for key workers is equally important. This MESP will consider and ensure a diversity of housing products can be achieved for the Site.

SITE AND CONTEXT ANALYSIS

P2 - Table 6: 2021 Census Data (People)

2021 CENSUS - PEOPLE		DEMOGRAPHIC CATCHMENT AREA (SA1)		BROOME (SA2)		WESTERN AUSTRALIA		
		Number	%	Number	%	Number	%	
POPULATION								
Total Population	2021	4,134	-	14,660	-	2,660,026	-	
	2016	4,017	-	13,984	-	2,474,410	-	
Population Growth		117	3%	676	4.8%	185,616	7.5%	
SEX AND AGE								
Age	Sex	Male	2,001	48%	7,108	48.5%	1,322,855	49.7%
		Female	2,146	52%	7,553	51.5%	1,337,171	50.3%
		Median age	31.8	-	34	-	38	-
		0-4 years	286	6.9%	1,060	7%	161,753	6%
		5-14 years	677	16.4%	2,368	16%	344,030	13%
		15-19 years	251	6.1%	804	5%	153,263	6%
		20-24 years	245	5.9%	748	5%	158,817	6%
		25-34 years	720	17.4%	2,504	17%	372,352	14%
		35-44 years	656	15.9%	2,413	16%	379,492	14%
		45-54 years	551	13.3%	2,075	14%	348,256	13%
Birthplace		55-64 years	393	9.5%	1,573	11%	313,444	12%
		65-74 years	248	6.0%	819	6%	247,382	9%
		75-84 years	48	1.2%	237	2%	131,131	5%
		85 years and over	0	0.0%	63	0%	50,106	2%
CULTURAL DIVERSITY								
Aboriginal and/or Torres Strait Islander		1,152	28%	3,436	23%	88,693	3%	
Non-Indigenous		2,563	62%	9,325	64%	2,431,204	91%	
Birthplace	Australia	3,013	73%	10,351	70.6%	1,648,804	62%	
	Elsewhere	1,114	27%	4,310	29.4%	857,643	32%	
HOUSEHOLD TYPES								
Average household size		2.72	-	2.7	-	2.5	-	
Household Composition (No. occupied dwellings)	Family households	959	70%	3,201	71%	686,949	71%	
	Single (or lone) person households	316	23%	1,102	24%	245,193	25%	
	Group households	79	6%	230	5%	32,591	3%	
	Total occupied dwellings	1,361	-	4,532	-	964,734	-	
Family Composition (No of families)	Couple family without children	352	36%	1,163	35%	272,493	39%	
	Couple family with children	387	40%	1,435	44%	313,666	45%	
	One parent family	226	23%	633	19%	106,035	15%	
	Other family	11	1%	56	2%	10,930	2%	
	Total families	970	-	3,283	-	70,3130	-	
EDUCATION								
Number of people	Preschool	65	4.3%	236	-	45,452	-	
	Primary	408	27.5%	1,375	-	222,555	-	
	Secondary	308	20.7%	936	-	175,841	-	
	Tertiary	204	13.8%	660	-	172,239	-	
INCOME								
Median total personal income (\$/weekly)		\$1,153	-	\$1,164	-	\$848	-	
Median total household income (\$/weekly)		\$2,005	-	\$2,222	-	\$1,815	-	

2.2.3 HOUSING

HOUSING TYPES AND TENURE

The majority of occupied private dwellings in catchment area (81.5%) are comprised of low density separate houses, which is on par with Broome and slightly lower than WA. The catchment area also has slightly higher percentages of medium density dwellings, but a lower percentage of high density dwellings. This is reflective of traditional development patterns in Broome, with a propensity to deliver large homes which meet the needs of Broome's families, which represent a majority of existing households.

Despite the above, there is a need to improve the dwelling mix in Broome to ensure that it is more representative of community need. Some of the key issues within the catchment area are highlighted below:

- There are approximately 361 lone person households in Broome, yet only 50 total dwellings with 1 bedroom.
- Given that average household size is 2.7 people, there is a notable lack of smaller-medium sized dwellings with 78% of dwellings in the catchment area having 3-5 bedrooms.
- The Department of Communities manage the Government Regional Officer Housing (GROH) program which provides housing for government employees residing or relocating to regional areas across the State. As Broome contains a high number of public service employees. Due to the current housing shortage, the Department of Communities have reported that there are ongoing supply issues with the provision of GROH housing. It has also been reported that currently policies in place for GROH housing is contributing to some of the above issues, with single person households not having the ability to share housing along with constraints on the type of housing that certain public service professions (e.g. police, fire, teachers) are eligible for. This further impacts on available housing supply in Broome.

The implication of this housing profile is that providing a broader mix of housing options (that includes medium and higher density forms) could be one means to addressing the lack of younger adults and seniors living in the Shire. Additionally, greater provision of smaller dwellings has the potential to address housing affordability concerns in the Shire.

HOUSING AFFORDABILITY

The housing shortage is a critical issue affecting the local community and visitors particularly on the matter of rental properties and accommodation options. Key areas of Broome such as the Woods Drive, Anne Street and Dora Street Precincts have also been identified as having concentrations of social housing ranging from 50-70%. To improve social benefit for the wider community, the Broome Urban Renewal Strategy (BURS) has suggested to leverage the development potential of the Site to help with distribution of affordable / social housing throughout the Broome Townsite.

RESIDENTIAL PROPERTY MARKET ANALYSIS

Colliers International prepared a high-level market assessment ([Appendix 6](#)) for the MESP. The analysis determined that:

- A reasonable portion of the existing population may not require large detached housing, and that the lack of housing diversity has led to affordability and supply challenges.
- Despite the lack of supply, there is demand in Broome for smaller terrace and apartment typologies capable of accommodating small families, couples and singles. This stems from a reasonable portion of the existing population being 'transient' professional singles and couples that relocate for temporary lifestyle of employment opportunities.
- Despite this demand, the MESP's location is identified as being better suited to a combination of detached single houses and smaller lot product.
- Demand and trends change over time, to maintain flexibility it is imperative that the MESP enables a flexible layout which can adapt to Broome's housing needs over time.

SITE AND CONTEXT ANALYSIS

P2 - Table 7: 2021 Census Data (Housing)

2021 CENSUS - HOUSING		CATCHMENT AREA (SA1)		BROOME (SA2)		WESTERN AUSTRALIA	
		Number	%	Number	%	Number	%
DWELLING STRUCTURE							
Occupied Private Dwellings	Separate House	1110	81.5%	3,469	76.5%	769,038	80%
	Semi-detached, row or terrace	198	14.5%	695	15%	125,450	13%
	Flat or apartment	55	4%	124	2.7%	62,360	6%
	Other dwelling	0	0%	182	4%	5,858	1%
Total Occupied Private Dwellings	1361	88.5%	4,532	86%	964,734	89%	
Unoccupied Private Dwellings	177	11.5%	722	14%	118,109	11%	
Total Private Dwellings	1538	-	5,250	-	1,082,844	-	
NUMBER OF BEDROOMS							
Number of bedrooms	None (includes studio apartments or bedsitters)	0	0%	85	2%	2,557	0%
	1 bedroom	52	4%	370	8%	35,236	4%
	2 bedroom	200	15%	710	16%	121,450	13%
	3 bedroom	697	51%	1,736	38%	361,327	37%
	4 bedroom	330	24%	1,318	29%	370,284	38%
	5 bedroom or more	38	3%	93	2%	60,958	6%
Average number of people per household	2.72	-	2.7	-	2.5	-	
TENURE TYPE							
Owned outright	200	14.7%	676	15%	281,327	29%	
Owned with a mortgage	374	27.5%	1,296	29%	385,629	40%	
Rented	721	53.0%	2,299	51%	263,826	27%	
Other tenure type	17	1.2%	107	2%	20,648	2%	
Renting landlord type	Real estate agent	292	40.5%	801	35%	145,715	55%
	State or territory housing authority	216	30.0%	708	31%	28,209	11%
	Community housing provider	17	2.4%	79	3%	7,366	3%
	Person not in same household	90	12.5%	347	15%	64,961	25%
	Other landlord type	78	10.8%	352	15%	16,017	6%
COST OF HOUSING							
Weekly rent repayments	Median rent	\$371		\$330	-	\$340.00	-
Mortgage monthly repayments	Median mortgage repayments	\$2,021		\$2,167	-	\$1,842	-

2.3 PHYSICAL CONTEXT

2.3.1 LOCATION

The Site as illustrated on **P2 - Figure 3**, has an area size of 10 hectares and is located centrally within the Cable Beach (south) locality. The Cable Beach area was predominantly developed in the 1980s and 1990s and has since evolved into a crucial hub for tourism, boasting an array of hotels, resorts, and various short-stay accommodations. Unlike its northern portion, the southern region of Cable Beach is more residential in nature, predominantly featuring low-rise housing.

The Site possesses a number of quality locational benefits, it is:

- Situated directly next to Cable Beach Primary School providing opportunities for local schooling in a short walk.
- Within walking distance of a small local centre which provides day-to-day necessities including a child care centre, cafe, IGA Xpress, and service station. For residents seeking higher order retail services, the Site is located approximately 1.5km from the Boulevard Shopping Centre.
- Connected to Minyirr Buru Conservation Estate and Cable Beach coastline through a linear parkland with walking trails / pathways.
- Situated in close proximity to major employment areas in the Broome Townsite such as Broome Port, Chinatown / Old Broome, and the light industrial area.



P2 - Figure 3: Broome Townsite Context

2.3.2 SURROUNDING AREA AND LAND USE

URBAN STRUCTURE

The urban layout of Cable Beach (south) was partially influenced by the 'Radburn' concept and is characterised by components such as cul-de-sacs, interior parks, individual neighbourhood cells and a road layout and hierarchy that is focused on vehicles. This pattern of development diverges from the grid pattern found in Old Broome, resulting in a precinct which is less legible and permeable. Other noticeable elements include small verge spaces, limited footpaths, mountable kerbs and raised blocks.

Development of the Site will interface with existing residential areas that have been developed under conventional WAPC policies. These areas comprise low density residential estates with hierarchical street systems. The integration of the Site with these existing areas will be required and could be achieved through local street connections. Designs need to balance the benefits of integration against any significant adverse effects (e.g. likelihood of additional traffic where cul-de-sacs may be opened). Interfaces and edge treatments of new areas should generally transition into the existing urban character.

TENURE, OWNERSHIP AND BUILDINGS

Land use in the surrounding area comprises mostly of low density residential land uses. The site is within a walkable catchment of a local centre, primary and secondary schools as well as community services and public open space. **P2 - Figure 4** refers.

The MESP will be required to define residential density codes (R-Codes) which will form the baseline for future subdivision and housing design. An analysis of existing patterns in the locality was undertaken which has identified the following:

- + Lot sizes in the catchment area is highly consistent:
 - 90% of the residential lots have lot sizes in the 450-1000m² range.
 - 7.3% of the residential lots are larger than 1000m².
 - 2.3% of the lots are in the 450-300m²
 - The average residential lot size is 755m²
- + R-Codes are generally in the 'low density' range and include densities between R10 - R50:
 - The majority of the residential lots have an R-Code of R20.
 - Some corner lots adjoining the Site have an R-Code of R30 to R50.

These existing patterns of development align with the findings of the housing analysis above. It suggests that there is limited housing diversity, despite the highly varied nature of the Shire's local community.

The concept design will explore different residential density strategies which will have an impact on lot layout and house designs.

SITE AND CONTEXT ANALYSIS



P2 - Figure 4: Local Context

SOCIAL INFRASTRUCTURE AND SERVICES

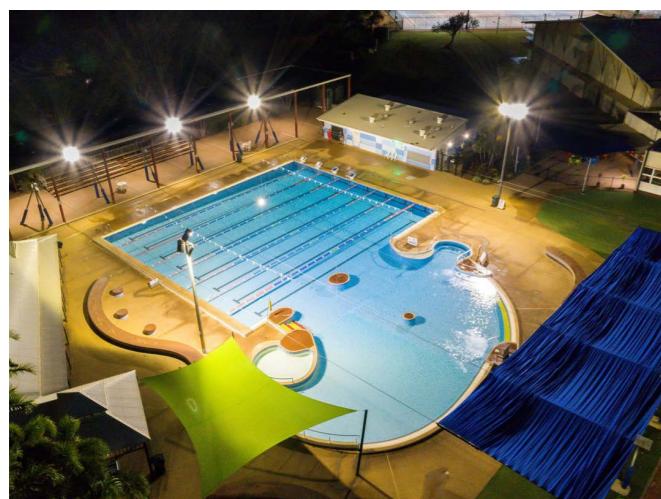
PUBLIC OPEN SPACE (POS)

POS that can be used by a wide range of people contributes significantly to quality of life, these spaces can be created efficiently through careful site-responsive design. Parklands can contribute towards legibility, identity and sense of place that helps build community. Through the MESP, the Shire will have a responsibility to ensure there is appropriate provision which offers a range of functions and is accessible to all members of the local community. Given that the Site is planned to deliver housing, the future provision of POS will be a critical consideration.

An analysis has been undertaken to understand the distribution and provision of POS within a 15 minute walkable catchment of the Site (this is shown on **P2 - Figure 4**). The POS hierarchy includes four categories, the typical size, catchment and function is provided, with a quantification of the spaces currently provided in the Site's walkable Catchment area (see **P2 - Table 8**).

- **Pocket Parks:** Are typically small POS, they can be green or urban with a combination of soft and hardscape elements common. They usually provide a localised passive recreation function. Two pocket parks were found within the 15 minute walkable catchment.
- **Local POS:** Like pocket parks, local POS typically includes parks which provide a primary passive recreation function. They provide opportunities to bring greenery into urban areas, providing quality amenity, visual outlook, and tree canopy.
- **Neighbourhood POS:** Vary in form and function, they are highly flexible spaces which can provide a balance of passive recreation, active recreation, and formal sport. In regional centres such as Broome, these spaces also provide functions beyond the immediate catchment and can serve as highly flexible and important event spaces.

The overall public open space network provides for a variety of uses. The assessment has determined that there is currently an approximate 12.4 ha of useable POS, with an additional 'other' spaces which provide drainage or ecological functions. The MESP has considered the type, size and function of POS areas proposed for the Site.



Broome Recreation & Aquatic Centre



Kerr Park

SITE AND CONTEXT ANALYSIS

P2 - Table 8: POS Hierarchy

TYPE	SIZE	FUNCTION	EXISTING POS
Pocket 200m / 3min walk	<0.4Ha	Passive Recreation Passive Recreation Passive Recreation	+ Mackie Park (0.18ha) + Sibasado Park (0.24 ha) + 13 Chippindall Place, Cable Beach 6726 (0.073 ha)
Local 400m / 5min walk	0.4 Ha - 1 Ha	Passive Recreation	+ 1 Marul Road, Cable Beach 6726 (0.645 ha) + 1 Warnangarri Lane, Cable Beach 6726 (0.554 ha)
Neighbourhood 800m/10 min walk	1Ha - 5 Ha	Passive Recreation Active Recreation Active Sport	+ Solway Park (28 de Marchi Road, Cable Beach 6726, 2 ha) + Kerr Park (Lot 2241 Nightingall Drive, Cable Beach 6726, 1.28 ha) + Woods Park (2.2ha) Lot 633 + Sibosado Street, Cable Beach 6726 (3.6 ha) + Solway Park, Cable Beach 6726 (1.6 ha)
District 2k from home	5 Ha - 15 ha	Active Recreation Active Sport	+ Broome Recreation and Aquatic Centre*
Other	NA	Natural Reserves and drainage	+ Lot 2108 Taylor Road, Cable Beach 6726 + 1 Matthews Road, Cable Beach 6726 + 1 Smirnoff Place, Cable Beach 6726 + 28 de Marchi Road, Cable Beach 6726 + 1 Harman Road, Cable Beach 6726 + Lot 2108 Taylor Road, Cable Beach 6726 + 2 Glenister Loop, Cable Beach 6726 + Lot 2626 Palmer Road, Cable Beach 6726 (1.1 ha)
USEABLE POS			12.4 ha

*POS not within MESP walkable catchment area, however provides a high quality district POS within 2km of the precinct. Excluded from total POS calculations.

COMMUNITY INFRASTRUCTURE

*A similar analysis was undertaken to understand the provision of community infrastructure, as demonstrated in **P2 - Table 9** there is good access to a range of uses in the locality.*

P2 - Table 9: Community Infrastructure

TYPE	NAME AND FUNCTION
Community services	Kimberley Kids Child Care Centre Broome Veterinary Hospital Community Health Centre
Recreation	Broome Recreation and Aquatic Centre
Civic	Victory Life Broome (Church) Broome Seventh-Day Adventist Church & Overflow Caravan Park
Education	The University of Notre Dame Australia Broome Campus North Regional TAFE - Broome Campus St Mary's College Secondary Campus St Mary's College Primary Campus Cable Beach Primary School

*Community infrastructure not within MESP walkable catchment area, however provides an important service in close proximity.

2.3.3 SITE CONDITIONS

The Site spans over 10 hectares, as it was previously designated for recreation and drainage the existing site conditions are comprised of dispersed vegetation with numerous informal walking tracks which are well used by local community members. Of most importance to the MESP, is the Site's interfaces (as shown on **P2 - Figure 5**). If it is to be developed for future residential development, the following requires consideration:

- + An approximate 2m wide paved path runs the length of the northern boundary, this interfaces with existing low density residential properties which mostly include fencing and limited passive surveillance. To enhance the safety of this path improved passive surveillance is desired.
- + A number of existing cul-de-sacs are also present on the northern interface (further commentary is provided below).
- + To the south, the Site interfaces with Cable Beach Primary School. The school currently includes fencing and is closed off to the public for security reasons. How future development interfaces with the school will also be important.
- + With no existing road connections, it is expected that the condition of these interfaces will change with new development and road access likely.



A



B



C



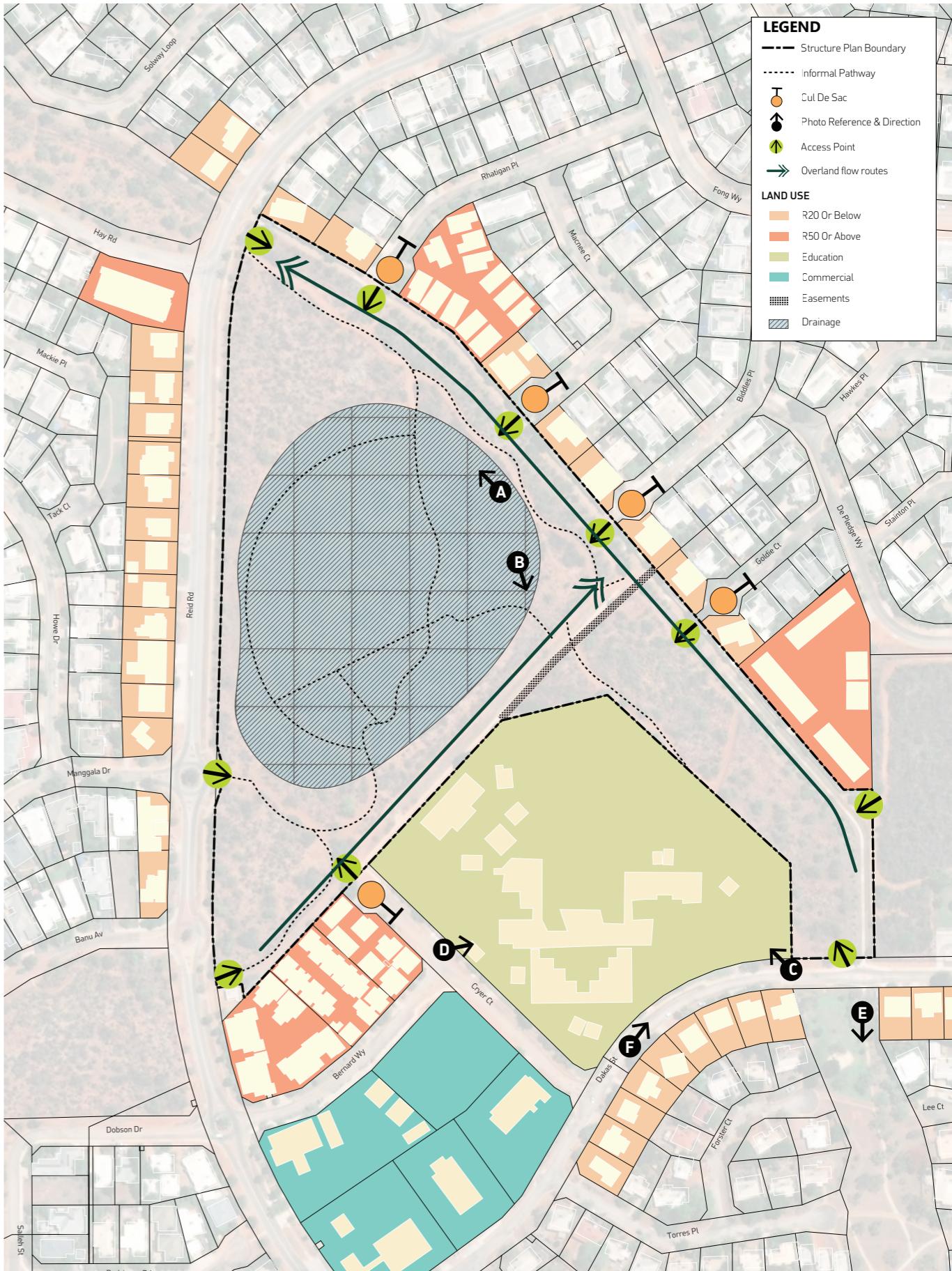
D



E



F



2.3.4 WATER MANAGEMENT

Initially the existing conditions of the site were conducted through desktop research, previous studies and information provided by Shire of Broome. This information enabled an overview of the existing hydrology in terms of the drainage on and off the site.

This overview is structured as an initial description of these features both locally and over a wider area and then distilled into a set of potential water management issues and opportunities for the site, having regard for the various design principles and elements related to urban water management.

EXISTING DRAINAGE

1. The site contains an existing drain that accepts stormwater from areas to the east and south of the site (**P2 - Figure 5**). The drain flows in a generally westerly direction towards Cable Beach, eventually discharging to a dune swale to the west of Gubinge Road (Cardno 2016).
2. Pre-development scenario modelling demonstrates that the drain would not overtop into the broader site. LWMS provided as **Appendix 3** proposes regrading to ensure flow rates and pollutants are managed and slopes graded to 1:6 to ensure safe egress is maintained.
3. Soils in the area have relatively low hydraulic conductivity and thus infiltrate water slowly. This affects the type of drainage structures that can be utilised. The LWMS provided as **Appendix 3** confirms pindan soils present in the area are not conducive to infiltration management strategies.
4. The site is located adjacent to the Cable Beach Primary School which has a groundwater licence for 7000 kL for the Canning-Broome aquifer in the Broome Groundwater Area, Townsite Sub-area. The groundwater beneath the Broome town site considered generally unsuitable for irrigation purposes given the high salinity risk and new private bores are discouraged.

Consequences of Existing Conditions for Design

The low hydraulic conductivity associated with the relatively high frequency of large intense cyclonic rainfall events in Broome means that appropriate sizing of the drain and stormwater detention and treatment systems is important for design processes. An area will be required for a vegetated stormwater detention area or similar to maintain pre-development flows off the lot in events up to the 1% AEP event as per DWER (2008).

Consistent with the Decision Process for Stormwater Management in Western Australia (DWER 2023) the first 15mm of stormwater will be retained/detained and treated as close to the source as possible. This will be accommodated as part of the vegetated detention areas.

Although Cable Beach Primary School has a ground water licence, given the salinity risk of groundwater in the Broome Townsite area, use of bore water for the MESP is discouraged.

Further details and considerations to water management are provided in the LWMS provided as **Appendix 3**.

URBAN WATER ISSUES AND OPPORTUNITIES

The site observations described above and represented in **P2 - Figure 5** have informed the urban water issues and opportunities summarised in the following section. They are categorised into Existing Drain, Inflows from Offsite, Vegetated Detention Area(s) and Water Sensitive Urban Design (**P2 - Table 10**).

P2 - **Table 10: Summary of Urban Water Opportunities and Constraints**

Feature	Opportunities	Constraints
EXISTING DRAIN	<ol style="list-style-type: none"> 1. Existing drains offer opportunities for addition of vegetation for nutrient and sediment stripping in lower flow events. 2. Opportunity to relocate open drain, particularly in the South East, although this may require additional WSUD vegetated detention areas. 	<ol style="list-style-type: none"> 1. Existing open drains convey runoff primarily from external catchments. 2. Existing open drains are deep and appear to carry significant flow. Thus, swales will need to be upgraded to meet the design standards of LPP 5.22. These may possibly be changed into wider, shallower drains. 3. Alterations to the existing open drains must consider the impact on the existing flood behaviour and extent, this includes landscaping changes to the drains. 4. Piping of existing drains is unlikely to be acceptable to Department of Water and Environment Regulation. 5. It is expected that the water network will meet the standards of best practice.
INFLOWS FROM OFFSITE	<ol style="list-style-type: none"> 1. Overland flow routes from external catchments may be diverted around the site. 	<ol style="list-style-type: none"> 1. No existing road drainage on Reid Road. The current system may have a negative impact on road safety and existing flood protection of properties on the western side of the road. 2. Overland flow routes from Rhatigan Pl and Macnee Ct to the open drain must be maintained.
VEGETATED DETENTION AREA(S)	<ol style="list-style-type: none"> 1. One primary vegetated detention area for detention and stormwater treatment at the drain outlet (northern corner) to treat stormwater and maintain predevelopment flows is likely the most efficient design. Options for multiple WSUD vegetated detention areas can be investigated if this is a better use of space. 2. Overland flow routes from external catchments may potentially be diverted around the site and not connected to site vegetated detention areas. 	<ol style="list-style-type: none"> 1. Additional detention/WSUD vegetated detention areas may be required to achieve storage volumes and treatment area pending site constraints at the primary vegetated detention area.
WATER SENSITIVE URBAN DESIGN (WSUD)	<ol style="list-style-type: none"> 1. To preserve space, gross pollutant traps (GPTs) may potentially be used to manage sediment prior to WSUD vegetated detention areas. 2. Groundwater of a suitable quality appears to be available for allocation for Public Open Space irrigation. 	<ol style="list-style-type: none"> 1. Local drainage soak pits may not be viable due to the soil type pending soil testing results.

2.3.5 PEOPLE MOVEMENT

CHARACTERISTICS OF THE CURRENT AND PLANNED MOVEMENT NETWORK

The site is within close proximity to a number of key education, community, recreation and retail facilities, which makes it ideal to provide good walking/cycling/wheeling connections to support local journeys to these destinations. In most cases, there are existing connections. In the future, to make a more comfortable and legible movement network, upgrades to these connections should incorporate wider sealed shared footpaths, more shade and rest stops for pedestrians, wayfinding and landscaping.

EXISTING ACCESS AND LINKS WITHIN THE PRECINCT AND SURROUNDINGS

Existing conditions of the site were conducted by desktop research, information presented on local websites, including the Shire of Broome, Broome Explorer Bus and Yawuru (the traditional owners of the lands) as well as detailed site inspections and walk throughs. This information enabled an overview of the existing transport features in terms of infrastructure surrounding and linking to the site. This has informed the issues and opportunities for people movement and connections to key destinations and land uses. This overview is structured as an initial description of these features both locally and over a wider area and then distilled into a set of potential transport issues and opportunities for the site, having regard for the various design principles and elements prescribed in transport planning and structure plan guidelines.

LOCAL ACCESS FEATURES

There are existing paved paths connecting the Site in all three directions to surrounding land uses. Linked to these paths is a continuous pathway around the perimeter of the Site, which is partly sealed and partly unsealed.

The west of the Site is bordered by Reid Road which is a local distributor road that provides a 60km/h vehicle link to the wider Broome area and its amenities. Adjacent to Reid Road is a continuous sealed path that is to be retained for pedestrian access along the western boundary of the MESP. The path width is suitable for pedestrians, but not wide enough to be a shared pedestrian/cycling path. Along Reid Road there are unmarked pedestrian crossings with median refuge islands at three locations, two of which are at the existing roundabouts adjacent to the site. The local access roads connecting to the site are shown in **P2 - Figure 6**, these have parking on both sides and are considered too narrow to be used as through roads for traffic accessing the site.

WIDER ACCESS AND MOVEMENT

Considering the Site within a wider context in **P2 - Figure 7** it is within a short walking/cycling distance to a number of key Broome amenities and destinations. The TAFE, Broome Recreation and Aquatic Centre (BRAC) are within 15 minutes-walk to the north-east; the local shops, primary school, child care and Nyamba Buru Yawuru are within 5 minutes-walk to the south-east; and Cable Beach is a 25 minute-walk to the west. Whilst there are existing paved paths linking to these destinations, it is noted that there is minimal shade or rest stops provided along these routes, which would be a barrier to using these links in the hot local climate.

P2 - Figure 7 shows that Reid Road forms the main road spine of the site and connects the site by road to the wider Broome area, including the town centre, industrial area, and university in the southbound direction and the TAFE, BRAC, major supermarket and airport in the northbound direction.

The existing paths and trails in the wider Broome area have been mapped as part of the Shire of Broome Recreation Trails Master Plan. It shows that there is one key run/walk loop to the north of the site, along Cable Beach Road and one cycle loop to the west of the site along Gubinge Road. There is also an extensive network of existing footpaths in the surrounding neighbourhood streets.

The Broome Explorer Bus is the closest regular transport service available for public use to the site, with two bus stops for this service at least 15 minutes-walk away to the north-east of the site on Cable Beach Road. A school bus route operates twice daily to link to local primary and secondary schools and passes closer to the site along Reid Road, Dakas Street and Fong Way/Taiji Street.

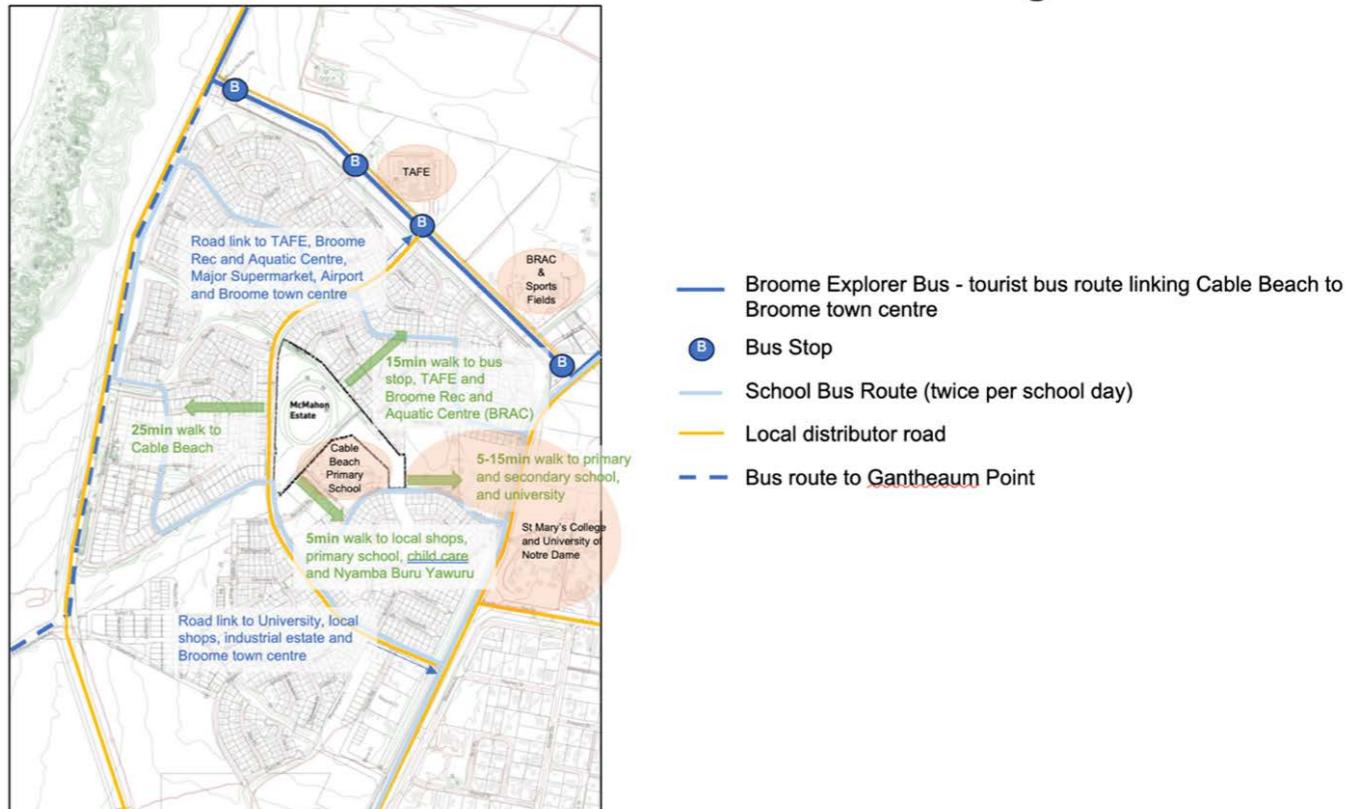
SITE AND CONTEXT ANALYSIS

McMahon Estate Local Access Features



P2 - Figure 6: McMahon Estate Local Access Features

McMahon Estate Wider Access and Movement Existing Context



P2 - Figure 7: McMahon Estate Wider Access and Movement

TRANSPORT ISSUES AND OPPORTUNITIES

Following the site observations described above and represented on **P2 - Figure 6** and **P2 - Figure 7**, the transport issues and opportunities are summarised from these observations in the following sections. They are categorised into Active Transport, Public Transport and Roads.

ACTIVE TRANSPORT

New pathways connecting the McMahon Estate development, to existing paths along Reid Road, Bernard Way and Dakas Street are recommended to provide direct links between the new McMahon development and local schools, university, community and retail sites. A new, direct pathway connection from the north of the Estate through to Cable Beach Road via Taiji Way, would provide an efficient, active transport link to the Broome Recreational & Aquatic Centre and existing bus stops. This new pathway connection would also improve connectivity between the existing residential areas north of McMahon Estate and Cable Beach Primary School and the IGA shopping centre on Dakas Street / Reid Road. The details of these opportunities and constraints are described in **P2 - Table 11**.

The recommended active transport routes on which to focus design improvements and enhance connectivity to nearby destinations are shown on **P2 - Figure 6**. It also shows how these recommended paths connect to existing paths and trails in Broome, as shown in the Broome Recreation Trails Master Plan.

P2 - Table 11: Summary of Active Transport Opportunities and Constraints

Opportunities	Constraints
<p>Short distance from the perimeter of the site to local education, employment, recreation and retail, providing opportunity for healthy, affordable access by all active transport modes to these activities (including e-mobility devices).</p> <p>Opportunity to create direct, higher quality path connections benefiting the existing residents and new residents in the McMahon Estate, to link:</p> <ul style="list-style-type: none"> East-west route: connecting Reid Road to Childcare, 2 x primary schools, high school and Notre Dame university North-south route: connecting existing and new residents, and the primary schools, through to recreational centre / pool on Cable Beach Road Western route: connecting Reid Road through to Cable Beach (jobs, recreation) <p>Opportunity to include wayfinding and sheltered rest points along these priority routes to strengthen these links and encourage active mode trips.</p> <p>Opportunity to upgrade existing path around the perimeter of the site to a formal shared path to encourage safe, comfortable access for people walking and using all wheeled active transport modes (including e-scooters, bikes).</p> <p>Opportunity to create triangle of walking/cycling connections between all three Yawuru sites. Possibly tying in with design of local rest stop that exists at corner of Reid Road and Banu Avenue.</p> <p>Opportunity to provide a cycle/shared path along the western side of Reid Road as the existing sealed footpath is too narrow to be a shared path used by both pedestrians and cyclists.</p>	<p>Only a narrow-sealed footpath on the eastern side of Reid Road, adjacent to the site, no wayfinding, shade or cycle path. Remainder of path around perimeter of site is inconsistent – either unpaved or partly paved.</p> <p>Only pedestrian crossings on Reid Road are unmarked pedestrian crossings with median refuge islands.</p> <p>Hot and humid summer climate prevents people from walking long distances. Public transport alternative is also required to support accessibility.</p> <p>Encouraging safe behaviour and providing wide paths with enough space to comfortably share between different active transport modes (or protected on-road routes for faster wheeled modes) is needed to address safety issues and conflict.</p>

PUBLIC TRANSPORT

There are no public transport services operating in Broome currently. The only transport service available to the public is a local tourist bus that runs hourly. There is also a school bus service during morning and afternoon drop off and pick times. There is greater opportunity to increase the coverage and frequency of the services to better serve the existing residential areas and the new residents of McMahon estate, as discussed in **P2 - Table 12**.

The opportunity to divert the existing bus route to better serve residential areas surrounding McMahon Estate and the new residents of the study area is illustrated in **P2 - Figure 6**.

P2 - Table 12: Summary of Public Transport Opportunities and Constraints

Opportunities	Constraints
Divert bus route around Reid Road to better serve existing residential areas either side of the road, and new residents in the McMahon Estate.	Mainly a tourist route, which doesn't reach McMahon estate and surrounding neighbourhoods. Minimum 15 minutes-walk away from north-eastern edge of site.
Increase frequency of service to better serve local population trips for all residents in the area.	Limited frequency (1/hour).
Increase frequency of school bus route to also serve local community to reach employment, health, retail and leisure destinations in Broome.	Only one service in the morning and in the afternoon to coincide with school start and finish times.
Advocate for implementation of public transport bus services in Broome.	The lack of public transport in Broome limits options outside of the Broome Explorer tourist bus.

ROADS

The only road with current vehicle access to the Site is Reid Road, on the western edge of the site. It already has two roundabouts along the perimeter of the site, which could be opened up to the site to provide vehicle entry/exit points.

P2 - Table 13: Summary of Roads Opportunities and Constraints

Opportunities	Constraints
Reid Road forms the spine of the site as the main distributor road linking the site to amenities in wider Broome. Links to Cable Beach Road to the north and Port Drive to the south.	Challenges with providing new road connections (for vehicles) to the local access roads adjoining north east of the site's perimeter due to the available space to connect to the end of these cul-de-sacs and changes in the traffic flow along these streets for existing residents.
Existing roundabouts at Mangala Drive and Banu Avenue will provide good entry/exit points for vehicles to McMahon estate.	
Opportunity to undertake road upgrades to Cryer Court simultaneously with the new connection to the MESP to provide improved amenity, safety and functionality and to address issues with kiss and drive arrangement for Cable Beach Primary School.	

2.3.6 ENVIRONMENT

Previous reporting of environmental conditions has been completed as part of the Business Case in 2021.

LANDSCAPE FEATURES

As noted in the McMahon Estate Business Case (2021) the Site sits within Pindan Country which traditionally is dominated by grassy woodland vegetation with eucalyptus and wattles. Areas of the site appear to be remnants of this vegetation type, though large areas have been cleared or disturbed.

The site connects to landscaped corridors to the north-west and south-east boundaries. The north-east corridor provides a stormwater drainage function, whereas the south-east corridor has been upgraded to a public park and provides a pedestrian connection. This Green link has been maintained to connect the ECC to the immediate west of the site.

TOPOGRAPHY

Surface contours show levels ranging on site from 16m to 20m AHD. There is a depression/low point at the centre of the site that is surrounded by a circular shaped bund. This elevated area on the site may offer views points and enable developments to provide passive ventilation through breezes. A feature survey should be undertaken to confirm current levels and features prior to any detailed engineering or design.

CLIMATE

Six seasons have been identified in previous reporting, each of which bringing differing climatic and wind conditions:

- + Wet season Man-gala (December-March) - winds from north-west
- + Hot season Marrul (April) - No wind
- + Cool season Wirralburu (May-June) - winds from south-east
- + Cold season Barrgana (June-August) - dry wind from south-east
- + Warming-up season Wirlburu (September-October) - winds from west
- + Hot season Laja (October-November) - hot ground, inconsistent rain

Stormwater management is considered through the Local Water Management Plan and design of the MESP to adopt urban water management principles to ensure an improved outcome from the current stormwater discharge that occurs from the site.

FLORA AND FAUNA

- + There are no declared threatened ecological communities (TEC's) relevant to the subject sites. In accordance with the Department of Biodiversity, Conservation and Attractions' priority ecological communities (PEC's) list, there are PEC's which may be present in the Broome township area and relevant to the MESP site. These include *Corymbia paractia* and wattle thicket shrublands.
- + Engagement outcomes indicated the presence of fauna on the MESP site, inclusive of marsupials, possums and bird species.
- + A feature survey, ecological and arboriculture assessment will be required to determine whether PEC's are present on the MESP site.

SOIL CONDITIONS

- + There is potential risk for acid sulphate soils to be present on site due to the proximity of the site to the coastline and the influence of Dampier Creek. Risk of groundwater and waterway contamination associated with acid sulphate soils from earthworks may need to be managed. A search of the Department of Environmental Conservation's contaminated sites database confirms that the subject site is not classified as contaminated and therefore does not require further investigation. Given the historic use of the subject site, there is minimal risk of soil contamination from previous land uses

2.3.7 PHYSICAL INFRASTRUCTURE AND SERVICES

POWER

Horizon Power (HP) is the power servicing utility in the Town of Broome. There are currently overhead low and high voltage (LV and HV) services running along overhead power poles on the western boundary of the site along the western verge of Reid Road, as well as LV underground services in the western verge. Along the north eastern boundary of the site there are underground HV distribution services running within the subject site boundary. There are also two substations in close proximity to the site on Macnee Court and Reid Road near Banu Avenue. Once a concept plan in terms of lot yield and demand is better known, a servicing request to HP is recommended to determine what capacity there is in the existing network or any upgrade requirements. Given recent experience with the network capacity in Broome and the size of the site, it is likely the site would require a transformer however this would need to be confirmed with HP. Further to the existing power provision approach described above, there is the opportunity to explore solar and community battery infrastructure in the MESP in future.

COMMUNICATIONS

The Broome townsite has already been converted to NBN Co broadband under the Brownfields Rollout and the subject site falls within NBN Co's Fixed Line Footprint, in which case NBN Co must accept responsibility for the provision of telecommunications infrastructure, should the Developers/s wish to engage NBN Co. There is existing Telstra infrastructure in the general site area, with copper services along the western boundary of Reid Road to the west of the site, as well as copper services along each of the cul-de-sac streets to the NE of the site. There is also Telstra mains cables including optic fibre running along the western verge of Reid Road. A new development would likely attract the installation of NBN network, and this would need to be confirmed with service providers once proposed use and likely yield is known.

GAS

Gas reticulation services are not available in Broome and any site of lot requirements for natural gas will be facilitated through on site tanks.

WATER

Water Corporation ESINET mapping shows existing water reticulation services in the area with surrounding residential areas serviced by the Water Corporation, and the mapping is currently showing two service connections on the western side of the site, although meter sizes and capacity is unknown. It is likely that the subject site could be serviced via an extension of the network with internal connection through proposed future road reserve, connecting the existing service on Reid Road to the eastern boundary on one of the Cul-de-sac streets. This will need to be confirmed with Water Corporation once demands and yields are known and capacity can be confirmed. Standard Water Corporation headworks charges would likely apply to the development with a standard residential meter required per lot, with a large meter/contribution for any grouped housing sites.

WASTEWATER

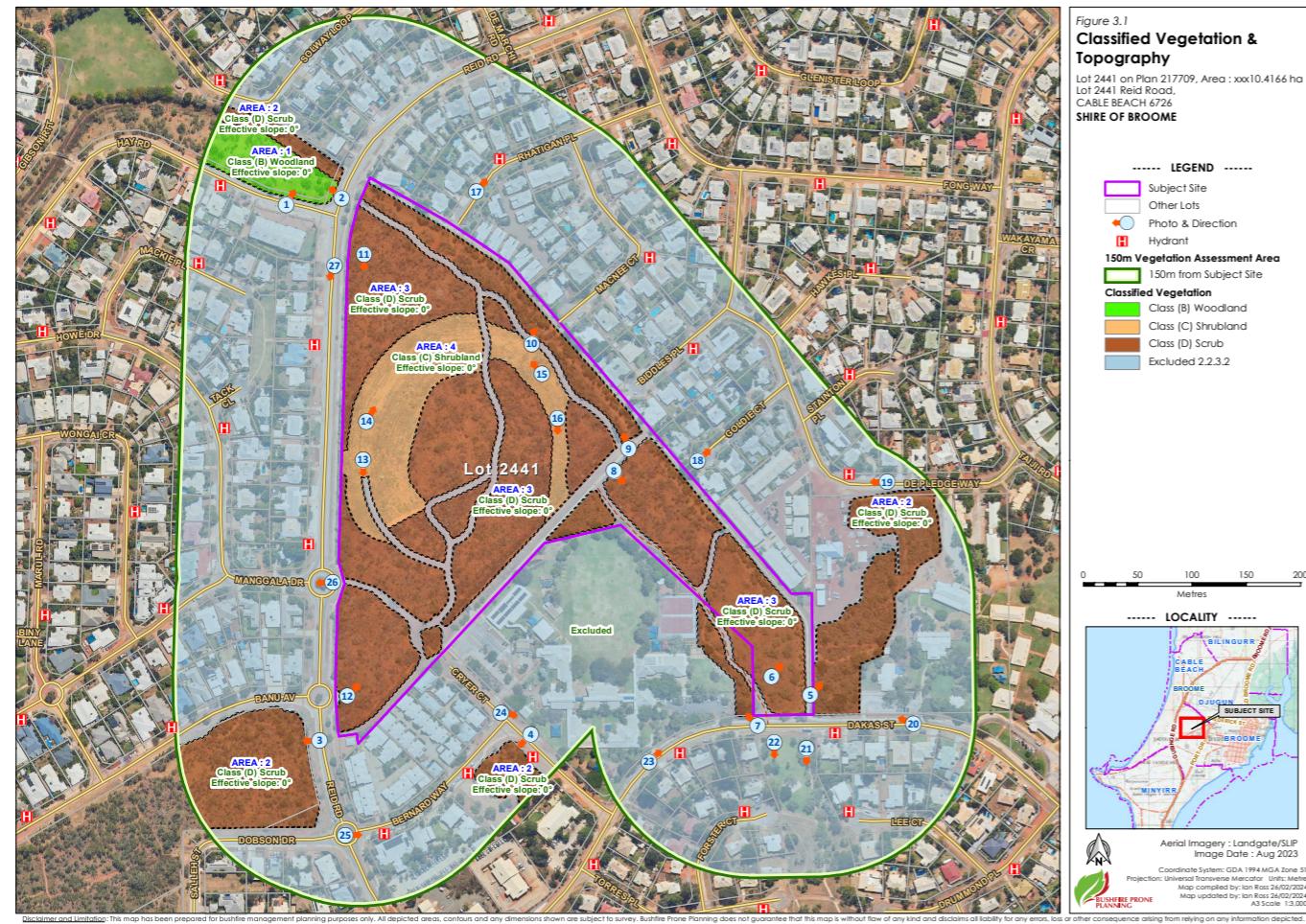
Water Corporation ENSINET mapping shows existing sewer reticulation services in the area with surrounding residential areas serviced by the Water Corporation via gravity sewer. Although the site is currently not serviced, the existing infrastructure within the site would be a likely point of connection and extension and would provide suitable property connections to lots as required. The Water Corporations long term planning maps include the site and future development flows discharging into the catchment which leads north to the Broome Pump Station 5 on Cable Beach Road East. Proposed connection and extension requirements would need to be confirmed with the Water Corporation once further demands and yields are better known. Standard Water Corporation headworks charges would likely apply to the development with a standard residential connection per lot with a potential larger connection for any grouped housing sites.

2.3.8 BUSHFIRE

BUSHFIRE AND EXISTING LANDSCAPE / VEGETATION

As set out in **P2 - Table 1**, the Site is classified as being 'bushfire prone' and this SP will therefore need to meet the requirements of SPP 3.7 - Planning in Bushfire Prone Areas. A preliminary bushfire assessment was undertaken to understand the potential risks and implication for the Site.

P2 - Figure 8 includes an analysis of preliminary site mapping to support concept planning. It identifies and maps all vegetation required to be classified both on and external to the Site.



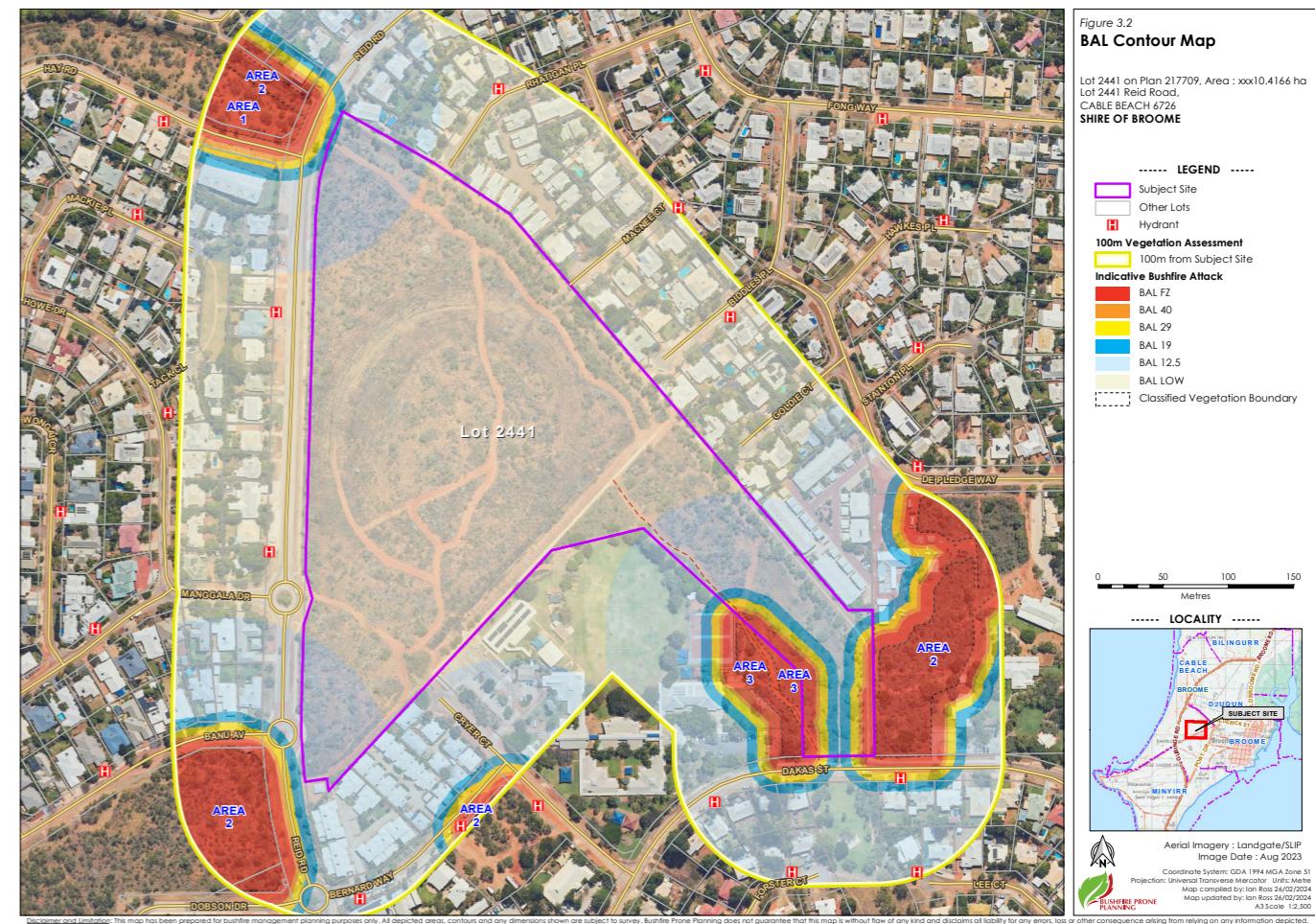
P2 - Figure 8: Classified Vegetation & Topography

Source: Bushfire Prone Planning

BUSHFIRE AND EXISTING LANDSCAPE / VEGETATION

Bushfire Attack Level (BAL) Contour Mapping has also been undertaken (**P2 - Figure 9**), it indicates that post subdivision/development there will be BAL implications for future buildings, particularly in the south eastern portion of the Site north of Dakas Street. Key items for consideration in the concept design process include:

- Retention of vegetation or re-vegetation within the Site must be able to undergo management/seasonal maintenance to not impact bushfire attack levels for future buildings (parkland cleared POS etc.);
- Future buildings must be sited in/achieve BAL-29 or lower.
- Drainage swales can impact bushfire attack levels if they retain native vegetation/grasses and are left unmanaged. Consider construction and design treatments;
- Consider road design to separate future buildings and external vegetation (or retained on-site vegetation);
- All roads should be through roads. Limit the use of cul-de-sac's. Where unavoidable the length of the cul-de-sac road not to exceed 200m;
- Staging of subdivision/development must ensure public road access to be provided in two different directions to at least two different suitable destinations;
- Reticulated area – hydrant location standards for residential areas.



P2 - Figure 9: BAL Contour Mapping

Source: Bushfire Prone Planning



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RESPONSE TO CONTEXT



3.1 OPPORTUNITIES AND CHALLENGES

3.1.1 OPPORTUNITIES

- ① Provide new opportunities for additional housing in Cable Beach which is diverse and affordable.
- ② Develop a design response which establishes new public open spaces that leverage off existing vegetation and topography.
- ③ Provision of an integrated movement network that enables safe connections for all transport modes.
- ④ The site is positioned in a strategic location in close proximity to the beach, schools, and community facilities. This presents the opportunity to link high quality shared paths to support travel to these key destinations. Recommended active transport routes are illustrated.
- ⑤ Diverting the bus route to travel along Reid Road would greatly improve transport connectivity for future residents.
- ⑥ The run off drainage on site offers opportunities for water sensitive urban design.
- ⑦ Due to the current road network, future streets within the site can connect to existing roundabouts.
- ⑧ There are significant landscaped connections that the site can leverage off and build on. These landscaped areas can provide a comfortable environment or pedestrian pathways.

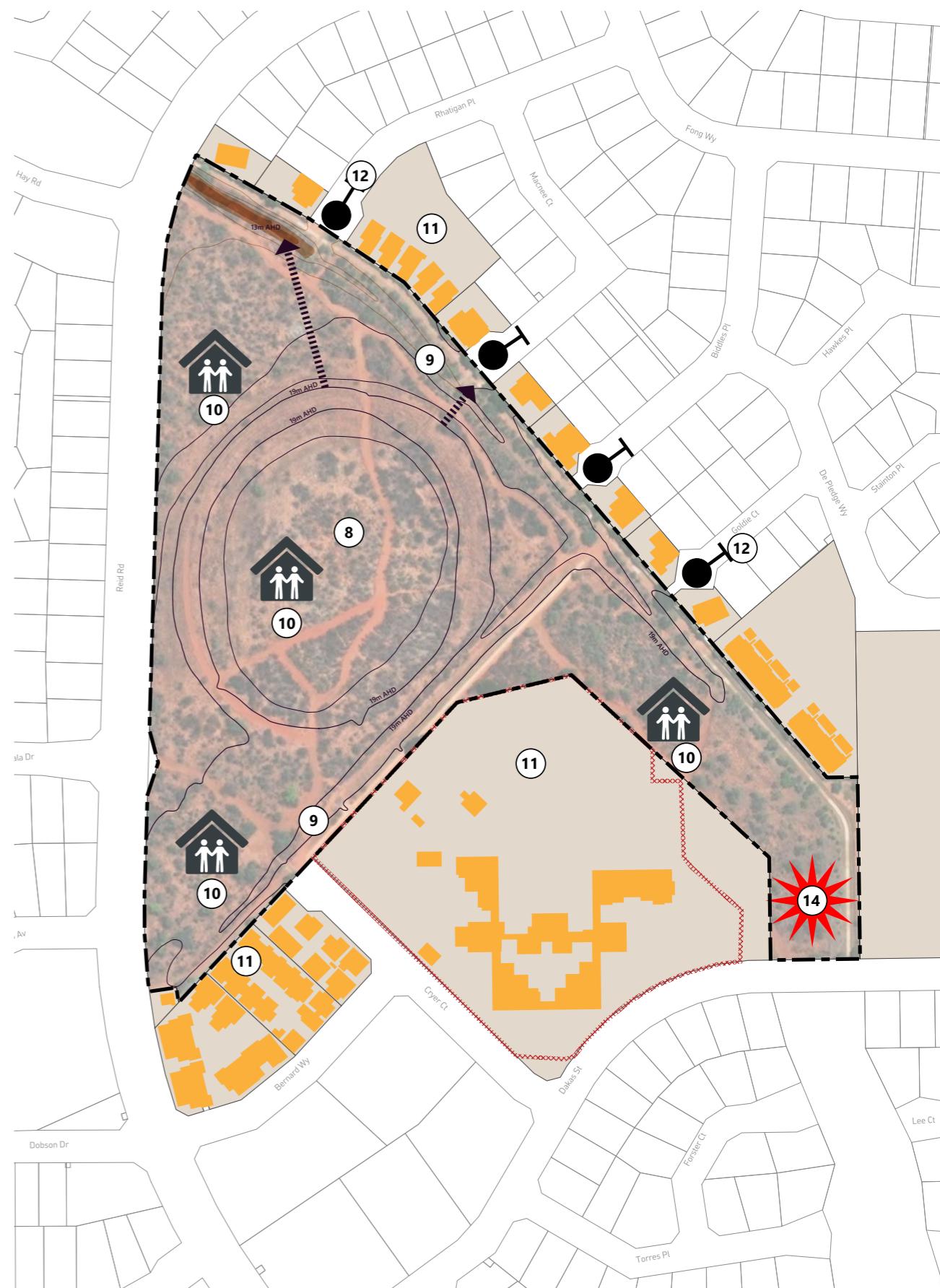
RESPONSE TO CONTEXT



3.1.2 CHALLENGES

- ⑨ Ensure the established vegetated detention areas along the northern and southern boundaries are not impacted by the development footprint so the drainage approach for the site maintains consistency with pre-development conditions.
- ⑩ Site and lot layout as well as future housing design will need to respond to site levels and topography. Particularly with regard to the depression at the centre of the site.
- ⑪ The site interfaces with existing residential properties along its northern boundary and a primary school to the south. The proposed design will need to ensure careful management of this interface. If public open space and/or pathways are provided, they will need to be designed in accordance with CPTED principles.
- ⑫ The site interfaces with a number of existing cul-de-sacs along its northern boundary. These connect into existing low-density areas. There is community concern about opening up these connections for vehicle access. The cul-de-sacs are not being opened as shown in P1 - Figure 2: MESP Structure Plan Map.
- ⑬ The irregular shape of the site will influence site and lot layout.
- ⑭ Consider retaining ecological connection to bushland corridor to the south adjoining Dakas Street.

RESPONSE TO CONTEXT



P2 - Figure 11: Site Challenges



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STAKEHOLDER AND COMMUNITY ENGAGEMENT



4.1 ENGAGEMENT SUMMARY

In preparing the MESP, preliminary stakeholder and community engagement was undertaken across two phases in 2024, this process was led by Shape Urban with support from Hames Sharley.

A summary of the feedback received and the outcomes that have informed the MESP is provided below, with the full engagement report provided in **Appendix 1**.

PHASE 1: INITIAL COMMUNITY ENGAGEMENT

The purpose of the initial phase of engagement was to raise awareness of the project and seek inputs in to the concept plan. Engagement activities occurred from April to June 2024, including:

- + Discussions with five key stakeholder agencies and organisations providers.
- + Two meetings with the Community and Stakeholder Reference Group.
- + Online mapping tool for the broader community to share their values (73 comments received).
- + One written submission.

The first phase of engagement identified several key matters that were considered by the project team in developing concept plans for the site. Some of the key matters raised included:

- + Consideration of demographics being targeted and the type of housing that would be appropriate.
- + Consideration of the scale of proposed new housing and response to existing neighbouring properties.
- + Importance of maintaining existing ecological corridors.
- + Community expectation of retention of large areas of open space.
- + Importance of pedestrian pathways, particularly to provide access to the school.
- + Desire to retain the northern cul-de-sacs in current condition.
- + Consideration of drainage throughout the area and the impacts of hard surfaces.

PHASE 2: CONCEPT OPTIONS ENGAGEMENT

The purpose of phase 2 engagement was to seek community feedback on the three draft concept plans for the site. The three draft concept plans were developed to respond to community feedback from phase 1.

Engagement during phase 2 was undertaken in August 2024 and via:

- + One CSRG workshop
- + One community workshop (~20 attendees)
- + One community drop-in session (~ 40 attendees)
- + Four online surveys (33 responses)
- + One written submission
- + Meetings with Nyamba Buru Yawuru (NBY) and Yawuru Elders.

The feedback received did not suggest there was a preferred option overall, rather there were elements of each of the plans that should be considered in a refined option. Some of the key feedback included:

- + The new park to have native trees, grassed areas, paths and nature play.
- + The ecological/drainage corridor to have natural bushland, large shade trees, paths, opportunities for school engagement and lighting.
- + Movement networks should consider walking routes to school that minimise road crossings, surveillance to the park and enabling connections between Dakas Street and Reid Road.
- + Lower density housing is preferred.

This feedback informed the overall vision, objectives and concept design for the final revised MESP. This process ensured that the draft MESP responded appropriately to community feedback from the engagement process.

Engagement with NBY identified that there was an opportunity for the MESP to align with the [Mabu Liyan philosophy](#), how this relates to the MESP objectives is summarised in **P2 - Table 14**.

P2 - Table 14: Yawuru Mabu Liyan Framework

ITEM	MESP OBJECTIVES ALIGNMENT
1. Embraces activity and interaction for all ages	<ul style="list-style-type: none"> + Allocate density ranges which are flexible enough to accommodate a range of housing types in response to existing and changing community needs. + Provide guidance on the size, type, and functionality of open spaces facilitating interaction and exploration for people of all ages.
2. Uplifts spirit & heart, where people feel free and safe	<ul style="list-style-type: none"> + Roads and housing designed to maximise views out onto bushland providing visual and physical connections to nature and public open spaces (passive surveillance for safety). + Significant areas of natural bushland and public open space are being retained.
3. Celebrates art, Culture and history	<ul style="list-style-type: none"> + Future stages of the project to consider community involvement in public art and public realm design exploring opportunities to celebrate culture and history.
4. Builds relationships between Country and people	<ul style="list-style-type: none"> + Significant areas of natural bushland and public open space are being retained, including two defined ecological corridors which provide an opportunity for people to engage with Country. + Future stages of the project to consider community involvement in public realm design through planting of Yawuru plants to re-establish lost ecosystems. + Open space areas to be used for events and/or education, including partnerships with local schools and organisations.
5. Is self-sustainable	<ul style="list-style-type: none"> + Precinct is designed for climate resilience, with an urban structure and future lot layouts that reduce the impacts of urban heat island effect. + Urban water is managed on site to ensure no adverse downstream impacts towards Cable Beach.
6. Supports and strengthens community and family	<ul style="list-style-type: none"> + Introduction of new houses and public spaces breathes new life into the site supporting opportunities to build community.
7. Fosters good health and wellbeing	<ul style="list-style-type: none"> + Urban structure includes multiple spaces which encourage exercise and physical activity, with a clear network of connected and shaded pathways to local parks and destinations.



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DESIGN RESPONSE



5.1 VISION AND OBJECTIVES

VISION

A development that respects the existing qualities of the site and surrounding neighbourhood while providing an appropriate mix of housing options. New development is connected with nature through large open spaces and ecological corridors, supported by safe and accessible linkages which enhance connectivity to and through the site.

OBJECTIVES

The MESP vision is to be implemented through the following objectives:

- + **Contextual Sensitivity** – Ensure new development responds to the scale, character, and existing qualities of the site and surrounding neighbourhood.
- + **Housing Delivery and Diversity** – Provide an urban structure that enables delivery of a mix of housing options which support diverse community needs.
- + **Ecological Integration** – Retain and enhance ecological corridors with native vegetation, shade trees, and natural bushland to support biodiversity, stormwater management, and community wellbeing.
- + **Open Space Preservation** – Provide generous and accessible open spaces that balance passive and active recreation, incorporating retained bushland, nature play, grassed areas, and shaded seating.
- + **Connected Movement Network** – Establish a well-designed pedestrian and cycling network that ensures safe, direct, and enjoyable connections within the development and to key local destinations.
- + **Integrated Water Management Solutions** – Implement water-sensitive urban design principles to manage stormwater effectively, reducing hard surface impacts while enhancing green spaces and ecological function.
- + **Community-Centred Design** – Create inviting and inclusive public spaces that encourage social interaction, safety, and a strong sense of place through thoughtful landscaping, lighting, and passive surveillance from new homes.

5.2 COMMUNITY DESIGN

The Community Design objectives set out in LN outline a comprehensive framework for sustainable urban development. They emphasize minimising reliance on non-renewable energy and private vehicles by fostering self-sufficient neighbourhoods. This includes protecting key natural and cultural assets while promoting a sustainable urban structure that balances environmental preservation with efficient land use.

The goals prioritise the creation of safe, convenient, and attractive neighborhoods that cater to diverse community needs. They advocate for compact, walkable neighborhoods clustered around vibrant, mixed-use town centers, fostering local employment, social opportunities, and a strong sense of community. The approach should be site-responsive, ensuring that the MESP enhances local character while integrating seamlessly into the existing context.

A key focus is on providing an interconnected movement network that supports walking and cycling while distinguishing arterial roads from local streets. This network should aim to maximise safety, accessibility, and connectivity for residents. This should be delivered along a well-distributed network of parks and open spaces to ensure accessible, safe, and attractive recreational opportunities for all.

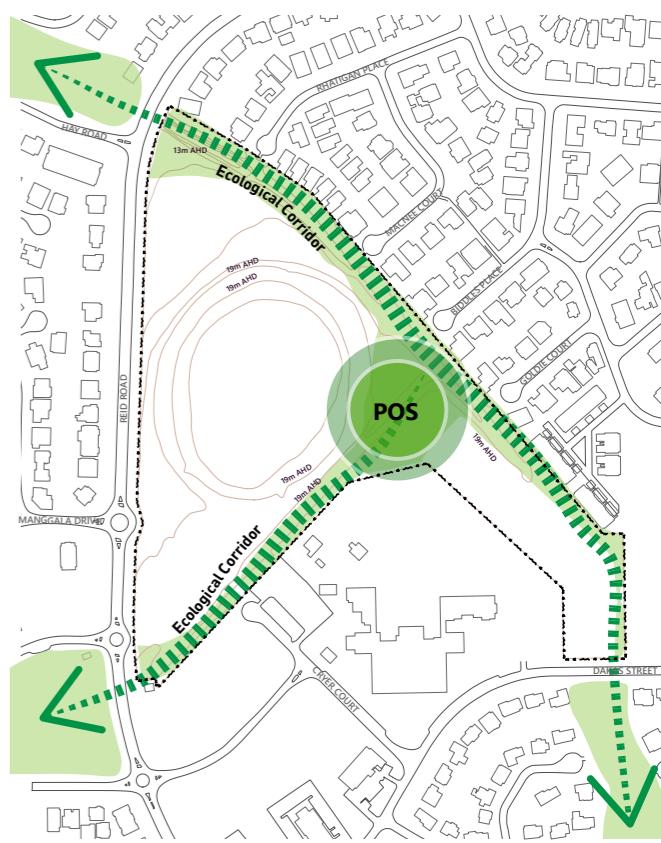
Environmental sustainability is central to these objectives, with considerations for urban water management and bushfire risk mitigation, and the protection of areas of natural or cultural significance. Best practices in water conservation and re-use are integral to maintaining ecosystem and public health.

How the MESP responds to the desired Community Design objectives set out in LN is described on the following 'design layers' diagrams which provide further detail and context.

DESIGN RESPONSE

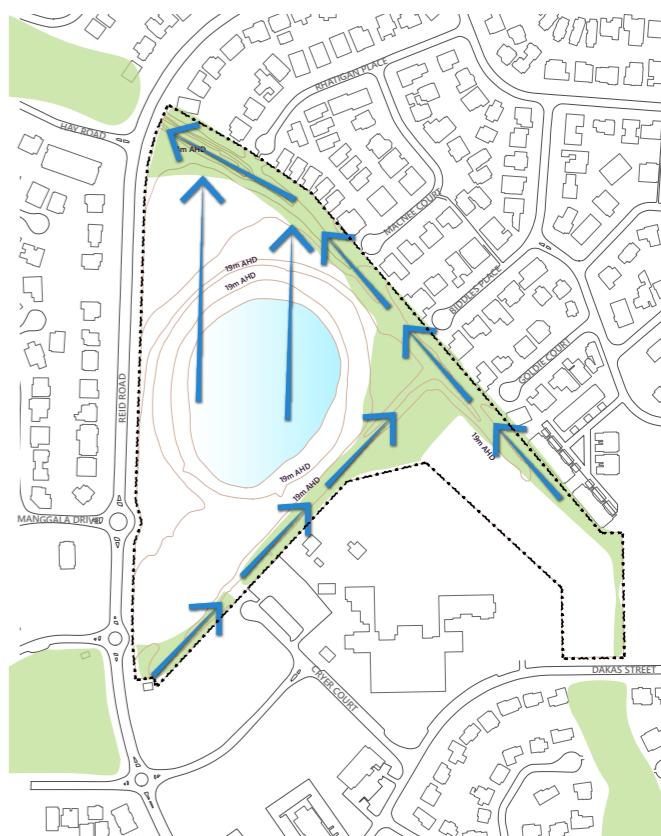
PUBLIC PARKLAND

- + The design enhances local identity by responding to the site's context and characteristics. This includes preservation of the southern and western ecological corridors which perform an important cultural and environmental role.
- + Large centralised active reserve (public open space) provided at the nexus of these corridors, central to the MESP and the surrounding residential catchment.
- + The design provides well-distributed parkland that contributes to the legibility and character of the site, enabling a range of uses and activities to occur.



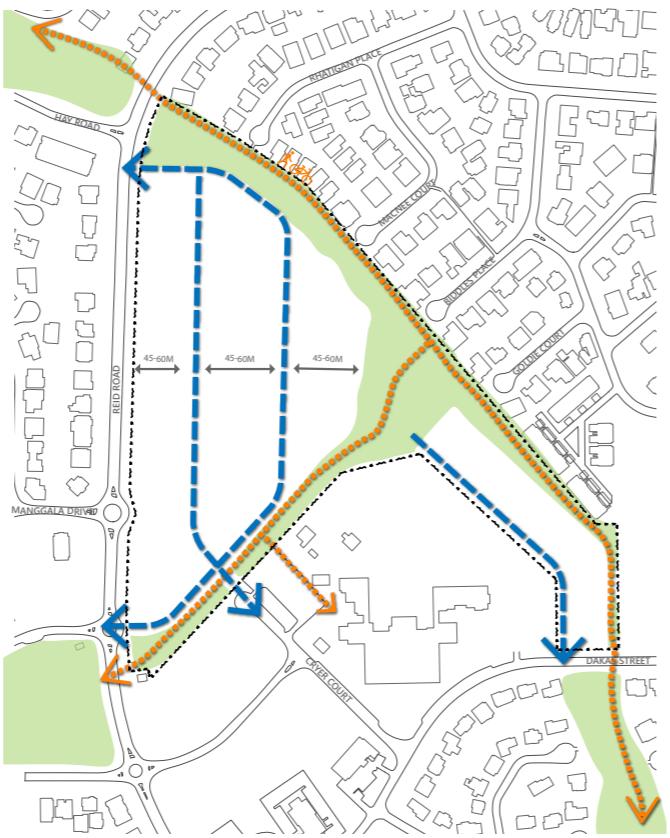
URBAN WATER MANAGEMENT

- + An integrated drainage approach is proposed, with multifunctional linear open spaces proposed. The width of the corridor is narrowed at key junctures to allow well integrated crossing points.
- + Site levels are proposed to be raised in central portion of the site (low point) to allow water to flow from new development areas into the drainage infrastructure.
- + All water is proposed to be transported to the northern corner of the site, through the culvert under Reid Road. It is essential that existing pre-development flows are maintained, as the drainage infrastructure cannot support additional post-development flows.



CONNECTIONS

- + Highly permeable and simple road network is proposed to ensure ease of movement to and through the site for all transport nodes.
- + New connections on Reid Road, Dakas Street, and Cryer Court are proposed to enable connectivity into the site enabling a permeable urban structure.
- + The design has carefully considered how the neighbourhood connects to existing residential areas. This included keeping all cul-de-sacs to the north closed.
- + Existing east-west and north-south paths are retained and co-located with linear parks to enable pedestrian and cyclist use.



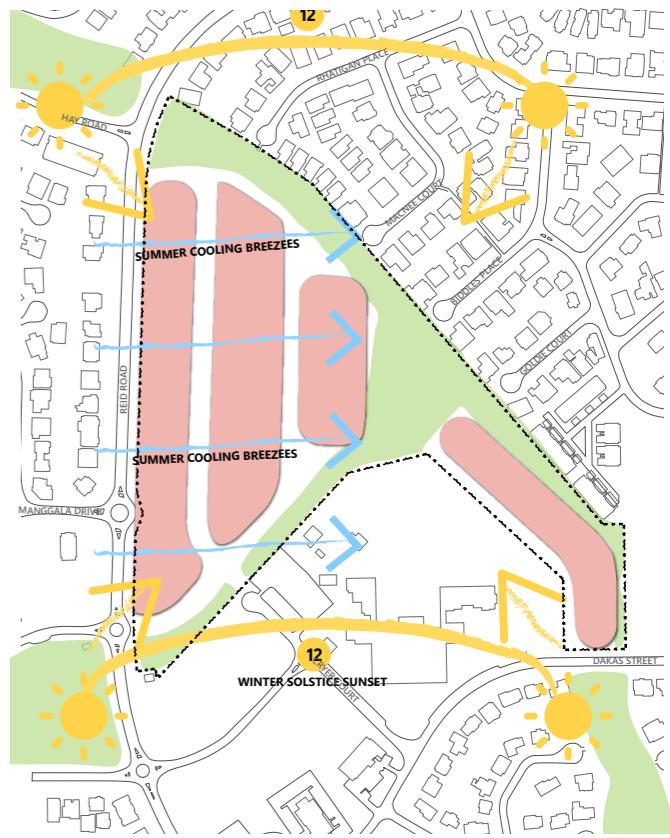
ARRIVAL EXPERIENCE

- + Promote an urban structure (street and lot layout) where every entry into the site has visibility to greenery.
- + New development on the western side of Reid Road to provide housing types which reflect existing development patterns.



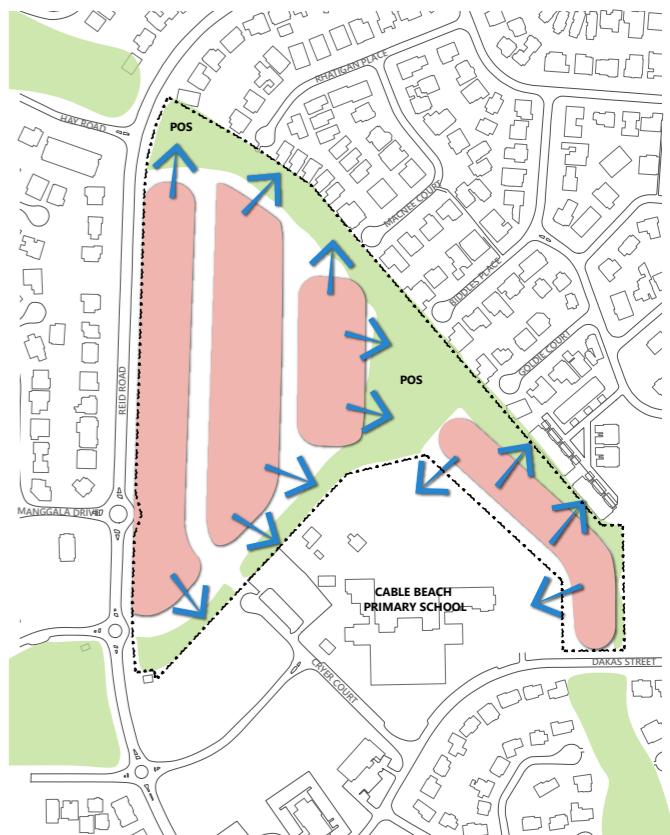
CLIMATE RESPONSE

- + All urban blocks prioritised in north-south orientation to allow east-west lots which optimise climatic conditions from a solar access perspective.
- + Lot widths are considered large enough to allow for installation of solar PV panels on eastern and western facing roof aspects to facilitate alignment with wet season peak power consumption.



SAFETY AND OUTLOOK

- + The lot layout provides for a mix of housing types, lot sizes and densities, with smaller residential lots and medium density housing in areas close to the parkland area promoting passive surveillance.
- + The design enhances personal safety and perceptions of safety and minimises potential for crime and vandalism by providing for streets and open spaces to be fronted and overlooked by streets and housing.
- + No houses are proposed to directly adjoin the Cable Beach primary School site.



5.3 MOVEMENT NETWORK

The proposed movement and access network is summarised below, for detailed analysis refer to [Appendix 2](#).

5.3.1 PROPOSED TRANSPORT NETWORK

ROADS

The engineering design of the streets within the MESP will be based on the Shire's subdivision and engineering guidelines, Liveable Neighbourhoods recommendations and storm water drainage requirements.

Street cross-sections will be designed to consider utility services, street trees, parking and paths. It is desirable for all utility services to be located on one side of the street with connections across the carriageway. This layout enables the planting of large trees with sufficient access to uncompacted soils within the opposing verge space. Road pavements will be constructed with an asphalt surface and kerbed to control drainage. The suitability of flush kerbs should be explored as there is potential for stormwater drainage to flow into the verge space, supporting tree health.

All internal roads are proposed to be Access Streets. The standard Access Street is proposed to have a 7.4m sealed road width (kerb to kerb) within a 20m road reserve. This leaves 6.3m verges on both sides which can accommodate embayed parking where required, a footpath on both sides of all Access Streets, and medium sized trees.

The road layout enables efficient vehicle and pedestrian access throughout the MESP area including to the local park and natural bushland.

PARKING

Parking for the MESP has been provided on the following basis:

- + Residential bays (including visitors) as per the R-Codes;
- + Pockets of parallel parking bays in proximity to the local park.

As illustrated on the MESP landscape design, 18 total public parking bays (all on street) are proposed.

PUBLIC TRANSPORT

The MESP and surrounding local neighbourhood would benefit from a regular local bus service connecting the area to local services. There is a medium-term plan (5-10 years) to support future expansion of the existing bus service in Broome to better cater for all residential areas, this expansion should consider the option of including a route covering Reid Road. The hot and humid climate often prohibits residents and visitors from walking and cycling as a mode of transport, further strengthening the benefit of extending the existing bus service to connect with the MESP and surrounding residential area.

PEDESTRIAN AND CYCLIST FACILITIES

Permeability and connectivity is at the heart of the design, underpinned by the following principles:

- + A cohesive and interconnected open space network that is linked via defined connections;
- + Strengthened desire lines and linkages that promote legible connections and accessibility both to and through the site; and
- + Prioritisation of a continuous green pedestrian/cyclist access way along the eastern edge of the MESP, with vehicular entry and access to the MESP from the west and south.

The design ensures a number of defined active travel routes are provided to link key destinations (e.g. public open space areas, surrounding residential areas, and Cable Beach Primary School). The linear Ecological Corridors provides green access ways which facilitate connections both east-west and north-south. The network of paths proposed in the MESP are to be provided in accordance with and the Shire's subdivision guidelines. Footpaths

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at least 2m wide would be provided on both sides of all Access Streets within the MESP area in accordance with WAPC Liveable Neighbourhoods policy requirements. Variations to this may be considered where an Access Street shares an interface with public open space on one side.

Due to the level changes and nature of the drainage alignment, two access bridges are proposed to enable all-year round use of the formalised footpath network (see [P2 - Figure 14](#)). One access bridge is located north-south connecting the access street to the local park and the other access bridge runs east-west connecting the formalised paths across the drainage network to the east of the structure plan area. It is noted that the access bridge connecting to the local park will need to be designed to allow for operational/maintenance vehicle access.

In addition to formalised footpaths, the landscape plan identifies informal trails within the drainage alignment running along the eastern edge of the precinct. During a short period of time throughout the year it is expected that these trails will become inaccessible due to their functioning as a drainage corridor. However for the better part of the year these trails offer an option for pedestrians to explore and get closer to the native bushland and existing vegetation.

5.3.2 INTEGRATION WITH SURROUNDING AREA

The proposed MESP road network will connect to the adjacent local distributor road network at five points:

Three on the western edge from Reid Road:

- + A new access street connection to the existing Banu Avenue / Reid Road roundabout, creating a fourth exit.
- + Two new T-intersections on Reid Road:
 - One approximately 50m south of the existing Hay Road intersection; and
 - One approximately 180m south of the existing Hay Road intersection.

Two on the southern edge:

- + The extension of Cryer Court into the MESP, removing the existing cul-de-sac. The extension of Cryer Court will improve traffic flow around Cable Beach Primary School as it enables through-connections to Reid Road (local distributor).
- + A new cul-de-sac linking to Dakas Street. This provides additional parking / emergency vehicles access to service the local park and Cable Beach Road Primary school.

This proposed road network leaves the eastern edge of the MESP free of road extensions and connections which enables continuous pedestrian/cyclist connection along the north-south Green Access Way. There are four pedestrian/cyclist connections from these Ecological Corridors to the existing eastern residential area via: Goldie Court, Biddles Place, Macnee Court, and Rhatigan Place.

The path network of the MESP area (on all Access Streets) will provide convenient connections to the existing path network. Residential development of the subject site is consistent and compatible with the existing residential land uses to the north, west and east of the site, as well as the primary school located to the south.

5.3.3 FINDINGS AND RECOMMENDATIONS

The MESP redevelopment which proposes 115 dwellings is expected to generate a maximum of 92 additional vehicle trips in the peak hour. It is expected that during peak hour these vehicles will be utilising the three new access points proposed along Reid Road. This equates to 184 additional vehicles across both peak hours per day.

As there was less than 100 additional vehicles per peak hour, the MESP did not meet the threshold to require a traffic analysis. However, for intersections, the TIA Guidelines require an analysis of the impact to the intersections in at least one of the peak hours. Therefore, SIDRA analysis was undertaken and demonstrated that the impact of the development traffic is minimal to the intersections and that they will continue to perform in free-flowing conditions.

5.4 LOT LAYOUT

In response to LN's Lot Layout Objectives the MESP has a focus on providing a diverse range of residential lot sizes to accommodate varying dwelling and household needs while ensuring that all urban development lots. The overall layout respects the site's natural features and constraints, including a thoughtful response to local climatic conditions. The arrangement of lots is aimed at enhancing safety, security, and streetscape or parkland quality by ensuring thoughtful frontages to streets and open spaces.

P2 - Table 15: Site Area

Total Site Area 10.42 HA		
Residential	4.57 ha	(43.91% Coverage)
POS	3.22 ha	(30.86% Coverage)
Road Reserve	2.63 ha	(25.23% Coverage)

5.4.1 DENSITY AND DIVERSITY

As illustrated on **P2 - Figure 12** the primary land use incorporated within the MESP is residential. A variety of lot sizes and types are proposed to facilitate housing diversity, with a potential yield summarised in **P2 - Table 16**. Compared to the surrounding area, the densities proposed represent a new type of product which is hoped to fill a specific need in the local Broome housing market. The overall urban structure is flexible, with urban blocks that are a minimum of 60m wide. This will allow alternate lot layouts to be developed at subdivision stage if required.

To maintain flexibility at the time of subdivision, density code ranges are proposed which is consistent with the approach set out in the WA Planning Manual Guidance for Structure Plans.

P2 - Table 16: Yield Analysis

LOT MIX				
Density Code	Lot Type	Lots	Dwellings	Area
R12.5-R20	Standard Lots	58	58	2.83 ha
R25	Small Lots	25	25	0.90 ha
R30-R40	Grouped Dwellings	3	32	0.84 ha
Total Development Area		94	115	4.57 ha

5.4.2 LOT SIZE AND SHAPE

STANDARD LOTS

Standard lots have been designed with a regular, efficient layout and are generally rectangular in shape. Standard lots have a typical frontage dimension of 15m and a depth of 30m, giving an overall lot size of 450m². This lot size enables sufficient area for the siting of a dwelling, provision of private outdoor space, as well as vehicle access and on site parking arrangements. Exceptions to these regular layouts exist for a selection of corner lots. These corner lots, while irregular in shape, offer larger lot sizes compared to regular standard lots. This enables flexibility in the built form response in order to encourage dwellings to front both streets.

SMALL LOTS

All small lots feature a regular layout with a frontage dimension of 12m and a depth of 30m, giving an overall lot size of 360m². These dimensions enable vehicle access

GROUPED DWELLINGS

Larger and irregular shaped lots typically front parkland areas and are identified as grouped dwelling sites.

DESIGN RESPONSE



5.4.3 FRONTAGES

Lots have been designed to orient towards the street providing opportunities for streetscape amenity and passive surveillance. Frontage widths for all lots are appropriately wide to accommodate a crossover and detached dwelling entry and frontage.

Grouped dwelling sites support frontage towards parks and natural areas. The lot layout provides access from rear, enabling outdoor living spaces and habitable rooms to overlook the parkland. To enforce these desired outcomes LDPs are recommended for these specific sites (see **P2 - Table 17**).

5.4.4 LDPs

Section 4.7.2 of the Structure Plan Guidance states that where required, the MESP may identify site(s) that require detailed development guidance to deliver the desired built form outcomes.

As demonstrated on **P2 - Figure 12**, two key sites have been identified as requiring local development plans as an appropriate mechanism for prescribing built form controls that are specific to these development sites.

P2 - Table 17: MESP LDP Requirements

LDP NO.	LDP NEED / JUSTIFICATION	LDP REQUIREMENTS
LDP 1	<p>The MESP layout has been informed primarily by the dimensions required for the proposed ecological corridors and drainage infrastructure. This has informed the land available for urban development.</p> <p>Of this 'urban land' the urban structure is guided by flexible 60m wide residential blocks and 20m wide road reserves.</p> <p>The LDP1 site as a result is a large and irregular lot, however, it is well located with a wide park frontage and good proximity to the new local park and Cable Beach Primary School. Given its shape and primary frontage, additional built form guidance is required.</p>	<p>BUILT FORM</p> <p>Passive surveillance over park frontages</p> <p>Demonstrate how lot boundaries with a park frontage are optimised with major openings to habitable rooms and private open spaces / courtyards / balconies which maximise eyes into the public realm.</p> <p>Articulate corner lots</p> <p>Corner lots are to equally articulate both street frontages, avoiding long blank walls and including major openings to habitable rooms on each street-facing facade.</p> <p>MOVEMENT AND ACCESS</p> <p>Garages / Carports not visible from public realm</p> <p>Due to the size of the site, LDP to demonstrate how parking and access can be managed primarily from the rear of the site. Garages and carports should not be visible from park frontages.</p>
LDP 2	<p>The LDP2 site is an isolated residential parcel located in the southeast of the site. The primary driver for this parcel is to provide a built edge to the neighbouring property to help manage security issues. It also provides an opportunity for an additional access road to the local park / bushland area and additional homes fronting parkland. The site also has issues associated with bushfire management.</p> <p>These unique site requirements may therefore require bespoke built form controls and R-Code modifications.</p>	<p>BUILT FORM</p> <p>Passive surveillance over park frontages</p> <p>Demonstrate how lot boundaries with a park frontage are optimised with major openings to habitable rooms and private open spaces / courtyards / balconies which maximise eyes into the public realm.</p> <p>Articulate corner lots</p> <p>Corner lots are to equally articulate both street frontages, avoiding long blank walls and including major openings to habitable rooms on each street-facing facade.</p> <p>Bushfire mitigation</p> <p>These properties are likely to require additional built form requirements to mitigate bushfire risk</p>

5.4.5 SUBDIVISION ORIENTATION AND RESPONSE TO THE SITE

STREETS

The street layout has intentionally created vistas through the structure plan area to assist with surveillance and wayfinding. Street layout facilitates ease of movement through the site, with an emphasis on providing access and activation along areas of landscaped linear parkland.

Lot orientation and layout respond to the surrounding existing urban structure and offers an extension to seamlessly integrate with the existing irregular grid. Two lots fronting Reid Road which are aligned with the intersection of Reid Road and Mangala Drive are proposed to take battle-axe driveway access from an internal road to ensure safe access and egress and compliance with the requirements of the R-Codes.

HEIGHTS

Building heights within the MESP are proposed to be in accordance with the R-Codes. Medium density housing sites (R30-R40) are encouraged to be 2 storeys, this would be preferred to enable housing diversity and maximise opportunities for more homes overlooking key areas of the public realm.

LANDSCAPE

The design response seeks to take advantage of the landscape by optimising opportunities for views. Grouped dwelling lots are located adjacent to parkland to maximise green outlooks and provide nearby access to open space for residents with limited private outdoor areas.

As described in **Section 04** the community expressed strong desires on the retention and strength of linear ecological corridors. This has become a key principle of the MESP design, informing and influencing the subdivision orientation.

SETBACKS

Setbacks to lots will vary throughout the MESP. Setbacks in R30-40 areas will be minimised to enable greater interaction between the built form with the streetscape and public open space areas.

Setbacks for standard lots seek to support the extension of the landscaped verges into front courtyards, contributing to streetscape amenity.

TOPOGRAPHY

Changes in levels and topography is most significant around the drainage alignment. The remaining area of the structure plan is relatively flat. Drainage alignments have been preserved and the design seeks to enhanced their amenity through increased natural bushland planting. As topography is primarily limited to natural areas, the impact of topography on residential subdivision areas is low, resulting in minimally constrained lots and development conditions.

5.5 PUBLIC PARKLAND

5.5.1 PHILOSOPHY

The landscape design intent for MESP is to create an inviting, multi-functional and connected network of green spaces, which provide a range of amenities for the local community. The MESP area will feature approximately 3.22 hectares of public open space (or 29.6% refer **P2 - Table 18**), inclusive of a formal local park, native bushland, and Ecological Corridors. The Ecological Corridors connect the network of open space and additionally serve an important stormwater management function.

The design intent behind the MESP public parkland has been strongly informed by the community's expressed desires during engagement. Engagement with community identified a shared desire to retain natural bushland in order to create a continuous ecological corridor through the structure plan area that connects to adjacent parkland beyond the boundary. In addition, the high level landscape planning has intended to respond to Yawuru wellbeing principles outlined in the Mabu Liyan framework. The principles that relate most to the landscape plan include building relationships between country and people, embracing activity for all ages, and fostering good health and wellbeing. The landscape plan attempts to respond to these principles by creating new opportunities for community interaction, activity and play within nature. Retained and improved tree canopy coverage is another desired outcome of the landscape plan to achieve a climate responsive design that aims to benefit pedestrians and cyclists. Crime Prevention Through Environmental Design (CPTED) principles have informed the landscape concept design as part of developing a healthy, safe environment.

5.5.2 LANDSCAPE TYPOLOGIES

A breakdown of the landscape typologies and their associated areas is provided in **P2 - Table 18**.

P2 - Table 18: Public Open Space Schedule

SITE AREA	10.42 ha		
DEDUCTIONS			
Vegetated Detention Areas	0.20 ha		
Gross Subdivisible Area	10.22 ha		
Public Open Space @ 10 per cent	1.02 ha		
PUBLIC OPEN SPACE CONTRIBUTION			
Minimum 80 per cent unrestricted public open space	0.82 ha		
Minimum 20 per cent restricted use public open space	0.20 ha		
PUBLIC OPEN SPACE CONTRIBUTIONS	POS AREA (NET)	UNRESTRICTED	RESTRICTED
Local Park	0.35 ha	0.35 ha	-
Natural Bushland	1.10 ha	1.10 ha	-
Ecological Corridors / Drainage	1.77 ha	0.30 ha	1.27 (0.2 deduction)
SUB-TOTAL	3.22 ha	1.75 ha	1.27 ha
TOTAL POS PROVISION	3.02 ha = 29.5%		

The philosophy behind the public parkland design can be summarised by the following three principles:

Sustainable and climatic response

- ⊕ Connection of a linear green corridor to existing adjacent landscaped areas to retain ecological links.
- ⊕ Additional tree canopy planting to promote increased tree canopy connectivity which provides greater heat mitigation effects and shading of recreation pathways.
- ⊕ Retention of existing vegetation and trees.



Creating an inviting, accessible, and connected space

- ⊕ Locating the formalised park to ensure visibility from key connections and convenient access.
- ⊕ Creating a place that is a destination in itself, as well as a recreation loop for a range of users.
- ⊕ Balancing proximity of the turfed area to residential areas with considerations of noise impacts.



Facilitating exploration and play for all ages

- ⊕ Sensitive integration of nature play elements that spark the imagination and creativity of children across a range of ages.
- ⊕ Recreation loops that support active movement and connection with nature.



The design aims to accommodate the needs of the following people, create the following place outcomes, and facilitate the following programming functions:

People

- ⊕ Walkers and cyclists
- ⊕ Dog walkers
- ⊕ Families with young children
- ⊕ Local groups
- ⊕ School students

Place

- ⊕ Inviting and accessible
- ⊕ Diverse function and activities
- ⊕ Connected to context
- ⊕ Ecological corridor

Programme

- ⊕ Passive and active recreation
- ⊕ Community gathering place and events
- ⊕ Cultural connection

P2 - Figure 13: Public Realm Plan



As shown on **P2 - Figure 13 the Public Realm Plan** there are six distinct landscape areas which fall within three broad landscape typologies within the MESP area, these are:

- Ecological Corridors
- Local Park
- Native Bushland

Further detail on these landscape typologies is provided below.

ECOLOGICAL CORRIDORS

There are two Ecological Corridors proposed, that encourage physical activity and active transport modes through important pedestrian and cycle routes. The Ecological Corridors are existing, providing necessary amenity and drainage functions, with supporting formalised pathways that run parallel to the drainage alignment. The orientation of these access ways strategically provides both north-south and east-west connections across the MESP. Tree retention is a key priority within Ecological Corridors, subject to detailed tree survey and assessment. Existing native vegetation is proposed to be strengthened through additional landscaping particularly in the southern Ecological Corridor (see native bushland below). The GAWs will typically have parkland lighting to assist with minimising antisocial behaviour.

These GAWs enable the integration of urban water management functions with public open space and provide linear open space for walking and cycling, both being objectives of Element 4 LN 2009.

In **P2 - Figure 13** Area 5 is an additional area of potentially useable parkland for passive recreation purposes. This area will act primarily as a drainage vegetated detention area, however, in drier seasons the levels will allow people to interact with this space and along the entire drainage alignment.

LOCAL PARK

In **P2 - Figure 13** Area 3 is a proposed Local Park and is intended to become the community heart of the development due to its easily accessible location and clustering of community focused amenities. The location of the park provides convenient access for a range of residents within and surrounding the MESP. The local park sits within walking distance from the majority of dwellings proposed within the MESP as well as to a large portion of existing homes to the east of MESP.

A variety of public amenities will be incorporated to attract a broad demographic of users. Amenities will include a central kick-about space, a nature play space and associated facilities for community events and meet ups, including parkland shelters, picnic tables, bicycle parking, waste disposal bins and drink fountains. The nature play space will be integrated into the surrounding native bushland. This layout enables nature play spaces, picnic shelters to be added to the surrounding turfed area in a staged manner. Opportunities for the school oval to be opened to the public outside of school operating hours were explored to improve recreational pursuits for residents but this was not supported for management and security reasons. A more detailed plan of the Local Park is illustrated in **P2 - Figure 14**.

NATIVE BUSHLAND

To provide a balance between conservation and active and passive recreational uses of the public realm in MESP, a significant area of native vegetation will be retained. The native bushland area is proposed to take up approximately 1.1 ha of the site. In parts where the current bushland is degraded or in poor health, local, native tree and shrub species will be planted. Informal walking trails will be left unplanted and will align to existing desire lines that have been established over time. Requirements around the current Bushfire Regulations will see parts of the existing bushland maintained and managed at a higher level to ensure safety and usability.

The footbridges over drainage areas and the proposed additions to the path network running through the native bushland is further described within **“5.2.1 Proposed Transport Network”**. A more detailed plan of the native bushland is illustrated in **P2 - Figure 14**.



P2 - Figure 14: Local Park and Surrounds

The below precedents informed the layout and spatial organisation of the local park proposed in the MESP.

RICHARD DIGGINS PARK, SUBIACO

- Layout** - A central turfed area with spaces to play and sit, all connected to this space, allowing flexibility of use as well as visual connection of spaces to enable parental supervision.
- Size** - Park is not oversized at approx. 1700m². The scale feels comfortable with either a small number of people or large groups and events.



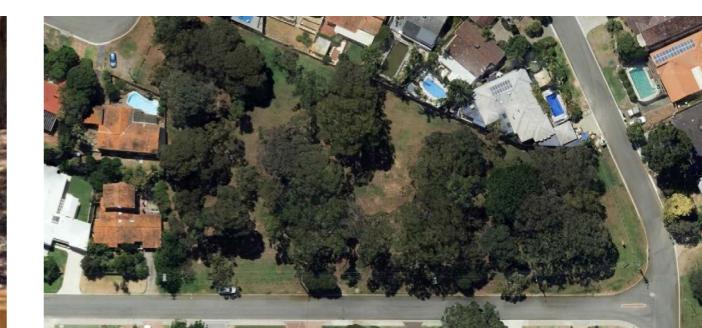
RUSSELL BROWN ADVENTURE PARK

- Blending play with natural vegetation** - The play area integrates elements of nature including rocks, tree trunks and logs with pockets of vegetation throughout, providing natural shade.
- Informal design** - The park does not have formally defined areas, allows for a sense of freedom and openness for play while supporting staged and flexible park design. Areas of play can be constructed over time within naturally vegetated areas as funding opportunities are realised.



SYCAMORE PARK, DUNCRAIG

- Social aspect** - A dedicated space for parents and adults is provided to allow for parental supervision and nature play.
- Playground facilities** - Provision of play zones for at least one age group, in accordance with the Broome Playground Strategy.
- Integration with surrounds** - The park is accessible, with convenient connections to recreation paths.



5.5.3 TREE RETENTION AND PLANTING

Retaining and improving tree canopy, especially along the pedestrian/cyclist network, should be prioritised throughout the development of the MESP. A site survey is recommended to identify areas of vegetation and existing trees that are to be retained within the subdivision area. Future bush and tree planting of plants that are in alignment with recommendations by native Title Holders. Consideration of climate suitability and the desire for shade all year round is acknowledged.

STREET TREES

A total of 100 street trees are proposed within the MESP, as illustrated in the Landscape Plan. Tree placement and the exact number of trees to be planted is indicative at this stage and is dependent on site surveys that may identify trees to be retained within the road reserves that should be prioritised over new tree planting.

- *Small trees* (defined by approx. 5m canopy diameter, 20m² canopy area) are recommended to be limited to the verges interfacing narrow lots (12m frontage) where utility connections and crossovers compete for space.
- *Medium trees* (defined by approx. 8m canopy diameter, 50m² canopy area) require a minimum verge space of 2-4m of uncompacted soil to support healthy root systems. It is expected that there will be sufficient space to locate medium trees along with utilities and their buffer zones on one side of Access Streets.
- *Large trees* (defined by approx. 14m canopy diameter, 150m² canopy area) should be prioritised where there are no utilities and where verges interface larger lot frontages. Large trees require a minimum verge space of 4-6m of uncompacted soil to support healthy root systems.

Indicatively, the Landscape Plan proposes 8,870m² of tree canopy within Access Streets, which equates to approximately 34% of the road reserve area.

P2 - Table 19: Indicative Tree Numbers

TREE SIZE	INDICATIVE NUMBER	TREE CANOPY AREA PER TREE	TREE CANOPY AREA TOTAL
Small tree	21	20m ²	420m ²
Medium tree	34	50m ²	1,700m ²
Large tree	45	150m ²	6,750m ²
Total			8,870m²

PUBLIC PARKLAND TREES

There are several existing trees recommended be retained in the Native bushland and the eastern Green Access Way. These are strategically located along the primary footpath that runs north-south on the eastern boundary edge. Additional planting should prioritise linking tree canopy to enable continuous coverage along the pathway. This maximises cooling benefits for pedestrians and cyclists moving through MESP and also provides ecological benefits by creating a corridor of canopy connecting to adjacent areas of green space to the north (Hay Road linear park) and south (Kerr Park) of the structure plan area.

DESIGN RESPONSE

5.5.4 CULTURAL HERITAGE OPPORTUNITIES

There is a rich history within and surrounding the structure plan area. Opportunities exist for Yawuru connections and culture to be cleverly woven into the landscape fabric through public art installations, paving treatments material and plant selection. Additionally, school student and local residents perspectives and local community groups and individuals are encouraged to assist in the development of these concepts. As the MESP structure plan process progresses, the following activities should be followed:

- Capturing and representing stories from local Yawuru community members, and from local school students and residents;
- Encompassing local bush tucker plant species within the development;
- Leading a community / school student art project;



Bike Parking, Artwork by Sustainable Housing for Artists and Creatives



Frederick Street Lookout Community Art Project. Photo Source: Vanessa Margets



Matsumoto Youth Street Art Project, Photo Source: MudMap Studio



Metal Screens Artwork for Broome Aboriginal Short Stay Accommodation. Photo Source: MudMap Studio

5.6 URBAN WATER MANAGEMENT

This section of the Structure Plan has been informed by the Local Water Management Strategy (LWMS) prepared by AECOM (refer [Appendix 3](#)). The Local LWMS has been developed for the MESP in accordance with Better Urban Water Management (WAPC 2008), State Planning Policy 2.9 Water Resources (WAPC 2006) and Planning Bulletin 92 Urban Water Management (WAPC 2008). Water will be managed using an integrated water cycle management approach, which has been developed using the philosophies and design approaches described in the Stormwater Management Manual for Western Australia (DoW 2007).

5.6.1 WATER CONSERVATION

A summary of the proposed water conservation design criteria and how these are addressed is provided in [P2 - Table 20](#).

P2 - Table 20: Water Conservation Compliance Summary

CRITERIA	CRITERIA DESCRIPTION	MEASURES FOR COMPLIANCE
WC1	Limit irrigation water demand for irrigated areas to 7,500 kL/ha/yr	Landscaped areas will be limited to an irrigation rate of 7,500 kL/ha/yr
WC2	Lot water consumption will be limited to 100 kL/person/yr	<ul style="list-style-type: none"> + Promotion/implementation of rainwater tanks within lots + Use of water efficient fittings within lots + Promotion of water efficient appliances to lot owners + Promotion of waterwise gardening principles within lots.

Refer to [Appendix 3](#) for detailed commentary regarding water conservation.

5.6.2 GROUNDWATER MANAGEMENT

The primary objective for groundwater level management is to ensure that finished floor levels have appropriate clearance from groundwater (see Section 4.3 of the LWMS). Groundwater is expected to be sufficiently deep (>10 m bgl) as to not be affected by development. A Groundwater Management Strategy is not required.

5.6.3 STORMWATER MANAGEMENT

The stormwater management strategy aims to closely mimic the current hydrological regime provided by the existing drainage network. The open drains at the site will need to convey surface water from the developed site while continuing to manage the current off-site drainage from the surrounding neighbourhoods.

WSUD STRATEGIES

WSUD strategies will be required to maintain flows and detain catchment runoff. Combining WSUD techniques in a treatment train is the most effective manner in which to treat catchment runoff. Treatment trains incorporate multiple WSUD techniques to ensure primary, secondary and tertiary treatment of stormwater is achieved.

LOT SCALE STORMWATER MANAGEMENT

Because of the low infiltration rates of the Pindan soils, the use of soak wells is not expected to be effective.

Providing previous areas of native vegetation in lots and verges will help manage runoff.

VEGETATED DETENTION AREAS

Stormwater from all events will be treated by a Vegetated Detention Area (VDA) in the north portion of the site and

through vegetated open drains. The north open drain is proposed to be graded using drop structures to create a series of detention areas along its length, progressively detaining flows and assisting pollutant material removal. Drainage infrastructure will be maintained by the proponent until handover to the Shire.

The VDA will be utilised to detain major event flows to slow discharge rates, providing opportunities for pollutant attenuation. The regraded northern vegetated open drain with drop structures will operate similarly. The sizing of the VDA and re-graded open drain aims to mimic as closely as possible the pre-development peak flow rates leaving the site.

The VDA will be a maximum 1.2 m deep with 1:6 side slopes. In addition to adding drop structures, the north open drain was also re-graded to allow 1:6 side slopes on the development-adjacent side to more closely align with Shire design guidance (see channel cross sections in [Appendix 3](#)). The south channel has been realigned and modified into a narrower section to accommodate the proposed development while maintaining 1:6 side slopes. Although the channel does not meet the minimum 3m channel floor width, it has provides adequate capacity to convey the 1:100-year storm event and existing grades are preserved to allow for safe egress. The north drain's side slopes adjacent to the existing neighbourhood were not modified in order to protect the exiting trees along the neighbourhood's margin. The VDA and re-graded open drains will be vegetated with species that are efficient at nutrient removal and suit the local climate.

DRAINAGE DESIGN

The LWMS proposes to utilise the VDA and vegetated open drains to detain runoff from the development. The sizing of storage areas and streamlines has been determined using InfoDrainage hydrological and hydraulic modelling software. The model assumes a low infiltration rate based on the low-permeability Pindan soils. The post-development modelling assumptions, parameters and results are detailed in the modelling assumptions document provided in [Appendix 3](#).

Both major and minor events will be transported to WSUD structures (the VDA and vegetated open drains). Each of the vegetated open drains will convey stormwater entering along their lengths from site and offsite sources. The northern open drain will be regraded to act as a series of detention areas to progressively treat stormwater along its length. The VDA will overflow to the vegetated open drain along the north margin of the development. A summary of the proposed WSUD structures is below:

- + A VDA located in the northern tip of the development: Storage Area volume: 450 m³
- + A vegetated open drain along the south margin of the development.
- + A vegetated open drain along the north margin of the development, regraded with drop structures to form a series of detention areas.
 - Channel Storage Area 1 volume: 840 m³
 - Channel Storage Area 2 volume: 630 m³

P2 - Table 21: Stormwater Conservation Compliance Summary

CRITERIA	CRITERIA DESCRIPTION	MEASURES FOR COMPLIANCE
SW1	Detain and treat the 63.2% Annual Exceedance Probability (AEP) 1 hour average event rainfall event.	Stormwater from 63.2% AEP 1 hour event to be treated within VDA and vegetated open drains.
SW2	Detain stormwater to provide a similar flow regime to pre-development conditions.	The VDA and vegetated open drains provide stormwater detention.
SW3	Minor roads remain passable in the 10% AEP storm event.	Runoff from the development in a 10% AEP event will be detained within road kerbs with a maximum depth of 175 mm at pavement edges.
SW4	Apply appropriate structural and non-structural measures to reduce pollutant loads	<ul style="list-style-type: none"> + VDA and vegetated open drains will be designed to treat the 63.2% AEP 1-hour event. + Landscaping will be designed to minimise fertiliser and pesticide use. + Street sweeping should be used to minimise pollutants entering stormwater.
SW5	Provide building finished floor level clearance of at least 400 mm from the 1% AEP top water level.	Buildings to be designed to have a minimum clearance of 400 mm from the 1% AEP top water level.

5.7 BUSHFIRE MANAGEMENT

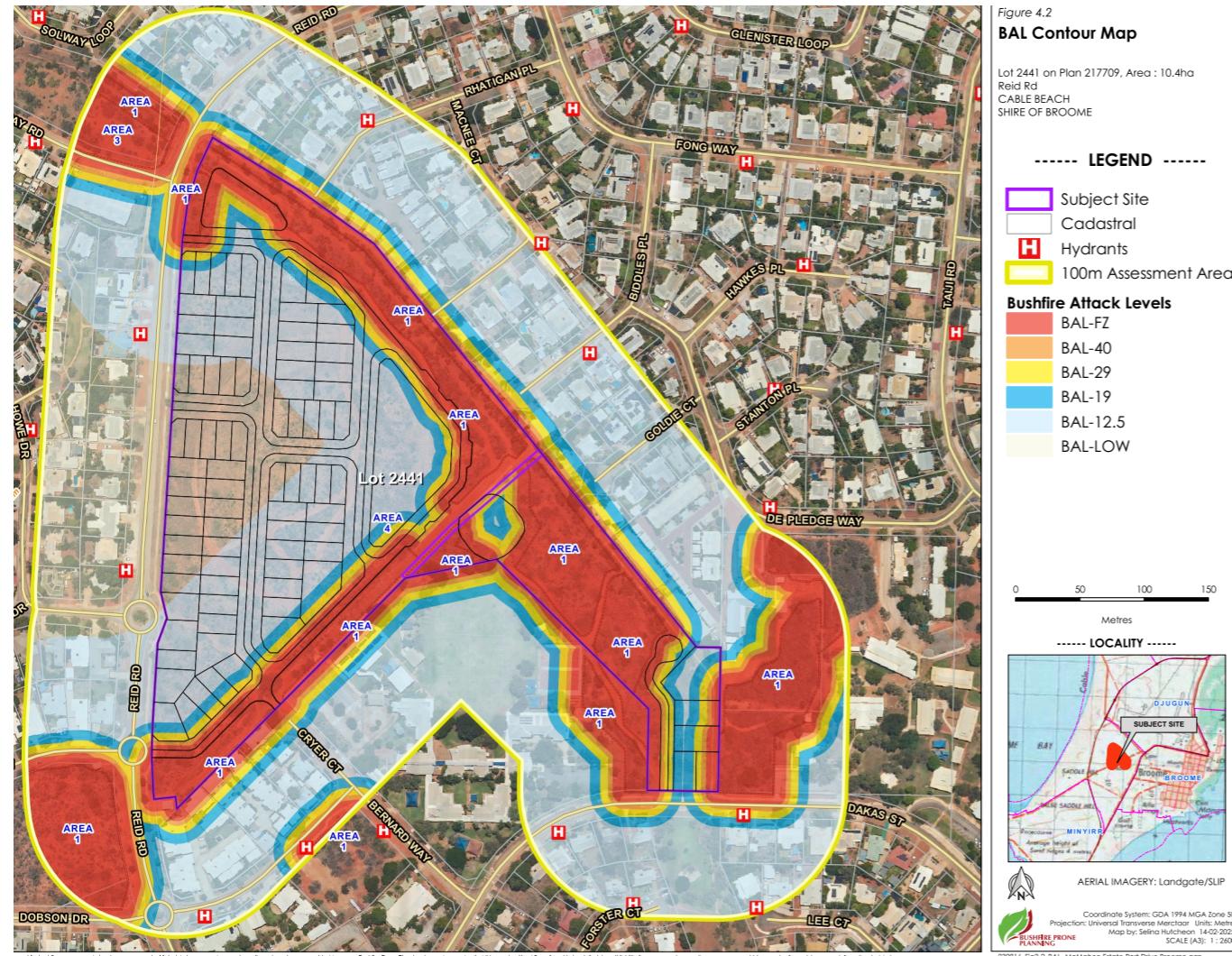
Bushfire Prone Planning have prepared a Bushfire Management Plan (BMP) ([Appendix 4](#)) based on the MESPs proposed lot layout.

BUSHFIRE ATTACK LEVEL (BAL) CONTOUR ASSESSMENT

The BAL contours provided on [P2 - Figure 16](#) are based on post-development conditions and take into consideration the proposed clearing extent, vegetation retention, landscaping and management of POS, resultant vegetation exclusions and separation distances achieved in line with the proposed concept plan.

As demonstrated on [P2 - Figure 15](#) the proposed subdivision layout generally includes enough separation between new homes and proposed vegetation areas, ensuring that the majority of lots have a BAL rating of BAL-29 or lower. Per the requirements of SPP 3.7 - Bushfire, development in areas with a BAL-40 or BAL-FZ rating is generally to be avoided. Only a small portion of the proposed subdivision design falls within the BAL-40 / BAL-FZ zone, being the 5 new lots proposed along the Dakas Street extension. These lots are primarily impacted by the existing vegetation on neighbouring properties at Lot 400 (8) De Pledge Way, and Lot 401 (19) Dakas Street. Both lots are owned by the The Roman Catholic Bishop of Broome.

A concept plan has been provided by the owners of these properties demonstrating their intentions to develop this land and remove the vegetation. It is therefore proposed that these lots form part of Stage 2 of the MESP, with development to occur at a time where the bushfire risk has been mitigated.



P2 - Figure 15: BAL Assessment

Source: Bushfire Prone Planning

BUSHFIRE MANAGEMENT MEASURES

[Appendix 4](#) provides a detailed assessment of the proposed bushfire management measures for the MESP. Key management measures such as:

- Increased building construction standards;
- Vehicular access management; and
- Reticulated water supply.

EMERGENCY VEHICLE ACCESS

As shown on [P2 - Figure 15](#), the majority of the potential bushfire risk will be generated by retained vegetation contained within the drainage areas and surrounding the local park / retained bushland. Emergency vehicle access can be summarised as follows:

- The drainage channel is generally framed by roads on all sides allowing direct emergency vehicle access.
- The retained bushland area can be accessed via the new Dakas Street road connection and retained emergency vehicle access tracks through the bushland.
- Existing cul-de-sacs provide access to the northern side of the main drainage alignment if required also.

5.8 UTILITIES

5.8.1 SITE WORKS

Colliers have prepared a Local Infrastructure and Servicing Strategy and associated cost estimates (**Appendix 5**) based on the MESP's proposed lot layout.

Due to the gentle grades on the site, large retaining structures are unlikely to be necessary and levels can be managed through lot levels and road grades. For practical purposes, some minor retaining structures may be necessary to facilitate the desired footprint, particularly in the tighter drainage corridors.

Onsite geotechnical investigations should be undertaken to confirm site conditions and site classification prior to detailed design or construction. Site classification 'S' is expected to be achievable with suitable site preparation measures based on similar recent projects in Broome with typical pindan soils present.

TREE PROTECTION

Site works have retained the northern drain's side slopes adjacent to the established residential area to the north to protect existing trees along the neighbourhoods margin. These trees provide shade to the established pedestrian pathway to the north of the site and amenity to adjoining residents. Aerial photography confirms portions of the remainder of the site have been historically cleared. Established trees will be retained within the ecological and northern drainage corridors.

5.8.2 EARTHWORKS

Earthworks will include topsoil stripping, cut-to fill operations, and site preparation. Cost estimates for earthworks assume a balanced cut-to-fill ratio, with no allowance for uncontrolled fill or site remediation. Earthworks will need to consider suitable levels to allow drainage function as well as gravity sewer serviceability. Cost estimates associated with clearing and earthworks have assumed typical Broome pindan ground conditions and site preparation/compaction requirements to suit the expected Class S site classification. Noting further refinement is required during the detailed design phase to confirm assumptions.

5.9 ACTIVITY CENTRES AND EMPLOYMENT

PROVIDING HOUSING NEAR ACTIVITY CENTRES

The MESP provides approximately an additional 115 new dwellings within a walkable catchment of the Cable Beach Local Centre which will provide housing which is conveniently located for access to services and employment opportunities. A portion of these new dwellings will be made up of higher density grouped dwelling typologies which provides for a greater diversity of dwelling types within close proximity to the local centre. Increased population and population density near the Cable Beach Local Centre will increase the Centre's regular customer base and therefore contributes to improved commercial opportunities for the centre. The new pedestrian connection to Cryer Court will improve vehicle and pedestrian access to the centre from the MESP.

5.10 SCHOOLS

ACCESS

The MESP is adjacent to Cable Beach Primary School and provides improved access to, and traffic flow around Cable Beach Primary School with the new road connection to Cryer Court. This will alleviate existing kiss and drive arrangements at the school and presents opportunities for additional on street parking bays in proximity to the school to accommodate safe access and parking for the school.

OPEN SPACE

The design intent behind the MESP public parkland has been strongly informed by the community's expressed desires during engagement to retain natural bushland in order to create a continuous ecological corridor through the structure plan area that connects to adjacent parkland beyond the boundary. This design response has allowed for the continued co-location of Cable Beach Primary School with the established natural bushland corridor and has allowed for the strategic co-location of the local POS with the school. Opportunities for the school oval to be opened to the public outside of school operating hours were explored to improve recreational pursuits for residents but this was not supported for management and security reasons.

