STRUCTURE PLAN

Lots 253 & 254 Helena Valley Structure Plan

Lots 253 & 254 Helena Valley Road, Helena Valley

Prepared for Jardim Property

Prepared by TBB Planning

December 2025

Document Information

Structure Plan

Helena Valley Urban Precinct Structure Plan

Jardim Property Group

25~031

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Acknowledgement of country

We respectfully acknowledge the Whadjuk people of the Noongar nation, as the traditional custodians of the land on which we live and work, and recognise their continuing connection.

We pay our respects to the Elders past, present and emerging for they hold the memories, the traditions, the culture and hopes that, through meaningful connection, we aim to apply to the design and planning of communities now and in the future.

Doc ID: SP RPT – Lots 253 & 254Helena Valley Structure Plan – JARDIM PROPERTY GROUP

Revision	Status	Author	Approved by	Date Issued
0.1	Draft	L Martins	E Saraceni	18/12/12
1.0	Final	L Martins	E Saraceni	18/12/12

Endorsement

This structure plan is prepared under the provisions of the Shire of Mundaring Local Planning Scheme No.4

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

[Date]

_____ Date

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:

[Signature]

_____ Witness

[Date]

_____ Date

[Date]

_____ Date of Expiry

TABLE OF AMENDMENTS

Each time a structure plan is amended, the amendment is recorded in a Table at the front of the structure plan.

Table 1 Table of Amendments

Amendment No.	Summary of the Amendment	Amendment Type	Date Approved by WAPC
1			
2			

TABLE OF DENSITY PLANS

Table 2 Table of Density Plans

Density Plan No.	Area of Density Plan Application	Date Endorsed by WAPC
1		
2		

EXECUTIVE SUMMARY

This Structure Plan establishes the strategic planning framework for Lots 253 and 254 Helena Valley Road, Helena Valley (the structure plan area) , on behalf of Jardim Pty Ltd (the Client). The structure plan area is located within the municipality of the Shire of Mundaring and is generally bound by Roe Highway to the west, an unnamed track to the north, rural residential lots to the east, and Midland Road to the south.

The purpose of this Structure Plan is to guide the coordinated transition of the land from rural use to urban residential development, consistent with the strategic intent for the Helena Valley urban area. The Structure Plan responds to key state and local planning objectives, including the provision of housing, liveability, and environmental protection. The layout supports the coordinated development of land zoned 'Development' under the Shire of Mundaring's *Local Planning Scheme No. 4* (LPS4).

The Structure Plan responds to the site's environmental and physical characteristics, including:

- Considering the vegetation characteristics associated with the conservation category wetland to the north;
- The need to manage bushfire risk from unmanaged vegetation;
- Access considerations from Helena Valley road and the wider movement network;
- Western power infrastructure including power poles and easements.

Balancing these characteristics with the opportunities afforded by the site's location and servicing potential, the Structure Plan provides a framework for an attractive, connected, and resilient neighbourhood that complements surrounding development and supports a logical pattern of urban expansion, whilst preserving ecological values.

The key planning outcomes of the Structure Plan are to:

- Guide subdivision and development in a manner consistent with State and local planning objectives and the Development zone under the Shire of Mundaring Local Planning Scheme No. 4;
- Preserve and enhance key environmental features, including the vegetation associated with the conservation wetland to the north;
- Provide a clear movement network that connects with the established road hierarchy and future regional transport upgrades; and
- Deliver accessible public open space that integrates drainage and water-sensitive urban design (WSUD) principles;

The structure plan is prepared in a manner and form approved by the Western Australian Planning Commission (WAPC) and, in addition to this Executive Summary, comprises of:

- **Part One –** Implementation, including the Structure Plan Map
- **Part Two –** Explanatory Section, including the technical appendices.

The following **Table 3** is a summary of the key statistics and information as it applies to the structure plan area.

Table 3 Structure Plan Summary Table

Item	Data	Areas	Structure Plan Ref (Section no.)
Total area covered by the structure plan	7.3042	Hectares	Plan 1
Area of each land use proposed:	Hectares	Lot yield	
Residential	2.91	61	
Total estimated lot yield	Hectares 2.91	Lot yield 61	
Estimated number of dwellings	61		
Estimated residential site density	21	dwellings per site/ hectare	
Estimated population	165	@2.7 people per household	

Number of high schools	Nil			
Number of primary schools	Nil			
Estimated commercial floor space	Nil	net lettable area		
Estimated area and percentage of public open space given over to:				
Regional open space	Nil	hectares	00	%
District open space	Nil	hectares	00	%
Neighbourhood parks	Nil	hectares	00	%
Local parks	2.71	hectares	00	%
Estimated percentage of natural area	00	hectares	00	%

Project Team

Technical reports and studies have been prepared and are appended to the Structure Plan:

- **Appendix A –** Bushfire Management Plan (*Bushfire Prone Planning*)
- **Appendix B –** Engineering Servicing Report (*Structure)*
- **Appendix C –** Environmental Assessment and Wetland Management Report (*Western Environmental and Gambara*)
- **Appendix D** -Transport Impact Assessment (*Stantec*)
- **Appendix E –** Aboriginal Heritage Due Diligence Report (*Brad & Goode Associates*)
- **Appendix F –** Preliminary Site Investigation (*Pendragon*)
- **Appendix G –**Local Water Management Strategy (*Oversby Consulting*)
- **Appendix H –** Geotechnical Report – (*Structure)*

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Technical Appendices

1.0

Part 1 - Implementation

1.0 Implementation

1.1 Structure plan area and operation

The Structure Plan applies to the land contained within the inner edge of the dash line denoting the structure plan boundary on the structure plan map (refer **Plan 1**). The Structure Plan covers an area of approximately 7.3042 hectares across two lots within the Helena Valley area. The two lots are divided by Helena Valley Road with Lot 253 in the south and Lot 254 in the north. Lot 253 is bounded by vacant lots on the east and west sides and Bush Forever Site (No. 213) to the south. Lot 254 is bounded by a private road to the north and vegetation associated with Kadina Brook.

The plan 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).

This Structure Plan has been prepared consistent with the requirements of clause 16 of Schedule 2 (Deemed Provisions) of the *Planning and Development (Local Planning Schemes) Regulations 2015 (Regulations)*, and the *WA Planning Manual – Guidance for Structure Plans* (WAPC, August 2023). The plan has also been prepared pursuant to the requirements of Schedule 12 of the Shire of Mundaring *Local Planning Scheme No. 4* (**LPS4**).

The Structure Plan is to be given due regard when making decisions on the development and subdivision of land within the Structure Plan area.

1.2 Purpose of the structure plan

The Structure Plan provides a strategic planning framework to guide the coordinated development of the southern portion of the Helena Valley Urban precinct for residential purposes. It has been prepared in accordance with Schedule 2, Part 4 of the Regulations and supports the ongoing consolidation and growth of the area.

The Structure Plan facilitates a logical western extension of residential development established under the *Helena Valley – Local Structure Plan 76* through the delivery of a range of lower density lot sizes and supporting infrastructure commensurate with the peri-urban location. It promotes an integrated neighbourhood design that responds to site characteristics and interfaces with surrounding development and environmental features, and aligns with the broader strategic planning objectives of the Shire of Mundaring.

The key objectives of this Structure Plan are as follows:

- Establish a statutory framework to guide residential land use, subdivision, and development within the precinct;
- Contribute to improved housing choice in the locality, facilitating the subdivision of land to support residential development on existing urban zoned land and encourage affordable housing outcomes;
- Maximise residential amenity, neighbourhood connectivity and liveability for future residents;
- Street design encourages slow vehicle movement, prioritising pedestrian and cyclist safety wherever possible;
- Development will be sympathetic to the interface of the development site with the adjacent environmental values to promote high quality retention and protection of native vegetation and natural amenity. Landscaping of the interface area will prioritise the planting of locally endemic species and promotion of water sensitive urban design outcomes; and
- Respond to and enhance the site's environmental features, including integration of existing vegetation, aboriginal heritage and proximity to bushfire hazards.

1.3 Staging of implementation

The Structure Plan area is anticipated to be developed in two stages to appropriately respond to and manage bushfire hazards.

- **Stage 1:** The initial stage will establish the primary subdivision pattern and key infrastructure, with certain larger lots initially in order to maintain acceptable bushfire outcomes.
- **Stage 2:** A subsequent stage will then facilitate further subdivision of these larger lots once the relevant bushfire mitigation measures have been implemented and the hazard adequately managed.

2.0 Subdivision and Development Requirements

This structure plan has been prepared to provide an appropriate level of information to guide future subdivision and development. The following requirements will be implemented through subdivision and development within the structure plan area.

2.1 Land use zones and reserves

The Structure Plan Map designates proposed zones and reserves in the structure plan area:

- Residential (R20) – zone;
- Urban Deferred – zone;
- Public Open Space – reserve;
- Conservation Category Wetland (core and buffer)– reserve;
- Other Local Roads – reserve

Subdivision and development of land is to be generally in accordance with the Structure Plan Map (refer **Plan 1**). Refinements to the zones and reserves is permitted at subdivision stage subject to submission of a revised density code plan and appropriate supporting technical justification.

Public open space reserves and local road reserves are shown indicatively with the extent to be confirmed at subdivision stage. Land use within the Structure Plan area is to align with the corresponding zone or reserve under the Shire of Mundaring's LPS4.

2.1.1 Zones

Land use and development within the Structure Plan area is to be consistent with prescribed zones and reservations as detailed on the Structure Plan Map (refer **Plan 1**). Land use permissibility is to be in accordance with the relevant zone, and land use permissibility of the Zoning Table of the Shire of Mundaring's LPS4.

Subdivision and development of land will be in accordance with the relevant density coding allocation.

2.1.1.1 Residential

The Structure Plan delivers outcomes that are aligned with the relevant objectives of the 'Residential' zone, primarily by providing for a mix of lot sizes to meet the needs of the community consistent with the R-Codes and providing for residential subdivision and development that incorporates water-sensitive urban design principles.

2.1.1.2 Urban Deferred

A portion of the structure plan area fronting Helena Valley Road is identified as Urban Deferred under the Metropolitan Region Scheme (MRS). This urban deferred portion, comprising approximately 3,076m^2 in total on either side of Helena Valley Road, has been applied to safeguard land that may be required for future regional and local road upgrades.

The structure plan has been deliberately configured so that the Urban Deferred zoned land is not relied upon for dwelling yields, primary public open space or essential access. The internal road network, lot layout and areas of public open space are all capable of being delivered wholly within the Urban-zoned portion of the land, with the Urban Deferred portion functioning as a flexible frontage and potential future road upgrade corridor.

Subdivision will ensure that development will occur within the Urban zone, with any Urban Deferred land either retained as balance lot(s) or used for interim verge, landscaping or drainage functions that are compatible with its potential long-term road purpose. Should future detailed design confirm that all or part of the Urban Deferred land is not required for regional or local road upgrades, it may be transferred to the Urban zone via a subsequent MRS amendment, at which point further subdivision and development can proceed in accordance with the broader structure plan framework and an updated R-Codes Plan.

2.1.2 Roads

The proposed movement network has been designed to provide a safe, legible and efficient hierarchy of streets that supports walkable neighbourhood principles and integrates with the existing and planned road network for Helena Valley. The layout responds to the site's topography, environmental constraints and surrounding development pattern, particularly the interface with Helena Valley Road**,** Koorla Drive and the adjacent low-density residential development established under the LSP 76 area to the south-east.

The proposed internal street network comprises a hierarchy of access streets**,** laneways and connecting roads that accommodate local traffic volumes and provide direct and convenient access for all residents while maintaining low traffic speeds and a high level of pedestrian amenity. The road reserves generally range from 8m to 16m, consistent with the functional requirements outlined in *Liveable Neighbourhoods (2023)* and the findings of the supporting Transport Impact Assessment (TIA) provided in **Appendix D**.

This Structure Plan is subject to the following key movement network considerations:

- **Helena Valley Road** – A Local Distributor Road under the Shire of Mundaring's functional hierarchy, providing the primary access connection to the broader regional network, including Roe Highway**,** Midland Road and Great Eastern Highway**.** The subdivision proposes one new full-movement intersection to the northern precinct and will utilise an existing secondary access via Koorla Drive to the south, both designed to operate safely within existing sight-distance and capacity parameters.
- **Internal Access Streets (Roads 1–6)** – The main internal streets are proposed with 15–16 m reserves, accommodating two-way vehicle movement, on-street visitor parking (where applicable), street trees and one-side footpaths. These streets will function as *Access Street C and D* types under *Liveable Neighbourhoods*, carrying traffic volumes well below the 3,000 vehicles per day threshold.
- **Laneways (Lanes 1 and 2)** – Laneways are proposed at 8m reserves to facilitate rear-loaded lots and improve streetscape outcomes along key frontages interfacing with public open space. These lanes are intended for low-speed local access with minimal traffic generation (less than 300 vehicles per day).
- **Intersection Design** – Intersections within the subdivision will operate under standard give-way control given the low traffic volumes. The TIA identifies the provision for an auxiliary left-turn lane of approximately 70m length, with allowance to future-proof a right-turn pocket should traffic demand warrant it beyond 2037.

The proposed street design ensures continuity of pedestrian and cyclist movement by linking to existing paths on Helena Valley Road and the broader Long-Term Cycling Network, as identified in the TIA. The road network will also support future bus routes should services be extended into the area.

All roads are to be constructed in accordance with the *Austroads Guide to Road Design (Part 4A)* and *Liveable Neighbourhoods (2023)* standards and will be detailed further at subdivision stage.

2.1.3 Public open space

A public open space schedule (POS) is provided in **Table 2**. POS shall be developed in accordance with the requirements of the WAPC's operational policy *Liveable Neighbourhoods* and generally in accordance with the Structure Plan Map (refer to **Plan 1**).

Table 4 Public Open Space Schedule

TITLE OF STRUCTURE PLAN		
	Hectares (ha)	**Hectares (ha)**
Total Structure Plan Area	7.3042	**7.3042**

Less Deductions		**0.4809**
CCW core	0.4809	
Net Subdivisible Area		**6.8233**
Public open space @ 10%	0.68233	
Public Open Space requirements:		
80% Unrestricted Use (Minimum)	0.545864	
20% Restricted Use (Maximum)	0.136466	
Total		**0.68233**
Public Open Space provision:		
Unrestricted Public Open Space		**1.1918**
POS 1	1.084	
POS 2	0.0504	
POS 3	0.0574	
Restricted Public Open Space		**1.04**
Drainage A	0.06	
Drainage B	0.02	
Drainage C	0.07	
CCW Buffer	0.8900	
Total Credited Public Open Space		**1.328266**
Percentage of Credited Public Open Space Provided		**19.5%**

2.1.4 Notifications on Title

At the subdivision stage, the Shire of Mundaring may recommend to the WAPC that a condition be imposed to grant subdivision approval for a notification to be placed on the Certificate(s) of Title(s) of affected lots to advise the following:

- The lot is situated in the vicinity of a transport corridor and is currently affected or may in the future be affected by transport noise. Additional planning and building requirements may apply to development on this land to achieve an acceptable level of noise reduction.

2.1.5 Easements

Lot 253 contains an existing Western Power Easement for the purpose of overhead powerlines, refer **Plan 1**.

2.2 Density and development

The Structure Plan applies a single residential density code (R20) consistent with the concept plan (**Plan 1**).

Residential density will ultimately be implemented via an R-Codes Plan prepared and approved at subdivision stage, ensuring allocation by street-block in accordance with the *Residential Design Codes (Volume 1)* and the *WAPC's Guidance for Structure Plans*.

2.2.1 Density and R-Codes

2.2.1.1 Dwelling target

The Structure Plan provides for approximately 61 dwellings, subject to refinement through detailed subdivision design and R-Codes Plan approval. This indicative yield reflects the current residential cells are shown on **Plan 1.**

2.2.1.2 Residential density

A base residential coding of R20 is proposed across the Structure Plan area, achieving an average lot size of approximately 476m^2. This density supports a low-density housing outcome with public open space frontages, and where appropriate built-form controls will be applied through Local Development Plans.

The approach is intended to:

- Deliver a compatible and consistent built form with adjoining low-density residential development under *Local Structure Plan 76*;
- Support the Shire of Mundaring's *Foothills Growth Strategy* dwelling targets for the Helena Valley corridor; sn
- Maintain a clear and legible transition between the urban neighbourhood, areas of public open space and remnant vegetation and surrounding rural-residential areas.

2.2.2 Locational criteria

A uniform residential density of R20 applies across the Structure Plan area, as shown on **Plan 1**. An R-Codes Plan is to be prepared and submitted with the first subdivision application for the entire Structure Plan area. The R-Codes Plan will:

- confirm the application of the R20 code by street-block; and
- be assessed and approved in accordance with Clause 4.7.1 of the Pl*anning and Development (Local Planning Schemes) Regulations 2015* and the *WAPC Guidance for Structure Plans*.

Once approved by the WAPC, the R-Codes Plan will form part of the Structure Plan and guide subsequent subdivision and development approvals.

2.2.3 Development layout

The development comprises residential lots, local road reserves, urban deferred and public open space , in a configuration that responds to site topography, drainage, public open space and environmental characteristics. The subdivision layout:

- provides a continuous public road interface to POS 1, ensuring active frontages, passive surveillance and a legible edge between the urban and natural areas;
- fronts all areas of POS with surrounding residential lots and streets, avoiding rear fences to public spaces;
- follows natural contours to reduce earthworks, support stormwater management and maintain legible walking and cycling routes; and
- accommodates on-lot parking for residents supplemented by visitor parking within 13m–16m wide road reserves.

Two vehicular access points are provided to Helena Valley Road, comprising a new full movement northern access and an existing southern access intersection to Koorla Drive. Access design, including turning pockets and auxiliary lanes, will be coordinated with the Shire of Mundaring and Main Roads WA and implemented at subdivision stage in accordance with the supporting Transport Impact Assessment (TIA) prepared by Transcore, provided in **Appendix D**.

The internal street network is permeable and aligned with Liveable Neighbourhoods principles, avoiding cul-de-sacs and promoting connectivity to the wider network and existing public transport routes on Helena Valley Road.

Bushfire risk is addressed through the placement of streets and open space to form continuous APZs to vegetated edges, with the BMP confirming two-way public road access in two directions (via Helena Valley Road and Koorla Drive), and that future subdivision can be configured so dwelling siting areas achieve BAL-29 or lower, with title notifications applied where any parts of lots fall within BAL-40 or BAL-FZ areas.

Water Sensitive Urban Design measures will be embedded within public open space and road reserves outside the riparian core, providing biofiltration and detention prior to controlled discharge to POS 1. Stormwater basins and biofiltration areas will be configured to freely drain between events, maintaining appropriate separation to groundwater in accordance with the District Water Management Strategy.

Essential services (water, sewer, power and communications) will be accommodated within road reserves in coordinated common service corridors. Rationalisation and undergrounding of existing overhead power will occur where necessary to support street-tree planting, street lighting and clear lot access.

2.2.4 Local development plans

Local Development Plans (LDPs) may be required within the Structure Plan area to address specific built-form, access and interface outcomes. LDPs will generally be prepared and approved in accordance with the Regulations and WAPC Guidance for Structure Plans, and may apply to:

- lots with an area less than 260m^2 and irregularly configured lots;
- lots where specific vehicle access and egress control is required (including laneway access lots or those in proximity to intersections);
- lots in proximity to Helena Valley Road or other identified noise sources, to implement any required noise attenuation measures;
- lots abutting, or directly fronting, public open space and the road interface to POS 1, to address dwelling orientation, fencing and passive surveillance; and
- other locations identified on **Plan 1** or through subdivision where coordinated control over matters such as car parking, bin pads, retaining, boundary walls or streetscape is required.

2.2.5 Interface with adjoining areas

The Structure Plan provides a coordinated and compatible interface with all adjoining landholdings, ensuring urban development transitions sensitively to surrounding regional open space, established residential areas and rural-residential properties. The interface strategy maintains landscape continuity, preserves key environmental values and vegetation, and ensures permeability for vehicles, pedestrians and cyclists.

To the north, the subject land adjoins public open space (**POS 1**) which provides a sympathetic buffer to the conservation wetland to the north. The Structure Plan retains the mapped Conservation Category Wetland (CCW) and its 50metre buffer in public ownership, forming a logical connection to the POS 1 as identified on **Plan 1**. This area functions as both a drainage basin and an ecological corridor linking remnant vegetation along the Helena River and surrounding reserves. Development is set back behind this buffer, with a continuous public road and POS interface providing access, surveillance and bushfire management.

The structure plan is arranged to:

- Clearly delineate urban development from the natural landscape;
- Enable maintenance access for vegetation and drainage management;

- Provide opportunities for a shared path and trail connections into the wider Helena River network; and
- Support the integrity of the regional open space system while allowing low-impact recreation at the urban edge.

To the south, the Structure Plan adjoins Local Structure Plan 76, which is substantially subdivided and developed for low-density residential use. The road network and lot pattern have been designed to align with and complement LSP 76, ensuring a coherent neighbourhood structure and compatible built form.

To the east and west, the site interfaces with existing rural-residential properties characterised by larger lots, open fencing and scattered vegetation. Lots along these edges are oriented to front internal streets rather than back directly onto adjoining properties, enabling compatible fencing treatments, preserving privacy and ensuring that the rural-residential character is respected while providing a clear and defensible urban boundary.

Overall, the interface strategy combines roads, landscaped buffers and compatible built form to deliver a legible and high-amenity transition between the Helena Valley urban precinct, the conservation values associated with the wetland, areas of public open space, rural-residential areas and regional infrastructure corridors.

2.2.6 Heritage

The Structure Plan must respond to, and remain flexible to, the outcomes of Aboriginal cultural heritage investigations and ongoing engagement. Brad and Good Consultants (Aboriginal heritage consultants) have been appointed to lead detailed Aboriginal heritage investigations for the site and to advise on appropriate management, avoidance or mitigation measures as outlined in their Due Diligence report provided in **Appendix E.**

Implementation of the Structure Plan will be subject to compliance with the *Aboriginal Cultural Heritage Act 2021*.

2.3 Other requirements

2.3.1 Bushfire protection

All subdivision and development within the Structure Plan area is to comply with State Planning Policy 3.7 – *Planning in Bushfire Prone Areas*, the *Planning for Bushfire Guidelines* and the Bushfire Management Plan (BMP) prepared by Bushfire Prone Planning provided in **Appendix A**.

The BMP is a planning-stage assessment that uses indicative BAL contour mapping to confirm that subdivision can be configured to provide a building siting area capable of achieving BAL-29 (or lower), supported by appropriate APZ provision with detailed (determined) BAL ratings and BAL certification will be addressed at the building approval stage as required.

Within the Bushfire Prone Area, subdivision design is to ensure that habitable buildings are not located within areas subject to BAL-40 or BAL-FZ, and lots that contain BAL-40/BAL-FZ areas are to be appropriately notified to ensure buildings are not placed within those areas. Two-way access is to be provided in two directions to suitable destinations (via Helena Valley Road and Koorla Drive), with staging to maintain compliance through loop-road outcomes and/or temporary compliant turnarounds where any no-through road segments occur, and lot design to ensure lot boundaries remain within 200 metres of an intersection providing two-way access.

Firefighting water supply is to be addressed at subdivision and/or development stage, with evidence of reticulated water supply for firefighting purposes, and provision of dedicated firefighting water tank(s) and fittings where required.

The BMP is to be implemented and, if the subdivision layout or vegetation management assumptions change, updated accordingly to confirm ongoing compliance.

2.3.2 Infrastructure arrangements

Infrastructure arrangements for the structure plan area will be coordinated through a combination of local upgrades and standard servicing requirements. Road and intersection upgrades will be undertaken where necessary, as identified on the structure plan map, to support increased traffic and ensure safe access.

Utility infrastructure, including water, sewer and power, will be upgraded as required to service the development. Each lot will be required, as a condition of subdivision approval, to connect to reticulated water and sewer systems and an underground power supply, in coordination with the relevant servicing authorities.

2.3.3 Protection or management of environmental or landscape features

The Structure Plan retains and protects the mapped Conservation Category Wetland (CCW) associated with Kadina Brook, which is located within the northern portion of the Structure Plan area. Consistent with the Environmental Assessment Report (EAR) prepared by Western Environmental in **Appendix C**, Kadina Brook is an ephemeral waterway that connects to the Helena River and includes a narrow creekline with a broad floodplain that becomes partially waterlogged/inundated in winter/spring (limiting active recreation within the low-lying areas). A biophysical assessment previously undertaken for the site identified the appropriate interface along the southern extent of Kadina Brook as the outer extent of native vegetation (2.35 ha), with updated mapping confirming a native vegetation extent of 2.51 ha (noting condition values vary).

For structure planning purposes, the CCW and its buffer framework (including the 50 m CCW buffer and adjoining REW buffer areas shown in the supporting mapping) will be fully retained within POS 1, providing separation between development and the wetland/waterway corridor and supporting its role as a fauna movement linkage and flood conveyance within the greater Helena River system.

No development or clearing is proposed within the mapped CCW itself, recognising the CCW's highest priority management objective to preserve and protect existing conservation values. Minor, targeted works may occur along the native vegetation edge (outside the CCW core and riparian vegetation extent), but only where required to achieve approved management and public access outcomes, including:

- Fuel-load reduction and bushfire risk mitigation in accordance with approved bushfire management requirements (and without compromising the foreshore rehabilitation intent);
- Staged weed control and ecological restoration/revegetation (including understorey improvement), undertaken in a manner that avoids nutrient pulses to Kadina Brook and using wetland-suitable methods where relevant;
- Installation of shared paths and other low-impact recreational infrastructure in the drier portions of the foreshore reserve (e.g. a pathway parallel with the southern boundary of the wetland), located outside the riparian core;
- Removal of individual trees only where unavoidable (e.g. for risk/safety or approved development interface works), supported by appropriate specialist advice and statutory approvals, and subject to fauna management requirements.

The Structure Plan retains and protects the Conservation Category Wetland (CCW) and its 50m buffer, which are entirely contained on the northern portion of Lot 254, buffered from the urban edge by POS 1. POS 1 seeks to preserve the drainage and ecological function of the Kardina Brook corridor within the greater Helena River system and provide an interface between development and the adjacent wetland characteristics and regional open space reserves.

Minor, targeted clearing may occur only where required to achieve approved management objectives, including;

- Fuel-load reduction and bushfire risk mitigation;
- Weed removal and ecological restoration;
- Installation of shared paths or low-impact recreational infrastructure; and
- Removal of individual trees certified by a qualified arborist and approved through the appropriate statutory process.

No stormwater treatment basins or groundwater management/treatment systems are to be located within the CCW buffer or core. This responds to agency guidance that stormwater and groundwater management systems should be located outside these wetland values, with the precise POS and water management integration to be refined through subsequent LWMS/UWMP stages.

The public open space interface will be implemented in accordance with the following principles:

- **Road-based edge –** A public road will be provided along the majority of the POS 1 edge to establish a clear boundary, enable maintenance and emergency access (including APZ where required), deliver passive surveillance and provide safe, permeable public access to the environmental amenity.
- **Lot-to-reserve interface –** Where lots directly face POS 1, dwellings will be oriented to support passive surveillance and amenity, with fencing and levels managed to maintain visual permeability to the environmental amenity.

- **Topographic transition –** Site design will incorporate a sloping, landscaped transition along the POS 1 edge, retaining native vegetation on steeper sections to manage erosion risk and using locally appropriate native species to create a stable, naturalistic interface between urban development and the wetland.
- **Pedestrian connectivity** – A shared path link will connect the neighbourhood to the wider open space and future urban areas, with alignment prioritising the drier foreshore areas and low-impact construction outcomes, and avoiding works in waterlogged/inundated portions of the floodplain wherever practicable.

2.3.4 Water resource management

Water resource management for the Structure Plan area will be guided by the Local Water Management Strategy (LWMS) prepared by Oversby Consulting (refer **Appendix E**) and subsequent Urban Water Management Plans at subdivision stage.

Key principles include:

- No drainage infrastructure or fill within the CCW or its 50m buffer, or within the riparian core of Kadina Brook.
- Urban development set back behind POS 1, with all primary drainage and water quality treatment infrastructure located outside the riparian core.
- Post-development flows treated and attenuated within biofiltration basins and swales before controlled discharge to Kadina Brook, with discharge rates at or below pre-development conditions.
- Stormwater storage elements designed to freely drain between rainfall events, maintaining appropriate clearance to maximum groundwater levels.

3.0 Additional details

3.1 Information to be submitted with an application

The following **Table 5** lists the information to be submitted with an application, what matters the plan/study will address, and the relevant consultation requirements.

Table 5 Information to be submitted with an application

Additional Information / Purpose	Approval Stage	Responsible Agency (consultation required)
Address requirements under SPP 3.7 and *Guidelines* (as amended) only for land that is designated as bushfire prone on the *Map of Bush Fire Prone Areas*.	Subdivision Development	WAPC, Department of Fire and Emergency Services, Shire of Mundaring
Urban Water Management Plan (UMWP)	Subdivision Stage	WAPC Shire of Mundaring
As per section 2.2.1 of the structure plan, an R-Codes plan is to be submitted at the time of subdivision for the entire structure plan area. The plan will allocate R-Codes for proposed street-blocks/lots (as the case requires).	Subdivision Development	WAPC
Public Open Space Plan and Schedule, identifying the size and distribution of public open space.	Subdivision Development	WAPC
Address Aboriginal Heritage requirement by undertaking an ethnographic and archaeological heritage survey prior to any ground-disturbing works	Subdivision Development	WAPC

3.2 Studies to be required under condition of subdivision / development approval

The following **Table 6** identifies studies/plan(s), to be required under conditions of subdivision/development approval.

Table 6 Studies to be required under condition of subdivision / development approval

Conditions of Subdivision Approval	Responsible Agency
Urban Water Management Plan- To detail the management of stormwater both on and off site in accordance with the WAPC's Better Urban Water Management Guidelines	Department of Water and Environmental Regulation& Shire of Mundaring
Bushfire Management Plan- Demonstrates the requirements of the Bushfire Management Plan provided in support of the subdivision have been met.	Shire of Mundaring
Local Development Plan	Shire of Mundaring
Public Open Space Landscape Plan	Shire of Mundaring
Any requirements identified through the ethnographic and archaeological heritage survey	WAPC

2.0

Part 2: Explanatory Section

1.0 Introduction

1.1 Purpose

The Lot 253 & Lot 254 Helena Valley Structure Plan (**Structure Plan**) has been prepared by TBB Planning and the project team on behalf of Jardim Property Ltd (the **Client**), refer **Table 5**. The purpose of the Structure Plan is to guide the orderly and proper subdivision and development for low density residential purposes for the subject site, being Lots 253 and 254 Helena Valley Road, Helena Valley.

The Structure Plan has been prepared in accordance with the requirements of the *Planning and Development (Local Planning Schemes) Regulations 2015* and the Western Australian Planning Commission *Planning Manual – Guidance for Structure Plans* (2023) (the Guidance), with regard for Clause 5.17 of the Shire of Mundaring *Local Planning Scheme No. 4* (LPS 4).

The Structure Plan has been prepared based on a comprehensive review of relevant town planning, environmental, bushfire, traffic and engineering considerations. The Structure Plan design responds to the unique environmental landscape and characteristics of the site.

The Structure Plan provides the strategic and statutory basis for the future zoning, residential density, and subdivision of the eastern portion of land within the Helena Valley Urban Precinct (HVUP). It supports orderly and coordinated urban development that reflects the planning vision for the locality.

The key objectives of this Structure Plan are to:

- Establish a statutory framework to guide land use, subdivision, and development within the precinct;
- Facilitate a high-quality, low density urban environment that responds to the surrounding urban and rural context.;
- Maximise residential amenity and liveability for future residents; and
- Respond to and enhance the site's environmental features, including integration of existing vegetation and proximity to regional open space and the Helena River and Kardina Brook.

Table 7 Project Team

Organisation	Consultant Role
Stantec	Transport Consultant
Collier	Engineering Consultant
Oversby Consulting	Hydrological Consultant
Bushfire Prone Planning	Bushfire Consultant
PGV Environmental	Environmental Consultant
Pendragon	Geotechnical Consultant

2.0 Site and context analysis

2.1 Physical Context

2.1.1 Location

The Structure Plan area is located within the .suburb of Helena Valley, within the Shire of Mundaring and North-East Metropolitan region, is approximately 21 km north-east of the Perth CBD and 5 km south-east of the Midland Strategic Metropolitan Centre. It is immediately west of the Hazelmere Industrial/Enterprise Area, placing the precinct in close proximity to two major employment nodes.

The Structure Plan area is located within close proximity to Roe Highway and generally bound by vacant land comprising the remainder of the Precinct to the west, an unnamed access track to the north, residential lots to the east, and vegetated vacant land to the south, as illustrated in **Figure 2.** The Structure Plan area serves as a natural extension to the emerging Helena Valley residential area to the east.

The subject land is highly accessible via Roe Highway, providing north–south connectivity with onward links to Great Northern Highway and Great Eastern Highway, integrating the precinct with the wider metropolitan and regional road network. Locally, Helena Valley Road functions as the primary east–west access to the Helena Valley residential catchment. These routes are expected to remain high-level regional access roads, with further works planned to Roe Highway adjacent to the HVUP and an upgrade of Helena Valley Road identified to reinforce its role as the principal local entrance.

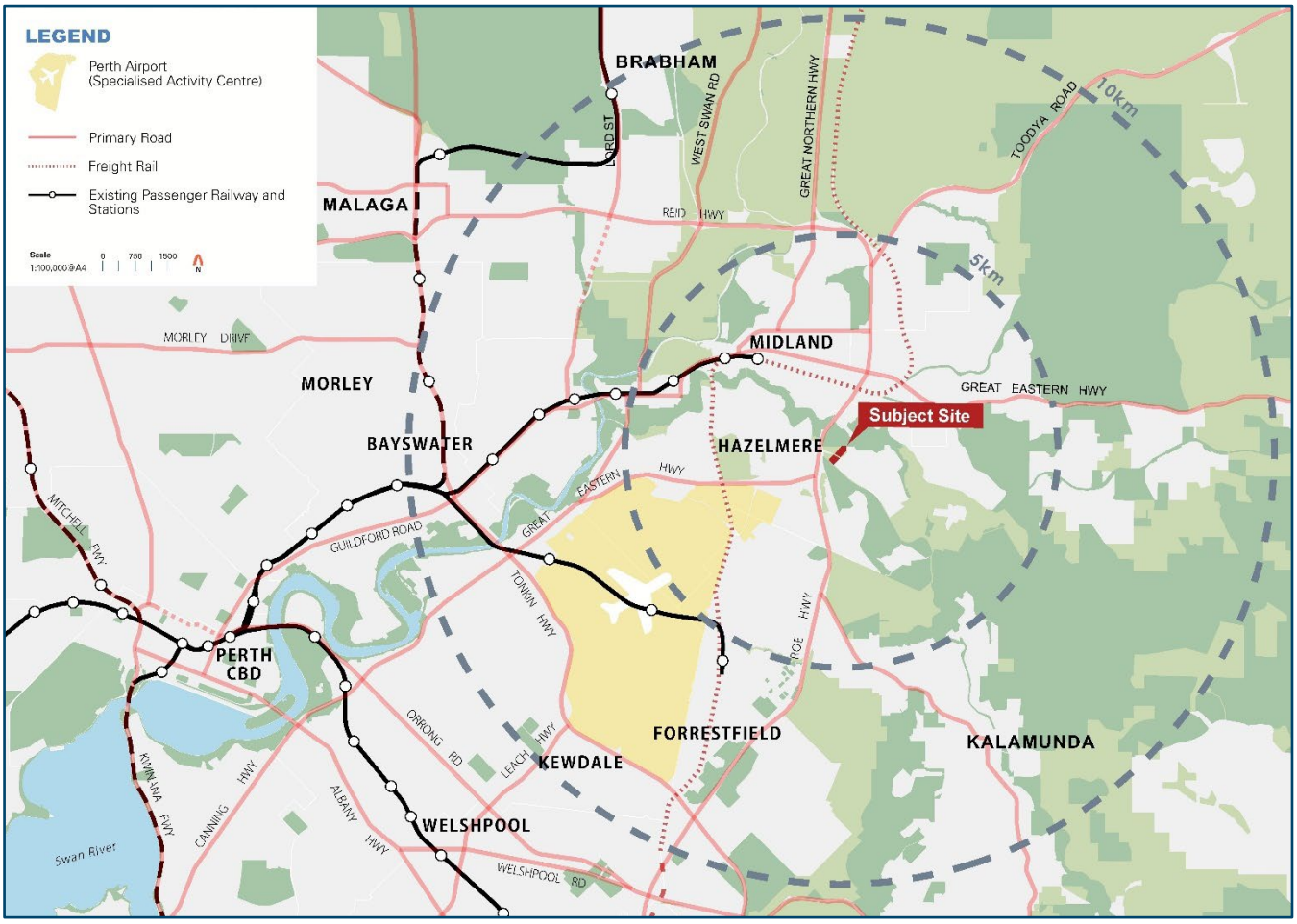

Figure 1 Regional Location Plan

2.1.2 Surrounding Area and Land Use

The Structure Plan area is semi-rural landscape that is largely undeveloped and historically used for low-intensity activities such as horse agistment, storage and private rural purposes. There is no evidence of ongoing productive agriculture, which supports a planned transition to urban land uses consistent with the established strategic framework.

Environmental values are concentrated in the north and north-east, where native vegetation associated with the Helena River extends into the northern portion of Lot 254. These values have informed the Structure Plan design, with the public open space and wetland interfaces to be protected through retention, appropriate buffers and revegetation, ensuring they function as a continuous ecological corridor with only minor clearing.

The surrounding area is undergoing a clear transition from rural-residential to urban development, as illustrated in **Figure 3** and **Figure 4.** At the municipal scale, ongoing growth in Helena Valley and Bellevue is steadily expanding the urban footprint. Locally, this change is reflected in a mix of larger rural-residential lots and emerging low-density neighbourhoods that benefit from proximity to open space and the Midland Regional Centre. This evolving character provides a complementary setting for the proposed urban transition of the Structure Plan area.

The Structure Plan area is well-located relative to jobs and services, with the Hazelmere Industrial Area to the west (separated by Roe Highway) and the Midland Strategic Metropolitan Centre to the north-west. Roe Highway provides a clear interface to industry, while proximity to Midland and strong regional road connections underpin the suitability of urban development at this location.

Figure 2 Local Context Plan

To the east, land is zoned Urban under the MRS. Adjacent planning, including Local Structure Plan 76 to the south-east, establishes connections and servicing that this Structure Plan report will extend and integrate with, reinforcing a coherent interface to the emerging residential areas.

2.1.3 Legal Description

The legal description of the subject lots included within the Structure Plan area is outlined in **Table 5** below and a Copy of the Certificate of Title(s) are provided in **Appendix B.**

Table 8 Land Ownership Details

Lot	Plan	Volume	Folio	Area	Registered Proprietor
253	413196	2953	411	2.9881ha	Ingwe Helena Valley Pty Ltd
254	412196	2953	412	4.3161ha	

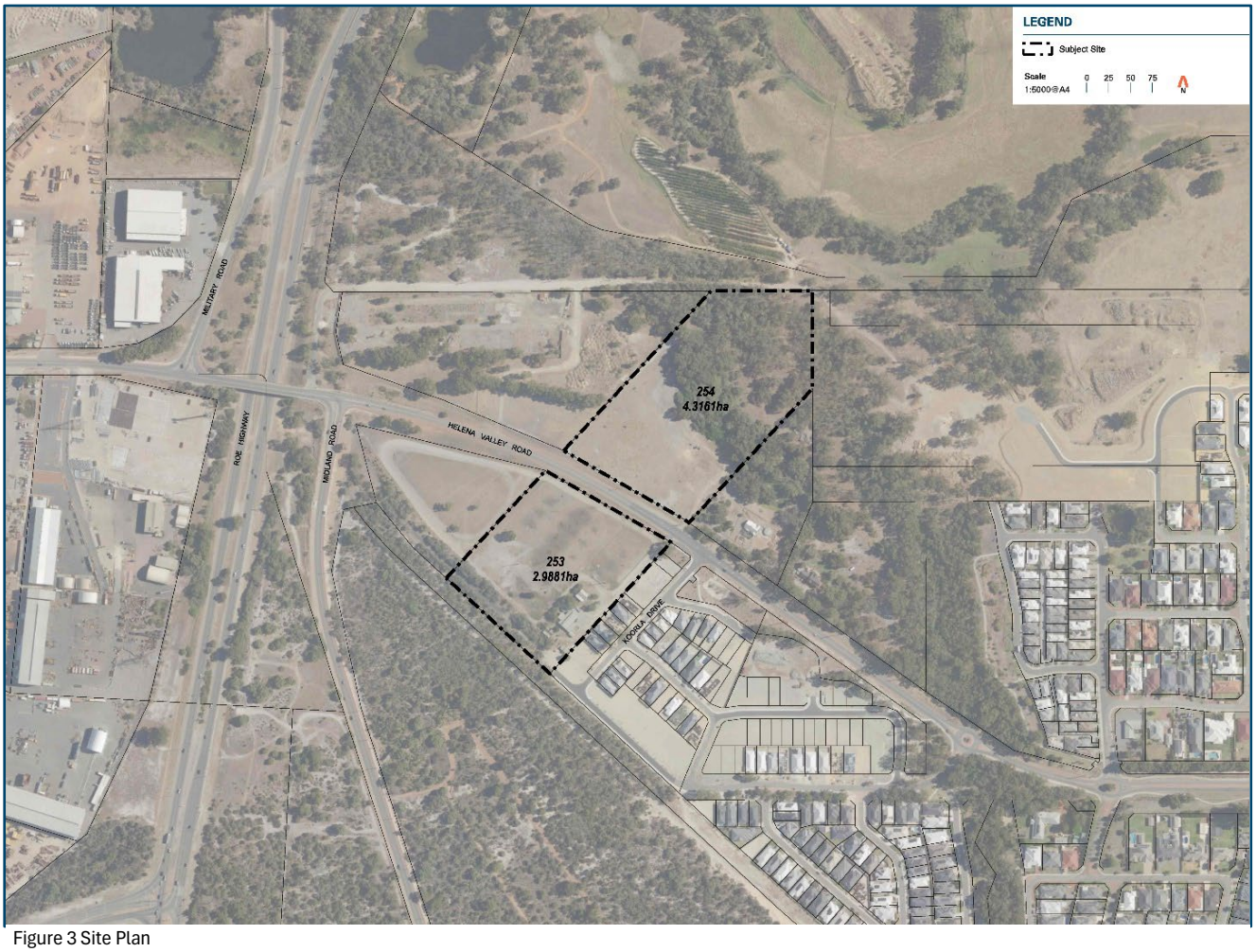

Figure 3 Site Plan

2.1.4 Environment

2.1.4.1 Landform and Typology

The structure plan area occupies gently undulating terrain ranging between approximately 20m AHD and 10m AHD, generally sloping down to the north-west toward Kadina Brook. Lot 253 is generally flat at around 18m AHD, rising to approximately 20m AHD in the south-east corner, while Lot 254 falls from about 18m AHD at Helena Valley Road to around 14m AHD near the Kadina Brook vegetation, before continuing into an incised valley associated with the Brook at approximately 10m AHD. This

landform supports a road network that can broadly follow existing grades and provides a clear drainage "fall" toward the north, noting that the Kadina Brook floodplain sits lower than the surrounding developable land and requires a conservative interface response.

Pendragon Environmental Solutions completed a Preliminary Site Investigation (PSI), provided in **Appendix F** in support of this structure plan. At a broader scale, DPIRD mapping identifies the site as part of the Pinjarra System on the Swan Coastal Plain, characterised by variable alluvial and aeolian soils. The dominant soil subsystems mapped across the site include Pinjarra phase Gf7 on minor rises (deep sands underlain by mottled yellow clay), Pinjarra phase Gf9 on minor sandy rises (well-drained sands over gravelly mottled clay) and Pinjarra phase Gf5 associated with incised drainage channels along the Kadina Brook alignment (poorly drained soils). Groundwater is understood to generally flow north, with maximum groundwater levels reported at approximately 8–10 m AHD (noting this equates to around 5 m below ground level in Kadina Brook and 11–13 m below ground level across the remainder of the site).

The Acid Sulfate Soil (ASS) risk mapping indicates that a large proportion of the site (including the whole northern lot) is not mapped as having ASS risk, while the southern portion (approximately 2.24 ha; 30.7% of the site) is mapped as having a moderate to low risk of ASS within 3m of natural surface and a high risk at depths greater than 3m. The environmental assessment also notes that wetland/floodplain soils are often associated with ASS and that areas around Kadina Brook and its floodplain may warrant further consideration notwithstanding the mapped extent. This can be addressed through standard subdivision-stage earthworks controls and, where required, targeted sampling/management in accordance with DWER requirements.

A review of the DWER contaminated sites database confirms the structure plan land is not mapped as a registered contaminated site. However, a registered contaminated site is mapped immediately adjacent to the north-east boundary of Lot 254 (Site No. 81371), associated with uncontrolled landfill materials (including asbestos-containing materials, metal hydrocarbons and PFAS), and is identified as unsuitable for residential development and therefore to remain as public open space. The structure plan response will therefore maintain an appropriate POS interface in the northern area and ensure that any future subdivision and detailed earthworks design appropriately recognises and manages the adjacent contamination constraint (including avoiding encroachment and ensuring suitable separation and due diligence at detailed design stage).

2.1.4.2 Hydrology

Kadina Brook is an ephemeral watercourse managed by the Department of Water and Environmental Regulation (DWER) and traverses the north-eastern corner of the Structure Plan area, flowing seasonally to the north-west toward the Helena River. The brook forms a narrow-incised channel with a broader floodplain.

Superficial groundwater generally follows the surface topography, draining northward toward the Helena River system. Wetland mapping identifies a Conservation Category Wetland (CCW) within the north-east portion of the site, with adjoining Resource Enhancement (REW) and Multiple Use Wetlands (MUW) associated with the brook and floodplain. A biophysical assessment defines the outer extent of riparian vegetation, with drainage infrastructure located outside this area to protect ecological function and maintain public amenity.

2.1.4.3 Flora and Fauna

The Structure Plan area has been extensively cleared and degraded by historical rural activities, with higher-value native vegetation concentrated along the Kadina Brook corridor in the northern portion of Lot 254, refer **Figure 4**. Site flora surveys recorded a mix of native and introduced species, where vegetation condition ranges from *Completely Degraded* across cleared uplands to *Very Good* adjacent to the brook where remnant understorey persists.

Fauna habitat is concentrated within the riparian corridor, providing foraging resources for black cockatoos (notably Wandoo and Flooded Gum). Eight potential breeding trees were identified, although no suitable hollows were recorded. The Structure Plan ensure this vegetation will be retained and protected within the wetland and its associated buffer and remaining area of public open space to preserve fauna habitat and maintain ecological linkages along the Kadina Brook corridor.

2.1.4.4 Bushfire

The site is identified as bushfire-prone due to vegetation associated with Kadina Brook and surrounding riparian areas and unmanaged vegetation associated with surrounding vacant land. A Bushfire Management Plan (BMP) has been prepared to guide development design and staging, refer **Appendix A.**

Development is concentrated on cleared upland areas and incorporates a 'hard-edge' perimeter road along the brook interface to reduce post-development hazard levels. The majority of lots are expected to achieve a maximum Bushfire Attack Level (BAL) of 29, with limited areas of BAL-40 managed through additional building setbacks and site-specific design controls and management agreements. Several lots will require staged development pending further vegetation management and confirmation of final BAL ratings at the subdivision stage.

These measures ensure bushfire risk is effectively mitigated while retaining and protecting the conservation wetland and associated habitat values.

2.1.4.5 Physical Infrastructure and Services

The Structure Plan area benefits from proximity to existing and planned infrastructure servicing the wider Helena Valley locality. Reticulated water, power and telecommunications infrastructure are available within the adjoining urban areas and will be extended into the Structure Plan area. Sewer connection will occur through integration with the Water Corporation's existing network located to the south-east, as outlined in the Local Water Management Strategy (LWMS).

Stormwater will be managed through a combination of on-site retention, bio-filtration and infiltration basins located outside the wetland areas, in accordance with the District Water Management Strategy (DWMS) framework for the Helena Valley Urban Precinct. The landform readily accommodates gravity drainage northward, minimising the need for major earthworks or pumping.

Energy and communications infrastructure can be extended efficiently given the site's proximity to existing networks along Helena Valley Road. No significant servicing constraints are identified, with upgrades to be coordinated through subdivision design and staging to align with urban rollout.

2.1.4.6 People Movement

The Structure Plan area will connect directly to Helena Valley Road, forming the primary access route to the broader district road network. Helena Valley Road provides links west to Roe Highway and Midland, and east toward the residential neighbourhoods of Helena Valley and Bellevue. The existing road hierarchy supports safe and efficient vehicle access for both residents and visitors.

The surrounding transport network accommodates multiple modes, with regional road access complemented by local bus services operating along Helena Valley Road providing connections to Midland Station and other key destinations. Internal street design will prioritise permeability and safety for pedestrians and cyclists, integrating shared paths and green links to the areas of public open space and adjoining urban areas.

At a strategic level, the Structure Plan aligns with the transport and movement objectives of the *Perth and Peel @ 3.5 Million* framework, supporting a connected, walkable and transit-enabled neighbourhood. Opportunities exist to enhance walkability and cycling through direct path connections to public open space and surrounding residential areas.

2.2 Community Context

2.2.1 People

The surrounding area is characterised by a mix of established residential neighbourhoods and semi-rural holdings that are gradually transitioning to urban living. Residents benefit from proximity to employment, education, retail and health services in the Midland Strategic Metropolitan Centre.

The Helena Valley catchment includes family households, older residents and working professionals, with detached dwellings on larger lots predominating. Within this context, the Structure Plan delivers conventional R20 lots that are complementary to the surrounding urban form. The proposal responds to State housing needs by adding well-located, serviced greenfield supply close to major employment nodes at Hazelmere and Midland, supporting workforce housing and contributing to overall supply without altering the prevailing neighbourhood character. Walkable access to public open space will provide local amenity consistent with the area's evolving urban context.

2.2.2 Economy

The Structure Plan area is strategically positioned between major employment centres, including the Hazelmere Enterprise Area to the west and the Midland Strategic Metropolitan Centre to the north-west, refer **Figure 2** and **Figure 3**. Both nodes are key economic drivers within the north-east metropolitan corridor, providing industrial, logistics, health, education and service-based employment.

Future residents will benefit from access to local and regional employment opportunities within these centres, supporting reduced travel demand and contributing to a more self-sufficient urban community. In addition, continued urban development in Helena Valley will increase local population thresholds that underpin small business activity, education services, and community infrastructure within the Shire of Mundaring.

2.2.3 Culture, Values and Identity

The Kadina Brook landscape and retained riparian vegetation are defining features. The wetland area and its associated buffer is intended to protect ecological values and provide public amenity, reinforcing a local identity connected to the Brook corridor.

Kadina Brook and its riparian corridor are defining environmental and cultural elements of the Structure Plan area. The Structure Plan balances environmental protection and urban outcomes by retaining all vegetation within the wetland areas and majority within areas of public open space, with only minor vegetation modification limited to bushfire mitigation and public interface works. The CCW will be wholly retained, preserving ecological values and establishing a continuous linear open space that strengthens community identity and connection to the natural landscape.

Integration of the brook corridor into the urban design will establish a distinctive local character centred on the natural waterway and mature vegetation. This area will also form a key element of the public open space network, offering opportunities for recreation, community interaction, and environmental education.

2.2.4 Social infrastructure and services

The Structure Plan area is well served by existing and planned infrastructure within Helena Valley and nearby Midland. Residents will have convenient access to higher-order retail, education, and health services within the Midland Strategic Metropolitan Centre, as well as local primary schools, community facilities, and recreational areas within the Shire of Mundaring.

The areas of local public open space will provide amenity and recreation opportunities within walking distance of future homes. These assets will complement existing community infrastructure and strengthen neighbourhood identity, ensuring that future residents benefit from a well-connected and liveable environment.

2.3 Planning and Governance

2.3.1 Strategic Planning Framework

2.3.1.1 State Planning Strategy 2050

The *State Planning Strategy 2050* sets the overarching vision for Western Australia's growth, aiming to achieve a sustainable, liveable and prosperous future for all Western Australians. The Strategy anticipates a doubling of the State's population by 2050 and identifies the need to deliver connected, diverse and high-quality urban communities.

The subject land sits within an established peri-urban corridor close to the Midland Strategic Metropolitan Centre and key regional transport links. Its future development will help accommodate growth in a serviced, well-located area and is consistent with the Strategy's themes of efficient land use, community wellbeing and environmental stewardship.

2.3.2 Directions 2031 and Beyond – Spatial Framework for Perth and Peel

Directions 2031 and Beyond outlines the metropolitan growth framework for Perth and Peel, identifying key sub-regions and associated housing and employment targets to accommodate future growth. The subject site is located within the North-East Sub-Region, which is targeted to deliver significant additional dwellings to meet projected demand.

The site contributes to the North-East Sub-Region housing targets, with structure planning to deliver efficient yields, legible interfaces to Regional Open Space and a street network that integrates with existing urban areas. Density and layout will be guided by context and Liveable Neighbourhoods.

2.3.3 Perth and Peel @ 3.5 Million

The *Perth and Peel @ 3.5 Million* frameworks build on the principles of *Directions 2031*, providing detailed sub-regional planning guidance to accommodate anticipated population growth of 3.5 million, with a total 800,000 new dwellings to be provided by 2050, while protecting significant environmental assets. The frameworks promote greater urban consolidation, increased housing diversity, and a connected movement network.

The subject site lies in the North-East Sub-Regional Framework within a designated urban growth area, refer **Figure 5**. Its development for residential use aligns with the framework by locating new housing close to existing infrastructure, services and employment, supporting efficient land use and contributing to regional housing diversity and density targets.

Short-to-medium-term delivery is anticipated for this growth front, with staging to follow servicing availability and access upgrades along Helena Valley Road. The LSP applies R20 density code. contributing to forecast housing needs for the Shire of Mundaring and the wider North-East Sub-Region.

Figure 4 Extract of North-East Sub-Regional Planning Framework

2.3.4 Shire of Mundaring Local Planning Strategy

The *Shire of Mundaring Local Planning Strategy* was endorsed by the WAPC on 28th May 2013, and establishes the long-term planning direction for the Shire, aligning State, regional and local policy frameworks and providing the rationale for land use and development controls under the Shire's local planning scheme.

The subject land is identified as an '*Investigation Area'* for the expansion of the existing residential precinct, with development to be facilitated through amendment to the Metropolitan Region Scheme (MRS), as illustrated in **Figure 6** below. Consistent

with this intent, the land was subsequently rezoned to *Urban* under the MRS by Amendment 1425 (Standard), enabling detailed structure planning to guide orderly subdivision and development, as outlined in **Section 2.3.6.2.**

The Strategy's key objectives are to promote sustainable and compact urban growth, protect environmental values, and support community wellbeing through the provision of accessible, high-quality services. Within this framework, the Structure Plan advances the Strategy by:

- directing growth to land already identified and zoned for urban development;
- providing a legible internal movement network with controlled connections to regional routes;
- managing environmental interfaces (including POS and drainage) through an LWMS-led approach that protects riparian corridors and maintains water quality; and
- addressing bushfire risk consistent with *SPP 3.7 – Planning in Bushfire Prone Areas* via layout, perimeter roads, Asset Protection Zones and a BMP at subdivision.

Overall, the proposal is consistent with the Strategy's aims for compact, serviced and well-designed neighbourhoods, subject to detailed environmental and servicing inputs at subdivision and development stages. In particular, the LSP:

- applies to land zoned *Urban* under the MRS and *Development* under LPS 4;
- is designed around conserving and enhancing existing natural features through an integrated POS and drainage network; and
- contributes to the Shire's medium- to long-term housing supply in a location capable of efficient staging and servicing.

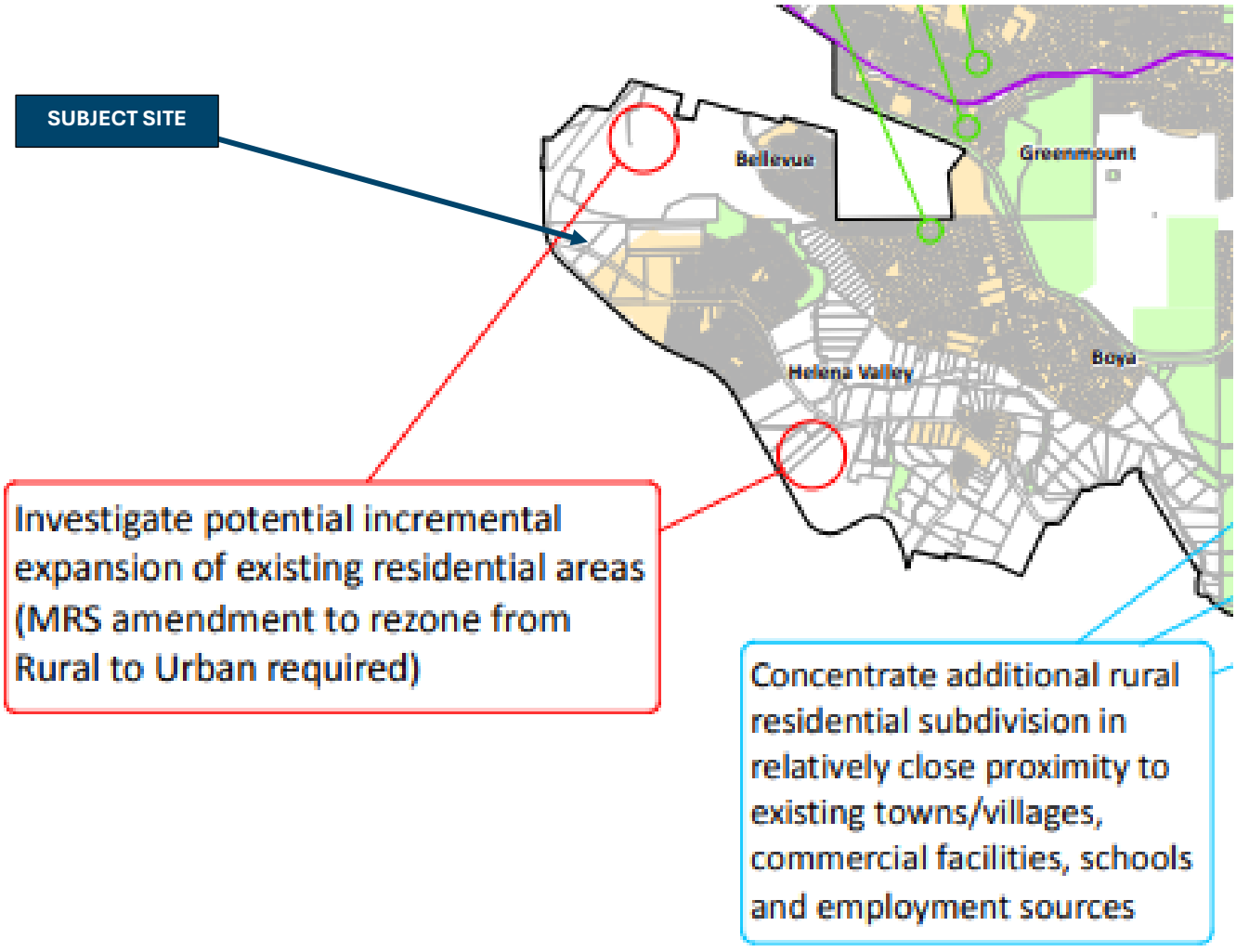

Figure 5 Shire of Mundaring Local Planning Strategy Extract

2.3.5 Shire of Mundaring Local Biodiversity Strategy (2023 – 2030)

The Shire's *Local Biodiversity Strategy 2023–2030* (LBS) seeks to protect, retain and manage Local Natural Areas (LNAs) outside the formal conservation estate, including bushland, watercourses and granite outcrops. It categorises land according to ecological value, connectivity and planning context, and promotes landscape-scale protection and management.

The Structure Plan area is mapped as part of a Regional Ecological Linkage associated with Kadina Brook and the Helena River. This corridor connects regionally significant natural areas through local reserves and remnant vegetation, supporting wildlife movement, pollination and seed dispersal.

The LBS identifies three key goals, each addressed by the Structure Plan as follows:

1. **Conserve / Protect:** increase the area of Local Natural Areas formally protected, achieved through dedication of a vegetation interface over Kadina Brook and associated wetlands.
2. **Retain:** identify additional areas for retention where full protection is not feasible, achieved through integrating existing vegetation within public open space and road reserves.
3. **Manage:** ensure long-term management of conservation areas, facilitated through wetland and public open space management planning at subdivision.

The Structure Plan responds to these objectives by retaining and enhancing local biodiversity through:

- an LWMS-led public open space network;
- preserving and protecting all conservation wetland values and majority of POS 1; and
- targeted vegetation retention within public open space and street reserves, supported by road-based interfaces that protect and define the vegetation corridor.

2.3.6 Shire of Mundaring Foothills Growth Strategy

The Structure Plan area lies immediately adjacent to, but outside, Precinct 11 of the *Foothills Growth Strategy* (FGS). Precinct 11 is intended for medium-density housing with compatible mixed-use and a connected open space network protecting Kadina Brook and Helena River values.

The Structure Plan provides a logical and context-appropriate edge extension to this precinct, supporting the FGS intent while maintaining a lower-density R20 outcome consistent with its transitional location.

Development is focused on the urban interface with Midland, with staging coordinated to the timing of infrastructure and access upgrades to Helena Valley Road. The movement network provides permeability and legible connections with adjoining neighbourhoods, while regional access and intersection design will be coordinated with Main Roads WA and the Shire.

Public open space is arranged in accordance with the LWMS to protect the Kadina Brook interface, integrate biofiltration and infiltration, and maintain green linkages consistent with the objectives of the FGS.

2.3.7 Statutory Planning Framework

2.3.7.1 Metropolitan Region Scheme

The Structure Plan area is zoned 'Urban' under the *Metropolitan Region Scheme* (MRS) with minor portions on either side of Helena Valley Road reserved 'Urban Deferred', refer **Figure 7,** consistent with the established urban front advancing through Helena Valley.

Land to the north and south-west is reserved 'Regional Open Space' associated the Helena River corridor and Bush Forever Site 213, reinforcing the importance of sensitive interface design and vegetation protection. The western portion of Helena Valley Road adjacent the Structure Plan area is reserved 'Primary Regional Road', recognising its function as a key district connector and the need for coordinated access and intersection planning with Main Roads WA.

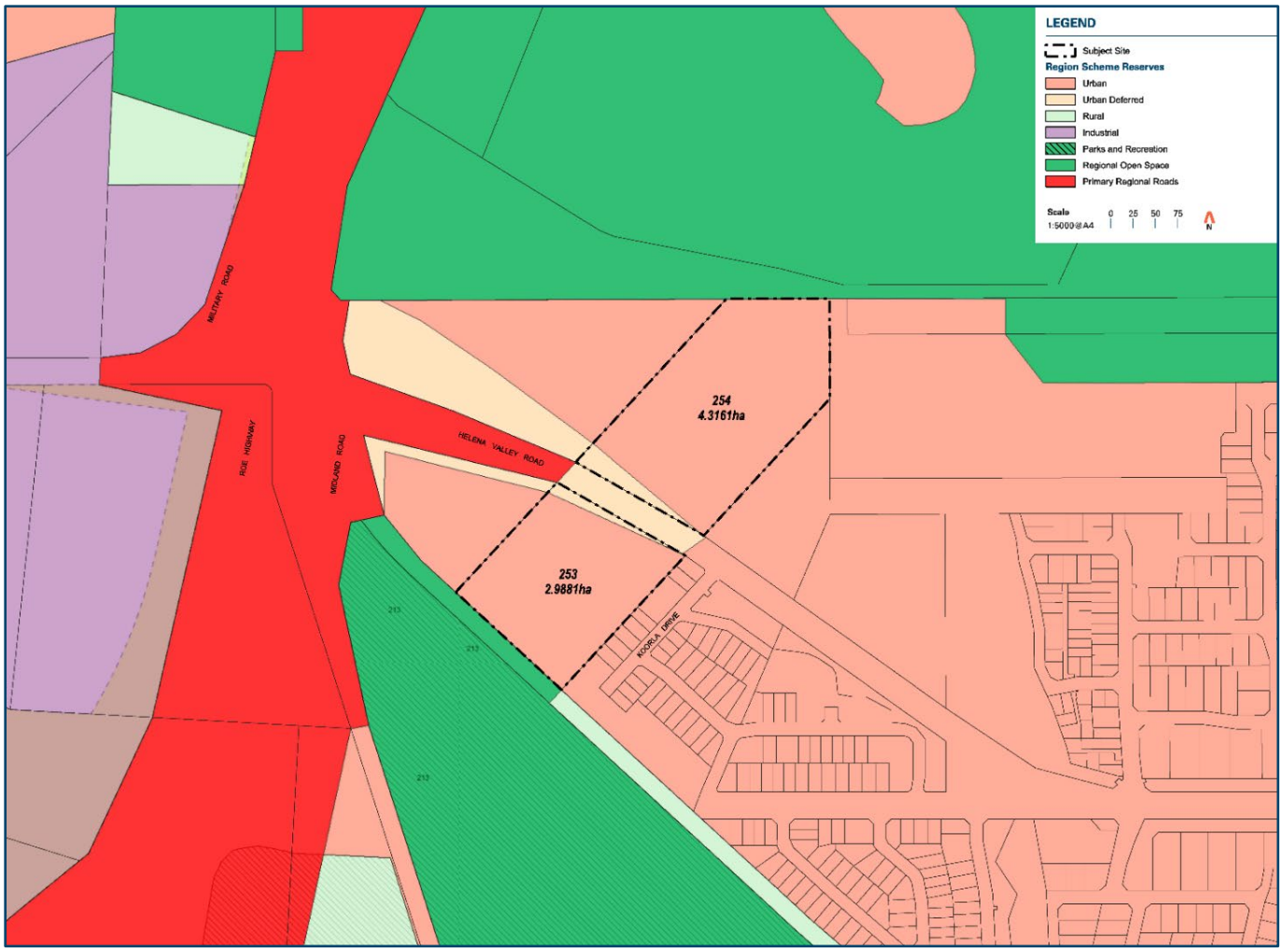

Figure 6 Extract of MRS

2.3.7.2 MRS Amendment No.1425 (Standard)

In 2025, MRS Amendment No.1425 (Standard) rezoned approximately 15.3 hectares, including the Structure Plan area, from Rural to Urban under the MRS and applied related reservations for Primary Regional Roads and Regional Open Space, as well as Urban Deferred reservations, refer **Figure 8**. The purpose of the Urban Defererd zoning is to faciliate the planning for the future Roe Hiwghway Overpass. There are currently no plans or funding in place for this work and the timing is uncertain as confirmed by MRWA, refer **Table 9.** The amendment took effect on 26 September 2025.

Under section 126(1) of the *Planning and Development Act 2005*, a concurrent amendment to the *Shire of Mundaring Local Planning Scheme No. 4* zoned the land *Development* to reflect its *Urban* status under the MRS. Both amendments were gazetted concurrently in September 2025.

As part of this MRS amendment assessment process, DBCA, in its referral role, recommended that the foreshore area associated with Kadina Brook on the northern portion of Lot 254 be clearly delineated and rezoned to 'Regional Open Space' to provide a formal foreshore reserve. The WAPC ultimately did not support this recommendation and instead zoned this land, including the CCW and its buffer, 'Urban', refer **Figure 7**.

In this context, the previously described 'foreshore reserve' associated with Kadina Brook does not have a Regional Open Space reservation under the MRS. For the purposes of this Structure Plan, the land is therefore treated as part of the urban zoned area and is identified and managed as Public Open Space 1 (**POS 1**) in **Plan 1**, while still recognising and responding to its underlying foreshore and wetland values.

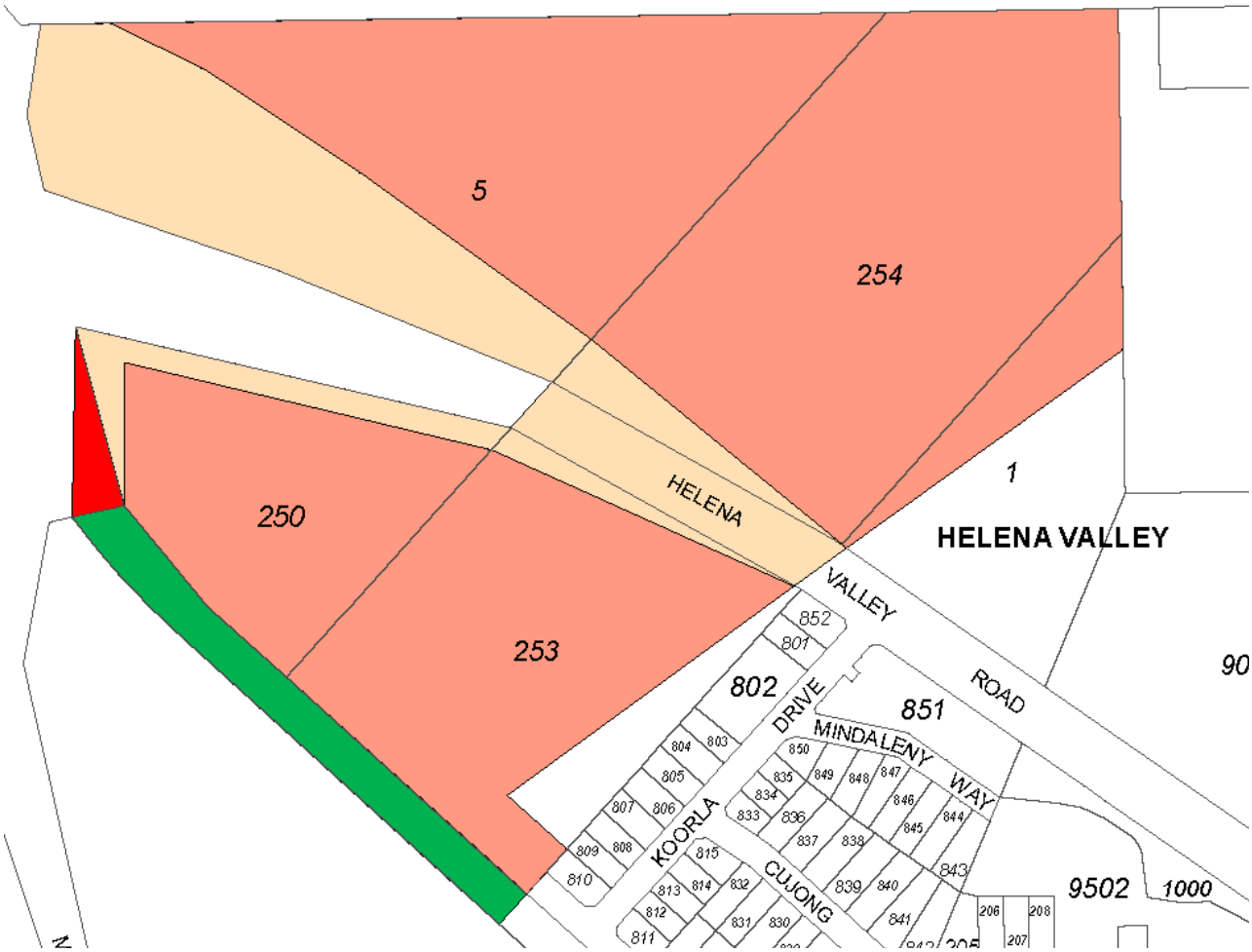

Figure 7 MRS Amendment Standard (1425) – Amendment Plan Extract

2.3.8 Shire of Mundaring Local Planning Scheme No.4

The Structure Plan area is zoned 'Development' under the Shire of Mundaring LPS 4, refer **Figure 9.** The objective of the zone is;

> *"to provide for the orderly planning of large areas of land for residential and other purposes through comprehensive structure planning which will provide the basis for future subdivision and development."*

Consistent with LPS 4, this Structure Plan establishes the framework for future subdivision and development, incorporating site-responsive design measures addressing bushfire risk, transport noise, and the wetland area. Subsequent subdivision and, where required, local development plans will demonstrate detailed compliance with applicable State and local planning policies.

Interfaces with environmental values and Helena Valley Road will be managed through perimeter roads, landscaped buffers, and, where necessary, local development plans to ensure high-amenity and appropriately protected edges.

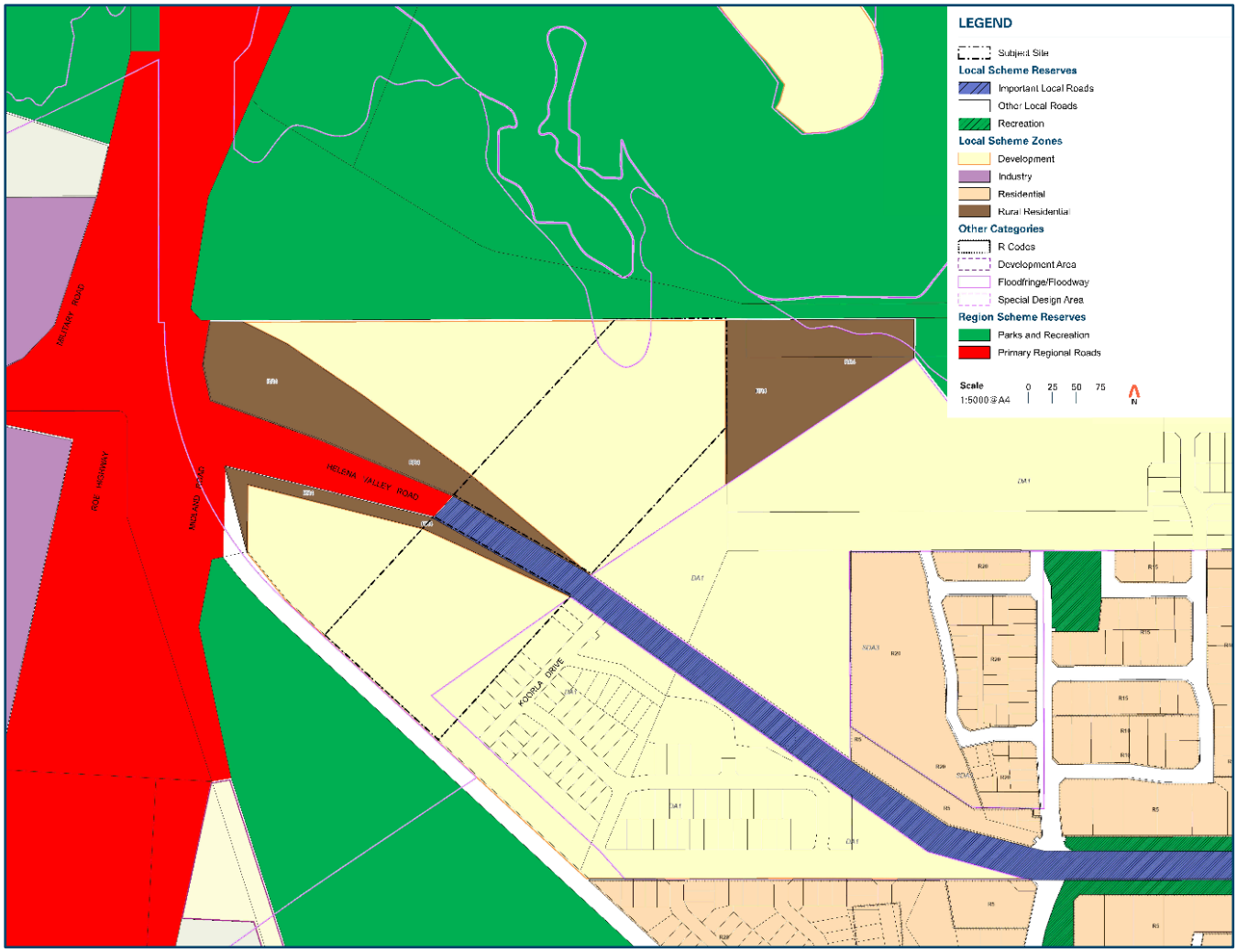

Figure 8 Extract of LPS4

2.4 State Planning Policies

The proposed Structure Plan responds to the objectives and requirements of relevant *State Planning Policies (SPPs)*, including but not limited to:

2.4.1 Liveable Neighbourhoods

Liveable Neighbourhoods (LN) is the State's operational policy for designing and assessing structure plans and subdivision in greenfield and larger infill contexts. It organises planning around eight design elements: community design, movement network, lot layout, public parkland, urban water management, utilities, activity centres and employment, and schools. LN is performance-based, enabling multiple compliant solutions that balance clear standards with innovation responsive to market needs.

This Structure Plan has been prepared in accordance with LN and delivers an interconnected, safe and walkable neighbourhood with a legible street hierarchy and high-quality pedestrian and cycling connections. The urban form responds to site topography, riparian edges and the broader Hills character to create a distinct sense of place. The layout enables residential supply that supports population growth for the municipality. Public open space is planned as an integrated network that protects and enhances environmental features, provides amenity and recreation, and functions as the primary arm of water-sensitive urban design through biofiltration and infiltration consistent with the Local Water Management Strategy. Services and access are coordinated to use land efficiently, minimise infrastructure redundancy and enable orderly, staged delivery.

Implementing these elements ensures structure planning and subsequent subdivision proceed in a well-considered and sustainable manner. The LN principles are therefore relevant from this LSP through to detailed lot and building design.

Consistent with *Perth and Peel at 3.5 million* and the Sub Regional Framework, the current greenfield targets are 15 dwellings per gross urban hectare and 26 dwellings per site hectare.

Table 9 Assessment against elements of Liveable Neighbourhoods

	Liveable Neighbourhoods – Elements	Design Response
1	Community Design	• Deliver a coherent neighbourhood structure that aligns with the wider planning framework and integrates with the existing/planned urban form in the Helena Valley precinct, including adjacent structure plan areas.
2	Movement Network	• Orient the urban grid to the brook to provide a street-based interface for access, surveillance and maintenance, while maintaining APZs and setbacks. • Provide two dispersed vehicle connections to Helena Valley Road (new northern full-movement access and southern access via Koorla Drive/plus Road 4) with turn treatments as warranted. • Keep development clear of Roe Highway reservation and Bushmead Road bridge options; protect corridors through road alignment and staging. • Achieve Liveable Neighbourhoods-compliant cross-sections (typical 6 m carriageways with footpaths in verges) and a connected grid that avoids culs-de-sac. • Provide shared path/footpath links through POS and to bus stops on Helena Valley Road; safeguard for future network upgrades. • Implement intersection treatments per TIA/SIDRA (left-turn lane at new northern access; right-turn pocket as future-proofing if required). • Maintain safe intersection spacing and sight distance; coordinate final geometry with MRWA and the Shire.
3	Lot Layout	• Focus residential on cleared land. • Encourage dwellings that address streets and POS; apply an LDP at subdivision to guide garages/access, setbacks, fencing, and POS-facing elevations. • Front POS with streets and active lot frontages to maximise passive surveillance and amenity.
4	Public Parkland	• Shared path interfacing with the POS area to the north to provide public access and amenity. • Distribute POS to deliver function, quantity and access: linear POS accommodating WSUD and shared paths linking to bus stops and Helena Valley Road path network.
5	Urban Water Management	• Establish a substantial area of Public Open Space in the northern portion of the subject site that captures the 1% AEP flood extent, CCW/REW buffers and highest-value riparian vegetation. • Locate biofiltration/WSUD in POS outside the riparian core; design assets to fully drain between events. • Implement staged rehabilitation in the POS area to the north (revegetation, weed control) to ensure integration with the surrounding Parks and Recreation reserve and native planting (including black-cockatoo forage species) in POS and streets. • Prepare a management approach and long-term stewardship framework for the POS area to the north in consultation with DPLH/DBCA/Shire to ensure integration with the surrounding Parks and Recreation Reserve.
6	Utilities	• Stage development to align with servicing availability and access delivery.
7	Activity centres and employment	• No activity centre is proposed.
8	Schools	• No school site is proposed. The structure plan will ensure safe walking/cycling connections to existing schools in the wider catchment via Helena Valley Road paths and crossings.

2.4.2 SPP 1 – State Planning Framework Policy

SPP1 guides integrated planning across environmental, community, economic and infrastructure objectives. The proposed structure plan aligns with this policy through appropriate land use planning, integration of local environmental values, and a focus on community wellbeing and connectivity.

2.4.3 SPP 3.7 – Planning in Bushfire Prone Areas

The site is identified as bushfire prone under the Map of Bushfire Prone Areas. A Bushfire Management Plan has been prepared to demonstrate compliance with the bushfire protection criteria and ensure that future development is sited and designed to mitigate risk to life and property, refer **Appendix A.**

2.4.4 SPP 5.4 – Road and Rail Transport Noise and Freight Considerations

The site's proximity to Roe Highway requires consideration of transport noise impacts. The Structure Plan provides a framework for subdivision and built-form measures, such as lot orientation, setbacks, building attenuation packages and notifications, so that residential amenity is maintained consistent with SPP 5.4.

2.4.5 SPP 2.10 – Swan Canning River System

Although the site does not adjoin the Swan Canning Development Control Area, Kadina Brook drains to the Helena River. The Structure Plan supports best-practice water-sensitive urban design through detention/infiltration and biofiltration outside the wetland areas, protection and enhancement of riparian vegetation, and the provision of public access and amenity in a manner compatible with ecological values.

2.5 Local Planning Policies

2.5.1 Local Planning Policy (PS-08) – Street Trees

LPP08 outlines the Shire's expectations when interpreting Liveable Neighbourhoods for the design of road reserves. The Policy requires that all new roads be designed with a minimum 16m wide reservation to accommodate adequate space for street trees.

The Structure Plan is generally consistent with the Policy with provisions of minimum 16m wide streets (reduced to a minimum of 13m where abutting POS) with existing mature trees to be retained as future street trees where possible, and the provisions for new street trees to be detailed in a Landscaping Plan at subdivision stage.

3.0 Opportunities and Constraints

The following opportunities and constraints analysis provides an integrated assessment of the environmental, physical and planning context of the Structure Plan area. It identifies key characteristics influencing the design response and outlines opportunities to achieve coordinated and sustainable urban development consistent with State and local planning frameworks.

These matters are explored in more detail in the following sections and illustrated in **Figure 9, Figure 10 and Figure 11,** which detail the site's key issues and constraints and how they have informed the Structure Plan's design response.

3.1 Heritage and Environment

3.1.1 Public Open Space Interface with Wetland Values

The interface of the northern portion of the Structure Plan area with Kadina Brook (and its associated wetland and floodplain system within the Helena River catchment) is a key environmental asset and a primary structuring element for the Structure Plan. Kadina Brook is an ephemeral watercourse that runs through the north-eastern part of the site and merges with the Helena River a short distance to the north-west, west of Roe Highway. The Brook comprises a narrow creek-line with an extensive, low-lying floodplain to the south that was observed to be waterlogged and partially inundated during spring site investigations, which reinforces the need to carefully balance conservation protection, bushfire interface outcomes and appropriate public access and amenity within the POS interface.

To achieve a maximum bushfire attack level of BAL-29 for adjoining residential lots, a separation distance of 21m is required between habitable buildings and classified vegetation. Meeting this requirement will necessitate minor, targeted clearing and rationalisation of degraded vegetation along the current vegetation edge. The vegetation proposed to be removed is of degraded condition, and the extent of clearing is limited when considered in the context of the broader landholding, with almost 30% of the Structure Plan area set aside as Public Open Space for the purposes of vegetation retention and protection of the wetland/waterway corridor. On this basis, the minor clearing is considered justified to facilitate essential housing outcomes and avoid sterilising an estimated ten lots that would otherwise be constrained by bushfire setbacks.

The Public Open Space interface also represents a significant opportunity to integrate high-quality public open space with conservation and drainage functions. Retention of the Kadina Brook corridor and associated wetland/floodplain system, together with revegetation and weed management, will support biodiversity values, protect waterway health and maintain the landscape character of the Helena River corridor, noting the floodplain's seasonal inundation requires that active recreation be focused on the drier parts of the foreshore reserve. Appropriately designed shared paths and low-impact recreation nodes located on higher, drier portions of the POS can improve public access and connectivity while maintaining the primacy of conservation outcomes and avoiding disturbance to the riparian core and seasonally waterlogged areas.

3.1.2 Conservation Category Wetland

A Conservation Category Wetland (CCW) is mapped across the north-eastern portion of the Structure Plan area in association with Kadina Brook (Wetland UFI 15440), with adjoining wetland areas mapped as Resource Enhancement and Multiple Use wetlands on surrounding properties. The Structure Plan proposes to retain the CCW in its entirety within the Public Open Space network (refer **Plan 1**), consistent with the CCW management objective to preserve wetland attributes and functions as a highest priority wetland. There is also a clear opportunity to enhance conservation outcomes through targeted rehabilitation (weed management and revegetation) within the broader foreshore interface, while ensuring that any public access infrastructure is low-impact and appropriately located outside the riparian core.

3.1.3 Flora and Vegetation

A detailed Environmental Assessment Report (EAR) has been prepared by Western Environmental, provided in **Appendix C**. The EAR confirms that the Structure Plan area has been extensively modified by historical clearing and rural land uses, with the remaining vegetation largely associated with the Kadina Brook corridor and floodplain.

Within the 7.30 ha Structure Plan area, approximately 2.48 ha of vegetation remains, with the balance (approximately 4.82 ha) mapped as cleared/paddock. Seven vegetation types were mapped, with the floodplain and foreshore characterised by Flooded Gum (Eucalyptus rudis) woodland and localised Paperbark (Melaleuca rhaphiophylla) stands over a predominantly weedy understorey, and one small stand of mature Wandoo (Eucalyptus wandoo) on a slight rise within the floodplain.

Targeted surveys recorded 89 plant species, comprising 44 native species and 45 introduced species (approximately 50.6%), reflecting the generally disturbed condition of the vegetation. No Threatened or Priority flora species were recorded, and three Declared Pests were identified (Arum Lily, Cotton Bush and One-leaf Cape Tulip). The majority of vegetation was assessed as Degraded to Completely Degraded, with a single patch within the foreshore area assessed as Very Good condition.

The EAR also confirms that the site contains a small area of black cockatoo foraging habitat (0.3156 ha), with eight mature trees identified as potential breeding habitat (seven Wandoo and one Marri), noting none contained hollows at the time of survey and no evidence of roosting was recorded on site. These values reinforce the importance of retaining habitat trees where practicable and focusing any required clearing to already-degraded edge vegetation, supported by detailed management measures at later stages.

3.1.4 Landform and Soils

The landform is gently undulating, rising to the south and falling toward the Kadina Brook corridor, with the northern portion comprising a flat to gently undulating floodplain adjoining the creekline. The floodplain was observed to be waterlogged and partially inundated during spring investigations, and a localised seepage area was recorded flowing toward the floodplain. This confirms that the developable areas occur on higher ground south of the foreshore, and that the Structure Plan interface treatment should maintain drainage function and limit disturbance within the seasonally wet areas.

Overall, the landform is suitable for conventional urban development subject to standard earthworks and drainage controls, with detailed subdivision-stage design to confirm finished levels and ensure appropriate protection of the Kadina Brook floodplain and associated wetland system.

3.1.5 Hydrology and Water Management

Kadina Brook defines the precinct's northern edge and is the key hydrological and ecological feature affecting the structure plan design. Its floodplain traverses the site's north and requires a clear development setback to manage flood risk and protect riparian values.

The structure plan establishes a Public Open Space interface along Kadina Brook that captures the mapped 1% AEP flood extent and the required wetland buffers (50 m to the CCW and 30 m to the REW). All urban development is located behind this established boundary, with very minor clearing required on the vegetated edge to balance bushfire and built form requirements with environmental conservation. The area will be maintained as public open space, protecting the brook and providing low-impact recreation links to the wetland areas and broader Parks and Recreation Reserve.

Stormwater will be managed through water-sensitive urban design. Lot-level detention (e.g. soakwells) and biofiltration basins/swales in nearby POS will treat and attenuate runoff. These systems are located outside the riparian core, where necessary, the public open space may be marginally widened at detailed design to avoid infrastructure within sensitive areas. Post-development peak flows up to the 1% AEP event will be limited to at or below pre-development rates. Given shallow groundwater near the brook, drainage assets will be designed to fully drain between events (no permanent waterbodies), with subsoil drainage used locally where required.

Upstream flood work referenced in the LWMS indicates typical 1% AEP flood depths around 0.8 m; for preliminary design a conservative planning level of about 1.5 m above channel invert has been adopted. Groundwater generally flows north-west toward Kadina Brook, and seasonal waterlogging can occur close to the conservation wetland. Agency expectations (DWER, DBCA, Shire of Mundaring, Water Corporation) are addressed through the DWMS, including protection of public open space function and monitoring of WSUD performance.

3.1.6 Bushfire

The structure plan area is within the mapped Bushfire Prone Area. The BMP provided in **Appendix A** has been prepared to support the structure plan and confirms, at this planning stage, that bushfire risk can be managed through the proposed urban form and will be demonstrated in detail as subdivision and building siting are finalised. The BMP confirms compliance is achievable for Element 2 (Siting and Design), Element 3 (Vehicular Access) and Element 4 (Water, subject to servicing confirmation), with Element 1 treated as not applicable for this proposal pathway.

The BMP's indicative BAL contour mapping identifies that BAL-40 and BAL-FZ exposure is generally limited to the edges of the residential cells. The BMP concludes it is reasonable to expect that future lots can be configured to provide compliant building siting areas that achieve BAL-29 or lower, supported by APZs delivered through streets and/or public open space at vegetated interfaces. Where lots contain any BAL-40 or BAL-FZ areas, the BMP requires title notifications so that future habitable buildings are not located within those higher BAL areas.

Emergency access and evacuation outcomes are addressed through a connected public road network with two-way access in two directions to suitable destinations, via Helena Valley Road and via Koorla Drive. The BMP also recognises that interim "no-through" configurations may occur as staging progresses, and confirms compliance can be maintained through loop-road outcomes and/or temporary compliant turnarounds until through connections are delivered, with subdivision design also to ensure lot boundaries remain within the required distance to a two-way access intersection.

Firefighting water supply is to be confirmed at subdivision and/or development stage, with reticulated supply anticipated and provision for dedicated firefighting tanks/fittings where required due to the Area 2 designation and/or local water pressure constraints.

3.1.7 Aboriginal Heritage

Aboriginal heritage values are associated with Kadina Brook and its surrounds. The Structure Plan must respond to, and remain flexible to, the outcomes of Aboriginal heritage investigations and ongoing engagement. Brad and Good Consultants (Aboriginal heritage consultants) have been appointed to lead Aboriginal cultural heritage investigations for the site.

At the same time, these values present a positive opportunity to embed cultural recognition and interpretation within the public realm. There is clear potential for Noongar language and place-naming, interpretive signage and cultural storytelling within the areas of public open space, to be developed in partnership with Traditional Owners. This can strengthen the legibility and sense of place of the Structure Plan area while respecting and celebrating its cultural significance.

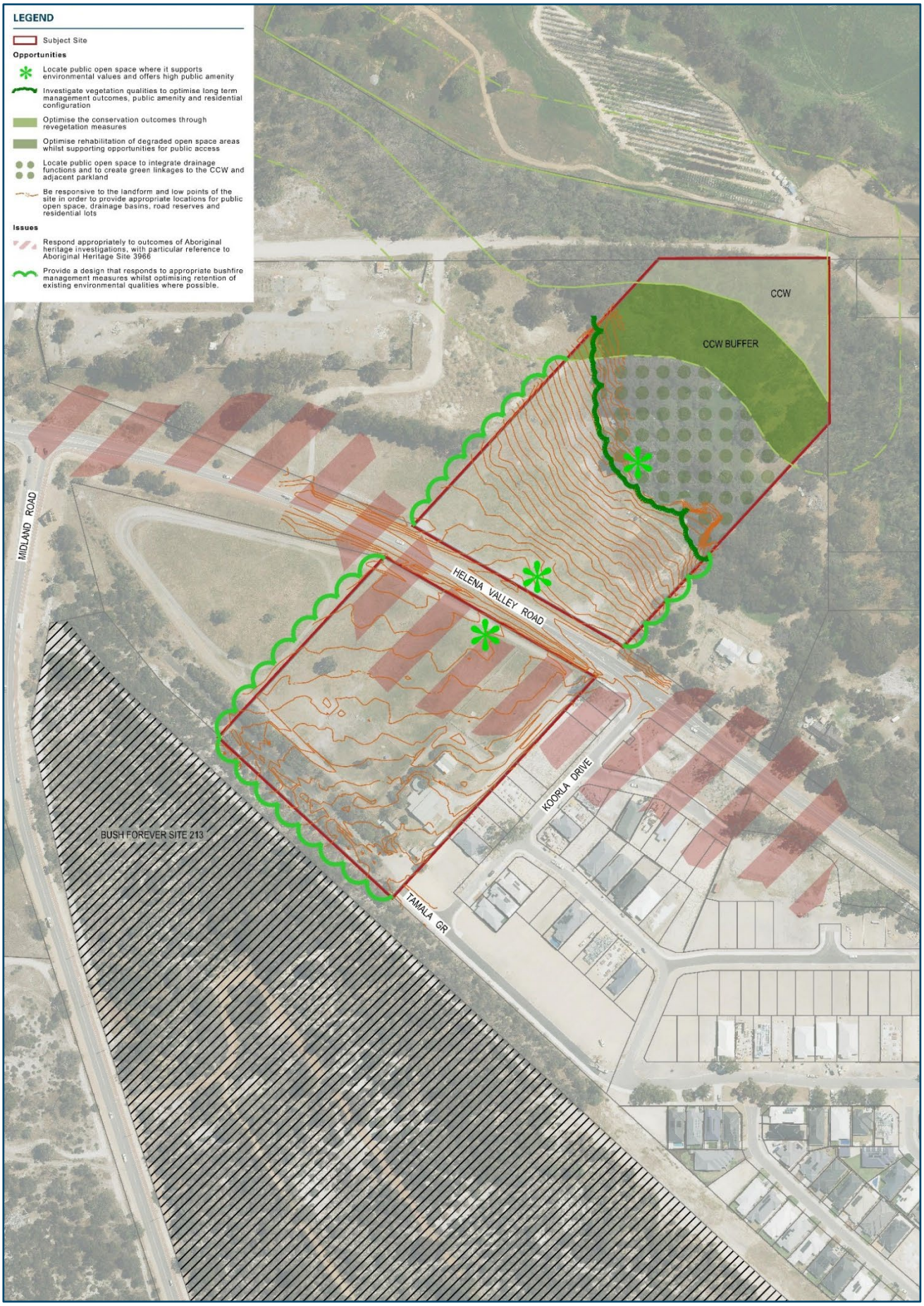

Figure 9 Heritage and Environmental Opportunities and Constraints Map

3.2 Movement

3.2.1 Traffic and access

A Transport Impact Assessment (TIA) prepared by Stantec **(**refer **Appendix D)** confirms that the Structure Plan area is well served by the surrounding road network, with Helena Valley Road providing the primary local connection, Roe Highway forming the western boundary as a Primary Distributor (with no direct access), and Midland Road to the east functioning as a Local Distributor. This hierarchy presents an opportunity to accommodate the forecast development traffic on an established network without materially affecting overall safety or performance, while also ensuring good regional and local connectivity. At the same time, reliance on Helena Valley Road for all site access, and the need to respond to existing traffic volumes, posted speeds and intersection spacing, represents a key constraint that will inform the location and design of future access points and any supporting treatments at subdivision and detailed design stages.

Key opportunities include the ability to leverage the Helena Valley Road frontage for simple and legible primary access, with the potential for two dispersed intersections that support network resilience and emergency egress. The TIA identifies that intersection treatments such as a left-turn lane and a safeguarded future right-turn pocket can maintain acceptable levels of service in both opening and design years, indicating capacity within the corridor to accommodate forecast trips. There is also a clear opportunity to integrate shared paths and footpaths along Helena Valley Road and through public open space, strengthening connections to bus stops, the public open space interface and the Long-Term Cycle Network, and to align local streets to provide passive surveillance and a high-amenity interface to the public open space.

Key constraints arise from the lack of direct access to Roe Highway, meaning all vehicle movements must be accommodated via Helena Valley Road, with access spacing, sight distance and intersection geometry needing to respond to through-traffic volumes and posted speeds. In addition, potential MRWA/DPLH works to raise or realign the Bushmead Road bridge and associated rail infrastructure may influence final access geometry, staging and possible auxiliary lanes. Within the existing Helena Valley Road corridor, there may be limited room for turn lanes, minor widening and path upgrades once verge utilities and trees are taken into account. Ensuring continuous, safe path crossings on Helena Valley Road will therefore require careful coordination of intersection location, crossing treatments and the detailed road design process.

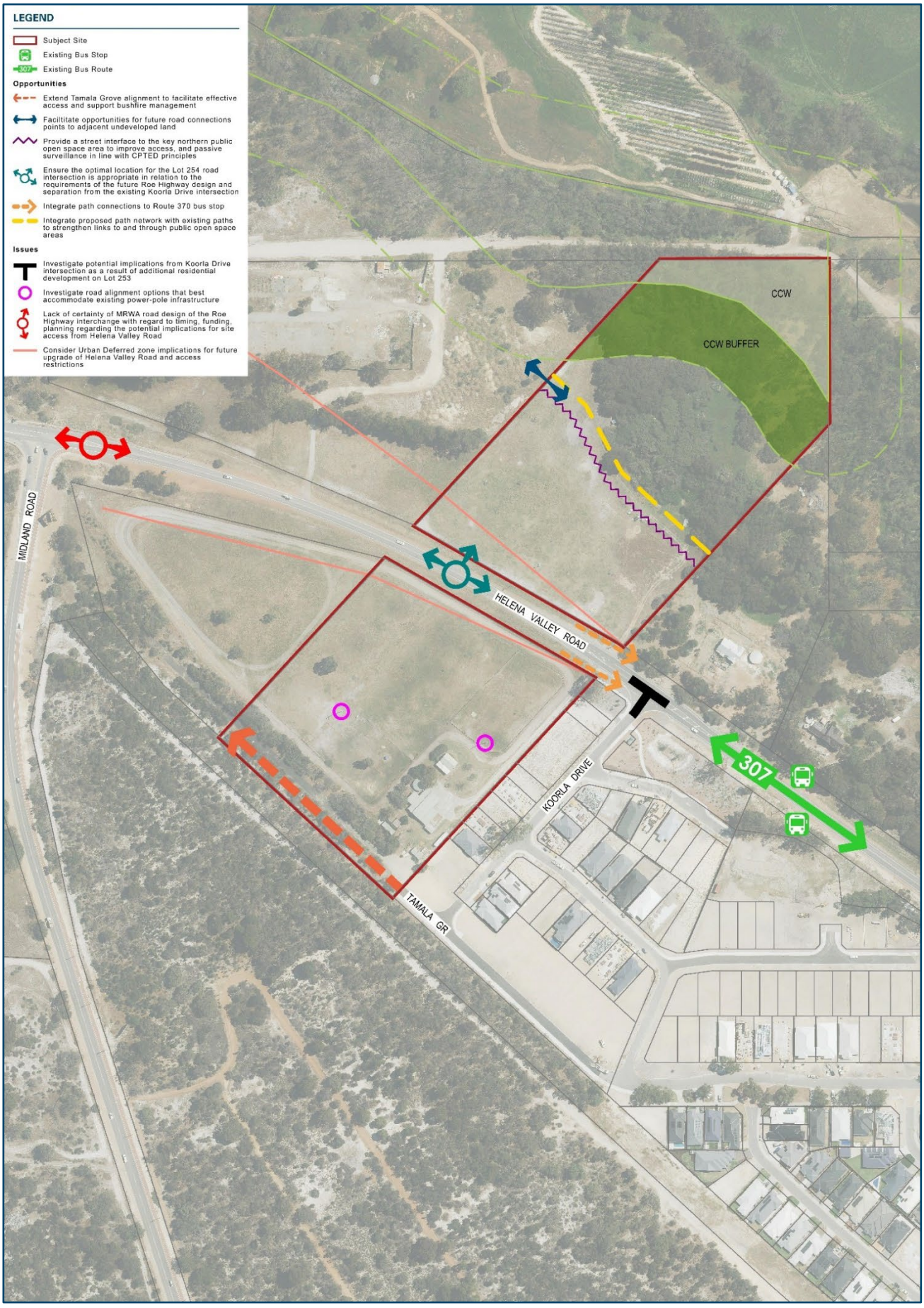

Figure 10 Movement Opportunities and Constraints Map

3.3 Built Form

3.3.1 Western Power Easement

Accommodate Western Power easement and power pole clearances in the road, avoiding the lot layout where possible.

3.3.2 Services and Utilities

Water, wastewater, power and telecommunications can be extended from existing networks on Helena Valley Road and surrounds, with standard upgrades coordinated with service providers. The DWMS/servicing references confirm Water Corporation and Shire roles, drainage stewardship and the need to monitor WSUD performance post-construction. Local undergrounding or relocation of existing overhead assets along frontages may be required to optimise street layout and amenity.

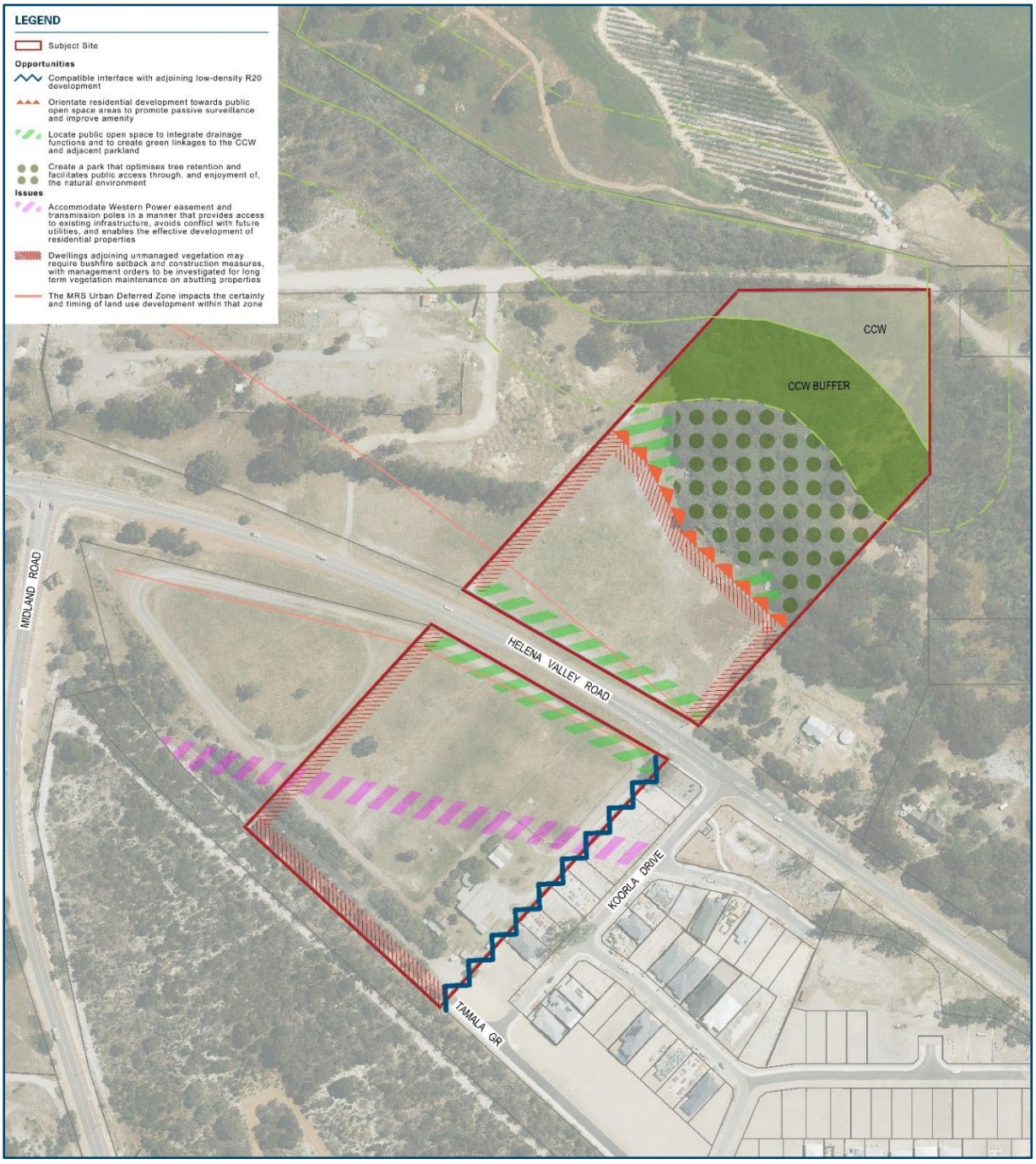

Figure 11 Built Form Opportunities and Constraints Map

4.0 Stakeholder Engagement

4.1 Pre-Lodgement Consultation

Pre-Lodgement consultation has occurred between the Project Team, the Shire of Mundaring, the Department of Biodiversity, Conservations and Attractions (DBCA) and the Department of Planning, Lands & Heritage (DPLH) during the preparation of this Structure Plan.

A summary of the key pre-lodgement consultation undertaken during the preparation of this Structure Plan is outlined in **Table 9 below**.

Table 10 Pre-Lodgement Consultation Summary

Agency	Date	Attendees	Meeting Summary
Department of Planning, Lands & Heritage (DPLH)	17th June 2025	Mario Carbone (DPLH) Anthony Muscara (DPLH) Donal Casey (DPLH) Luka Martins (TBB Planning) Elyse Saraceni (TBB Planning)	• The purpose of the meeting was to confirm concurrent LPS amendment pathway alongside MRS amendment, indicative timeframes, and Structure Plan technical/reporting expectations. • DPLH provided confirmation to manage the concurrent LPS amendment and there is no separate LPS initiation request required. The MRS amendment potentially to be considered at the July WAPC meeting, acknowledging Ministerial approval typically takes 4–6 weeks. • DPLH advised that the subsequent Structure Plan should address wetland buffers, Helena Brook and Aboriginal heritage, threatened flora/fauna, and bushfire; early engagement recommended with relevant referral agencies.
Shire of Mundaring	22nd September 2025	David Tomlinson (Shire) Luka Martins (TBB Planning) Elyse Saraceni (TBB Planning)	• The Shire expressed in-principal support for progressing the concept plan and recommended early liaison with Main Roads regarding permissible works within the Urban Deferred portion. • The Shire advised it is generally comfortable with access via Helena Valley Road (including no roundabout requirement), and requested SIDRA outputs to be provided in a consolidated package. • The Shire supported a public open space road interface to provide passive surveillance, practical access for vegetation/bushfire management, and path connections through future stages. • The Shire advised a footpath along the Helena Valley Road POS frontage can be delivered at subdivision and noted the need to coordinate with the City of Swan regarding the southern Bush Forever interface. • The Shire requested confirmation of any registered/lodged Aboriginal heritage places, flagged potential BAL-FZ impacts along the western edge, and indicated an LDP would be

			expected at subdivision to address garages/access, setbacks, POS frontage and fencing.
Department of Biodiversity, Conservation and Attractions (DBCA)	6th October 2025	Luka Martins (TBB Planning) Elyse Saraceni (TBB Planning)	• DBCA advised the desired foreshore reserve should encompass CCW/REW buffers and be managed primarily for ecological function, with WSUD located outside the riparian core. • DBCA expressed in-principle support for rehabilitation (revegetation and weed control) to strengthen habitat connectivity and for a road interface that provides passive surveillance while protecting values. • DBCA requested detailed flora/vegetation mapping and a draft foreshore management approach at Structure Plan stage, with early discussion on long-term management responsibilities. • DBCA advised their preference for no clearing to be undertaken in the desired foreshore reserve boundary. • TBB advised the desired foreshore reserve is zoned urban and reaffirmed the minor nature of the clearing proposed, with approximately 30% of the entire structure plan area to be retained for vegetation values associated with the Kardina Brook.
Main Roads	4th November 2025	Raymond Reveley (MRWA) Maryanne Thornley (MRWA) Andrew Williams (MRWA) Isabel Huston (MRWA) Lauran Gascoigne (MRWA) Chris Fudge (MRWA) Luka Martins (TBB Planning) Elyse Saraceni (TBB Planning)	• MRWA confirmed that the Helena Valley Road bridge will need to be raised in the future (no specific timeframe has been set at this stage and there are no current approved or funded plans in place). • MRWA identified that portion of land currently identified as 'Urban Deferred' (refer to the orange line on the attached concept plan) may be required as part of these future works. This has implications for Lots 37 and 67 (and potentially 38/39 depending on the level increase), which are currently located within this area. Ultimately, these lots will need to be reconfigured outside of the deferred zone, as MRWA have indicated they will not support any development within the affected area. • MRWA will not support the inclusion of POS in the 'Urban Deferred' area as part of the minimum POS requirements. This is not something that we consider to be an issue as we are quite confident that we can meet the minimum POS requirements with the foreshore reserve. • TBB advised to confirm these matters further with DPLH and have provided them with the draft concept plan to verify the extent of MRWA's future works overlap and what influence, if any, this will have on their assessment and decision making.

5.0 Design response

The design response for Lots 253 & 254 Helena Valley Structure Plan has been prepared through a design process that brought together contextual analysis, preliminary concept designs and targeted consultation. It is guided by clear principles that manage constraints and maximise site opportunities such as a legible urban form, a walkable movement network, high quality public open space, and environmental values and adjacent vegetation.

The Structure Plan establishes a practical framework for a sustainable residential neighbourhood unlocking important affordable housing opportunities.

5.1 Vision and objectives

This structure plan sets a clear direction for the coordinated urbanisation of Lots 253 and 254 Helena Valley Road. The vision responds to the site's defining features including the Kadina Brook and its interface with the areas of public open space, the established Helena Valley Road frontage, and the surrounding bushfire context, while aligning with Liveable Neighbourhoods and SPP 7.2 design principles.

The vision for the Lots 253 and 254 Helena Valley Structure Plan is to create a pleasant and connected neighbourhood that respects the environmental and amenity values of the site's natural features and serves to enhance the Helena Valley character.

The objectives for the structure plan are outlined below:

- **Sustainable Residential Development** – Establish a statutory framework to guide residential land use, subdivision and development within the precinct;
- **Enhance and support amenity and connectivity** – Optimise residential amenity, neighbourhood connectivity and liveability for future residents; and
- **Conservation and Environmental Preservation –** Respond to and enhance the site's environmental features, including integration of existing vegetation, aboriginal heritage and proximity to bushfire hazards.

5.2 Design Response and outcomes

Key principles of the Structure Plan are set out below and have been informed by the project vision and objectives:

- Provide a balanced mix of lot widths and depths within an R20 framework. This supports housing choice and affordability while maintaining consistency with the established development pattern to the south in LSP 76.
- Optimise environmental outcomes through water-sensitive urban design, retention of mature trees where practicable, and careful management of the interface with the northern POS 1 area, including appropriate buffers and pedestrian access improvements.
- Strengthen local connectivity with a permeable and legible street network, primarily focused on a north-south orientation to maximise walking and cycling opportunities to the public open spaces.
- Link local paths to bus stops on Helena Valley Road, the broader green network and nearby trails, including connections toward Midland. These connections reduce reliance on private vehicles, support everyday local trips and reinforce Kadina Brook and Helena River as part of a larger recreational and ecological corridor.
- Ensure areas of public open space are designed for recreation and integrated drainage.

- Manage interfaces to adjoining bushfire hazards through road-based edges, built-form controls and management agreements to safeguard residential development.
- Manage the interface with the northern POS and the broader Parks and Recreation reserve to the north.
- Coordinate the logical extension and staging of essential services and infrastructure in step with development, aligning with service provider requirements.

5.2.1 Public Open Space, Remnant Vegetation and Wetland Values

The Structure Plan treats the heavily vegetated interface with the Kadina Brook foreshore reserve in the northern portion of Lot 254 as the primary organising element for the concept design, shaping the street layout, public open space network and environmental management framework. The design response retains the full extent of the CCW and its 50-metre buffer within public ownership and integrates a street and path network on the vegetated edge of POS 1 to balance conservation, access and bushfire management outcomes.

Key elements of the foreshore design response are as follows:

- **Retention of core environmental values** – The CCW and its 50m buffer are fully retained within the northern portion of Lot 254, with no development, drainage infrastructure or fill proposed within this area. This secures the wetland and riparian corridor as a long-term conservation asset and maintains its hydrological and ecological function.
- **Carefully managed clearing** – To achieve the separation distance required to support BAL-29 outcomes for adjoining residential development, any clearing will be limited to minor, targeted removal of degraded edge vegetation outside the wetland, noting the only Very Good condition vegetation identified is associated with Kadina Brook and is intended to be retained within POS 1. Where clearing is required, it will be supported by appropriate fauna management measures at subdivision/development stage (e.g. wildlife management/relocation requirements where triggered)
- **POS street and access** – A public road is aligned along the developable edge of POS 1 to create a clear, legible and maintainable boundary, provide emergency and maintenance access and support a “hard edge” outcome for the urban interface in accordance with bushfire interface principles. This approach also supports passive surveillance and reduces the likelihood of poor environmental amenity (e.g. weeds, dumping) by establishing a clear managed interface.
- **Paths and low-impact recreation –** Public access is focused on the drier parts of POS 1, recognising the floodplain was observed to be waterlogged/partially inundated during site investigations. Consistent with the EAR’s foreshore design guidance, a pathway parallel to the southern boundary of the wetland and small, low-impact public use areas (e.g. seating/lookout nodes) can be accommodated on higher, drier margins, outside the riparian core
- **Rehabilitation and management –** POS 1 will be progressively rehabilitated through weed control and revegetation to strengthen ecological condition and foreshore function, consistent with waterway protection objectives and the identified ecological linkage role of the retained Kadina Brook vegetation. The EAR identifies that the foreshore reserve retains the best fauna habitat on the site and that impacts from limited clearing outside the foreshore are unlikely to be significant (including for black cockatoo values), supporting a management-led approach to interface works and ongoing stewardship. Opportunities for Aboriginal cultural interpretation and place-based wayfinding can be integrated through POS planning and delivery in consultation with Traditional Owners.

Collectively, these measures ensure the foreshore reserve interface protects Kadina Brook and the CCW, while delivering safe, managed public access and integrating bushfire, drainage and landscape outcomes in a coordinated way.

5.2.2 Bushfire Risk

The Structure Plan responds to the site’s bushfire context through the subdivision layout, separation distances and ongoing vegetation management measures set out in the BMP.

The BMP’s indicative BAL contour mapping shows that BAL-40 and BAL-FZ exposure is generally confined to the edges of the proposed development cells, and concludes that subdivision can be configured to provide compliant building siting areas at BAL-29 or lower, supported by APZ provision and enforceable vegetation management outcomes.

The key bushfire design responses include:

- **Separation distances and APZ delivery:** separation distances are embedded into the Structure Plan layout through the placement of non-vegetated interfaces, supported by a landscape management approach that maintains relevant areas in a low bushfire threat state in perpetuity. A Landscape Management Plan is anticipated for POS areas, with ongoing responsibilities to be confirmed through subdivision/development stages.
- **Vegetation retention and targeted management (POS and drainage):** the BMP assumes POS areas will be managed with appropriate fire control measures, with an identified portion of POS 1 proposed to remain as Class A Forest, while areas of POS 1 within 27 metres of the residential cell boundaries will be managed to a low bushfire threat to facilitate development. Drainage basin areas are assumed to be revegetated (Class C Shrubland), and are to be located at least 9 metres from lot boundaries so residential lots are not subject to BAL ratings greater than BAL-29.
- **Lot layout and building siting controls:** subdivision design will be required to configure lots so that viable building areas can achieve BAL-29 or lower; where lots contain BAL-40 or BAL-FZ areas, the BMP identifies the need for a title notification to ensure buildings are not sited within those higher BAL areas.
- **Safe access and egress:** the BMP confirms the proposal is within Bushfire Prone Area 2 and achieves two-way access in two different directions to suitable destinations, via Helena Valley Road (Lot 254) and via Koorla Drive (Lot 253). The BMP also identifies how any staged, interim no-through arrangements can remain compliant through loop-road outcomes, ensuring lot boundaries are within 200 metres of a point of two-way access, and providing temporary compliant turnarounds where required (including for Roads 2 and 4 if delivered prior to through connections).
- **Water supply:** firefighting water supply will be confirmed at subdivision and/or development stage, with evidence to be provided that reticulated water supply can be made available for firefighting purposes, and provision for dedicated firefighting water tank(s) and fittings to be provided where required.

Through these measures, the Structure Plan translates the BMP's strategic risk assessment into a practical interface design and development framework that prioritises BAL-29 outcomes, provides defendable space and access redundancy, and relies on ongoing, enforceable vegetation management (particularly within POS) to maintain the assumed post-development bushfire threat conditions.

5.2.3 Public Open Space

The Structure Plan delivers a landscape-led network of public open space centred on the interface with Kadina Brook foreshore reserve to the north of the subject site, refer . The network is consistent with Liveable Neighbourhoods and is designed to support everyday recreation, shade and biodiversity while reinforcing a distinctly Helena Valley character.

The POS 1 forms the primary north–south spine, and functions as a sympathetic buffer to the CCW and its 50m buffer and providing continuous public access along the foreshore reserve. A series of public open space areas and linear links are positioned so most dwellings are within a comfortable walk of usable open space. Streets address all POS to maximise legibility, surveillance and safe activation, with paths tying the neighbourhood to Helena Valley Road, nearby bus stops and connections toward LSP 76. The public open space generally comprises the following functions and typologies:

- **Foreshore reserve interface (conservation/low-impact recreation)**: protect riparian vegetation, deliver low-impact shared paths on drier margins, and provide small seating nodes, wayfinding and interpretive elements.
- **Linear links/green streets**: east–west connections that complete the walking and cycling network and provide small rest pockets and clear wayfinding to key destinations.
- **WSUD integration Drainage treatment—**biofiltration basins, vegetated swales and minor detention basins is co-located in POS outside the riparian core, consistent with the DWMS/LWMS. Assets are designed to freely drain between events, maintain groundwater separation and treat runoff prior to controlled discharge to Kadina Brook. No development, drainage infrastructure or fill is proposed within the CCW or its 50m buffer.

A Foreshore Management Plan will guide staged revegetation, weed control, habitat enhancement and targeted fuel-load reduction

The POS network is configured to achieve Liveable Neighbourhoods outcomes for function, distribution and access. Final areas, credits and exclusions will be confirmed at subdivision in accordance with Liveable Neighbourhoods and the DWMS/LWMS.

Figure 12 Public Open Space Plan

5.2.4 Movement network

A description of the transport networks internal to the structure plan area is summarised in **Table 12** and illustrated in **Figure 12** below.

Table 11 TIS matters to be addressed

Transport Matter	Proposal
Proposed subdivision	The proposed subdivision comprises low-density residential development (R20) for approximately 62 dwellings. The TIA and concept layout identify a new full-movement northern access from Helena Valley Road to serve Lot 254, with a southern connection provided via the existing Koorla Drive intersection. These access points are supported by a permeable, Liveable Neighbourhoods–compliant internal street network that distributes traffic effectively and provides clear, legible connections through the neighbourhood.
Vehicle access and parking	Vehicle access is via internal streets or laneways only, with no direct lot access to Helena Valley Road or Roe Highway. The internal road network comprises of Access Streets, designed to accommodate residential traffic volumes and parking. Laneways serve rear-loaded lots, and road reserves are generally 15m wide in accordance with Liveable Neighbourhoods. This ensures functional access for residents and sufficient on-street and off-street parking availability. The wider road reserves abutting the Regional Reservation is to allow additional space for gentle battering, to avoid retaining walls being used to deal with a level difference.
Provision for service vehicles	The internal road layout accommodates service vehicle requirements, including waste collection and emergency access. Waste management will follow standard local practice, with bins placed at kerbsides for collection. Access Streets are designed to permit safe manoeuvring of service vehicles, ensuring reliable and efficient services throughout the estate in accordance with the Shire of Mundaring's operational standards.
Daily traffic volumes and vehicle types	The Structure Plan area is expected to generate approximately 500–600 vehicles per day, with peak hours of roughly 45–55 vehicles. Traffic is predominantly light vehicles, with occasional service and delivery vehicles. Volumes are comfortably within Access Street capacities and are split across the two external connections.
Traffic management on frontage streets	The northern access will include an auxiliary left-turn lane on Helena Valley Road in line with warrant assessments. Provision for a future right-turn pocket is safeguarded should demand warrant it beyond the design year. Sight distance exceeds Safe Intersection Sight Distance and intersection spacing accords with Shire/MRWA guidance.
Public transport access	The site benefits from proximity to Transperth Bus Route 307, with a stop approximately less than 100m from the structure plan area. This route connects to Midland Station, providing access to the wider public transport network. The sites walkable catchment facilitate convenient access to the bus stop, supporting public transport use by future residents and promoting alternative travel modes.
Pedestrian access	Continuous footpaths are provided on at least one side of internal streets, with shared paths through POS and along the foreshore street.
Cycle access	Low-speed on-road cycling is accommodated on internal streets, complemented by off-road shared paths within POS and along the foreshore street.
Site specific issues	Final intersection geometry and any minor widening or auxiliary works on Helena Valley Road will be resolved in consultation with the Shire and MRWA. The Urban Deferred land associated with potential longer-term bridge works will be protected and not relied upon for public open space or primary access, ensuring future infrastructure options are not constrained.
Safety issues	Two external connections to Helena Valley Road provide network redundancy and support emergency egress. A perimeter road along the POS 1 interface establishes a clear, surveilled interface and a continuous Asset Protection Zone, avoiding direct lot fronts to unmanaged vegetation. Access design will meet Safe Intersection Sight Distance requirements, with driveway locations refined through Local Development Plans where necessary. Paths and verges are configured to maximise passive surveillance and provide safe, low-stress conditions for people walking and cycling.

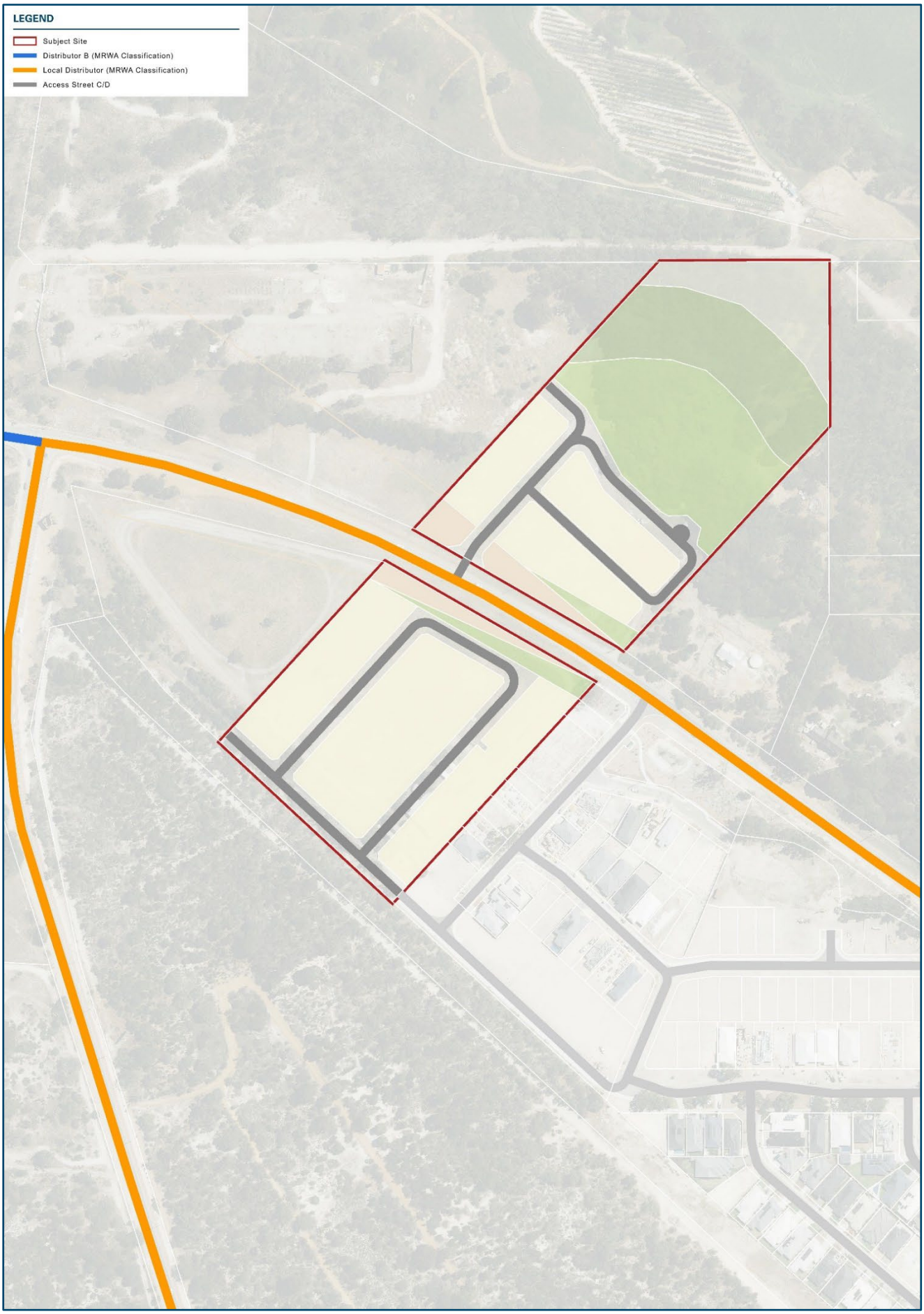

Figure 13 Movement Network Plan

5.2.5 Urban Water Management

5.2.5.1 Stormwater management

The stormwater management strategy has been prepared in coordination with the engineering concept design and any relevant environmental management inputs. The intent is to manage runoff as close to source as practicable, provide appropriate detention and water-quality treatment, and ensure that post-development flows do not adversely impact the downstream drainage system of the Kadina Brook and associated wetland systems. Runoff from developed catchments will be directed to a combination of lot-scale measures (soakwells, roof downpipe connections), road drainage (piped minor system) and shared basins within public open space or designated drainage reserves. Where practicable, these basins will incorporate biofiltration media and vegetation to improve water quality before discharging to the downstream system. Detention storage will be provided to manage up to the 1% AEP event, with safe overland flow paths along roads and through POS for rarer events. Finished surface levels and drainage infrastructure will be designed to ensure building pads achieve adequate freeboard above the designated major-event storage level, and that habitable floors are protected from flood waters generated within the site . All lots will also be located more than 500mm above the flood levels of the Kadina Brook. The detailed modelling, sizing and configuration of basins and pipework will be documented in the Local Water Management Strategy and subsequent Urban Water Management Plan(s) at subdivision stage.

5.2.5.2 Groundwater management

Preliminary review of available groundwater information indicates that groundwater generally flows in a north easterly direction to the Kadina Brook. The groundwater levels are generally more than 1.5m from the surface and are manageable with conventional urban development responses. Where groundwater may be locally shallower, fill and/or subsoil drainage may be required to maintain appropriate separation between finished lot levels, underground services and the maximum groundwater level. Lot and road levels will be set having regard to the adopted maximum groundwater level, required freeboard and the operation of the proposed stormwater system. Where necessary, subsoil drains will be provided to intercept and direct subsurface flows to designated drainage areas, ensuring long-term stability of pavements and minimising the risk of waterlogging in public open space and on lots.

The LWMS and subsequent UWMP(s) will confirm the adopted groundwater levels, any need for subsoil drainage and how groundwater and surface water systems will interact.

5.2.5.3 Implementation and monitoring

The Structure Plan is supported by a water management framework that adopts water sensitive urban design principles, including detention, biofiltration and source control measures. The LWMS will outline the overall design objectives, hydrological assumptions and performance criteria, while detailed design, staging, construction requirements and maintenance responsibilities will be set out in Urban Water Management Plan(s) prepared at subdivision stage. Monitoring and reporting requirements, including any post-construction validation of system performance, will follow the monitoring program and responsibilities outlined in the LWMS and agreed with the relevant agencies.

3.0

Conclusion

Conclusion

The Lot 253 & 254 Helena Valley Road Structure Plan has been prepared in accordance with State Government requirements and the Shire of Mundaring's strategic direction for Helena Valley. It reflects advice obtained through pre-lodgement engagement with the Department of Planning, Lands and Heritage, the Shire of Mundaring and relevant agencies, and is informed by the existing residential pattern to the east and the environmental and physical characteristics of the sites.

The Structure Plan provides for an appropriate urban form supported by a comprehensive suite of technical inputs, including town planning and urban design, environmental and heritage due diligence, a local water management, a Bushfire Management Plan and interface strategy, civil engineering and infrastructure servicing, traffic impact and a movement network assessment.

Accordingly, the Structure Plan offers a robust and well-considered framework to guide subdivision and development consistent with SPP 7.2 and Liveable Neighbourhoods. It represents a logical extension of the emerging community established to the east, and aligns lot yield with site opportunities and constraints in a manner that complements the wider centres network.

Together, these measures will deliver a high-amenity residential neighbourhood that connects to the Helena River, supports walkable access to open space and local services, and contributes positively to the long-term evolution of Helena Valley.

Appendix A

BUSHFIRE MANAGEMENT PLAN

Appendix B

ENGINEERING SERVICING REPORT

Appendix C

ENVIRONMENTAL ASSESSMENT AND FORESHORE MANAGEMENT REPORT

Appendix D

TRANSPORT IMPACT ASSESSMENT

Appendix E

ABORIGINAL HERITAGE DUE DILIGENCE REPORT

Appendix F

PRELIMINARY SITE INVESTIGATION REPORT

Appendix G

LOCAL WATER MANAGEMENT STRATEGY

Appendix H

GEOTECHNICAL REPORT