

BUSS / 2023 / 00

Local (Standard) Structure Plan

Lots 242-244 (plus Lots 301-303, 1245-1247 and 1249 indicative only) Kookaburra Way, Vasse

PREPARED FOR SCOTT RIVER NOMINEES PTY LTD



AP REF: 18006 | April 2023

Land Use. People. Place.



DOCUMENT CONTROL

ISSUE	DATE	ISSUE DETAILS	APPROVED
Draft	May 2021	Draft for Client review	LG
Rev 0	3 September 2021	Lodged for approval	LG
Rev 1	13 September 2021	Revised as per WAPC resolution	LG
Rev 2	21 December 2021	Revised following LGA review	LG
Rev 3	5 May 2022	Inclusion of updated BMP	LG
Rev 4	26 April 2023	Modifications required by WAPC	

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Endorsement Page

This structure plan is prepared under the provisions of the City of Busselton Local Planning Scheme No. 21.

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

16 June 2023

Signed for and on behalf of the Western Australian Planning Commission:

an officer of the Commission duly authorised by the Commission pursuant to section 24 of the *Planning and Development Act 2005* for that purpose, in the presence of:

18	Witness
19 June 2023	Date
19 June 2033	Date of Expiry

Table of Amendments

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



Executive Summary

Across Planning has been engaged by Scott River Nominees Pty Ltd to prepare a Local (Standard) Structure Plan (LSP) over the land known as Lots 242-244 Kookaburra Way, Vasse plus Lots 301-303, 1245-1247 and 1249 (indicative only) - refer *Figure 1: Local (Standard) Structure Plan*.

This LSP is intended to guide the subdivision and development of the subject land for Rural Residential purposes consistent with a concept plan that includes the adjoining Stonebridge Estate (previously Lot 2 Kookaburra Way) and as part of the broader Vasse-Dunbarton area identified as Special Provision Area 63 (SP63) under the City of Busselton Local Planning Scheme No. 21 (LPS21).

SP63 makes provision for preparation of a structure plan for Lots 242-249 Kookaburra Way, subject to it integrating with the approved structure plan for Stonebridge Estate that extends east to Queen Elizabeth Avenue. Accordingly, a Concept Plan included in the LSP depicts this integration with the endorsed structure plan for the Stonebridge Estate.

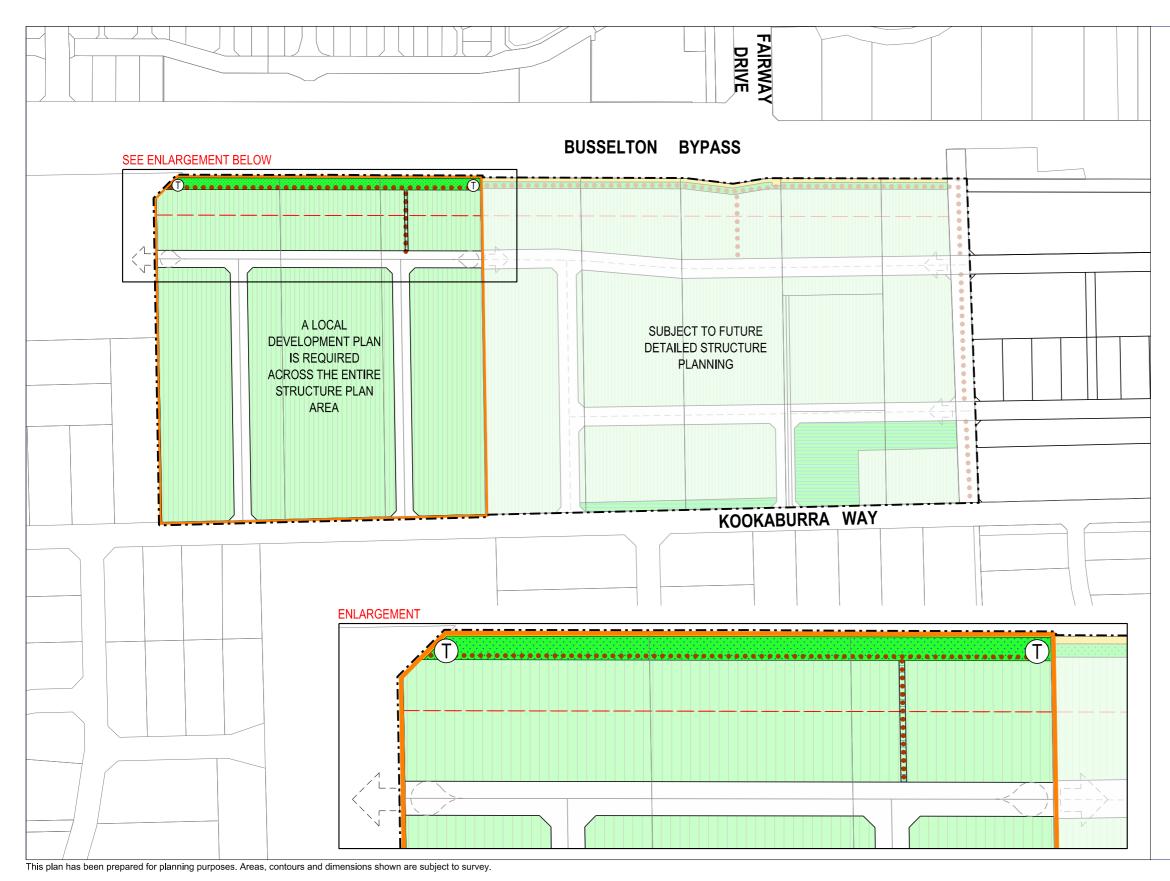
The LSP area fronts Kookaburra Way and lies south of the Busselton Bypass, approximately 6km by road in a south-westerly direction from the Busselton City Centre. Kookaburra Way connects to Queen Elizabeth Avenue to the east of the subject land, which in turn connects to the Busselton Bypass, providing access to not only Busselton City Centre but also the broader South West.

The LSP area totals 29.95ha, comprising 10 existing lots ranging from 0.99ha to 4.72ha, with the majority being approximately 3.8ha. All are presently used for rural residential, grazing and hobby farm pursuits. They are predominately parkland cleared with scattered stands of remnant native vegetation and introduced species.

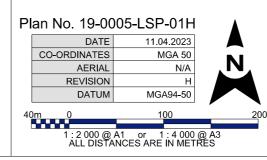
As shown in *Figure 1*, the LSP provides greater certainty about the road layout, drainage, pedestrian access and visual management for Lots 242-244. As discussed with the City of Busselton (CoB) and Department of Planning Lands and Heritage, the LSP is intended to provide suitable detail for Lots 242-244, but guidance for Lots 245-249 is intended to be high-level only and subject to future design.

The LSP provides for a 40m rear setback for lots backing onto the Busselton Bypass. Together with a proposed landscape and drainage reserve, this 40m setback will ensure a semi-rural landscape when viewed from the Busselton Bypass and a high standard of amenity for future residents.

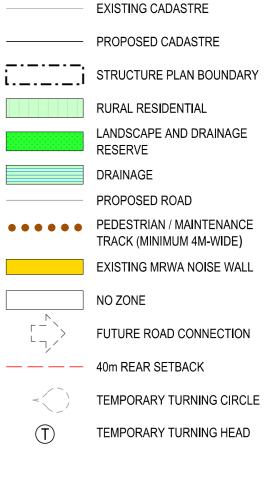
Key statistics and planning outcomes for the LSP are shown in *Table 1: Structure Plan summary*.



LOCAL (STANDARD) STRUCTURE PLAN Lots 242 - 244 (plus lots 301 - 303, 1245 - 1247 and 1249 indicative only) Kookaburra Way, Vasse



LEGEND





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Table 1: Structure Plan summary

Item	Data
Total area covered by Structure Plan	29.95 ha
Area of proposed Residential land use	28 ha
Total estimated lot yield	120
Estimated number of dwellings	120
Average lot size	2,200m ²
Estimated population (permanent)	340
Estimated area and percentage given over to	2.0ha
public open space, drainage and reserve for	6%
landscape protection	

Local Structure Plan – Lots 242-244 and others (indicative) Kookaburra Way, Vasse



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PART ONE: IMPLEMENTATION

1. Structure Plan Area

This Local (Standard) Structure Plan (LSP) applies to the land comprising Lots 242-244, 301-303, 1245-1247 & 1249 Kookaburra Way, Vasse in the City of Busselton as shown in *Figure 1: Local (Standard) Structure Plan.*

2. Operation

The LSP comes into effect the date it is approved by the Western Australian Planning Commission (WAPC).

3. Staging

Lots 242-244 comprise the western precinct of the LSP which is envisaged to be developed prior to the eastern precinct comprising the remaining lots. Staging of development will be determined in line with market conditions. The LSP layout provides guidance for particular lot owners, or groups of lot owners, to pursue subdivision in accordance with their desired timeframes.

4. Subdivision and development requirements

- 1) Subdivision and development of land shall be generally in accordance with:
 - a) the endorsed Local (Standard) Structure Plan
 - b) a Local Development Plan for the land approved by the City of Busselton pursuant to Schedule 2 (Deemed Provisions) Part 6 Local Development Plans of the *Planning and Development (Local Planning Schemes) Regulations 2015.*
- 2) Each lot shall be connected to reticulated water and sewerage.
- 3) An Urban Water Management Plan is to be prepared for Lot 242-244 Kookaburra Way prior to commencement of subdivisional works.
- 4) Requirement for a Dewatering and Acid Sulphate Soils Management Plan that details how risk of groundwater disturbance and associated lateral extent of the groundwater drawdown will be minimized.
- 5) Requirement for the preparation of threatened fauna survey and targeted flora survey.



- 6) A Noise Management Plan will integrate the recommendations within the updated Road Traffic Noise Assessment (Revision No. 9 - 20 January 2023) with detailed subdivision design and inform development noise mitigation provisions for specific lots on the Local Development Plan.
- 7) Land is to be ceded for the purpose of landscaping and drainage reserve which is to be a minimum 13m wide and include a minimum 4m wide maintenance track.
- 8) The landscaping and drainage reserve is to be maintained by the subdivider for a period of two years.
- 9) Access from the northern road reserve to the landscaping and drainage reserve to be provided in perpetuity via creation of a pedestrian / maintenance access way.
- 10) Applications for subdivision of land in Lots 242-244 shall be accompanied by a landscape plan for the proposed landscape and drainage reserve.
- 11) A landscaping plan to incorporate local native plant species, specifically species that form the Threatened vegetation community *Eucalyptus rudis, corymbia calophylla, Agonis flexuosa* closed low forest.
- 12) Arrangements to be made with the City for the partial cost of upgrading Kookaburra Way, for the purpose of footpath/dual use path construction on the basis of the number of lots fronting Kookaburra Way only.
- 13) A notification will be placed on the title of lots pursuant to Section 70A of the *Transfer of Land Act 1893* advising that all the lots are within close proximity to areas which are subject to mosquito activity with the potential for transmission of Ross River Virus and other mosquitoborne viral diseases.
- 14) A notification, pursuant to Section 165 of the *Planning and Development Act 2005* is to be placed on the certificate(s) of title of lots identified in a Noise Management Plan. Notice of this notification is to be included on the diagram or plan of survey (deposited plan). The notification is to state as follows:

This 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. (Western Australian Planning Commission)



5. Local Development Plans

Prior to development, an endorsed Local Development Plan to the satisfaction of the City of Busselton is required to establish:

- a) Habitable buildings: maximum single storey within 100m of the Busselton Bypass road reserve.
- b) Building envelopes for all lots comprising of minimum front, side and rear setbacks to ensure a suitable degree of separation between the interface of the development with adjoining land.
- c) Minimum front setback of 7.5m and 40m rear setback for lots adjoining the Busselton Bypass.
- d) Identification of lots required to be constructed using Quiet House Design standards and any other Quiet House Design standards and any other noise controls required to be implemented as specified in the Noise Management Plan.
- e) Minimum finished floor levels.
- f) Bushfire Attack Level (BAL) contours.

6. Structure plan amendment

Preparation of an amendment to this LSP with respect to Lots 301-303, 1245-1247 and 1249 Kookaburra Way, Vasse is required prior to an application for subdivision of these lots.

7. Rezoning

It is understood that the City of Busselton will address possible rezoning of the LSP area (e.g. to 'Residential (R5)') as part of a holistic strategic assessment of the Vasse-Dunbarton area during preparation of a new Local Planning Scheme No. 22.



PART TWO: EXPLANATORY REPORT 1. Introduction and purpose

Across Planning has been engaged by Scott River Nominees Pty Ltd to prepare a Local (Standard) Structure Plan (LSP) over the land known as Lots 242-244 Kookaburra Way, Vasse plus Lots 301-303, 1245-1247 and 1249 (indicative only) - refer *Figure 1: Local (Standard) Structure Plan*.

This LSP is intended to guide the subdivision and development of the subject land for Rural Residential purposes consistent with a concept plan that includes the adjoining Stonebridge Estate (previously known as Lot 2 Kookaburra Way). The concept plan is shown in *Figure 2: Concept Plan Lot 242 to Lot 2 Kookaburra Way, Busselton.* The concept plan and LSP are part of the broader Vasse-Dunbarton area identified as Special Provision Area 63 (SP63) under the City of Busselton Local Planning Scheme No. 21 (LPS21).

SP63 makes provision for preparation of a structure plan for Lots 242-249 Kookaburra Way, subject to it integrating with the approved structure plan for Stonebridge Estate which extends east to Queen Elizabeth Avenue. Accordingly, the Concept Plan demonstrates this integration with the endorsed structure plan for the Stonebridge Estate.



2. Planning background

2.1. Land description

1.2.1 Location

The LSP area lies between the Busselton Bypass and Kookaburra Way immediately south of the intersection of the Busselton Bypass and Fairway Drive, approximately 6km by road in a south westerly direction from the Busselton City Centre (refer *Figure 3: Location plan*).

The subject land forms part of the Vasse-Dunbarton rural residential area and comprises Lots 242-244, 301-303, 1245-1247 & 1249 Kookaburra Way, Vasse.



Figure 3: Location plan

1.2.3 Area and land use

The LSP area totals 29.95ha, comprising 10 existing lots ranging from 0.99ha to 4.72ha, with the majority being approximately 3.8ha. All are presently used for rural residential, grazing and hobby farm pursuits. They are predominately parkland cleared with scattered stands of remnant native vegetation and introduced species.



The existing land use is shown in Figure 4: Aerial photograph of LSP area and Stonebridge Estate.



Figure 4: Aerial photograph of LSP area and Stonebridge Estate

A limestone block masonry noise wall built by Main Roads WA exists along the whole of the northern boundary of the LSP (Lots 242-249) to reduce the acoustic impact of traffic noise from the Busselton Bypass on the subject land. The height of the wall in the vicinity of the intersection of Fairway Drive and the Busselton Bypass (adjoining Lot 245-249) has been raised by Main Roads WA in recent years due to the design and close proximity of the newly-constructed intersection roundabout.

The Stonebridge Estate lying immediately east of the LSP area has an earthen bund along its northern boundary, as an approved alternate acoustic treatment to a noise wall.

Remnant vegetation exists either side of the existing noise wall comprising native and introduced species, which varies in height and density. During 2020, Main Roads WA planted additional trees (mostly Peppermint) and shrubs along the southern edge of the Busselton Bypass road verge to supplement existing mature vegetation, particularly where there were 'gaps' in the vegetation, and to provide additional landscape screening of the noise wall. There also exists scattered remnant vegetation in the road verge of Kookaburra Way.



3. Planning framework

3.1. Zoning and reservations

The LSP area and adjoining Stonebridge Estate are zoned 'Rural Residential' under the City of Busselton Local Planning Scheme No. 21 (LPS21) as shown in *Figure 5: Local Planning Scheme No. 21 Scheme Map (extract)*. The area also falls within the SP63 special provision area for the wider Vasse-Dunbarton area.

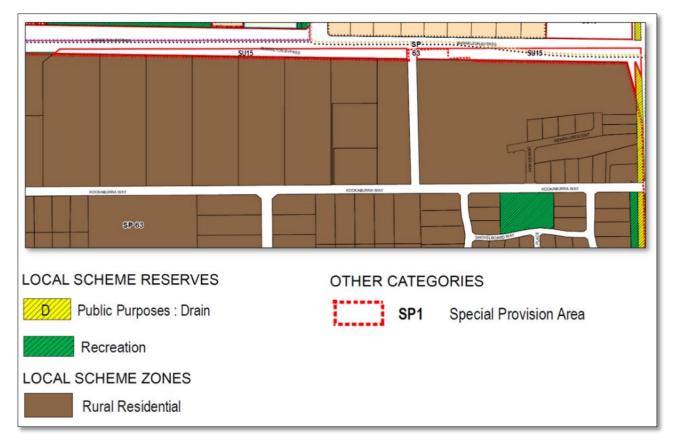


Figure 5: Local Planning Scheme No. 21 Scheme Map (extract)

Under LPS21, the objectives for the Rural Residential zone are:

- a) To provide for lots primarily for residential purposes generally in the range of 1 ha to 4 ha.
- b) To provide opportunities for a range of limited rural and related ancillary pursuits on ruralresidential lots where those activities will be consistent with the amenity of the locality and the conservation and landscape attributes of the land.



c) To set aside areas for the retention of vegetation and landform or other features which distinguish the land.

Under Clause 4.38 of LPS21, the following special provisions relate to the Rural Residential zone:

- 4.38.2 On any lot in the Rural Residential zone, unless specified otherwise on a Structure Plan, buildings shall not be located –
 - a) within 100 metres of Caves Road, Commonage Road, Wildwood Road, Biddle Road or Hayes Road;
 - b) within 20 metres of any other road or a front or rear boundary;
 - c) within 15 metres of a side boundary.
- 4.38.3 On any lot in the Rural Residential zone, where conventional and/or reticulated energy sources are to be used, then each dwelling shall be connected to the power supply in the locality by means of underground cable.
- 4.38.4 On any lot in the Rural Residential zone, no development, clearing of vegetation or fencing is to occur within 30 metres of the centre line of any creek-line.
- 4.38.5 On any lot in the Rural Residential zone, in areas of remnant vegetation, fencing will be prohibited except within and on the perimeter of a cleared area. All fencing is to be of farm standard post and wire construction.
- 4.38.6 a) No dam or lake shall be developed unless development approval has been granted.b) No dams or lakes shall be developed unless they are shown on a Structure Plan, or in circumstances where the proposed dam or lake:
 - *(i) will not adversely affect environmental flows within the catchment or downstream of the dam;*
 - (ii) will only capture sufficient water to be used for domestic requirements, and/or, for the irrigation of a domestic garden, or for the purposes of a water supply to an approved land-use on the site;
 - (iii) is an off-stream dam;
 - *(iv)* does not exceed a capacity of 1500 cubic metres or comprises a surface area greater than 500 square metres whichever is the lesser; and
 - v) will not significantly or unreasonably diminish the flow of water for use by downstream users including the environment.
- 4.38.7 On any lot on which it is permissible within the Rural Residential zone, the keeping of stock may only be approved where it does not require removal of vegetation and such that stock numbers are maintained at levels in accordance with stocking rates to the satisfaction of the Department of Agriculture and Food.



- *Note: 1: Within the Rural Residential zone on any lot less than 1 hectare in area the keeping or rearing of stock is not permissible.*
 - 2: Within the Rural Residential zone on any lot less than 4 hectares in area, unless specified on a Structure Plan the keeping or rearing of stock is not permissible, except for domestic purposes and, in such case, shall not exceed one horse or one cow or two sheep.

Under Clause 4.33 Building Envelopes in Rural Areas, the following sub-clauses apply to this LSP:

- 4.33.1. All dwellings and incidental development in the Rural Residential and Rural Landscape zones must be located within an approved building envelope (as may be shown on an approved Structure Plan, Local Development Plan or approved building envelope plan) or in such other manner that may be identified on a Structure Plan or Local Development Plan.
- 4.33.2 Where a building envelope has not been specified on a lot in the Rural Residential zone, then all dwellings and incidental development must be contained within a regular square or rectangular area of land no greater than 2,000m2 in area, or as otherwise required by a Structure Plan or Local Development Plan.

The subject land is included in **Special Provision Area 63 (SP63)**, in which the following special provisions apply:

- 1. A District Structure Plan (DSP) shall be prepared for the Special Provision area, which shall determine as a minimum, indicative layout, residential density, strategic road integration and public open space provision.
- 2. Notwithstanding provision 1, a district structure plan may be prepared specifically for Lots 242-249 Kookaburra Way prior to the general DSP for Special Provision Area 63 being prepared. Should this occur, the specific district structure plan for these lots must integrate with the approved structure plan for neighbouring Lot 2 Kookaburra Way.
- 3. Any DSP that is prepared shall identify precincts for which further local structure planning is required prior to any consideration for subdivision approval.
- 4. Subdivision of land shall be generally in accordance with a Local Structure Plan for the land approved by the Western Australian Planning Commission pursuant to Schedule 2 (Deemed Provisions) of the Planning and Development (Local Planning Schemes) Regulations 2015.



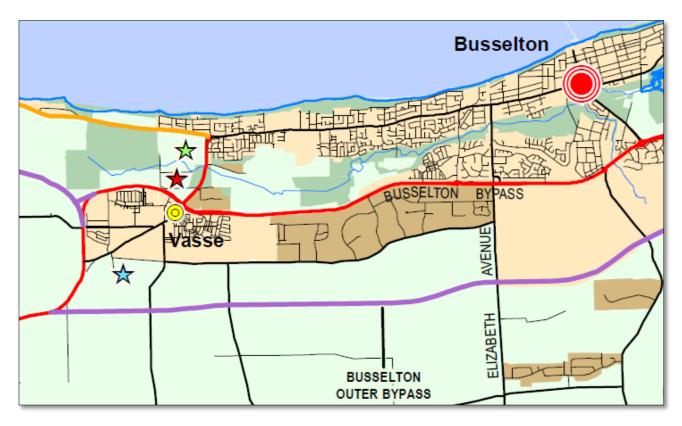
3.2. Regional and sub-regional structure plan

The *Leeuwin-Naturaliste Sub-regional Strategy* (WAPC, 2019) is an overarching strategic land use planning document outlining the WAPC's approach to future planning and development within the City of Busselton and the Shire of Augusta-Margaret River over the next 20 years.

The sub-regional strategy states that, in particular, it plans for population and visitor growth to be accommodated through a combination of infill, already-planned greenfield development and potential new expansion areas.

The Strategy Plan – Geographe Bay (detail) identifies the subject land as 'Rural Living', as shown in *Figure 6: Leeuwin-Naturaliste Sub-regional Strategy – Strategy Plan (extract)*.

Figure 6: Leeuwin-Naturaliste Sub-regional Strategy – Strategy Plan (extract)



3.3. District structure plan

It is understood that the City of Busselton will consider preparation of a District Structure Plan for the wider Vasse-Dunbarton area as part of preparation of a new Local Planning Scheme No. 22.



3.4. Planning strategies

This LSP conforms to the City of Busselton Local Planning Strategy 2019 which:

"... provides the scope to consider limited further subdivision and consolidation within the existing rural-residential areas of Commonage and Dunbarton, where there is seen to be a demonstrable community benefit and having regard to environmental, landscape/visual amenity and biodiversity values, as well as bushfire risk. This will contribute to the more efficient use of land, services and infrastructure and will maximise the number of rural residential lots without needing to alienate additional areas of rural land".

Strategy No. 7.2(g) states:

"Support and pro-actively plan to identify suitable areas for *re-subdivision/consolidation of existing rural-residential development* in both the Commonage and Dunbarton rural residential areas".

3.5. Planning policies

Relevant City of Busselton Local Planning Policies are:

- Local Planning Policy No. 4.5 Busselton Bypass Access
- Local Planning Policy 4.7 Busselton Bypass/Bussell Highway Setback and Buffer Provisions.

3.5.1. Local Planning Policy 4.5 - Busselton Bypass Access

Local Planning Policy 4.5 – Busselton Bypass Access supports the Main Roads WA '*Busselton Bypass and Intersection Access Strategy*' to limit access to the Busselton Bypass to meet the objective of the effective function of the Bypass as an inter-regional highway.

Accordingly, LPP 4.5 aims to:

- a. Reinforce and clarify the City's intention to prohibit direct vehicular access to the Busselton Bypass.
- *b.* Ensure that development adjacent to the Bypass is not detrimental to the safety and smooth flow of traffic.
- c. Maintain visual amenity, acoustic protection and rural character along and adjacent to the Bypass.
- d. Ensure consistency of decision making between the City and MRWA.



The LSP complies with the policy by not proposing direct access to the Busselton Bypass and implementing measures to maintain visual amenity, acoustic protection and rural character along, and adjacent to, the bypass.

3.5.2. Local Planning Policy 4.7 – Busselton Bypass/Bussell Highway – Setback and Buffer Provisions

Local Planning Policy 4.7 – Busselton Bypass/Bussell Highway – Setback and Buffer Provisions has the following objectives:

- 1. To avoid a loss of value in the landscape character as viewed from controlled access highways as a consequence of new residential and rural residential development.
- 2. To seek to influence the form and appearance of new residential and rural residential development through planning processes so that the significance of the rural character and scenic values of the areas are protected.
- 3. To encourage the retention of native vegetation in road reserves, private land and reservations through the use of landscape buffers and/or reserves for landscape protection.
- 4. To require the integration of appropriate landscaping, perimeter fencing, residential and ancillary development and acoustic bunding in order to retain the significance of the landscape character.
- 5. To provide a policy approach to complement the local environment and avoid the creation of barren "road canyons" or commercialisation of these roads.

In relation to the Busselton Bypass (South), policy provision 4.2.2 states:

- a. Subdivisions to the south of the Busselton Bypass alignment will be required to be designed to achieve a minimum separation between the building line and the edge of the reserve carriageway boundary of approximately 80 metres. In the majority of cases this will be achieved through the use of rural residential lots which abut the highway reserve and a landscaped buffer within the private lots.
- b. In most instances the negative visual impact of the use of earth bunding should preclude its use as a means of noise attenuation. Separation from the noise source to the residential buildings through physical setback distances is the preferred means of attenuating noise in these areas.
- c. Where extensive earth bunding and landscaping is required, as the provision above cannot be met due to physical constraints, then a minimum setback of between 40 metres and 60 metres



from the edge of the southern boundary of the proposed Bypass reserve to the building line will be considered.

d. The intention of this buffer is to render a semi-rural outlook from the road. Where alternatives are proposed for building setback and landscaping treatment, they will be assessed against this objective.

During preparation of this LSP, there has been extensive liaison with the City of Busselton, the Department of Planning Lands and Heritage (DPLH), and Main Roads WA regarding acoustic and visual management. The existence of the limestone block noise wall along the boundary of the subject land with the Busselton Bypass is acknowledged by all parties, as is the need to enhance existing landscape planting to ensure a semi-rural outlook from the Bypass.

The *Busselton Bypass Visual Management Plan* (VMP) (Scott River Nominees, June 2021) notes the height of the noise wall adjacent the northern boundary of Lots 242-244 (1.8-2.2m). As described in section 5 below, the visual management plan provides for creation of a reserve adjacent the southern side of the noise wall to be planted with additional trees to improve the landscape buffer. Arrangements have already been made with Main Roads WA for supplementary tree planting within the verge of the Busselton Bypass reserve, specifically in pockets between existing vegetation. This supplementary planting was carried out by a Main Roads WA contractor in 2020.

The visual management plan also complies with LPP4.7 by providing a minimum setback of 40m from the southern boundary of the Busselton Bypass to the building line (or approximately 53m from the edge of the proposed southern carriageway of the Bypass).

3.6. Other approvals and decisions

The City of Busselton has adopted Engineering and Works Services Standards and Specifications, including Section 6 - Property Development Technical Requirements and Guidelines – Earthworks, Drainage and Parking.

3.6.1. Property Development Technical Requirements and Guidelines – Earthworks, Drainage and Parking

Section 3 Stormwater Drainage Design requires developers of land for urban or industrial purposes to provide (at the subdivision stage) a drainage system designed to collect and dispose or detain a one in five (5) year storm.

1 in 100-year storm flow shall be accommodated by the designed drainage system combined with surface flow lines to flow to street or water course disposal points.



This LSP complies with the technical requirements and guidelines, as demonstrated in *Concept Hydrology Integration* report (JDA Hydrology Consultants, September 2020) and in the *Local Water Management Strategy* (JDA Consultant Hydrologists, Version No. J6700k 23 February 2023) refer *Appendix A*.

3.7. Pre-lodgement consultation

Pre-lodgement consultation has been undertaken with the City of Busselton, DPLH, DWER and Main Roads WA.



4. Site conditions and constraints

4.1. Biodiversity and natural area assets

The subject land comprises parkland cleared land that has been used for grazing and rural residential pursuits. Whilst there is some vegetation existing on the land, this is limited to scattered vegetation, individual trees and areas of scrub along the northern and southern boundaries (refer *Figure 4: Aerial photograph*). The scattered paddock trees are predominantly Eucalypt species and Peppermint (Agonis flexuosa), with greater numbers in clumps towards the north and north west areas. Much of the under-storey is either highly degraded or cleared.

Strategen-JBS&G has provided comment on environmental considerations as part of the bushfire management Plan prepared for the LSP (refer 4.5 and 5.7 below). This comment includes a summary of a search of publicly available environmental data relating to the DSP area, supported by on-site observations. The results are shown in *Table 2: Summary of environmental considerations*. No significant environmental values have been identified.

Environmental value	Mapped as occurring within or adjacent to the project area		Description	
	Within	Adjacent		
Environmentally Sensitive Area	x	1	ESAs are located to the north of the LSP area along Fairway Drive and in association with the Conservation Category Wetlands (CCW) adjoining Old Broadwater Farm residential estate. No ESAs are mapped within the LSP area and the proposed development is not considered to impact ESAs in the wider area.	
Wetlands	х	✓	No wetlands are mapped within or immediately surrounding the LSP area. A CCW is located approximately 500 m north of the LSP area within the Busselton wetlands system.	
Waterways	х	~	Aside from minor roadside drains, no waterways are located within or in proximity to the LSP area.	
Threatened Ecological Communities listed under the EPBC Act	~	✓ 	The Banksia Woodlands of the Swan Coastal Plain TEC is mapped as being likely to occur within the project area, however, site observations did not identify any Banksia Woodlands.	

Table 2: Summary of environmental considerations



Threatened and priority fauna	~	✓ 	The LSP area is mapped as being with a buffer area for threatened flora species, however, this vegetation is likely to be that associated with the Par 3 Golf Course on Fairway Drive, north of the project area.
Fauna habitat listed under the EPBC Act	~	~	A buffer area for critically endangered fauna species is located within the LSP area. This is likely to be in relation to potential Western Ringtail Possum habitat along the northern side of Busselton Bypass, rather than within the project area.
DBCA managed lands and waters (includes legislated lands and waters and lands of interest)	Х	x	N/A
Conservation covenants	х	х	N/A

With respect to Lots 242-244 Kookaburra Way, the following environmental benefits arise from the *Landscape Master Plan* (LD Total, 2021) refer *Appendix A*:

- landscape planting of the proposed visual management and drainage reserve is expected to comprise native species with a dense scrub habit, such as Banksia, Callistemon, Chamelaucium, Grevillea, Hakea and Melaleuca
- this supplementary planting of native species of trees and shrubs in the proposed reserve will help conserve biodiversity and a semi-natural area, including linear habitat connections for fauna such as the Western Ringtail Possum
- street trees planted along either side of the proposed internal public roads with under-storey verge treatments comprising managed turf to low ground covers
- roadside swales along one side of the proposed public internal roads will be planted with sedges and grasses
- proposed landscaping within the existing drain at the Kookaburra Way entrance, including retention of existing trees and proposed new trees with sedges and grasses planted within the existing drain.

4.2. Geology, landform and soils

In common with the wider Vasse-Dunbarton area, the LSP area is flat to gently sloping. The Busselton sheet of the 1:150,000 scale Environmental Geology series map indicates that the area is underlain by:



- Limestone light yellowish brown, fine to coarse grained, sub-angular to well-rounded quartz, shell and corals common, crinoids less common, of marine origin
- Southern edge of site: Clayey Peaty Sand grey to black quartz sand with variable organic content, minor clays, pf lacustrine origin.

Galt Geotechnics Pty Ltd (Galt) have undertaken a geotechnical study for Lots 242-244 Kookaburra Way (western precinct of the LSP area), including excavation of test pits at 24 locations extending to depths of between 0.5m and 2.5m (*refer Report on Geotechnical Study Proposed Residential Subdivision Lots 242-244 Kookaburra Way, Vasse - Galt Geotechnics, November 2019 – Appendix A*).

The Galt findings were in general accordance with the Environmental Geology series mapping, however Galt did not encounter peaty soils.

Although specific geotechnical analysis has not been undertaken over the eastern precinct of the LSP area, given the general similarities in the adjoining areas it is considered reasonable to extrapolate the findings of the western precinct investigations over the full LSP area.

The Department of Water and Environmental Regulation (DWER) Acid Sulfate Soils (ASS) risk mapping indicates that most of the site has a Moderate to Low risk of ASS within 3m of the natural surface. The southern edge of the site is mapped as having a Moderate risk of ASS within 3m of the natural surface. Galt concluded that, based on the study findings, they consider no further investigation or management of soils (for ASS specifically) will be required.

Galt determined that the subject land is geotechnically capable of supporting residential development.

Galt advised that, in accordance with AS2870, sites in Busselton/Vasse should have at least 1.5m of non-reactive material from the surface to achieve a "Class A" classification. They considered that "Class A" is appropriate for most of the subject land provided recommended site preparation measures are followed during development.

Clayey Sand was noted at shallow depth in the south-western part of the site, which is classified as "Class S" under current conditions. To achieve Class A conditions, house pads in this portion of the site should be formed such that there is at least 1.5m of inert soil above the clayey horizon.

4.2.1. Acid sulfate soils

The DWER acid sulphate soils (ASS) risk mapping indicates that the whole of the subject site has a moderate to low risk of ASS within 3m of the natural surface. Laboratory analysis of the Galt field test samples show that all materials tested are classified as non-acid sulfate soils (NASS). Galt concludes that, based on these findings, they do not consider any further investigation or management of soils (for ASS specifically) will be required at the site.



4.2.2. Site classification

The geotechnical report considers that the site is geotechnically capable of supporting the proposed rural residential development. Provided that site preparation guidelines are followed, Galt considers that a site classification of 'Class A' is appropriate across most of the site in accordance with AS2870 'Residential Slabs and Footings'. Clayey Sand was noted at shallow depth in the very south western part of the site. To achieve a 'Class A' condition, Galt suggests that house pads be formed such that there is at least 1.5m of inert soil (in-situ sand and imported sand) above the clayey horizon.

4.3. Groundwater and surface water

An approved Local Water Management Strategy (LWMS) was prepared for the Stonebridge Estate (Lot 2) by Calibre in 2016. Calibre identified three surface water catchments in the area, shown as catchments P1, P2 and P3. Of the three surface water catchments, the Stonebridge Estate and a small south-eastern portion of the LSP area form part of Catchment P1, while the majority of the LSP is in Catchment P2, as are shown in *Figure 7: Surface water catchments*.

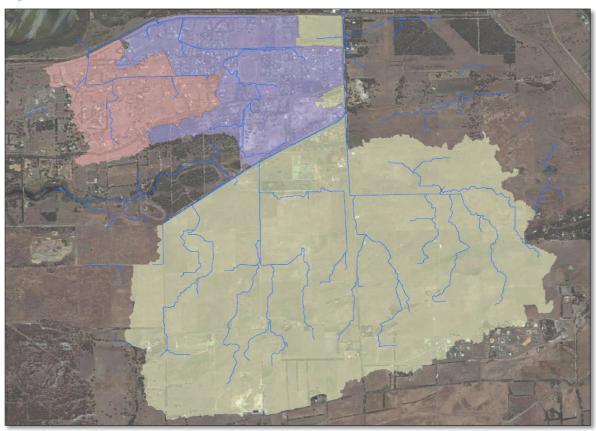


Figure 7: Surface water catchments



JDA has prepared a Local Water Management Strategy (LWMS) for Lots 242-244 Kookaburra Way (refer: *Lots 242-244 Kookaburra Way, Vasse Local Water Management Strategy* (JDA Consultant Hydrologists, Version No. J6700k 23 February 2023 – *Appendix A*). This was prepared following a *Concept Hydrology Integration* report prepared by JDA to demonstrate integration with the LWMS for the Stonebridge Estate. A separate LWMS will be required for the area comprising Lots 245-249 as part of future detailed local structure planning.

Pre-development groundwater monitoring for Lots 242-244 was completed between June and September 2019 in five shallow groundwater monitoring bores and two deeper private domestic/farm bores within the subject land. JDA found that the average depth to groundwater across the subject land is approximately 0.8m average annual mean groundwater level (AAMGL).

There are no drains traversing the subject land, however roadside drains are located in the adjacent Busselton Bypass and Kookaburra Way road reserves (refer: *Figure 8: Regional surface water drainage and wetland mapping*).

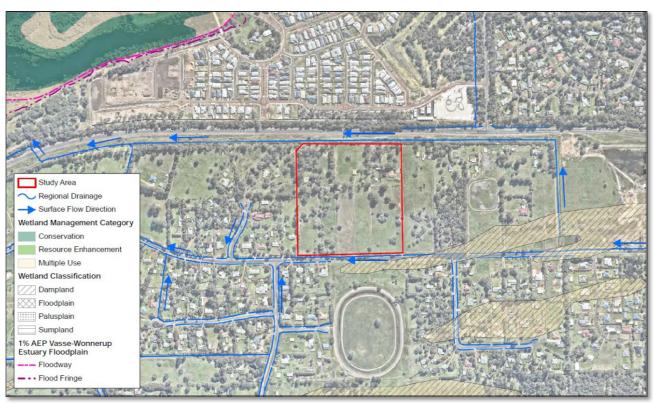


Figure 8: Regional surface water drainage and wetland mapping

Pre-development surface drainage is predominantly south to north (Area A), with two smaller catchments (Areas B and C) draining westward (refer: *Figure 9: Pre-development catchments and drainage*).





Figure 9: Pre-development catchments and drainage

A search of DWER's publicly available Contaminated Sites Database (accessed 27 August 2020 by JDA) indicates no contaminated sites within the subject land.

Both the former and current Waste Transfer Stations, located 750m south-west and upgradient of the subject land, are classified as *Contaminated Sites – remediation required*. The sites were previously used for the disposal of degradable waster, including domestic and industrial wastes. Metals, aromatic hydrocarbons, chlorinated hydrocarbons and PFAS have been detected in groundwater beneath the transfer station sites, with a plume extending north north-west (DWER, 2020).

Monitoring of the transfer stations and surrounding areas has been conducted by the City of Busselton since at least 2010, including multiple investigations. A JDA request to DWER indicates the most recent detailed investigation was Welarm (2019), which suggests that the groundwater plume has not impacted superficial groundwater within the subject land and that identified chlorinated hydrocarbon concentrations and the current spatial extent of PFAS concentrations were relatively stable with respect to seasonal and temporal variations.

Further consultation with DWER's Contaminated Sites Branch will be required at Urban Water Management Plan (UWMP) stage.



4.4. Landscape values

The LSP area is characterized by a semi-rural landscape of generally flat landform, predominantly cleared pasture, remnant stands of mature vegetation, and single-storey dwellings. Existing vegetation is mainly scattered vegetation, with some clumps of trees toward the northern portions, plus scrub along the northern and southern boundaries (refer *Figure 4: Aerial photograph of LSP Area and Stonebridge Estate*). The trees are predominantly Eucalypt species and Peppermint (*Agonis flexuosa*).

The Kookaburra Way frontage to the subject land is predominantly cleared and exhibits a semi-rural landscape of pasture, scrubland and long driveways to the three existing dwellings. Viewed from Kookaburra Way, the LSP area has a sense of openness, although Lot 1246 contains noticeably more remnant vegetation than other lots. There are several trees and shrubs within the Kookaburra Way road reserve. These should be retained, where practical.

The northern side of the LSP area has an existing limestone block wall varying in height from 1.8m at the western end stepped up to 3.8m in the vicinity of the roundabout at the intersection of Fairway Drive and Busselton Bypass. The wall was constructed by Main Roads WA for mitigation of traffic noise from the bypass. Its visual impact is softened by an area of remnant vegetation adjacent the northern side of the wall. In sections where there is limited vegetation the noise wall is clearly evident from the Busselton Bypass and will benefit from the targeted supplementary planting of suitable tree species.

East of the LSP area, the Stonebridge Estate has an approved earthen bund rather than a masonry wall for noise mitigation and visual management purposes.

A visual management plan (VMP) has been prepared to help inform the LSP - *Busselton Bypass Visual Management Plan* (*Scott River Nominees, June 2021 – Appendix A*). The VMP describes the existing landscape context and the planned response to maintain and enhance landscape values, including addressing LPP 4.7 – Busselton Bypass/Bussell Highway – Setbacks and Buffer Provisions (refer 3.5.2 above).

For areas south of the Bypass, LPP4.7 favours the use of rural residential lots to achieve a significant physical separation of approximately 80m between the building line and the edge of the reserve carriageway. However, the policy also acknowledges that where extensive earthen bunding and landscaping is required (or already exists) then a minimum setback of 40m will be considered.

The intention of this buffer is to render a semi-rural outlook from the Bypass and the policy states that where alternatives are proposed for building setback and landscaping treatment, they will be assessed against this objective.



The VMP provides for creation of a reserve adjacent the southern side of the noise wall (adjacent Lots 242-244) to be planted with additional trees and shrubs to improve the visual screening and general landscape value. Arrangements have also been made with Main Roads WA for supplementary landscape planting within the verge of the Busselton Bypass reserve.

Approximately 255m (75%) of the 340m length of Lots 242-244 abutting the Busselton Bypass has dense vegetation within the southern edge of the bypass road reserve and/or within the northern portion of the subject land, being a mix of native and introduced species of trees and shrubs. This vegetation allows filtered views, or completely screens, the existing limestone noise wall and dwellings to the south, thereby exhibiting a predominantly bushland and rural character.

Up to 2020, various 'pockets' totaling approximately 85m (25%) of the 340m width of Lots 242-244 had only limited vegetation both within the road reserve and the subject lots, which meant sections of the noise wall were fully or partially visible. Approximately 30m of the length (i.e. <10%) was fully visible. During 2020, Main Roads WA carried out tree planting within these 'pockets'. As they mature, these trees will assist landscaping and screening of the noise wall and the subject land.

Figure 10: View of subject land from Busselton Bypass shows portion of the northern extent of the subject land with only limited vegetation (left side of photo) compared to a portion with dense screening vegetation (right side). This photograph was taken prior to additional tree planting by Main Roads WA.



Figure 10: View of subject land from Busselton Bypass

A detailed tree, contour and feature survey was prepared by Thompson Consulting Surveyors to help inform the LSP. Within the 40m-wide northern portion of Lots 242-244 there are more than 73



Eucalypt trees and shrubs with an average height of 11m and an average canopy spread of 10m. Maximum heights reach 17m and maximum canopies spread 25m. Some of these trees and shrubs will need to be pruned or removed for bushfire management compliance, however planting of additional trees and shrubs in carefully planned areas will help meet LPP landscape objectives.

4.5. Bushfire hazard

A Bushfire Hazard Level (BHL) assessment for the LSP and Stonebridge Estate has been undertaken as part of the preparation of a *Bushfire Management Plan* (Strategen-JBS&G, May 2022) - refer *Appendix A*. The BMP informs preparation of the LSP and addresses requirements under Policy Measures 6.2 and 6.3 of *State Planning Policy 3.7 Planning in Bushfire-Prone Areas* (SPP 3.7; WAPC 2015) and *Guidelines for Planning in Bushfire-Prone Areas Version 1.4* (WAPC 2021).

Strategen-JBS&G assessed classified vegetation and exclusions within 150 m of the project area through on-ground verification on 10 August 2018 and 15 September 2020 in accordance with AS 3959 and the Visual Guide for Bushfire Risk Management in Western Australia (DoP 2016).

Strategen-JBS&G assessed effective slope under classified vegetation through on-ground verification, cross-referenced with contour data, which indicate that slope within the DSP area and adjacent 150 m assessment area is predominantly flat, with little to no variation in relief.

These assessments enabled Strategen-JBS&G to map the pre-development bushfire hazard levels within the LSP area and adjacent 150 m wide assessment area. The bushfire hazard levels have been assessed on the basis of the current pre-development extent of vegetation within and surrounding the project area.

The LSP area is bordered to the south and west by rural residential properties with vegetation comprising managed grassland, scattered paddock trees, isolated patches of remnant native vegetation and planted screens and windbreaks. Due to the primarily low threat nature of surrounding vegetation, the predominant bushfire threats are from the north and east.

To the north, bushfire hazards exist in the form of a narrow strip of forest vegetation bordering the northern side of Busselton Bypass and a narrow strip of scrub and woodland vegetation bordering the southern side of the Busselton Bypass.

Strategen-JBS&G does not consider that a bushfire occurring within this vegetation would have the potential to pose a significant bushfire threat to the project area due to the restricted size and width of vegetation being unable to support fully developed bushfire behaviour. Scrub and woodland vegetation with a direct interface with the northern boundary of the project area would not be expected to cause unacceptable bushfire attack levels (BALs) due to the potential for building envelopes to be located within the south of the lots, in an area of BAL-29 or lower.



Bushfire hazards east of the LSP area comprise Class A Forest within a drain line abutting Stonebridge Estate, as well as remnant forest vegetation within rural residential properties to the east of Queen Elizabeth Avenue. Whilst having the potential to exert radiant heat impact and ember attack impacts on the project area, the existing BMP for Stonebridge Estate makes provision for the siting of future development to achieve a maximum of BAL-29, and all future development within 100m of bushfire prone vegetation is required to comply with the bushfire specific construction standards of AS 3959-2009.

As shown in *Table 2: Summary of environmental considerations*, no significant environmental values have been identified that impact bush fire management planning.

A summary of results is depicted in *Figure 11: Pre-development Bushfire Hazard Level Assessment*. The pre-development BHL assessment shows that, based on the existing vegetation, the project area contains areas with Low, Moderate and Extreme bushfire hazard levels. The predominant assessment level is Moderate.

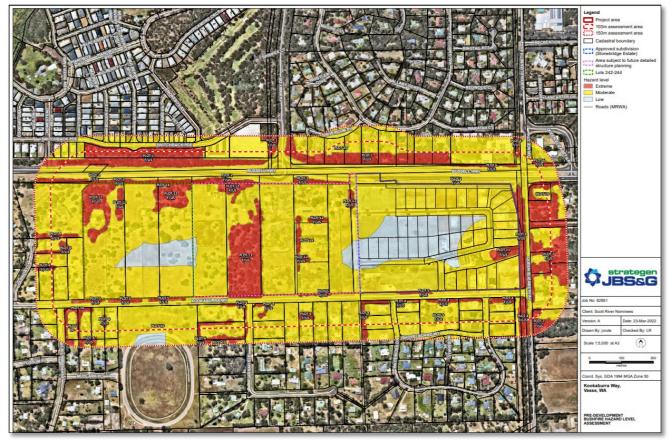


Figure 11: Pre-development Bushfire Hazard Level assessment



Areas shown in red in *Figure 11* have an 'Extreme' hazard level. Within the subject land, some existing vegetation within these areas will be cleared or extensively pruned as part of the planned subdivision, thereby reducing the level of hazard. Areas shown in yellow have a 'Moderate' hazard level, which is readily manageable in an urban development context.

The BMP notes that, on completion of development, the LSP area is expected to comprise fully managed vegetation with the majority of existing trees being removed or landscaped to a low threat state to accommodate building envelopes and Asset Protection Zones (APZs). Therefore, there will be minimal bushfire threat posed by vegetation internal to the LSP.

Strategen-JBS&G considers the bushfire hazards within and adjacent to the LSP area and the associated bushfire risks are readily manageable through standard management responses outlined in the Guidelines and AS 3959. These responses will be factored into proposed development as early as possible at all stages of the planning process to ensure a suitable, compliant and effective bushfire management outcome.

4.6. Heritage

A search of the Department of Planning, Lands and Heritage's Aboriginal Heritage Inquiry System indicates no Registered Aboriginal Sites or Other Heritages Places within the LSP area. There are no non-indigenous buildings or sites of significance within the LSP area.



5. Land Use and subdivision requirements

5.1. Land use and design principles

The LSP conceptual design (refer *Figure 1*) shows a simple and logical street pattern reflecting the elongated shape of the land and the transition between conventional residential development to the north and the Vasse-Dunbarton rural residential area to the south and west. The streets, drainage, landscape reserve and proposed pedestrian/maintenance access track are designed to integrate with the Stonebridge Estate.

The main vehicle access points into the LSP area are from Kookaburra Way, which extends east to Queen Elizabeth Avenue and connects north to the Bussell Bypass. Internal connection points are identified on the Structure Plan to provide connections to the adjoining lots for connectivity and integration as development progressively occurs.

The proposed pedestrian/maintenance access track along the northern part of the LSP area is designed to connect areas to the west and the LSP itself with a pedestrian pathway through Stonebridge Estate which links to the wider pathway network east and north of Queen Elizabeth Ave.

Fill will be required within the LSP area to address water management and servicing requirements, enabling suitable fall for reticulated sewer purposes. This aligns with the intent to fill building envelopes and stipulate a Finished Floor Level for each one, upon which all buildings within each lot can be built. The indicative street block layout shown over the eastern precinct can readily be designed to connect to services, including sewer.

Where practical, remnant vegetation is to be retained within drainage or landscape areas, within residential lots and in road verges. A pedestrian pathway is proposed to be located within a landscape and drainage reserve at the northern end of Lots 242-244 (western precinct) and can readily be extended to Lots 1245-1247, Lot 303 and Lot 1249 (eastern precinct).

5.2. Residential

The minimum lot size proposed is 2000m², consistent with the adjoining Stonebridge Estate, which will also be consistent with 'Residential (R5)' should the subject land and the wider Vasse-Dunbarton area be rezoned. Setbacks should be established in an approved Local Development Plan prior to development.

As discussed with the City and DPLH, a reduced front setback of 7m is intended for the northernmost lots due to the 40m rear setback for these lots. The northern-most lots have an 'effective' lot size of minimum 2000m² by virtue of the landscape reserve adjacent the existing noise wall.



With respect to Lots 242-244, the proponents initially proposed that the landscape protection area be managed via restrictive covenants within private lots, however the City of Busselton expressed a clear preference for creation of a landscape reserve. In doing so, the City advised that it would support the area ceded for this landscape reserve to act as a 'credit' towards the effective minimum lot size of 2,000m². Subsequent comment from DPLH indicated in-principle support for this 'credit' toward the minimum lot size for the affected lots. Accordingly, it is anticipated that the subdivision application will seek approval for a reduced lot size for the norther-most row of lots.

5.3. Public open space, drainage and reserve for landscape protection

Being zoned 'Rural Residential', there is no specific WAPC policy requirement for the provision of public open space, unless needed for environmental or other particular reasons. The LSP provides for combined public open space, drainage and reserve for landscape protection amounting to approximately 6% of the LSP area.

It is noted that there is potential for the LSP and the wider DSP area to be rezoned to 'Residential (R5)'. However, with respect to POS it is considered that the usual 10% POS provision in residential areas should not be a requirement in the LSP area given the proposed lot sizes of minimum 2,000m² are significantly larger than conventional residential lots, thereby providing generous private open space for leisure activities, plus there is significant existing POS within walking distance of the LSP.

A substantial area of drainage is identified in the south-east portion of the LSP area consistent with the adjoining Stonebridge Estate. A 13m-wide linear reserve for landscape and drainage is proposed adjacent the northern boundary of the LSP. This also provides a POS function including a 4m-wide pedestrian and maintenance track (with added passing bays) allowing connectivity for pedestrians and cyclists to the district pathway network. Landscape planting of the reserve to supplement existing trees will effectively provide a linear parkland for passive recreation.

The LWMS prepared by JDA develops surface and groundwater management strategies at a local scale and provides the framework for the application of total water cycle management to the proposed LSP, consistent with the District Water Management Strategy and the DWER principles of Water Sensitive Urban Design. Details of the LWMS can be found in *Appendix A*.

Catchment rainfall and runoff have been modelled by JDA using XP-Storm modelling. The local stormwater management system will consist of treatment swales within road reserves and ephemeral water storage areas to attenuate and infiltrate peak flows prior to discharge to existing drains in the Busselton Bypass and Kookaburra Way (refer: *Figure 12: Stormwater management plan Lots 242-244*).





Figure 12: Stormwater management plan Lots 242-244

The drainage basin concept in the proposed landscape and drainage reserve is shown in *Figure 13: Northern basin cross-section concept Lots 242-244.*

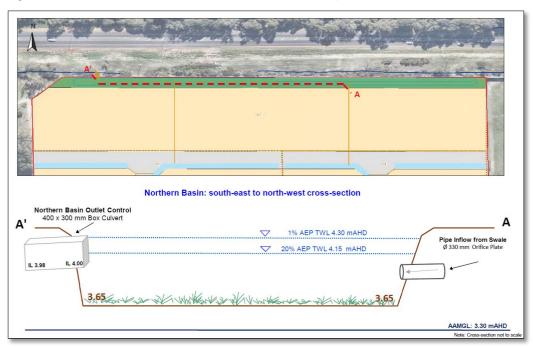


Figure 13: Northern basin cross-section concept Lots 242-244



Key elements of the LSP related to urban water management include:

- Use of roadside swales within roads for treatment and infiltration of the first 15 mm of rainfall from roads and as a system for conveying stormwater runoff from lots and roads for the major rainfall event to the downstream landscape reserve.
- The proposed lots will retain the first 15 mm of rainfall from connected impervious areas onsite, using a combination of rainwater tank (for reuse) and soakwells.
- A flood attenuation basin will be located adjacent to the northern boundary of the subject land with the landscape reserve with a discharge to the Busselton Bypass roadside drain. The LWMS models this outlet as a 400 x 300mm boxed culvert.
- Use of local native species in the reserve, streetscapes and road swales to reduce nutrient input and conserve water resources.

Water conservation initiatives proposed include:

- Promotion of use of waterwise practices including WELS (Water Efficient Labelling and Standards) rated fixtures and fittings (taps, showerheads, toilets and appliances)
- Waterwise landscaping of lots, including native plant species
- Installation of rainwater tanks to supplement scheme water
- Maximizing on-site retention of stormwater.

The Concept Hydrology Integration and the LWMS provide the framework for the application of total water cycle management to the LSP area, consistent with the DWER principles of Water Sensitive Urban Design.

The LSP area will have limited impact on groundwater levels as it will remain rural residential (albeit with lot sizes of minimum 2000m²) with limited changes to both infiltration and evapotranspiration across the majority of the subject land.

At the subdivision stage, a Dewatering and Acid Sulphate Soils Management Plan is required that details how risk of groundwater disturbance and associated lateral extent of the groundwater drawdown will be minimized.



According to JDA, the Superficial Aquifer is probably the most cost-effective groundwater source for irrigation of streetscapes and establishment of vegetation within flood attenuation basins for development of the LSP. As of 25 August 2020, there was some allocation available, with the total allocated and additional requested allocations equaling 93% of the total available.

5.4. Movement networks

A Transport Impact Assessment (TIA) has been undertaken for the LSP and the Stonebridge Estate (*Transport Impact Assessment*, Shawmac, March 2021) – refer *Appendix A*.

Access to the area is provided off Kookaburra Way, which runs the length of the southern boundary of the LSP and Stonebridge Estate. Kookaburra Way, identified as an 'Access Road', connects to Queen Elizabeth Avenue, a 'Local Distributor Road' to the east, which then connects through to the Busselton Bypass northward that is classified as a 'Primary Distributor Road'. The LSP area and Stonebridge Estate abut the Busselton Bypass along their northern boundary. Consistent with LPP4.5, no access is proposed directly onto the bypass.

As shown in *Figure 6: Leeuwin-Naturaliste Sub-regional Strategy – Strategy Plan (extract)*, a Busselton Outer Bypass is planned to the south of the LSP area. When constructed, the Outer Bypass will carry a significant portion of intra-regional and inter-regional traffic, relieving demand on the Busselton Bypass. However, in the medium-term, construction of an additional carriageway (two lanes) within the Busselton Bypass is planned and has been taken into account in planning for the LSP.

As shown in *Figure 1* and *Figure 2*, the internal road network will consist of a grid of access roads branching from Kookaburra Way and the approved roads within Stonebridge Estate (formerly Lot 2). The internal road layout is a logical form that also lends itself to regularly-shaped lots. A future road connection is indicated towards the west. In the interim, this road will terminate as a temporary culde-sac.

The TIA concluded that:

- the external transport network is considered to be adequate to accommodate the LSP traffic, however future upgrades to the broader transport network are required to accommodate the general development and traffic growth in the surrounding areas
- traffic generated by land uses external to the site are not likely to use the roads within the development as through-roads
- the proposed internal transport network is adequate to accommodate the expected volume of traffic generated by the proposed development of the LSP area



- stop signs or give way signs will be adequate for intersections within the development and onto Kookaburra Way
- provision of footpaths along the verges within the LSP is not warranted, given the rural residential nature of the site and distance from/to any external locations (noting that pedestrian access ways have been provided within the broader LSP area, linking to the Busselton Bypass reservation)

5.5. Noise management

Herring Storer Acoustics (HSA) were engaged to carry out an acoustic assessment of noise received within the subject land (Lots 242-44 Kookaburra Way) and adjoining Lots 245-248 (refer: *Road Traffic Noise Assessment Lot 242-248 Kookaburra Way, Busselton Local Structure Plan* (Herring Storer Acoustics, Revision No. 9 – January 2023 – see *Appendix A*).

The HSA assessment was based on the proposed LSP layout and application of the appropriate criteria for assessment under the State Planning Policy (SPP) 5.4 *Road and Rail Noise* (WAPC, September 2019).

As part of the assessment, HSA carried out the following tasks:

- determine by noise modelling the noise that would be received at residences within the development from vehicles travelling on the roadway (Busselton Bypass) for the future
- assess the predicted noise levels for compliance with the appropriate criteria
- If exceedances are predicted, comment on possible noise amelioration options for compliance with the appropriate criteria.

The HSA assessment used noise logging conducted over a continuous 14-day period in April, 2008 to determine the existing noise levels on the site. Whilst the noise logging was from 2008, HSA noted that the traffic dynamics of the area have not changed, hence the logging data remains valid.

Modelling was carried out for road traffic flows 20 years in the future using the 'SoundPlan' computer program. Given the planned upgrade of the Busselton Bypass to dual carriageway, a new (southern) carriageway was factored into the modelling. Accordingly, the noise modelling was undertaken using a scenario of 2042 traffic flows, existing noise wall configuration (1.8m high) and future completed road alignment (dual carriageway), including the roundabout at Fairway Drive.



Local Structure Plan – Lots 242-244 and others (indicative) Kookaburra Way, Vasse

The results of the modelling are summarized in *Figure 14: Predicted future LAeq Traffic Noise Level* LAeq (16 hour) db Day Time Criteria based on:

- construction and operation of the future carriageway alignment _
- 2042 traffic volumes
- calibrated to 2022 measured noise levels
- MRWA South West projections for 3% annual traffic increase -
- Heavy vehicles reduced to 4%
- Dense Grade Aggregate (DGA) surface
- Further information can be found in the HSA report Appendix A.

Figure 14: Predicted future LAeq Traffic Noise Level LAeq (16 hour) db Day Time Criteria



The HSA assessment acknowledged the existing limestone block noise wall and applied a wall height of 1.8m to the noise modelling. In fact, alongside Lots 242-244 the noise wall varies from 1.8m to 2.2m in height, meaning that the noise modelling can be regarded as 'conservative' and that noise mitigation achieved by a combination of the existing wall and the proposed rear setback is actually greater than shown in the modelling.



The results of the acoustic assessment indicate that the noise received at the future dwellings would comply with the 'Noise Limits' as outlined in SPP 5.4. Although compliance is achieved for the future dwellings and no noise mitigation is required, HSA noted that, under SPP 5.4, noise received within the proposed northern-most lots (façade residences) will exceed the 'Noise Limits', hence Notifications on Titles will be required for these lots.

Consequently, Part One of the LSP requires a Notification on Title under Section 70A of the *Transfer of Land Act 1893* for impacted lots identified in a Noise Management Plan consistent with WAPC Model Subdivision Condition T24.

In addition, such Noise Management Plan is to inform the Local Development Plan as to implementation of noise control or management, including identifying lots that require "Quiet House Design" packages.

5.6. Visual management

5.6.1. Visual management plan

A Visual Management Plan (VMP) has been prepared for Lots 242-244 Kookaburra Way (refer *Appendix A- Busselton Bypass Visual Management Plan* (Scott River Nominees, April 2021).

The purpose of the VMP is to respond to the City's Local Planning Policy *LPP 4.7 Busselton-Bussell Highway Setback and Buffers* visual management policy for the Busselton Bypass as applied to the structure plan, and to demonstrate the commitment of the owner of Lots 242-244 to ensuring that the project has excellent visual aesthetics.

The objectives of the LPP 4.7 are:

- 1. To avoid a loss of value in the landscape character as viewed from controlled access highways as a consequence of new residential and rural residential development.
- 2. To seek to influence the form and appearance of new residential and rural residential development through planning processes so that the significance of the rural character and scenic values of the areas are protected.
- 3. To encourage the retention of native vegetation in road reserves, private land and reservations through the use of landscape buffers and/or reserves for landscape protection.
- 4. To require the integration of appropriate landscaping, perimeter fencing, residential and ancillary development and acoustic bunding in order to retain the significance of the landscape character.



As mentioned earlier, some visual screening of the subject land from the Busselton Bypass is currently achieved by the noise wall of 1.8 – 3.8m in height and existing vegetation both within the road reserve and in the northern parts of the subject land. However, some augmentation of existing visual screening is required.

Three alternative solutions for Lots 242-244 were considered in the VMP, being:

- increasing the height of the noise wall
- construction of an earthen bund
- the creation of a landscaped reserve.

As described earlier, increasing the height of the noise wall is not required to comply with noise standards (and itself would risk creating a 'canyon-like' appearance when viewed from the bypass). A bund is not required for acoustic reasons due to the existence of the noise wall and, with suitable vegetation, can achieve equivalent visual management outcomes to a landscaped bund.

Accordingly, the VMP and the LSP provide for augmentation of existing screening vegetation both within the road reserve and in the northern part of Lots 242-244 by creating a new landscape reserve as part of an overall landscape buffer. This also reflects the City of Busselton's preference for creation of a landscape reserve at the northern end of the subject land for protection of visual management, rather than the use of restrictive covenants within private lots.

As mentioned earlier, arrangements have already been made with Main Roads WA for supplementary tree planting within the verge of the Busselton Bypass reserve, specifically in pockets between existing vegetation. This supplementary planting was carried out by a Main Roads WA contractor in 2020, and as the trees and shrubs mature they will enhance the visual screening of the limestone wall and the subject land beyond it.

*Figure 15: View of subject land from Busselton Bypass with simulated dwelling*s shows the same view as shown in *Figure 8: View of subject land from Busselton Bypass*, but with an added simulation of new dwellings. Although the simulated dwellings appear closer in the graphic than the 40m setback proposed, they illustrate the point that, in the absence of additional screen planting, the visibility of new dwellings would not achieve the 'filtered views' objective of the relevant LPP.



Figure 15: View of subject land from Busselton Bypass with simulated dwellings

Importantly, the VMP demonstrates that once supplementary planting reaches a height of 3.5m, it will screen the existing wall and future dwellings, as illustrated in *Figure 16: View of subject land from Busselton Bypass with proposed additional vegetation to screen noise wall and dwellings. Figure 16: View of subject land from Busselton Bypass with proposed additional vegetation to screen noise wall and dwellings*



The VMP also complies with LPP4.7 by providing a minimum setback of 40m from the southern boundary of the Busselton Bypass to the building line (or approximately 53m from the edge of the future southern carriageway of the Busselton Bypass).



The 40m setback complies with the Asset Protection Zone and BAL contour requirements of the Bushfire management Plan, and includes the 11m-wide landscape reserve adjacent the limestone wall (refer: *Buffer Landscaping Concept Cross Section Plan - Appendix B*)

The cross-section plan shows three long sections (A, C, E) at various intervals across the subject land. It illustrates the overall 'landscape buffer' comprising vegetation in the bypass road reserve, shrubs (min 3.5m high) within the landscape reserve, and modified vegetation within the APZ 6-26m from future dwellings. The long sections also show the line of sight from maximum driver eye level height from vehicles using the Busselton Bypass. They demonstrate that when vegetation within the road reserve or the landscape reserve achieves a height of 3.5m or greater, it provides 100% effective visual screening of the proposed dwellings (with a minimum 100m setback of two-storey dwellings).

The VMP also contains annotated plans (east and west) providing aerial views of the landscape buffer concept. These can be seen in *Appendix B*.

The VMP complies with the general objectives and the Busselton Bypass South policy statement measures of LPP4.7 by:

- protecting and enhancing the rural character and scenic values as viewed from the Busselton Bypass
- retaining native vegetation in existing and proposed road reserves and private land through the use of a landscape buffer and creation of a reserve for landscape protection
- integrating appropriate landscaping, the existing limestone acoustic wall and ancillary development in order to retain the significance of the landscape character
- provision of a landscape buffer that avoids the creation of a barren "road canyon" or any commercialization of the Bussell Highway
- providing a minimum setback of 40m from the southern boundary of the Busselton Bypass reserve together with the limestone wall and landscaped buffer
- retention of a semi-rural outlook.

The VRM demonstrates that the proposed approach utilising a combination of development setbacks, the existing masonry wall and a managed landscape buffer comprising the proposed reserve and portion of the Bypass reserve complies with the relevant policy provisions and offers the most effective and practical 'best fit' solution.



5.6.2. Landscape master plan Lots 242-244

A landscape master plan for Lots 242-244 has been prepared by LD Total (refer: *Landscape Master Plan - LD Total, 2021 – Appendix A*) as part of the proponent's commitment to ensuring that the project has excellent visual aesthetics.

The principal elements of the landscape master plan include enhancement of the existing drain in Kookaburra Way; vegetated swales and street trees for new roads; retention of the existing noise wall together with vegetation in the Busselton Bypass reserve; and landscaping of the proposed reserve including planting of shrubs in the drainage basin (up to 6m high to screen dwellings from the bypass), and a 4m-wide ⁽¹⁾ maintenance access track (also used for pedestrians) – see *Figure 17: Landscape master plan Lots 242-244* and the accompanying legend.

(1) Originally proposed as 3m-wide track plus extra 1m-wide passing bays, but now amended to minimum 4m-wide



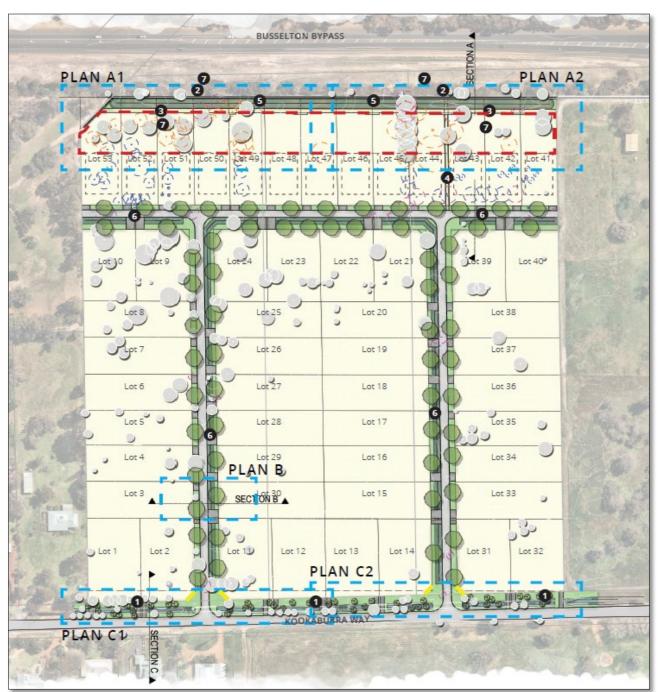
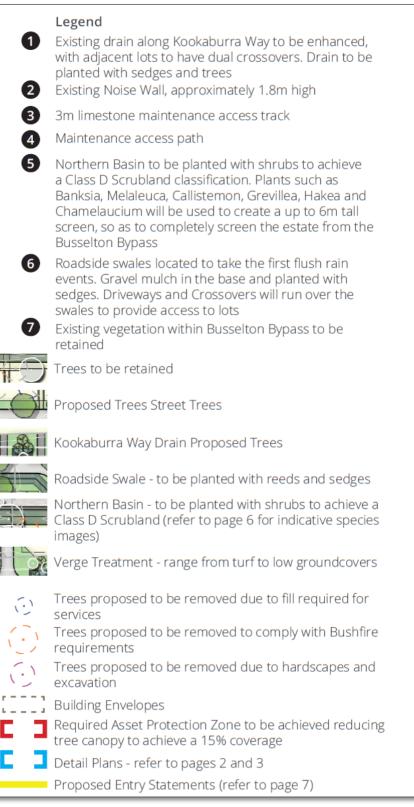


Figure 17: Landscape master plan Lots 242-244





[3] and [4] to each be minimum 4m-wide.



5.7. Bushfire management

The BMP for the subject land prepared by Strategen-JBS&G (refer: *Appendix A*) assessed the postdevelopment low threat condition of landscaping throughout the project area and ongoing management provisions to be in accordance with Clause 2.2.3.2 (f) of AS 3959 and APZ standards and specifications of the Guidelines.

The BMP identified that, on completion of development, the LSP area is expected to comprise fully managed vegetation with the majority of existing trees being removed or landscaped to a low threat state to accommodate building envelopes and Asset Protection Zones (APZs). Therefore, there will be minimal bushfire threat posed by vegetation internal to the LSP boundaries. The level of bushfire hazard existing on completion of subdivision and development of Lots 242-244 I s shown in *Figure 18: Post-development Bushfire Hazard Level Assessment.*

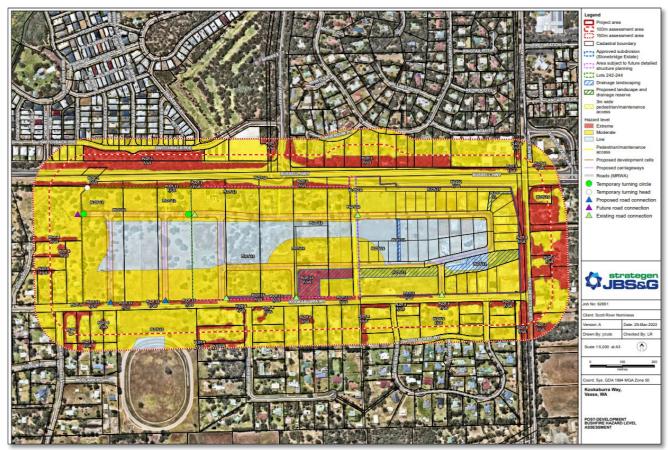


Figure 18: Post-development Bushfire Hazard Level Assessment

The post-development BHL assessment demonstrates that all developable land will have either a Low or Moderate bushfire hazard level – which is suitable for development under Acceptable Solution A1.1 of the Guidelines.



The BMP included assessment of the bush fire management implications of the *Landscape Master Plan* (LD Total, 2021). The main findings in relation to the landscape plan were:

- landscape planting of the drainage reserve will meet Class D Scrub classification
- proposed street trees with under-storey verge treatments comprising low ground covers (>100mm) meet the low threat criteria of AS 3959 Clause 2.2.3.2(f)
- the BMP assumes the roadside swales along one side of the proposed internal roads which will be planted with sedges and grasses will meet the low threat exclusion criteria of AS 3959 Clause 2.2.3.2(f)
- entry landscaping/drainage along the southern boundary and roadside drainage swales are expected to be landscaped to achieve a low threat vegetation condition in accordance with a detailed landscaping plan and provisions of a future subdivision stage BMP. However, a precautionary approach has been adopted within the high-level BMP to classify the vegetation as the likely worst-case outcome of Class D Scrub to identify any bushfire hazard issues associated with the vegetation constituting classified vegetation

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

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

5.8. Infrastructure coordination, servicing and staging

A servicing report entitled *Lots 242, 243, 244 Assessment of Infrastructure Impacts and Constraints* (*Stantec, March 2021 – Appendix A*) has addressed earthworks, stormwater management, wastewater management, water supply, power supply, road network and gas and telecommunications.

The subject land will need to be filled for flood protection and/or for sewer serviceability. To limit the impact on existing vegetation, building envelopes will be defined at the Local Development Plan stage to ensure fill occurs only within envelopes.



The depth of fill across the southern end of the subject land is limited, with greater depths of fill required across the northern end as it will be more remote from the sewer pump station.

As described in the LWMS (JDA, 2021), stormwater runoff will be conveyed by roadside swales. As filling of the subject land is proposed to be limited to building envelopes only, the existing depression storage that exists across the site will remain in place. Therefore, the roadside swales have been sized to only deal with runoff from the road reserves, with any runoff within the proposed allotments being retained on those lots.

High-level planning by the Water Corporation for wastewater management indicates that the subject land is proposed to be serviced by gravity sewer that would grade to a pump station located some 300m west of the subject land (northern end of Quenda Close). However, more detailed catchment analysis suggests that the subject land can be directly connected to Pump Station H already developed in the Stonebridge Estate. Stantec advises that the Water Corporation has endorsed this solution.

This revision to the sewer catchment boundaries may necessitate that additional fill be placed across part of the subject land to ensure future dwellings can be connected to Pump Station H. It is proposed that a Finished Floor Level will be established in a Local Development Plan for the building envelope of each lot as a condition of subdivision.

In terms of reticulated water, there is an existing DN150 asbestos cement pipe which is located in the southern verge of Kookaburra Way and extends across the full frontage of the subject land. According to Stantec, Busselton Water has confirmed that there is adequate supply in the area to service the subject land as proposed by the LSP.

All lots created as a result of the proposed LSP and subsequent subdivision will be connected to underground power. There are both existing underground and overhead high voltage lines that run along the southern verge of Kookaburra Way which may be able to service the subject land. Western Power's 2018 forecast for the area showed a remaining capacity of 20MVA to 25MVA in the area. At 4.7KVA per residential lot, this would be able to sustain the proposed development. Final network capacity would need to be checked and advised by Western Power at the time of subdivision proceeding.

The road network is described earlier. Internal roads within the DSP will be 18m wide with pavements nominally 6.0m wide with flush or raised kerbing as appropriate. Carriageways will generally be offset within the proposed road reserves in order to create sufficient space for locating stormwater drainage swales.



As mentioned above, it is not proposed to make provision for pedestrian pathways within the road reserves, due to the rural residential nature of the development and the pedestrian pathway and maintenance track in the proposed landscape reserve that will provide connectivity to the City's existing pathway network.

Stantec anticipates no particular issues in relation to provision of telecommunications or gas infrastructure. ATCO Gas has confirmed that there is a proposed distribution main scheduled for installation in the vicinity of the subject land, with the timing of installation subject to development staging and requirements.

NBN infrastructure is available both sides of Kookaburra Way and provides convenient connection points to service the development area.



6. Appendices

6.1. Technical appendices index

The following technical appendices have been prepared to inform preparation of the LSP:

- *Geotechnical Study* (Galt Geotechnics, November 2019
- *Local Water Management Strategy* (JDA Consultant Hydrologists, Version No. J6700k 23 February 2023)
- *Concept Hydrology Integration* (JDA Consultant Hydrologists, March 2021)
- *Bushfire Management Plan* (Strategen-JBS&G, May 2022)
- *Transport Impact Assessment* (Shawmac, March 2021)
- *Road Traffic Noise Assessment* (Herring Storer Acoustics, January 2023)
- *Visual Management Plan* (Scott River Nominees, June 2021)
- Landscape Master Plan (LD Total, February 2021)
- Assessment of Infrastructure Impacts & Constraints (Stantec, March 2021)

The technical appendices index can be found at *Appendix A*.

6.2. Landscape buffer plans

Selected plans from the VMP in relation to Lots 242-244 Kookaburra Way are included in *Appendix B*, as follows:

- Buffer Landscaping Concept Cross Section Plan
- Landscape Buffer Concept Aerial Plan COB (east)
- Landscape Buffer Concept Aerial Plan COB (west)





Appendix A – Technical appendices index



Technical appendices index

No.	Document title	Approval required or supporting document	Approval agency	Approval status
1	Visual Management Plan (Scott River Nominees, June 2021)	Supporting	DPLH	Lodged for information
2	Concept Hydrology Integration (JDA Consultant Hydrologists, September 2020)	Required	DWER	Lodged for assessment
3	Local Water Management Strategy (JDA Consultant Hydrologists, Version No. J6700k 23 February 2023)	Required	DWER	Lodged for assessment
4	Landscape Master Plan (LD Total, February 2021)	Supporting	DPLH	Lodged for information
5	Geotechnical Study (Galt Geotechnics, November 2019)	Supporting	DPLH	Lodged for information
6	Bushfire Management Plan (Strategen-JBS&G, May 2022)	Required	DFES	Lodged for assessment
7	Transport Impact Assessment (Shawmac, March 2021)	Required	DPLH	Lodged for assessment
8	Road Traffic Noise Assessment (Revision No. 9 Herring Storer Acoustics, 20 January 2023)	Required	DPLH	Lodged for assessment
9	Assessment of Infrastructure Impacts & Constraints (Stantec, March 2021)	Required	DPLH	Lodged for assessment

Note: The technical appendices are lodged separate from the structure plan report due to file sizes.





Appendix B – Landscape buffer plans

