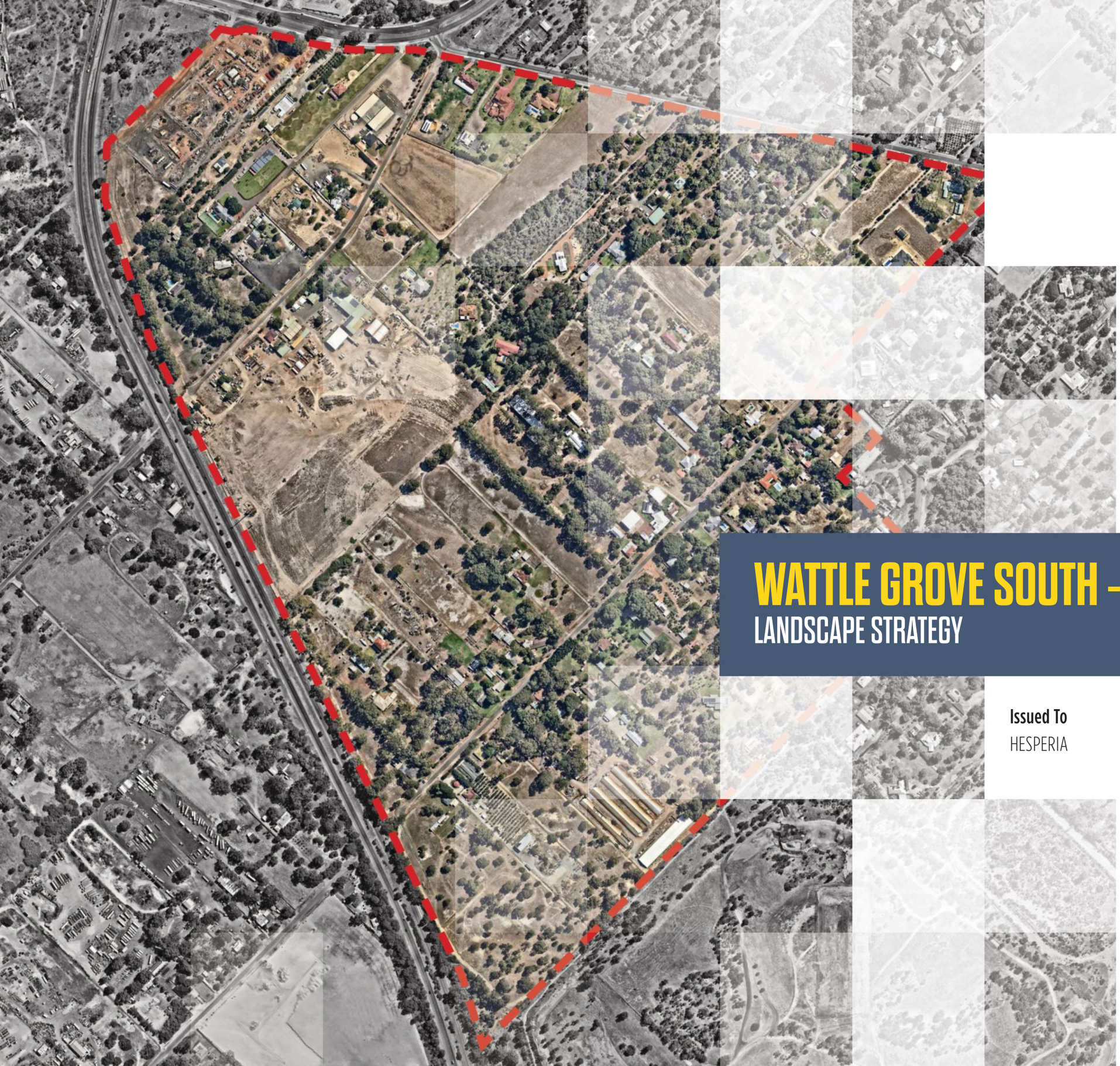

WATTLE GROVE SOUTH - STRUCTURE PLAN

LANDSCAPE STRATEGY

Issued To
HESPERIA

Date
25-08-2025

Client
HESPERIA

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1.0 EXECUTIVE SUMMARY

This Landscape Master Plan Report has been prepared for the proposed Wattle Grove South Local Structure Plan detailing the analysis and subsequent landscape concept design proposal for the development site. This has been an ongoing process in coordination with planning, environmental and engineering consultants.

The report describes our analysis of the site, subsequent findings and the landscape design approach in general. The report aims to deliver guidance on landscape related matters for any subsequent detailed design.

The proposed Wattle Grove South development will result in the subdivision of approximately 108ha of rural land. The Landscape Master Plan focuses on preserving the site's existing characteristics, especially its extant vegetation, and reflecting these in the design.

The Landscape Master Plan is guided by use of best practice water-wise landscape design, sustainable integrated drainage solutions and fire protection management. It identifies key landscape typologies, interfaces, streetscapes and provides examples of landscape treatments which aim to;

- Create a distinct development which is responsive to maintaining extant mature trees where possible, new tree and shrub planting and creating a unique sense of place
- Foster ownership and pride for the residents by creating a community
- Approach the subdivision design with best practice sustainability intent, including enhancement of urban biodiversity and water management, to enable passive irrigation and re-charge the ground water

In addition to the identified typologies, an overview of recreation, play and suitable plant species is given as a guide to assist in reflecting the general character and appearance of the proposed development. These are not exhaustive and subject to future detailed design considerations.

The landscape approach adopts a comprehensive greening strategy that begins with a detailed assessment of trees at every stage of development, identifying those capable of retention within a developed urban outcome. Public open space and public realm reserves are designed to accommodate tree retention through measures such as road carriageway realignments and innovative spatial allocations. The strategy also ensures the planting of appropriate native street trees within verges and the front setback areas of individual lots. Long-term success is supported by ongoing resident engagement and education, fostering an appreciation for the value of trees after residents move into the neighbourhood. Incentives will be offered to encourage tree care, and designated areas will be subject to replacement planting to achieve a meaningful urban canopy of native species over time.

The Landscape Master Plan is strongly influenced by the setting and semi-rural characteristics of small towns in Western Australia and reference the established surrounding hills, communities and suburbs . Retention of existing vegetation, use of local materials and public artwork throughout the development will reinforce the vision of a settled, connected and inclusive community which is reflective of its environment.

Image 1: *Existing Victoria Road*

Image 2: *Existing Victoria Road*

Image 3: *Existing Brentwood Road*

2.0 INTRODUCTION

This locality has the potential to create a high quality and distinctive community that has, as its foundations, the qualities of the semi-rural, foothills character that has been created by its mature vegetation. The development of a new urban landscape that reflects the landscape qualities and characteristics of this area requires a planning and design approach that focuses on tree retention wherever practical within the public realm and public open spaces at every stage of the development process.

The character of this site presents a very desirable living environment and the landscape design approach is to identify and retain key elements that will form the basis of the new urban landscape.

The landscape strategy has, as it's basis, many of the aims and strategies included within the Shire of Kalamunda's

- Local Environment Strategy 2019-2029
- Local Biodiversity Strategy: Natural Area Planning in the Shire of Kalamunda, 2008
- Urban Forest Strategy 2020

These aims will be applied to the landscapes within the Structure Plan, precinct and staging plans, detailed engineering, public open space and streetscape design.

PLACE

The Landscape Master Plan is predicated around retaining as much 'landscape-led' ecological benefit within the site as possible, referencing previous land use, its foothills location and creating a new sense of place. The landscape structure behind the Master Plan reflects the importance of the existing site's natural character and conceives of a series of spaces with retained vegetation augmented by movement networks designed as green corridors and connected in with the wider, surrounding movement systems.

Total tree retention in transition to being an urban area is not practical, however strategies are being adopted to optimise the retention of trees of habitat value in conservation based public open space. Individual habitat trees retained where practical within road reserves, and public open space and large trees with aesthetic value also identified for retention. As well as tree retention, new street tree and street group planting of diverse 'water-wise' species reflecting the existing native species, will reinforce the character while attaining urban tree canopy across the neighbourhoods.

ACTIVITY AND USE

This Landscape Master Plan aligns to the requirements of the West Australian Planning Commission's (WAPC) Liveable Neighbourhoods (LN) policy. The two most relevant aims considered inside the landscape planning include;

- the provision for a comprehensive approach to the design of open space and water management.
- the promotion of an environment for safe, efficient and attractive walking, cycling and driving with the future development of a Green Travel Plan to encourage the use of more sustainable modes of transport.

Under the LN provisions a range of site responsive urban parkland is required that will address district, neighbourhood and local needs of residents in both active and passive recreational opportunities.

A range of complementary but different spaces will add to the range of ecologically-based experiences available for residents, workers and visitors. Retained bushland, parks, and green streets can encourage active recreation and help connect areas to the wider urban fabric with the Master Plan's pedestrian and cycle networks being greatly improved with the ability to provide ready shade via retained mature trees.

COMMUNITY DEVELOPMENT

The Landscape Master Plan recognises that sustainable communities are places that people like living in and want to stay in, neighbourhoods with real character and sense of place. These successful places should have well-designed green spaces that people will want to use and respect. To design around developing a community feel the Master Plan has considered the following seven principles;

- **sustainability** - design for best practice maintenance and materiality use through the development.
- **biodiversity** - respect, reflect and build upon the diversity of the semi-rural mix of native and exotic vegetation through the site ensuring environments remain and develop to the benefit of humans, animals, birds and insects.
- **character and distinctiveness** - develop places with signage or art works that prompt people to learn about the site's past semi-rural uses, its current fauna and what actions residents can undertake to improve the biodiversity so they build a better connection with their environment and community.
- **definition and enclosure** - use retained and proposed vegetation to create spatial definition to both the streets and open spaces that respond to the human psychological desire for prospect or refuge and develop or enhance habitat and landscape permeability for fauna.
- **connectivity and accessibility** - encourage people to walk by making streets, paths and trails of good quality and the streets shady, interesting and fun and creating a Green Travel Plan for the development.
- **adaptability and robustness** - develop open spaces that are multi-use with an ability to adapt to changing community needs, that build upon existing character and site heritage, while developing a design language reminiscent of the hills and Wattle Grove area.
- **inclusiveness** - provide places for activity for people of all ages and abilities.

3.0 RELEVANT DOCUMENTATION REVIEW

The Landscape Master Plan Report has undertaken a desktop review of several strategies and reports relevant to the proposed design of the Wattle Grove South concept proposal. While not intended to be an in-depth policy review, the following sections highlight key elements of these documents and indicates how the design approach aligns to the suggested outcomes.

PUBLIC OPEN SPACE (POS) STRATEGY

The City of Kalamunda POS Strategy recognises the importance in managing and informing planning at a strategic and statutory level to improve Public Open Space for existing and future communities of the region.

The Council's aim is to provide leadership in ensuring there is a network of fit for purpose open spaces that protect natural resources whilst meeting recreational, social and cultural needs of existing and future communities. The Wattle Grove LSP aims to align with these values and achieve the same objectives proposed by the City of Kalamunda. Objectives are as follows;

- Protect environmentally significant areas from encroaching development
- Optimise the City's resources for effective and efficient POS outcomes - prioritising quality over quantity
- Ensure safety is prioritised for all members of the community including high levels of access both within and to POS areas
- Provide opportunities for health, recreation, organised sport and social activities

The City of Kalamunda highlight a variety of potential POS areas for public use, access and ecological value from small scale Local Open Space such as small residential parks, to large scale Regional Open Space, including national parks and sporting fields. The POS Strategy identified the emerging urban redevelopment of Wattle Grove South having to meet the required 10% open space allocation and indicated the future need for a sports space with existing adjacent subdivisions and the Foothills area generally lacking such facilities.

The Wattle Grove South LSP aims to provide new open space within a matrix of Local Parks, Linear Parks being the result of infrastructure installations, fitness trails and conservation areas. An active recreation oval is proposed to be co-located with the primary school. Biodiversity assets are established with selected conservation areas, inclusion of trees inside open spaces and proposed retention of established canopy trees in alternative treatments to the urban road network design. For a more detailed breakdown of the open space areas refer Section 10: Open Space Technical Requirements, Page 38 and Appendix 1: Tree Retention, Urban Canopy Strategy and Analysis.

Image 4: *City of Kalamunda Public Open Space Strategy cover page*

POS LOCAL PLANNING POLICY (LPP)

The City of Kalamunda POS Local Planning Policy is a critical document which aims to guide appropriate land areas, functions and design standards of POS. This policy is prepared in accordance to Schedule 2 of the Planning and Development (Local Planning Scheme) Regulations 2015, to develop and ensure that the future protection, provision and management of valuable POS sites will meet the ongoing needs of the community.

This planning policy encourages a balance of POS areas allocated to suburbs that range in size, types, functions and locations. This includes Restricted and Unrestricted POS, Sport POS, Environmental Conservation POS, Recreation POS, Community Purpose Sites. An overall Urban Water Management plan is also required to be appropriately developed and maintained.

The Wattle Grove South LSP aims to align to the Local Planning Policies (Schedule 1) with respect to;

- Maximise environmental sustainability; extensive planning and design development has been undertaken to retain significant tree canopy within the proposed LSP area, both in conservation open space and road network layout and verge design.
- Be accessible via the walking and cycling network; the integration of retained tree canopy in streets has allowed the design of pedestrian and cycle networks through the development to follow roads that are direct, shaded and with increased amenity with multiple opportunities to connect to the wider area following future development.
- Ensure universal access is provided to play areas, park furniture and park facilities;
- Reflect best practice in water conservation, harvesting, re-use and irrigation; water management strategies and plans prior to development including allocation for and design of hydro-zoned irrigation are underway. These plans will demonstrate to Government agencies that the adopted approach to water management within the site will meet environmental objectives.
- Retain natural bushland with appropriate fencing to enable conservation of environmental values, where possible, use local building styles and plant species to preserve local heritage and landscape character; this LSP intends to retain a 'rural suburban' feel to streetscapes and open space, including the extensive conservation zones proposed which captures the essence of the wider existing setting.
- Make use of local resources and materials that are robust, recycled/recyclable, and environmentally sound;
- Retention of natural bushland within POS maximised where appropriate; use of local native species in areas of new amenity planting will reinforce the existing tree canopy retained in POS.
- The Dampier to Bunbury Natural Gas Pipeline easement abutting the Tonkin Highway is to have no excavation works undertaken within the easement with some proposed minor filling to allow water biofiltration to occur (subject to further investigation, design and strategic management). Levels are therefore left predominantly as currently exist.

Image 5: *City of Kalamunda POS LPP document cover page*

LIVEABLE NEIGHBOURHOODS

The Liveable Neighbourhoods document, designed by the Western Australian Planning Commission (WAPC) is a performance based policy that sets high-level objectives, design principles and requirements to address both strategic and operations aspects of structure planning and subdivision.

This document highlights the major considerations to a Liveable Neighbourhood being successful community design, cohesive and safe movement networks, varied and responsive lot layouts, appropriate designated areas for POS, allowance for urban water management and appropriate facilities for employment, recreational activities and education.

As per the Liveable Neighbourhoods document, appropriate analysis of the Wattle Grove South site has been undertaken to ensure there is a wide investigation in determining:

- Opportunities and constraints of the site and its context.
- The integration of natural assets with developed areas and networks.
- Management to minimise disruption to (or improve) natural cycles within street design and connections, buffers, natural hazards, infrastructure requirements, environmental opportunities and urban water cycles.
- There is maximised energy efficiency by assessing microclimatic effect.

The subsequent sections of this Wattle Grove South LSP document deal with these considerations in further depth via iterative discussions around ecological and hydrological intent, suggested extant tree retention both in open space and transportation networks and overall early design proposals and strategies.

CRYSTAL BROOK CONCEPT PLAN

The Crystal Brook Concept Plan provides an analysis of the current conditions and future plans for Crystal Brook, which includes the subject site of Wattle Grove South. This report breaks down important community and stakeholder feedback, including visions for the future of the Crystal Brook community and environment, while breaking down concept designs for the growth of Crystal Brook and the potential benefits.

The Wattle Grove South LSP directly aligns with this plan and relevant documentation in that it supports a new way of thinking and approach towards urban development in semi-rural areas. Aspects of this thinking that the Landscape Master Plan is seeking to include are:

- Encouraging the protection of existing vegetation and prioritising sustainability; the early, high-level investigations underpinning the Landscape Master Plan have established best practice approaches to extant canopy retention wherever practical, water use and recycling through the natural hydrological system and future opportunities for increased biodiversity over the site.
- The landscape approach retains strategically important tree groups within open space. It has a strategy for street tree canopy delivery that will further create a connected urban canopy framework.
- Encouraging local community involvement in the protection of environmental assets; future detailed design may encompass opportunities for existing and new residents to become integral to local 'friends of' groups, not only for the retained conservation areas but also the extant trees retained in private landholdings.
- Building a local community which is self sufficient and inclusive; the landscape led, ecological approach offers direct opportunities for the future community to build distinct capabilities around a biodiverse and community inclusive approach.

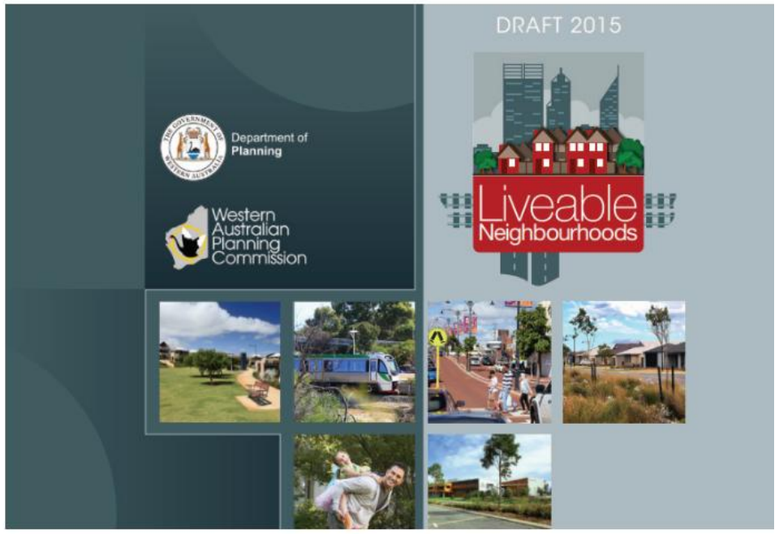


Image 6: *WAPC Liveable Neighbourhoods Document cover page*

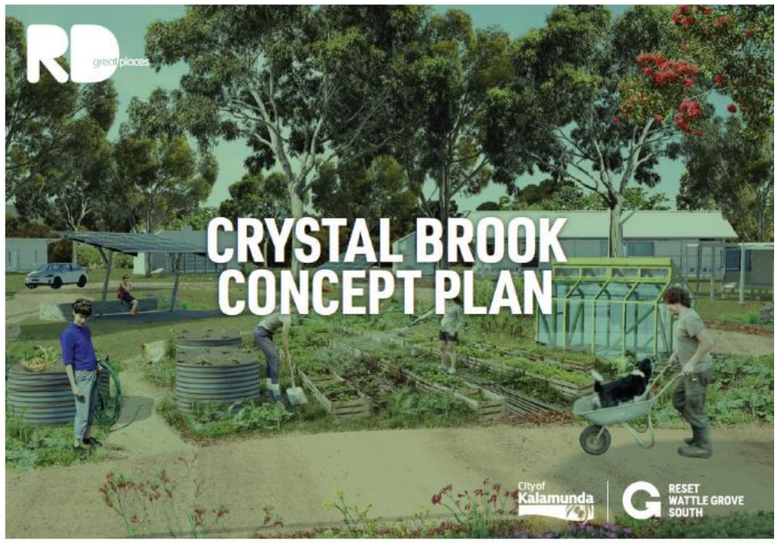


Image 7: *Crystal Brook Concept Plan Cover Pa*

4.0 EXISTING LANDSCAPE

The subject site is located within the suburb of Wattle Grove, at the foot of the Darling Scarp, approximately 14km south east of the Perth CBD and 7.5km south east of Perth Airport. It is bound by existing rural residential land uses to the north and east, the Tonkin Highway to the west and former tip site to the south within the adjacent suburb of Orange Grove.

Within 1.5-3km of the subject site there exist several ecologically significant sites including the Kenwick and Brixton Street Wetlands to the west and the Lesmurdie Falls National Park to the northeast.

The journey eastwards out of Perth towards the site transitions from a commercial and suburban enclosed experience to a feeling of breaking out into the expanses of the hills district with a distinctive semi-rural/peri-urban, vegetated character.

The majority of lots are predominantly cleared parkland and have limited remaining native vegetation. These lots now vary from manicured gardens to rural enterprises, all contained in a strong framework of trees that form a loose matrix, stretching out from Victoria Road, down lot boundaries and dispersed across properties. The condition of these properties range from well presented rural homesteads, to properties in poor condition with older dwellings, outlying sheds and collections of scrap metal and other materials stored across the lot. There are a range of existing and former agricultural uses within the subject site including former poultry farming, equestrian pursuits and hobby orchards.

The site topography is generally seen as being level with a slight downward slope toward Tonkin Highway and slight local undulations. There are no significant topographical features within the subject land, however, views of the Darling Scarp adjacent are prevalent where expanses of cleared land afford them.

REMNANT VEGETATION

The existing landscape values of the area are directly related to the diverse characteristics of the rural lifestyle lots that have a great range of treatment. The mature trees range from garden exotic species and pines to remnant native trees and planted Eucalyptus. Many are associated with lot boundary treatments forming stronger bands, while others are dispersed across lots.

Image 8: *Disused Agricultural Infrastructure*

Image 9: *Disused Agricultural Infrastructure*

Image 10: *Site Extant Tree Grove Example*

Image 11: *Semi-Rural Residential*

Image 12: *Large Block Semi-Rural Residential*

Image 13: *Site Access Drive to Lifestyle Blocks from Crystal Brook Road*

5.0 CONTEXTUAL LANDSCAPE

The relatively flat topographical landscape is reflective of the Perth Sand Plain environment sitting at the base of the Darling Scarp.

Much of the Wattle Grove South site and surrounds have slowly transitioned from rural agricultural and horticultural use to new development, principally rural lifestyle lots. Major road infrastructure such as the Tonkin Highway running to the west and south of the site have been installed for decades. Similarly, housing developments and pockets of industrial development are well established but have been increasing in more recent years.

To the north-west the site is bounded by medium sized commercial operations and some rural lifestyle lots that are subject to a separate structure planning process. Beyond this the Tonkin Highway and Welshpool Road East meet with existing Wattle Grove suburban development and the Hartfield Golf Course further to the north. The north-east comprises predominantly rural lifestyle lots with some small scale rural uses remaining such as adjacent fields and Olive plantations. Immediately adjacent the site's south-east boundary a disused landfill site is slated for future sporting precinct development and a continuation of rural lifestyle properties extend north with some commercial operations such as the Crystal Brook Caravan Park. Across the Tonkin Highway to the south newer industrial infill is occurring with service, logistics and home supply distribution centres appearing.

While some large blocks of extant vegetation remain, much of the surrounding vegetation is contained within semi-rural lifestyle lots, with the region currently in a stage of transitional development. The south-western land use across the Tonkin Highway contains less built form than other directions surrounding the site, although the large-lot platting is still evident through the road networks and boundary delineations.

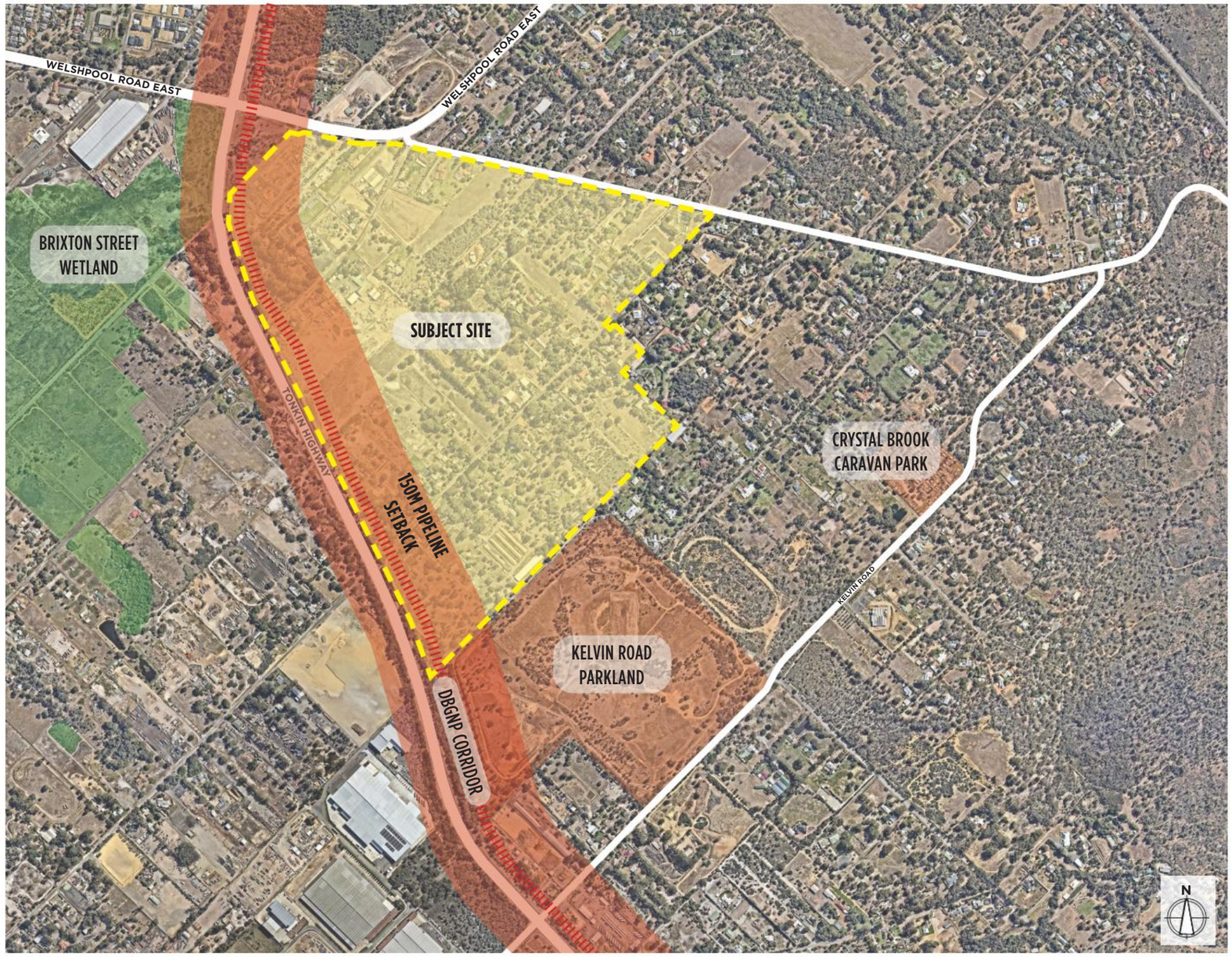


Image 14: *Contextual Landscape Plan*

6.0 LANDSCAPE APPROACH

LANDSCAPE FRAMEWORK

Prior to European settlement, the site lay within an environmental biome characterised predominantly by Wattles (Acacia spp). The current area has a wealth of tree varieties and they distinguish the locality and the character. To fully reflect the existing landscape values of this location, a strategy is adopted comprising:

- Tree identification
- Tree value assessment
- Tree retention and
- Supplementary tree planting

By assessing at planning scale through to the detailed design of streets, a consistent approach to the identification of tree stock will be undertaken and assessed as to the practicalities of effective retention. The landscape strategy that is being applied to the urbanisation of this area is pragmatic and sustainable but has the ability to ensure that the ultimate character of the neighbourhoods and open spaces reflect the prevailing qualities of this place.

By identifying all tree assets to inform decision making, tree retention within the public realm will form a major component of the new landscape. The conservation category trees and vegetation will be protected, retained and managed within the open spaces.

Supplementary street tree planting is proposed that uses waterwise native species reflecting the broad range of trees that currently make up much of the landscape. Street tree planting will not comprise monocultures but groups of mixed species. This not only continues the existing character of mixes found in the locality but also provides a level of diversity that is an insurance against a specific species failure.

A defining historical link to the prior vegetative cover will be reinforced with the inclusion of different Wattle species within new tree and shrub planting. Their placement within the landscape design will be responsive to the environmental requirements, mature size or growth habit of each tree or shrub. The resulting distinctive yellow flowering of Acacia species throughout the site will develop a striking visual identity for the area.

A strong connection to the hills will be achieved through capturing current views, retention and reproduction of the rural living aesthetic in the developed landscape. Views out of the locality to the hills will be achievable down key streets and also from open space. These view corridors will be important in creating the landscape values enjoyed by the community.

The visual landscape qualities will provide places for the community to enjoy. The public's amenity will be provided for by ensuring that easy physical access is provided through the landscape.

Paths, streets and trails will link nodes of recreation while creating circuit routes for walking and cycling. Streets will create shady linear links to open space and incidental spaces developed to be valued punctuations that reinforce the aesthetic, deliver urban canopy and house small recreational elements such as fitness and small play elements.

GREENING STRATEGY

The overarching urban tree strategy for the subject area is to retain as many mature trees as possible, recognising that some loss is unavoidable due to the extent of existing native and exotic tree cover. To address this, a greening strategy will be applied across the Local Structure Plan (LSP) area, refined at the precinct and development stage level, and implemented where practical and confirmed through further study. The tree values are both aesthetic and ecological with numerous introduced species also having relevance.

FRAMEWORK

The strategy is based on a planning-led approach that:

- Retains significant tree groups within Public Open Space, where possible.
- Preserves important individual trees within road reserves, where practical.
- Protects conservation habitats through dedicated reserves.
- Requires arboricultural assessment to inform infrastructure and development layouts.
- Replaces lost trees with extensive street tree planting and additional open space vegetation.

This broad framework will be progressively supplemented with detailed assessments as each precinct advances to refined planning and design, ensuring canopy and ecological values are maintained and enhanced over time.

STRATEGY COMPONENTS

A comprehensive greening strategy will be implemented with the objective of creating a meaningful urban canopy while ensuring compliance with bushfire management requirements.

Key elements include:

- Tree specimen assessment at the precinct design stage, undertaken by a qualified arborist.
- Incorporation of retained trees within layouts for public open space and streets, where possible.
- Road carriageways realigned to accommodate trees, where practical.
- Ground levels and drainage systems configured to support retained specimens.
- Major tree groups integrated into open spaces.
- Use of verge widening or incidental spaces to preserve isolated specimens.
- Extensive new street tree planting using locally native species suited to site conditions.
- Adoption of soil modification and service alignments that favour tree health.
- Construction-phase protection of new plantings, with maintenance continuing until residential works are completed.

IMPLEMENTATION

At each precinct stage, arboricultural assessments will guide final layout and design, embedding retention and planting measures within the urban fabric. Major groups will be prioritised for open space integration, while new tree planting will enhance canopy cover and ecological performance over time. Bushfire management considerations will remain integral throughout.

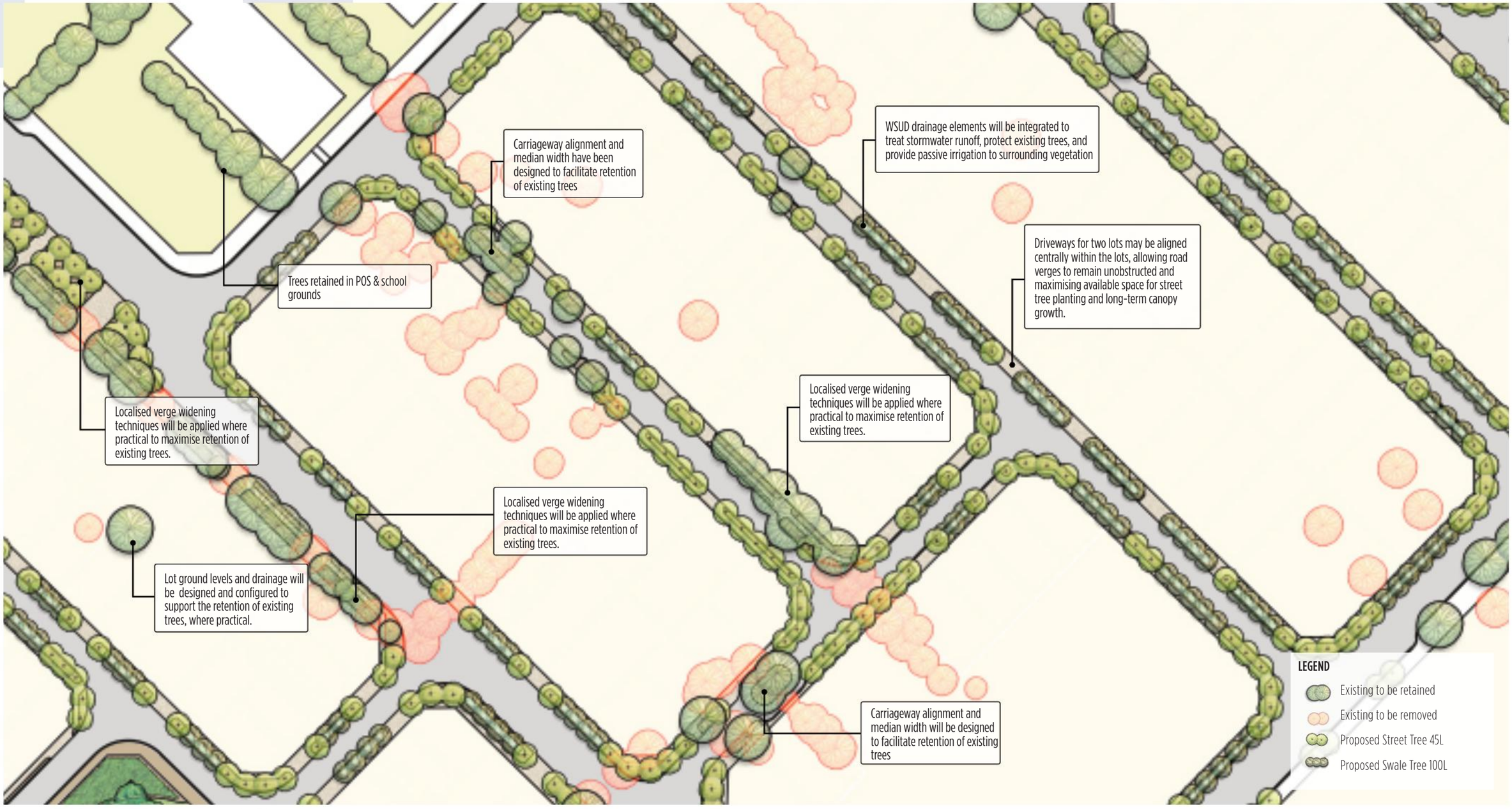


Image 15: *Greening Strategy sample Plan*

COMMUNITY ENGAGEMENT

To ensure long-term success, the strategy will be supported by an ongoing consultation and education program. This is intended to be prepared in partnership with the local authority. This will:

- Promote awareness of the value of trees.
- Encourage “adoption” of young trees by residents.
- Foster shared responsibility for canopy growth and neighbourhood sustainability

DESIGN OBJECTIVES

Within the context of urbanisation, it is the objective to integrate developed areas within the surrounding landscape character through considered design of the interface between private lots and built form and the immediate landscape setting and historical considerations. To achieve the distinctive urban character, the ‘landscape-led’ planning and detailed design for this area of Wattle Grove will pursue objectives that will be adopted at all levels of work through the planning and development process.

The Landscape Master Plan objectives are:

- Retain a ‘rural suburban’ feel to streetscapes and open space which captures the essence of the wider setting.
- Retain significant existing areas of good quality vegetation wherever practical enhancing visual connectivity between identified tree groups by strong linkages of amended road layouts retaining even more mature vegetation.
- Provide visual connections to conservation areas and features of interest that assist in orientation and legibility.
- Integrate innovative sustainable urban drainage and water management for passive irrigation of the public realm setting the benchmark for future development in the area. Identify and utilise views to the hills which contribute to the local character and awareness of place.
- Create landscape linkages, recreational nodes and circuits of pedestrian routes within the site and promote connections to the surrounding landscape.
- Encourage community ownership and sense of pride through creation of diverse urban landscapes that reflect the site’s unique characteristics.

VISION

As an important new approach to subdivisional creation in close proximity to the CBD, Wattle Grove is well positioned to deliver higher levels of community benefits through considered and improved amenity and infrastructure design.

Design strategies are intended to result in high levels of extant vegetation and habitat retention across the site resulting in an immediate identity for the residential development pre-, during and post-construction. By retaining and responding to patterns already developed by the existing trees across the site, the over-arching development site can be devolved into a series of precincts, each with their own design characteristics, look and feel.

CRIME PREVENTION THROUGH ENVIRONMENTAL DESIGN

Crime Prevention Through Environmental Design (CPTED) principles aim to reduce the opportunity for crime to occur in public spaces by using both physical and behavioural design techniques to create and encourage a safer environment for the community.

The Master Plan considers, at a very high-level design framework, the following principles to achieve a safer environment;

- Passive surveillance opportunities from both nearby residences and by open space users to naturally notice activity occurring within public places.
- Legibility in the design of public places (including responsive streetscape design) that allows users to know how to move through the space without the risk of confusion or entrapment.
- Territoriality clearly defined, ensuring users understand the boundary between public places and any private space.
- Ownership of active public places by the community increases safety more so than those not owned by the public.
- Management of public places to a high level are more likely to encourage use and community ownership.
- Vulnerability of users reduced by providing public spaces that are open, accessible, visible and activated at all hours through either effective lighting and lack of hidden / entrapment spaces.

This Landscape Master Plan outlines a vision for Wattle Grove South that is realistic, achievable and which is based around making the most of the existing site’s environmental infrastructure while adding new interventions to create a distinctive suburb over the coming years that is responsive to expected climate change variations.

STRATEGY 1 - CANOPY COVER

Several strategies are proposed for existing tree retention, strong species theming and the creation of strong biodiversity within and external to the site. Retaining significant bushland areas within the public realm. Perimeter fencing such as post and wire or similar will delineate and protect the boundary of conservation land as required and will help to discourage/guide pedestrian access. Residential lots should avoid solid fences and if necessary gaps should be provided to allow movement of fauna.

Conservation areas will benefit from developing linkages through street tree planting and retained mature tree lines. Individual tree specimens retained in incidental spaces and widened verge areas will add to the framework of canopy trees that will accommodate development. The western linear park developed over the Dampier to Bunbury High Pressure Pipeline Easement will greatly contribute to the primary habitat creation. The linked open space form a corridor conducive to pedestrian and cyclist traffic between key residential precincts and recreational nodes. The streetscapes and areas of public open space will contain native species similar to those found in the conservation bushland or that already exist on site, helping to blend and integrate the proposals with the contextual landscape, create offsite linkages and provide habitat for wildlife.

It is acknowledged that the retention of all existing trees is not compatible with full urbanisation. However, the implementation of the previously outlined greening strategy will establish a cohesive urban tree canopy by integrating retained mature specimens with new street tree planting and supplemental tree planting whitin POS where possible. This approach achieves a balanced outcome that addresses amenity, sustainability, and bushfire management requirements.

Integrated WSUD drainage will treat stormwater run-off, protect the existing landscape and provide passive irrigation to vegetation. Areas of public open space and streetscape will integrate into the informal bushland and provide habitat and wildlife corridors through parts of the development.

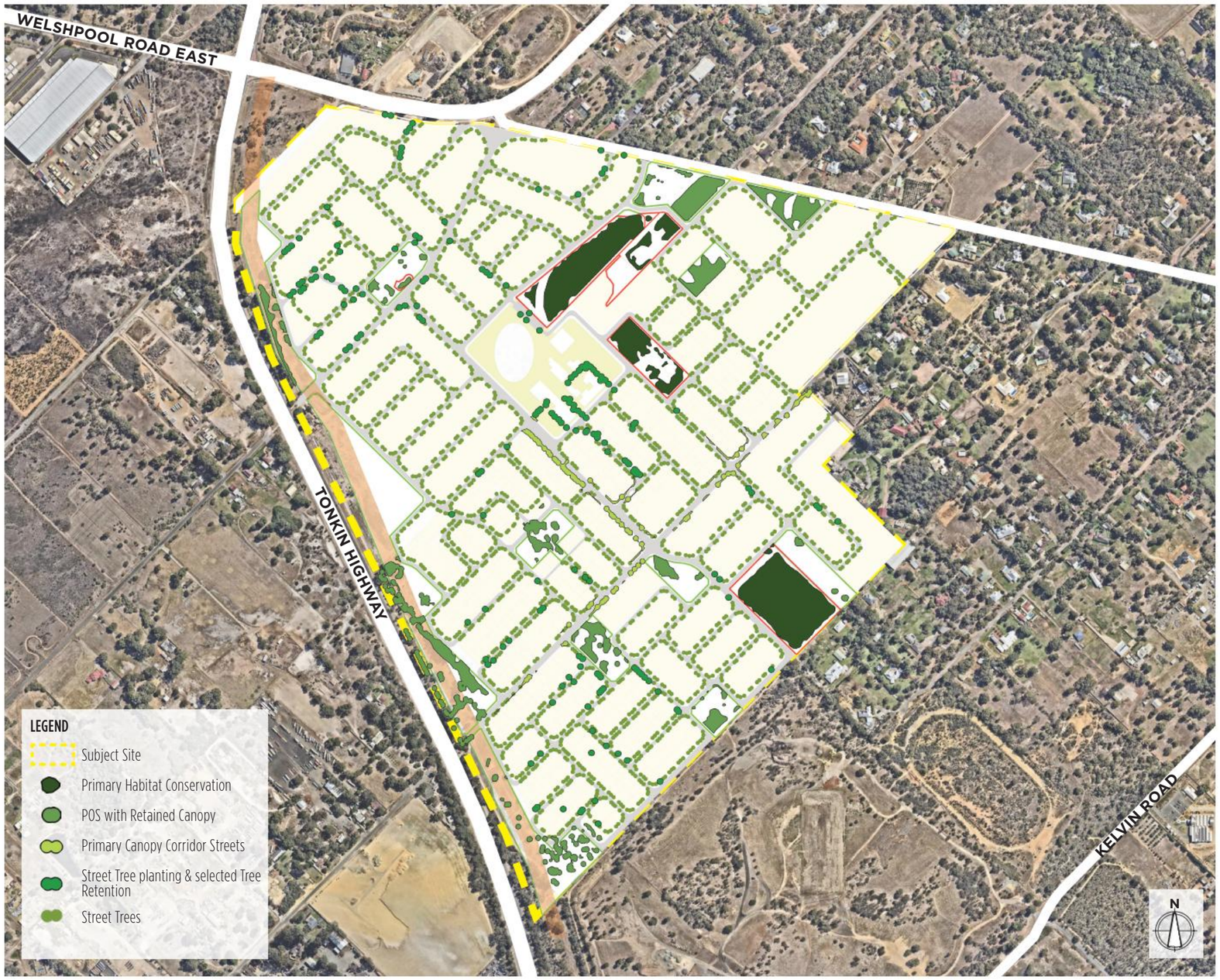


Image 16: *Canopy cover Plan*

STRATEGY 2 - NEIGHBOURHOOD PEDESTRIAN & CYCLING ROUTE

Road layout for vehicular traffic is relatively standard in its approach, providing a new logical gridded network that extends out to the existing Crystal Brook, Brentwood and Victoria Roads. The approach to the landscape design of streetscapes aims to create interesting and diverse streetscape outcomes and respond to neighbourhood use and set up local precinct character.

It is important that this area is easily accessible for both cyclists and pedestrians. The pathway network is designed to provide continuous circulation around neighbourhoods, enabling circuit-style recreational walks and rides. The school site is well connected to this network, and open spaces are linked via streets designed to deliver a shaded and comfortable user experience.

The majority of planting associated with the pathway network will comprise indigenous species to support local biodiversity and landscape character. In some instances, detailed design may incorporate a limited selection of exotic species where seasonal sunlight penetration is desirable during winter months, or where canopy growth could conflict with solar access requirements.

Proposed primary routes utilise Victoria Road, linear parks associated with the piepline and Brentwood road as dual use path. These are strongly directional and allow an ease of movement through and out of the subject site. The secondary routes comprise a mix of neighbourhood connectors or key access roads which also include significant existing tree retention.

The tertiary connections consider activity, fitness and recreational possibilities by creating the environment conducive to different sizes of circuits utilising the proposed Conservation Areas, public open space and carefully designed streetscapes. Aligning these circuits with additional public infrastructure such as fitness and cycle stations and drinking fountains will increase their functionality.

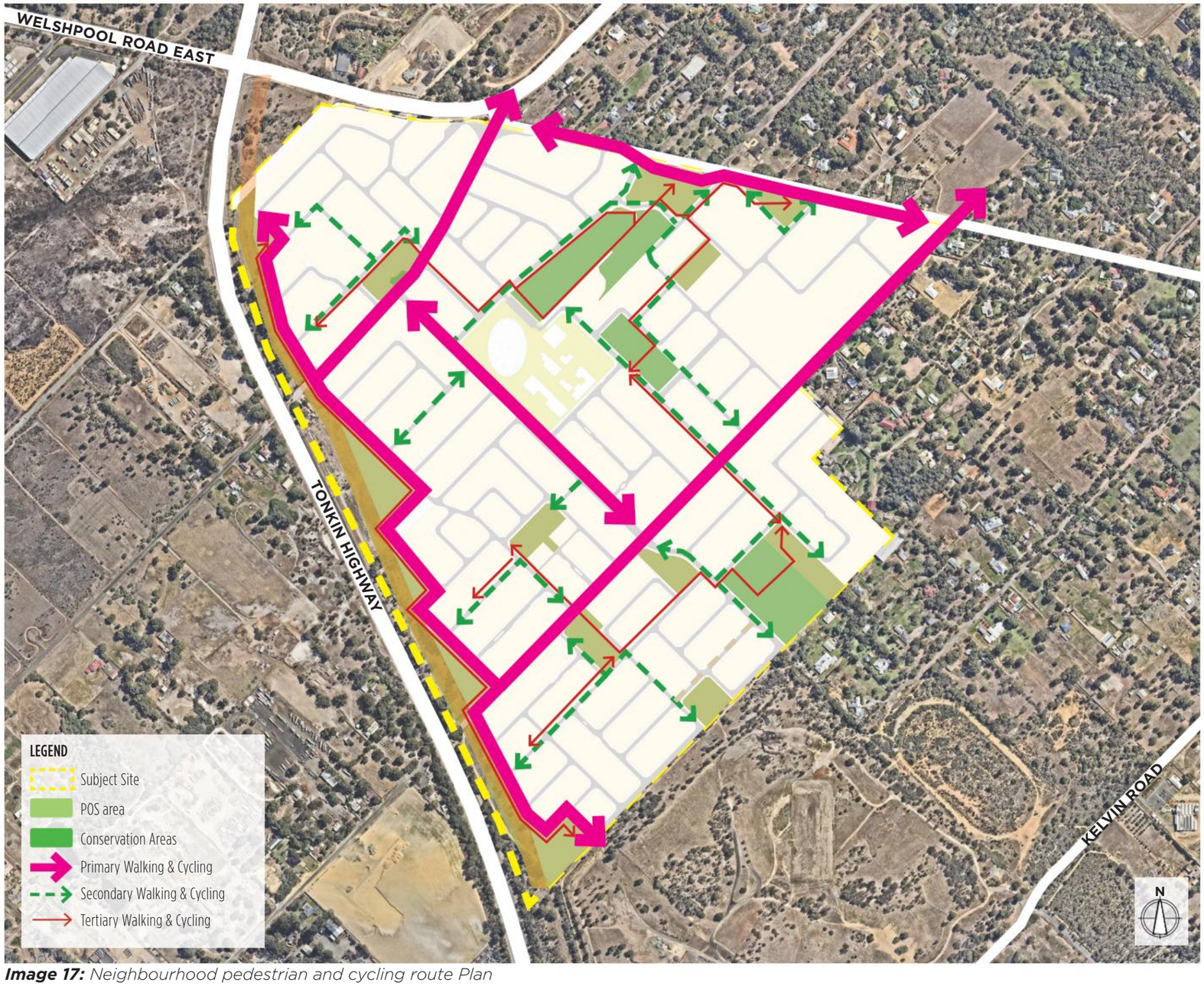


Image 17: *Neighbourhood pedestrian and cycling route Plan*

STRATEGY 3 - COMMUNITY ASSETS

Areas of Public Open Space (POS) have been strategically placed to retain the existing site character provided by the mature trees. The POS will maintain a bushland feel through careful plant species selection, material colours, finishes and a balance between bush and built form. A high level of visual permeability will be preserved where properties abut public open space for security and desirable views while balancing the private / public interfaces.

Recreational nodes within the POS will provide BBQs, picnic facilities, shade structures, fitness equipment and play equipment where possible. These elements aim to capture the spirit and feel of the bushland setting encouraging a healthy lifestyle, education through nature play and conservation awareness. With regard to recreation and play, each space will be influenced by its intended user and the activities most likely carried out. The recreation and play strategy will integrate with the implementation of the final bushland management strategy.

Play within the local parks is expected to reference more natural environments and accommodate smaller children where passive surveillance is available to the families utilising the space. Other POS scattered through the development, several interfacing with conservation areas, might be expected to accommodate play for older children and teenagers who are allowed more autonomy, fitness equipment, picnic settings, seating and shelter.

It is intended that the parks cater for this local community and are not intended to attract visitors from outside of this locality. As such they should have facilities that are directly related to the local community and detailed briefs informed by developing demographics as the community grows.

The parks offer the opportunity to provide elevated viewing structures that can be integrated with shade structures or play facilities. Such elevated views will enable the community direct visual access to the hills to the east which will reinforce the characteristics of the location.

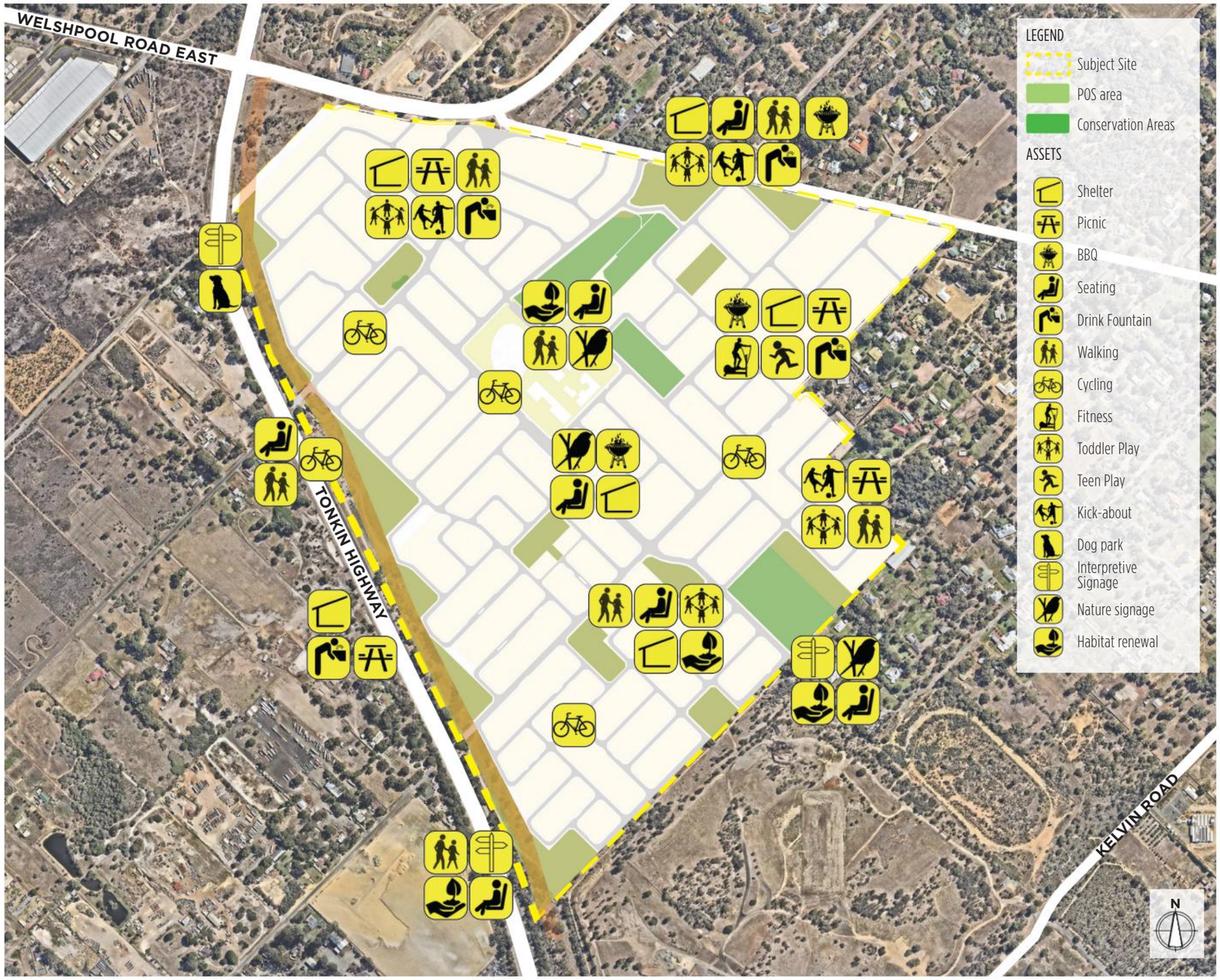


Image 18: *Community assets Plan*

7.0 MASTERPLAN

PRECINCT A
PRECINCT B
PRECINCT C
PRECINCT D
PRECINCT E
PRECINCT F

LINEAR POS 1
LINEAR POS 2
LINEAR POS 3
LINEAR POS 4
POS 1
POS 2
POS 3
POS 4
POS 5
POS 6
POS 7
POS 8
POS 9

LEGEND
- Subject Site
- Dampier to Bunbury Natural Gas Pipeline
- Existing Trees to be retained
- Existing trees to be removed
- Street Trees 45L
- Swale Trees 100L
- Proposed Trees in POS
- Lot Trees 45L
- Internal Paths
- POS area
- Conservation Areas
- Turf
- Shrub Planting
- Tubestock Planting
- Littoral Planting

N

EPCAD

Image 19: *Landscape Masterplan*

8.0 PUBLIC OPEN SPACE FRAMEWORK

PRECINCT A - POS 1

The POS located on Brentwood Road is designed to integrate seamlessly with the site's natural landscape, creating a functional, visually appealing, and community-focused space. The design approach prioritizes retention of cockatoo habitat tree species and providing a range of recreational and amenity elements for all age groups.

Within the POS, a small area of existing conservation vegetation has been retained to preserve native biodiversity and maintain a connection to the natural environment. This conservation area contributes to the ecological value of the POS and provides visual interest for visitors. Surrounding the conservation area, significant trees throughout the POS will also be retained, with all vegetation management undertaken in accordance with a Bushfire Management Plan to ensure public safety while protecting natural assets.

The POS includes a variety of features designed to accommodate different recreational and social activities:

- Pathways within the POS are carefully aligned to connect activity zones while complementing the natural character of the site.
- A sheltered area with picnic furniture offers a comfortable space for family gatherings, social interaction, and community events.
- An open turf area provides flexible space for informal sports, casual recreation, and community activities.
- Modern play equipment within a designated play space encourages active play for children, with safe surfacing and consideration of shaded areas.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
6884.73 m2	2500 m2	1377.75 m2	1505.13 m2	306.58 m2	Retained: 100% Proposed: 15%	None

PRECINCT A – LINEAR POS 1

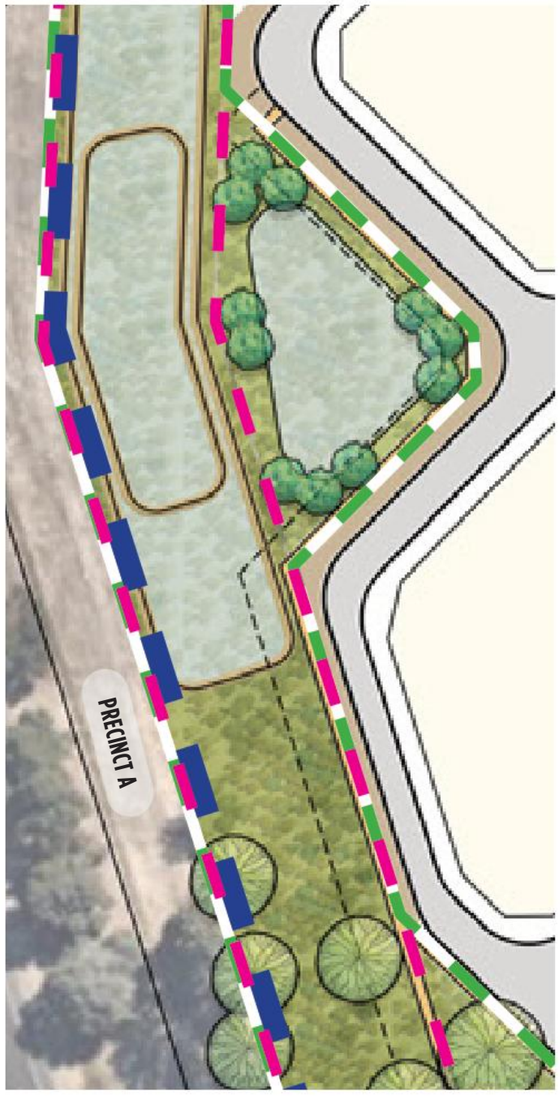
The linear POS accessible from Brentwood Road has been designed to provide a multifunctional space that offers both ecological and recreational opportunities. The design supports local biodiversity while enhancing the aesthetic and functional qualities of the landscape, creating a space that is valuable for both wildlife and the community.

The POS traverses an area with an overlay of the DBNGP pipeline and its associated buffer. Areas within the buffer are primarily dedicated to ecological functions, including stormwater management and vegetation retention, while areas outside the buffer are designed to accommodate recreational activities and amenities for the community.

Key features and design elements include:

- A dedicated area for off-leash dog exercise, promoting community engagement and active recreation.
- Educational signage throughout the POS provides information about local ecology, habitat, and environmental stewardship, increasing community awareness and engagement.
- Strategically located shaded seating nodes along the pathways provide resting points for pedestrians and encourage social interaction.
- Integrated within the POS, the drainage basin is planted with a littoral mix in accordance to the City of Kalamunda's Planting Guide 2024.
- Pathways throughout the POS are lined with native and habitat trees to provide shade and to enhance amenity.
- Plantings include a combination of native canopy trees, understorey species, and habitat trees to provide food, shelter, and ecological connectivity for local fauna. Existing trees that provide habitat for cockatoo within the POS will be retained wherever possible to preserve ecological value.
- Drinking Fountain conveniently located for all park users, supporting health and hydration.

This linear POS will serve as a valuable green corridor for the community, connecting residents with nature and offering diverse opportunities for passive and active recreation while supporting the local environment.



TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
17738.83 m2	1109.57 m2	None	12640.94 m2	1169.28 m2	Retained: 100% Proposed: 10%	3988.32 m2

PRECINCT B- LINEAR POS 2

This linear POS, located in the northwest of the site, is designed as a multifunctional green corridor providing ecological and recreational opportunities for residents. While it does not have direct access from Brentwood Road, the POS creates a continual pathway through the site, linking various open space elements and enhancing connectivity for pedestrians and cyclists. The design balances environmental protection, biodiversity enhancement, and community amenity within the landscape.

Key recreational and community features include:

- A continuous walking and cycling path traverses the linear POS, connecting activity areas and encouraging safe, active movement through the development.
- Shaded seating areas along the path provide resting points and promote informal social interaction.
- Open turf spaces accommodate informal sports, casual recreation and communal activities.
- A small outdoor fitness area encourages physical activity for a variety of users.
- Educational signage throughout the POS provides information about local ecology, habitat, and environmental stewardship, increasing community awareness and engagement.

The design respects the DBNGP pipeline buffer, limiting infrastructure and high-intensity recreation within this zone while maintaining safety and ecological function. Existing trees that provide habitat for cockatoo species will be retained wherever possible, supplemented by native and habitat tree plantings along the path to provide shade, visual interest, and habitat for local fauna. The meandering path and thoughtfully placed amenities encourage exploration and passive enjoyment, while aligning with retained vegetation and buffer constraints.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
21100.19 m2	3618.15 m2	None	13445.41 m2	1400 m2	Retained: 100% Proposed: 10%	3988.32 m2

PRECINCT B & C - POS 2

The POS accessible from Crystal Brook Road has been designed to provide a multifunctional, community-focused space that balances active recreation, amenity provision, and ecological considerations. The design prioritises the retention of existing vegetation while incorporating recreational features that cater to a variety of users.

The POS includes walking path around the site. Along these paths, key amenities are provided to enhance user experience and comfort, including:

- A sheltered area provides a space for gatherings, family activities, and passive recreation.
- A designated BBQ area encourages social interaction and supports community events.
- Strategically located shaded seating nodes allow visitors to rest and enjoy the surrounding landscape.
- Drinking Fountain conveniently located for all park users

The POS also integrates key environmental features, including a drainage basin, designed to manage stormwater while minimising impacts on existing trees. The footprint of the basin has been carefully configured to avoid interference with existing vegetation that provide habitat for cockatoos. The basin and its biofiltration areas are planted with tubestock and littoral species, providing ecological function.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
11803.72 m2	None	6673.10 m2	5130.62 m2	1178 m2	Retained: 100% Proposed: 5%	5130.62 m2

PRECINCT C – POS 3

The POS accessible via Crystal Brook Road, is designed to provide a vibrant and engaging community space that integrates active recreation, passive enjoyment, and ecological sensitivity. The space aims to cater to a variety of users, including families, children, and local residents, while maintaining the natural character of the development.

Key features and amenities included are :

- A nature-based play space encourages imaginative and active play, allowing children to engage with natural materials and the surrounding environment.
- Shaded seating node along the paths, offering resting points and spaces for social interaction.
- Nature play equipment
- Existing trees that provide habitat for cockatoo within the POS will be retained wherever possible to preserve ecological value, shade, and aesthetic appeal.
- Additional trees are strategically planted along walking paths and around activity areas to enhance shade & comfort.

The POS is designed as a welcoming environment for families and residents, providing spaces for play, relaxation, and social gathering.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
5783.52 m2	1465.95 m2	1532.36 m2	3572.45 m2	1206 m2	Retained: 100% Proposed: 18%	None

PRECINCT C – POS 4

The POS is designed as a space that balances recreation, connectivity, and ecological sensitivity. Positioned to provide both active and passive recreation opportunities, this POS plays an important role in linking different areas of the development through its east-to-west running pathway, which serves as a key corridor for secondary and tertiary cycling and pedestrian connections.

Key features and amenities included are :

- A purpose-built outdoor exercise area encourages physical activity for a variety of users, supporting health and wellness within the community.
- Play area provides opportunities for active play for children of different ages.
- Walking and cycling paths throughout the POS are shaded, providing comfort and encouraging use throughout the day.
- Strategically located seating nodes offer resting points along the paths.
- Significant existing trees within the POS, that provide cockatoo habitat will be retained wherever feasible to maintain ecological value, aesthetic quality, and shade provision.
- Conservation fencing has been incorporated around sensitive ecological areas to protect retained vegetation, guide public access, and promote habitat preservation.

The layout of paths and amenities respects the natural features of the site, creating a harmonious and visually appealing environment. The continuous path running east to west serves as a key connector for secondary and tertiary cycling and walking routes, linking residential areas, other POS, and community facilities.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
4537.85 m2	None	None	4324.52 m2	360 m2	Retained: 100% Proposed: 20%	None

PRECINCT D – POS 5

This POS is strategically located between primary and secondary walking and cycling paths, providing an important link within the broader network of movement throughout the development. It is accessible from Victoria Road, with a small section of the POS functioning as a dedicated pedestrian access way.

Key features and amenities include:

- A proposed basin within the POS incorporates littoral planting in accordance to the City of Kalamunda's Planting Guide 2024.
- Existing trees that provide habitat value to cockatoos within the POS will be retained wherever feasible to maintain ecological value and to provide shade. The proposal will ensure compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.
- A meandering path from the access way connects to the main "to and fro" path through the park, creating a gathering node featuring communal seating and picnic tables for social interaction and relaxation.
- Garden beds along the back of lot areas and at the corners of the POS are planted with shrubs to provide a visual buffer from the road while enhancing biodiversity.
- A turf area is provided within the POS to support active recreation.

The design of the POS balances connectivity & recreation. Conservation of existing trees, integration of new plantings, and inclusion of communal nodes foster a multifunctional and inviting environment for all users.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
8809.08 m2	4952.18 m2	1696.51 m2	None	802 m2	Retained: 100% Proposed: 10%	986.65 m2

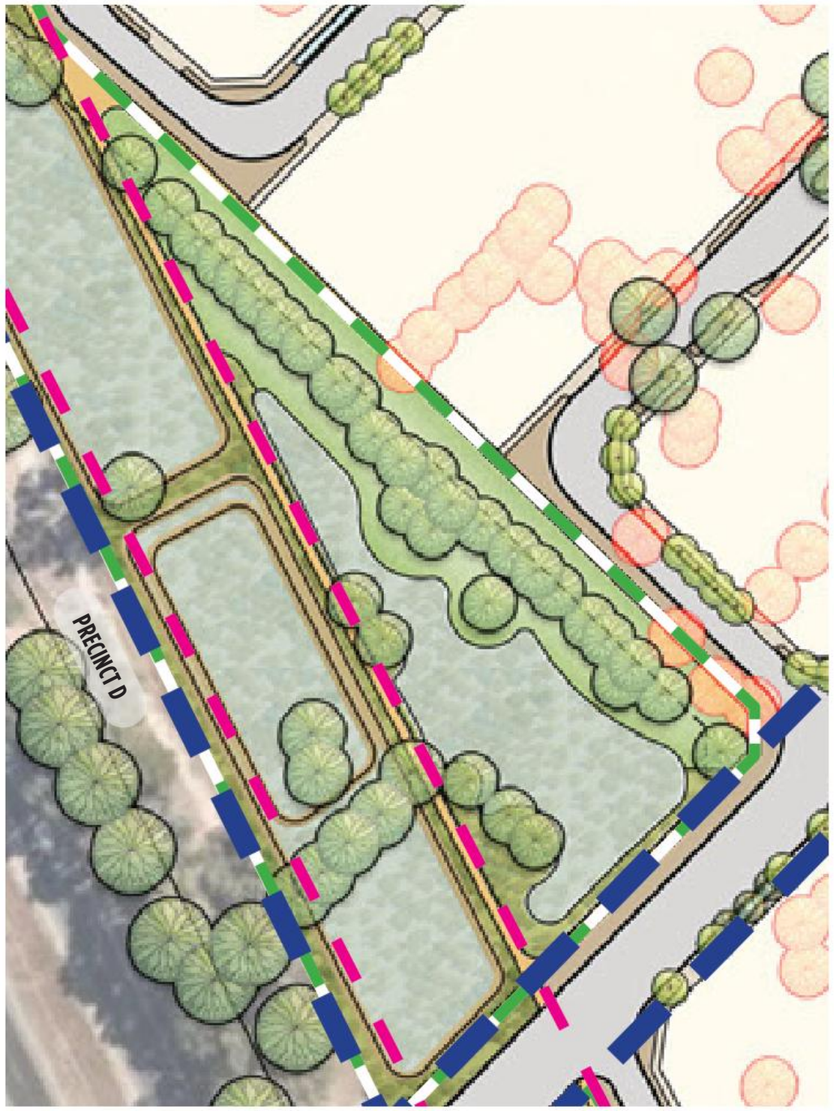
PRECINCT D – LINEAR POS 3

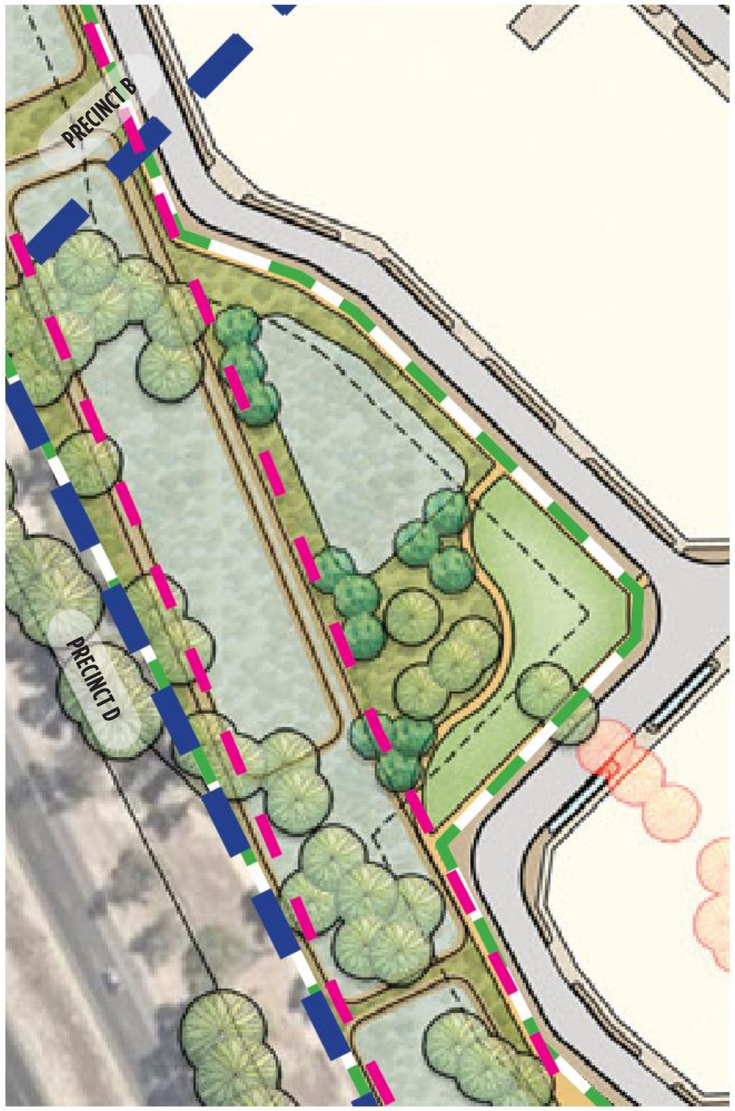
This linear POS provides a key connection throughout the development, running continuously from the north-west of the site and linking multiple areas via walking and cycling paths. It is accessible from Brentwood Road, Victoria Road, as well as the secondary walking and cycling paths, creating a highly connected recreational corridor.

Key features and amenities include:

- The linear POS incorporates the DBNGP buffer, which includes stormwater storage areas planted with littoral vegetation featuring non-invasive root systems to ensure safety and protect infrastructure. Areas outside the buffer will be planted with tubestock to enhance landscaping, and support ecological value.
- Strategically placed seating nodes provide resting points for pedestrians and cyclists.
- Selected sections are dedicated to revegetation, enhancing ecological value, supporting habitat creation, and improving the visual character of the corridor.
- Existing trees that provide habitat to cokatoos will be retained wherever possible to preserve ecological value, provide shade, and maintain the natural character of the park.

The design of the linear POS balances recreation & connectivity. It ensures safe and enjoyable movement for pedestrians and cyclists, integrates natural and constructed features harmoniously, and provides multiple opportunities for rest, play, and engagement with in the POS.





TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
20564.56 m2	None	None	19762.35 m2	1586 m2	Retained: 100% Proposed: 15%	11716.04 m2

PRECINCT E – CONSERVATION 3 & POS 6

This park combines areas of conservation with active public open space, providing opportunities for both ecological preservation and community recreation. Existing trees that provide habitat for cockatoos are retained wherever possible to maintain ecological value, provide shade, and enhance visual amenity.

Key features and amenities include:

- A stormwater basin within the park is planted with a mix of littoral vegetation, while tubestock planting is incorporated around the stormwater area to support biodiversity. The proposal will ensure compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.
- A meandering path provides pedestrian access through the park, connecting users from the secondary access from Victoria Road and facilitating movement between different areas of the development.
- The POS includes a turf area suitable for informal sports and kick-about activities.
- Strategically located seating nodes encourage rest and social interaction, while play equipment provides active play opportunities for children of various ages.
- Habitat renewal initiatives are integrated throughout the conservation areas, promoting awareness and engagement with local ecology.
- Interpretive signage provides educational information about the conservation area, fostering community understanding of local ecosystems and encouraging responsible use of the park.
- Conservation fencing has been incorporated around sensitive ecological areas to protect retained vegetation, guide public access, and promote habitat preservation while maintaining visual permeability and safety for park users.

The design of the park balances recreation, ecological preservation, and community engagement. It provides a multifunctional environment where users can enjoy active recreation, connect with nature, and learn about local conservation initiatives, all while maintaining the ecological integrity of the retained vegetation.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
29950.45 m2	1998.02 m2	1867.34 m2	28083.11 m2	1946 m2	Retained: 100% Proposed: 20%	2247.45 m2

PRECINCT E – POS 7

This POS is strategically located along Victoria Road and is also accessible from all secondary and tertiary roads within the development, providing a highly connected recreational space for the community.

Key features and amenities include:

- A basin within the POS supports stormwater management while providing opportunities for littoral planting and habitat enhancement.
- Paths throughout the park encourage walking and casual recreation, connecting different areas of the POS and supporting movement through the development.
- A shaded lookout with picnic seating nestled beneath large trees, offering views across the drainage basin.
- Existing trees that provide habitat for cockatoos are retained wherever possible to preserve ecological value & shade. The proposal will ensure compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.
- Strategically placed shelters and seating areas provide resting points and social spaces for users, encouraging longer visits and community interaction.

The design of this POS balances ecological sensitivity with recreation and connectivity. The combination of walking paths, shaded seating, habitat renewal, and the stormwater basin ensures the park functions as both a community recreational space and an ecologically valuable area, contributing to the overall sustainability and livability of the development.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
5260.05 m2	None	None	3063.68 m2	864 m2	Retained: 100% Proposed: 15%	4644.24 m2

PRECINCT E – POS 8

This POS is centrally located within the development and is accessible via internal secondary and tertiary connections from Victoria Street, providing convenient links for pedestrians and cyclists.

Key features and amenities include:

- A turf area is provided for informal sports, games, and active recreation, catering to a variety of age groups and promoting physical activity within the community.
- A sheltered area with picnic tables offers a comfortable space for social gatherings, relaxation, and community interaction.
- Strategically placed seating areas provide additional resting points along the paths, supporting casual use of the park.
- Tubestock planting is incorporated around areas with existing trees, enhancing biodiversity, improving visual amenity, and supporting ecological sustainability. The proposal will ensure compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.

The design of the POS balances connectivity, active recreation, and ecological sensitivity. The combination of turf areas, shelter with picnic seating, seating nodes, and habitat renewal creates a multifunctional space that encourages active use, fosters social engagement, and maintains the ecological value of the retained vegetation.

TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
5203.69 m2	1827.28	59.72 m2	2699.33 m2	480 m2	Retained: 100% Proposed: 15%	None

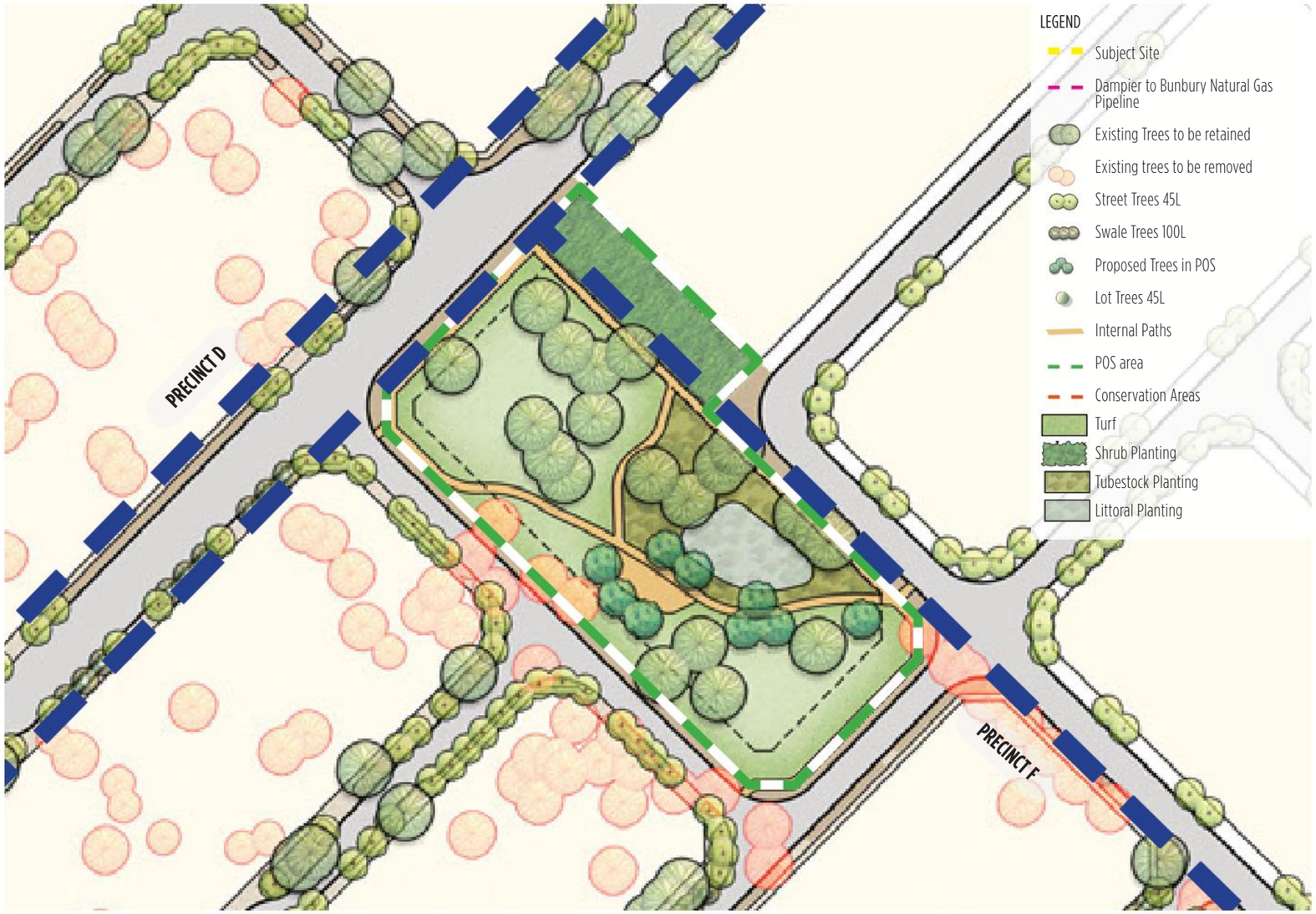
PRECINCT F - POS 9

This POS is located along Victoria Road and is accessible via secondary and tertiary walking and cycling paths, providing a well-connected recreational space for the community.

Key features and amenities include:

- Existing trees provide natural shade, complemented by strategically placed seating nodes and shelters that encourage rest, social interaction, and relaxation. The proposal will ensure compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.
- Portions of the POS include turf areas suitable for informal sports, games, and active play, supporting physical activity for residents of all ages.
- Areas within the POS are planted with tubestock to support habitat renewal, enhance biodiversity, and maintain the ecological value of retained vegetation.

The design of the POS balances connectivity, recreation, and ecological sensitivity. The combination of shaded seating, turf areas, and habitat renewal creates a multifunctional space where the community can enjoy active and passive recreation while supporting local biodiversity and ecological sustainability.



TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
6697.68 m2	3871.44 m2	1980.83 m2	None	864 m2	Retained: 100% Proposed: 10%	333.30 m2

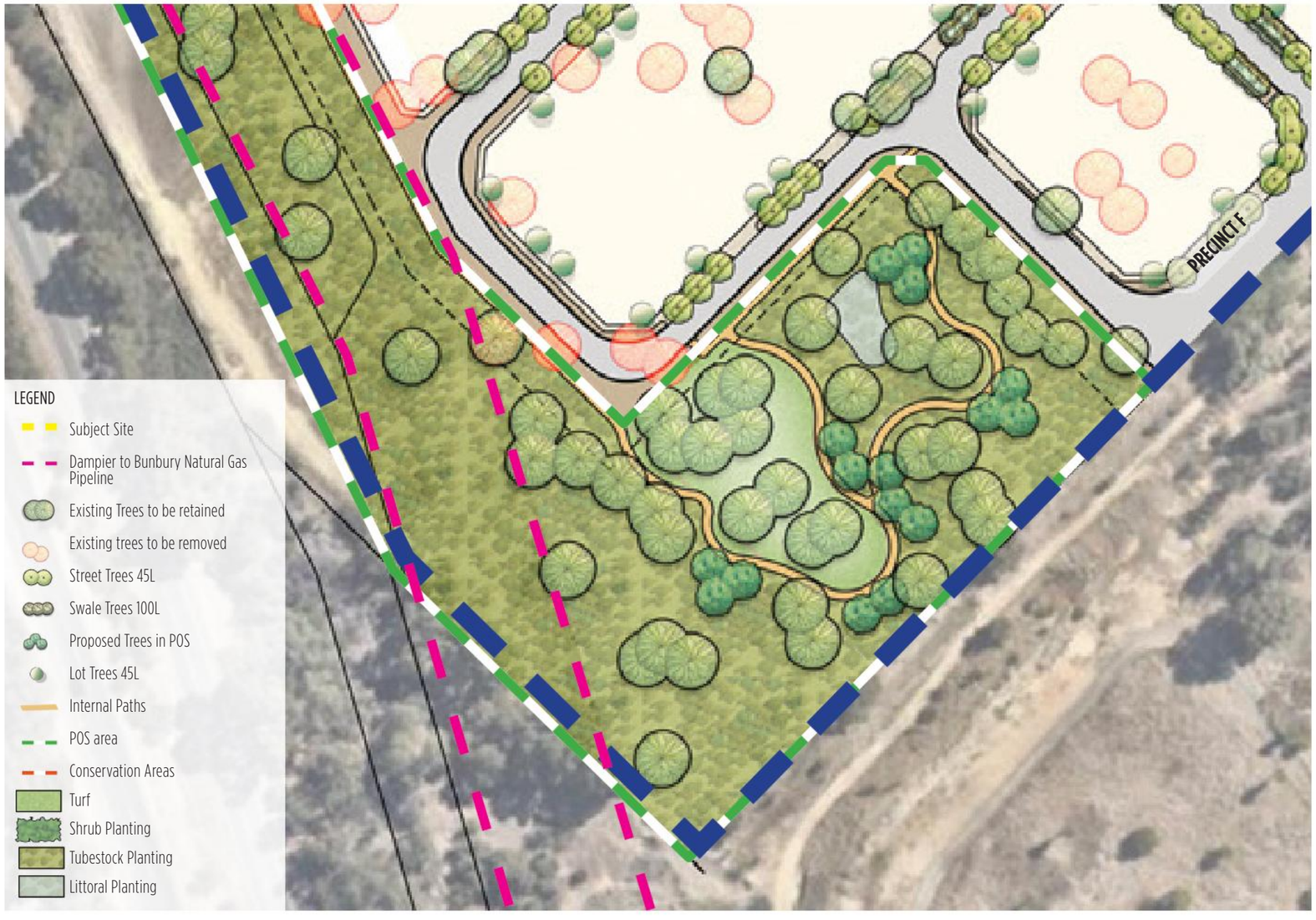
PRECINCT F - LINEAR POS 4

This linear POS is accessible from Victoria Road via secondary and tertiary walking and cycling paths, providing a continuous connection for pedestrians and cyclists throughout the development.

Key features and amenities include:

- Existing trees that provide habitat for cockatoos and other native species will be retained and protected wherever possible. The proposal ensures compliance with the Bushfire Management Plan and Stormwater Management proposal—please refer to these documents for more information.
- A basin within the POS will be planted with littoral species complying to the plant information guide 2024, to support biodiversity and visual amenity.
- The remainder of the POS will be planted with tubestock to enhance habitat renewal, biodiversity, and ecological connectivity.
- Well-designed paths provide opportunities for walking and casual recreation, connecting different areas of the POS and supporting movement throughout the development.
- Interpretive signage will provide information on the conservation values of the area, while seating nodes along the walking paths offer resting points and encourage community interaction.

The design of this linear POS balances ecological sensitivity, recreation, and connectivity. By retaining significant habitat, incorporating stormwater management with littoral planting, and providing tubestock planting, the POS supports both environmental conservation and community use while maintaining compliance with relevant management plans.



TOTAL POS / CONSERVATION AREA	IRRIGATED TURF	IRRIGATED SHRUB	NON - IRRIGATED CONSERVATION BUSHLAND	HARDSTAND & PLAY AREA	% OF CANOPY	DRAINAGE AREA
20445.1 m2	1559.64 m2	None	18338.7 m2	1378 m2	Retained: 100% Proposed: 10%	185.21 m2

9.0 HYDROLOGICAL APPROACH

WATER MANAGEMENT PLANNING OVERVIEW

The management of urban storm water will be integrated with open space design and streetscapes. It is intended that the parks to the western edge of the development area will be the primary location for detention basins and biofiltration. Smaller water sensitive urban water design elements will be incorporated within local parks and novel street opportunities as these also contribute to passive irrigation of trees.

DESIGN OBJECTIVES

The Wattle Grove development will incorporate the implementation of multiple water sensitive urban design techniques including;

- Bioswales – These are vegetated, shallow landscape depressions used to infiltrate stormwater as it moves downstream. They are typically sized to treat the 'first flush', are flexible in their siting and can be used and designed in very urban contexts or can appear in more natural environments.
- Biofiltration Basins – Larger retention basins will be at the downstream end of the stormwater cycle due to the site generally grading in direction. These basins will be located outside of the Dampier to Bunbury Natural Gas Pipeline (DBNGP) corridor to comply with infrastructure easement restrictions. While excavation within the DBNGP corridor is not permitted, there is potential to form biofiltration basins
- Within the catchment, there are opportunities to incorporate drainage devices such as kerbside swales and defined recharge areas, which can be used to passively irrigate new tree planting. These will typically take the form of local, low-maintenance depressions that may be formalised within the urban context or integrated through verge contouring. By capturing small volumes of runoff, these devices will provide sustainable passive irrigation while also contributing to the broader stormwater management strategy.

Image 20: *Raingarden with passive irrigation, Jolimont*

Image 21: *WSUD approach to verges, Jolimont*

Image 22: *Residential Street WSUD Buildouts, Portland, Oregan*

Image 23: *Dry/Damp-land Planting, Byford*

Image 24: *Vegetated Infiltration Basin, Edinburgh Gardens, Melbourne*

10.0 PLANT PALETTE

WATTLES


Acacia acuminata


Acacia cyclops


Acacia denticulosa


Acacia dentifera


Acacia incurva

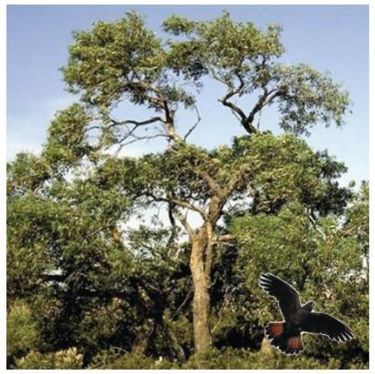

Acacia saligna

TREES

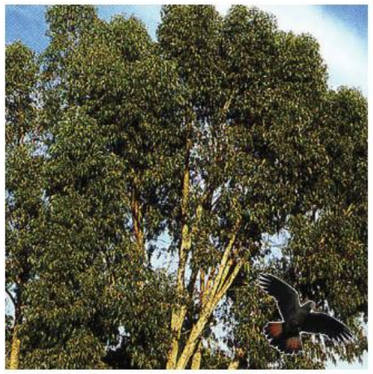

Agonis flexuosa


Casuarina equisetfolia


Callistris preissii


Eucalyptus todtiana


Eucalyptus caesia


Eucalyptus gomphocephala

TREES


Eucalyptus microtheca


Eucalyptus torquata


Eucalyptus victrix


Eucalyptus wandoo


Eucalyptus marginata


Cockatoo foraging species (DEC, 2011)

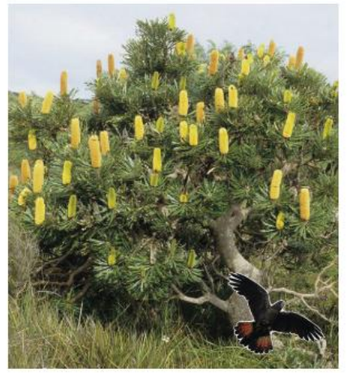
TREES


Eucalyptus patens


Banksia sessilis


Xanthorrhoea preissii


Brachychiron acerifolius


Banksia attenuata


Xylomelum occidentale


Banksia grandis Dwarf


Corymbia ficifolia


Eucalyptus leucoxylon


Melaleuca preissiana


Melaleuca viminea

GRASSES


Austrostipa elegantissima


Baumea articulata


Carex appressa


Isolepis cernua


Pennisetum ‘Fountain Grass’


Cockatoo foraging species (DEC, 2011)

SHRUBS & GROUNDCOVERS


Anigozanthos flavidus ‘Red’


Eremophila glabra prostrata


Isopogon dubius


Melaleuca teretifolia


Xanthorrhoea preissii


Verticordia acerosa

SHRUBS & GROUNDCOVERS


Banksia ashbyii


Banksia spinulosa


Borago officinalis


Brachyscome ciliaris


Callistemon ‘Little John’


Grevillea thelemanniana

SHRUBS & GROUNDCOVERS


Hemiandra pungens


Hibbertia scandens


Philotheca spicata


Salvia officinalis


Taxandria linearfolia


Cockatoo foraging species (DEC, 2011)