Procedural Motion

Moved Cr Rowe, Seconded Cr Miles

That Item CP02-12/25 **Wanneroo Recreation Centre Sports Hub – Engagement Outcomes be bought forward in the Order of Business in this Agenda.

CARRIED UNANIMOUSLY
11/0

For the motion: **Mayor Aitken, Cr Bedworth, Cr Berry, Cr Figg, Cr Miles, Cr Moore, Cr H Nguyen, Cr Parker, Cr Rowe, Cr Seif, and Cr Smith**

Against the motion: **Nil**

Cr Figg declared an impartiality interest in item CP02-12/25 due to working in the Local Member's Electorate Office.

CP02-12/25 **Wanneroo Recreation Centre Sports Hub - Engagement Outcomes

File Ref:	40791V011 – 25/369501
Responsible Officer:	Director Community & Place
Attachments:	11
Previous Items:	CP02-07/25 - **Wanneroo Recreation Centre New Sports Hub - Project Update - Ordinary Council - 22 Jul 2025 6:00pm CP04-06/24 - Wanneroo Recreation Centre Sports Hub - Consultation Outcomes - Ordinary Council - 18 Jun 2024 6:00pm CP01-07/23 - Wanneroo Recreation Centre (Sports Hub) - Concept Design for Community Engagement - Ordinary Council - 18 Jul 2023 6:00pm

Changes to Report and Additional Information Arising from Agenda Briefing

New Attachments

A number of new attachments have been added to the report at the request of Council Members at Briefing, and the attachments renumbered as a result. The new attachment list is outlined below:

- *Attachment 1 – Summary of background information (Unchanged)*
- *Attachment 2 – Revised Concept Design (Unchanged)*
- *Attachment 3 – Arborist Assessment 1 (New)*
- *Attachment 4 – Arborist Assessment 2 (New)*
- *Attachment 5 – Bushfire Management Plan (New)*
- *Attachment 6 - Environmental Planning Considerations Report (New)*
- *Attachment 7 - Environmental Matters Advice (New),*
- *Attachment 8 - Turtle Management Plan (New)*
- *Attachment 9 – Traffic Impact Assessment (New)*
- *Attachment 10 – Yellagonga Regional Park Management Plan Management Zones (Renumbered)*

- *Attachment 11 – Community Engagement Summary Report*

Detail Section

Themes & Issues Raised by Submissions

- The following paragraph was added under the 'Impact on Turtle Population' heading:

  The need to consider the impact of the development on turtle populations was not identified through initial planning stages, as the species is not protected under the state Biodiversity Conservation Act 2016 or the federal Environmental Protection and Biodiversity Conservation Act 1999. However, through the process of revising the concept design and considering the relocation of the building to the adjacent playing field, the importance of considering turtle habitat was confirmed.

- The following information was added under the 'Unsuitable Location' heading:

  Petition PT03-11/25 suggested a number of alternative sites for the Sports Hub for consideration of Council. In addition, some Council Members have identified potential alternatives for investigation. Preliminary comment on each of these locations is included below:

- *Greenfields Park, Hocking*
  Located on the corner of Elliot and Wanneroo Road, this 1.6ha site currently accommodates a number of mature trees, an open kickabout space and a small playground. This site is considered too small to accommodate a sports hub facility and associated carparking infrastructure.

- *Bembridge Park, Hocking*
  This 4.8ha neighbourhood park currently comprises a large open grassed area surrounded by mature trees, located within a contained residential catchment. A sports hub could technically fit on this space but it is considered that it would have adverse impacts on surrounding residents, create traffic issues on local roads and impact on the recreational use of the park by local residents.

- *Willespie Park, Pearsall*
  Located adjacent to the Wanneroo Road/Ocean Reef Road interchange, this site comprises irrigated an unirrigated turf areas grassland, a playspace and a number of mature trees. The location is not considered suitable for a sports hub due to restricted vehicular access, vegetation clearing requirements and impact on local amenity.

- *Sinagra Neighbourhood Open Space (Lot 300, Geranium Dr, Sinagra)*
  This 4.7ha site adjoins a future primary school site in the new Illyarrie Estate and is intended to accommodate a senior sized playing field, potential future sports amenities building, alongside urban drainage functions. Given site constraints there is not considered to be sufficient space at this location to accommodate a Sports Hub facility.

- *East Wanneroo Precinct 3 Public Open Space*
  The Precinct 3 Local Structure Plan includes provision for a 4.5ha neighbourhood sporting space collocated with a primary school. Administration does not consider this site to be a viable alternative at this time, as the structure plan is not yet endorsed, the site has not yet been subject to detailed planning or landscape design and the timing for the development of the space is currently unknown. In addition, this site is outside the catchment of the proposed sports hub and would need to accommodate future community demand generated by the East Wanneroo development.

- *Crisafulli Ave/Leach Road, next to the Wanneroo Sports and Social Club.*
  This site was investigated in some detail as part of previous feasibility investigations, with Lot 504, Leach Road being the better location for a facility of this nature over the vacant portion of the lot fronting Crisafulli Avenue. The investigation found that the Leach Road site could accommodate the facility components associated with the sports hub, but that it would need respond to the natural slope of the site to split the functions of the building into two floors. The options was considered viable but noted that further investigation would be required into carparking requirements and options to minimise impact on adjacent residents. The study noted that the footprint of the site could be reduced by removing some functions to the Community Hub.

- *A more general location in East Wanneroo*
  A detailed assessment of the suitability of locations in East Wanneroo to accommodate the sports hub facility has not been undertaken. However as the specific details of potential locations and their timing for delivery is still largely unknown, and potential locations will also be required to meet the needs of the new population generated by the East Wanneroo development, Administration does not consider this broad location to be a suitable alternative at this time. Sites in East Wanneroo are also outside the catchment of the proposed sports hub.

Consultation

- The following information was added to the last dot point relating to engagement tools:

  The intent was to update this document as new issues arose during the engagement period, however as the engagement period progressed the submissions did not elicit any new issues that necessitated an updated FAQ to be issued during the engagement period. However an updated version of this document was included in the Strategic Project Working Group Agenda for its meeting on 3 November 2025.

- The following information was added to the end of the consultation section:

  Throughout the project Administration has provided regular updates to the Member for Wanneroo and the Department of Creative Industries, Tourism & Sport (CITS) to keep them up to date on the project changes and feedback received through community engagement. This included the following formal correspondence to the Member for Wanneroo at key milestones:

  - *24 September 2024 – to advise of the Council's decision CP04-06/24 to endorse the initial concept design and progress planning for both a sports hub and community hub;*
  - *28 July 2025 - to advise of Council's decision CP02-07/25 to endorse the revised concept design for the purpose of community engagement, summarise the proposed changes and provide an update on the community hub aspect of the project; and*
  - *25 August 2025 – to advise of community concerns raised through the community engagement period and an extension to the engagement period.*

Comment

- The third paragraph under 'Option 2' was amended to read as follows:

  Given the constraints that exist around finding suitable sites for this type of facility, the City would need to completely restart the project, which would have to be re-scoped. This would significantly extend the project timeline, and require additional costs for engagement and consultancy. Although the City is up to date with payments to the current Architect and Quantity Surveyor, should the City need to cancel the existing contracts with these contractors, it will be liable to pay for any services completed but not yet invoiced.

Financial Implications

- The following information was added in after the first table:

  The City has incurred a number of expenses on this project to date as summarised below:

Planning Stage	***Incurred Costs***
• *Wanneroo Recreation Centre Masterplan*	*$50,000*
• *Feasibility Investigations*	*$74,150*
• *Initial Concept Design Stage*	*$27,919*
• *Revised Concept Design Stage*	*$317,626*
• *External review of submissions and engagement process*	*$7,800*
TOTAL	***$477,495***

  Some of these costs, in particular the expenses associated with the initial concept and revised concept stages, would be sacrificial should Council decide not to proceed with the development of the Sports Hub facility at Scenic Park.

  The City has an existing funding agreement with the State Government through the CITS to the value of $5 million. The purpose of the funding is "…to assist the City of Wanneroo to undertake major upgrades to the Wanneroo Recreation Centre Precinct, including the provision of a New Sports Hub". The agreement includes reference to the initial concept design and the CITS has advised that if the City were to proceed with the updated design as advertised, a formal variation to the agreement to change the scope/design and project timeframes must be submitted to CITS for Ministerial approval. There is a risk that this variation would not be approved and that the funding would not be available to progress the project. Any proposal by the City to seek the transfer of funds to deliver a sports hub at an alternative location would also be subject to Ministerial approval through a variation request and there is no guarantee of approval.

Issue

To consider the outcomes of community engagement for the revised concept design of the Wanneroo Sports Hub.

Background

The Wanneroo Recreation Precinct is located on Scenic Drive in Wanneroo and includes Lake Joondalup Park, Rotary Park, Scenic Park and a range of sporting, recreation and community facilities. The site is of environmental and cultural significance, being part of the Yellagonga Regional Park, and currently accommodates a range of community and recreational facilities – many of which are aging and need to be replaced or upgraded to continue to support existing community activities in this location. These include the Wanneroo Recreation Centre and the Lake Joondalup Pavilion.

The Wanneroo Recreation Centre (**WRC**) was originally built in 1971 and is now nearing end of life. To assist with decision making in relation to the future of the WRC and associated facilities in the Wanneroo Recreation Precinct, a number of plans and studies have been completed. A summary of the investigations that led to the decision to commence design work on the Wanneroo Sports Hub is included in **Attachment 1** for information.

A key outcome of this initial planning work was that a redeveloped Wanneroo Recreation Centre would not be able to accommodate all user group requirements due to footprint limitations at the site and challenges with constructing multiple levels. As a result, it was determined that it would be necessary to develop two buildings – a Sports Hub and a Community Hub. Their proposed co-location within the existing Wanneroo Recreation Precinct would accommodate all user group requirements and enable existing user groups to maintain a presence at their current location.

Initial Concept Design

At the 18 July 2023 Ordinary Council Meeting (CP01-07/23), Council considered the proposed Sports Hub concept design and resolved as outlined below:

> *"That Council:-*
> 1. *ENDORSES Attachment 1 as the guiding concept design for the Wanneroo Recreation Centre Sports Hub at Scenic Park and the project progressing to community consultation based on this concept: and*
>
> 2. *NOTES the City's current advocacy plan to seek further funding for the Wanneroo Recreation Centre Upgrade project."*

In accordance with Council's decision, engagement was undertaken between November 2023 and January 2024 via the following methods:

- The City's 'Your Say' community engagement page.
- Mailout to 880 residents and landowners within 800m radius.
- Direct email to current users of the facilities at the WRC and surrounding areas.
- Social media posts (City-wide).
- On-site signage at strategic locations around the building with a QR code link to the City's 'Your Say' page.

The City received a total of 59 responses, with approximately 80% of respondents in favour of the Sports Hub. The consultation outcomes were presented to the 18 June 2024 Ordinary Council Meeting (CP04-06/24) where Council resolved as follows:

That Council:-

1. *NOTES the outcome of the Wanneroo Recreation Centre Sports Hub community engagement process;*
2. *ENDORSES the Wanneroo Recreation Centre Sports Hub Concept Design included at Attachment 1;*
3. *AUTHORISES the Chief Executive Officer to progress the Wanneroo Recreation Centre Sports Hub project to the next phase of design and SUPPORTS the progression of the project on the basis of undertaking it in a single construction stage;*
4. *REQUESTS Administration progress planning for the redevelopment of the existing Wanneroo Recreation Centre as a Community Hub;*
5. *NOTES the City's advocacy approach to seek State and Federal Government funding of approximately $35M funding for the development of both the Sports Hub and Community Hub.*
6. *APPROVES the formation of a project working group for the Wanneroo Recreation Centre Upgrade (Sports Hub and Community Hub) project; and*
7. *REQUESTS a report to be presented to the next Council meeting to adopt the project working group Terms of Reference.*

Revised Concept Design

Further to part 3 of Council's resolution, in November 2024 Hodge Collard Preston Architects was appointed to undertake the next phase of design, which considered the intent of the original concept plan alongside additional factors such as proximity to Yellagonga Reserve, bushfire protection zones, arborist advice, clearing needs, and wetland, vegetation, and fauna management.

A revised concept design (**Attachment 2**) was developed that retained the same functionality requirements of the original concept but included a number of deviations from the initial concept design in response to site constraints and detailed site assessments. A summary of these changes is outlined below:

- Vegetation Retention
    - An arborist assessment of the trees around the site was undertaken to determine the health and value of existing vegetation on site (refer **Attachments 3 and 4**). To minimise the impact of the development on existing vegetation, the footprint of the proposed new building was repositioned as far east on the site as possible without impacting the existing trees alongside Scenic Drive.
- Bushfire Risk
    - Bushfire zoning regulations were updated in 2024 after the initial concept design was approved. This necessitated a re-assessment of the bushfire risk to the proposed facility (refer to **Attachment 5** for the Bushfire Management Plan).
    - As a result, the footprint of the proposed building was moved further from higher bushfire risk zones (BAL-FZ and BAL-40) to sit in the lower BAL-12.5 zone, with only a small section near BAL-19.

- Wetland Buffer
    - To reduce the impact of the proposed facility on the adjacent wetland, the building footprint was rotated 90 degrees to a north–south alignment, moving it further from environmental constraints near the Yellagonga Regional Park wetland and outside of the 50m buffer zone.
    - As a result of these changes, the revised concept design made use of the existing soccer field immediately south of the WRC to align with the existing building.

The revised design retained the spatial and functionality requirements of the endorsed plan, with key design features including:

- Reception area leading to two meeting rooms.
- Kitchen/servery/café with seating (operational model under review when design was paused).
- Boxing club room and calisthenics/fitness room.
- Sports hall sized for two basketball courts.
- Two change rooms, public amenities, a Changing Places facility, and a universal access toilet (UAT).
- 125 parking bays, including four ACROD bays and 25 parallel bays along Scenic Drive, in addition to 70 existing bays next to the Recreation Centre.
- Landscaping upgrades, including additional planting and footpaths, incorporating existing trees and Pétanque pitch.

At the 22 July 2025 Ordinary Council Meeting (CP02-07/25) Council considered the revised concept design and resolved as follows:

> *"That Council ENDORSES the revised schematic concept design, as shown in Attachment 2, for the purposes of stakeholder engagement and subsequent completion of the detailed design of the Wanneroo Recreation Centre New Sports Hub."*

Detail

Overall Community Engagement Results

Community engagement on the revised concept design was undertaken from July to September 2025. The full details of the engagement are outlined in the Consultation section of this report.

At the conclusion of the community engagement period:

- 2,473 people viewed the Your Say page 4,535 times (some viewed the page multiple times).
- 70-80 people attended a drop-in session, completing 27 feedback forms.
- 1 hand written letter was received by the City.
- 109 emails were submitted to the City's Leisure Planning & Staff mailboxes.
- 73 public questions and statements were submitted during August and September.

In total there were 359 individuals who made 461 contributions (made a comment or asked a question). A sentiment analysis of the 461 contributions indicates:

- Positive: 22 (5%).
- Neutral: 75 (16%) – noting that a majority of these are questions from Public Question Time and are questions/statements rather than sentiment.
- Negative: 329 (71%).

In addition to the feedback received through the community engagement process, the City has received two (2) petitions in relation to this project:

- PT03-11/25 requests Council to review the site of the proposed construction of a Sports Hub on Scenic Park Public Open Space to a more suitable location. Specifically, this petition suggests a number of other sites for consideration, including:
  - Greenfields Park, Hocking;
  - Bembridge Park, Hocking;
  - Willespie Park, Pearsall; and
  - A more general location in East Wanneroo.

  The petition also suggests a number of further environmental management and detailed design considerations in the event that the Scenic Park location is preferred.

  The petition was signed by 25 people of which 20 are residents of the City of Wanneroo.

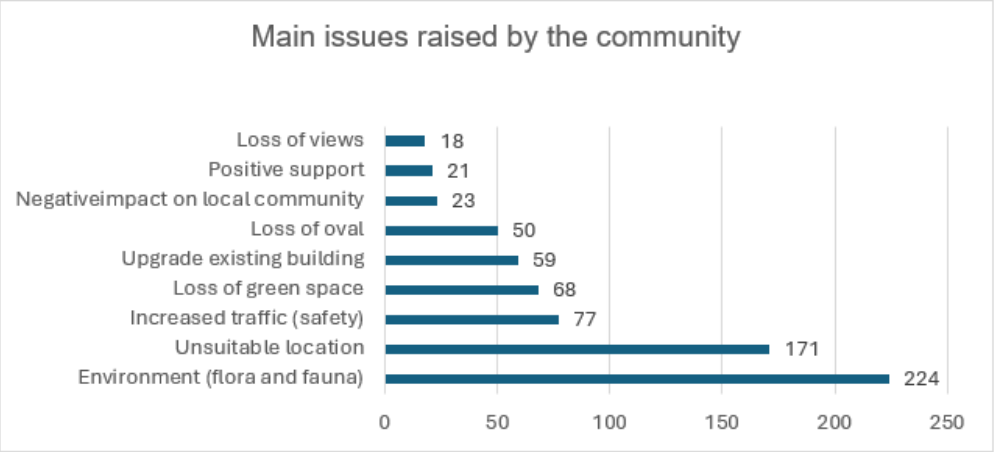
- PT05-11/25 requests Council reconsider the proposed upgrade of the Wanneroo Community Centre into a large-scale Wanneroo Sporting Hub. Specifically, this petition requests that:
  - The proposed facility be relocated to a more suitable location that does not negatively impact the environment at Lake Joondalup and its natural habitats;
  - Council recognise that traffic congestion from high-volume vehicle use along Scenic Drive and surrounding streets will create unsafe conditions for residents, pedestrians and cyclists;
  - Alternate locations be considered that can better accommodate future population that are not located on Lake Joondalup; and
  - Council be transparent with the community for all further changes and proposals through more than just the website, giving the community a fair and reasonable time to respond.

  The petition was signed by 802 people of which 626 are residents of the City of Wanneroo, with 176 addresses unable to be identified.

Reponses to both petitions are included as part of Administration's response to the issues raised in submissions received during the community engagement period, as outlined in the following section.

Themes and Issues Raised by Submissions

An analysis of the themes arising from submissions, a summary of the key comments, and Administration's response to those comments, is provided below:



Environmental (flora & fauna)

> *"The removal of open grassland would fragment habitats and displace local wildlife, while constant noise and artificial lighting would disrupt sensitive breeding cycles."*
>
> *"This area is a sacred site to us as the wildlife, turtles, ducks, frogs, green grasses, open space around Lake needs to be kept for future generations."*

Submissions raised a number of concerns in relation to the impact of the proposed facility on the environmental assets in the Yellagonga Regional Park. It was felt that the scope and scale of the facility would have a detrimental impact on these assets.

It is acknowledged that the Wanneroo Recreation Precinct, and Yellagonga Regional Park more broadly, is a sensitive environmental area where careful consideration is required when undertaking any works. For all City projects, environmental impacts are carefully considered and advice sought from relevant State Government departments, community groups, and Aboriginal representatives to ensure compliance with legislative and cultural requirements.

For this project, the City has undertaken the necessary due diligence work to inform the detailed design process, and has refined the design response to minimise the impact on the environment. This has included the preparation of an Environmental Planning Considerations Report (**Attachment 6**), Environmental Matters Advice report (**Attachment 7**), Arborist assessment, Turtle Management Plan (**Attachment 8**) and Bushfire Management Plan.

As outlined in the 'Background' section of this report, the concept design was modified specifically to address the environmental constraints of the site:

- An Arborist Report and Tree Survey (**Attachments 3 & 4**) has been completed which recommended tree retention and to avoid clearing where possible. The building and car park have been relocated away from existing vegetation and onto the cleared sports field. Three small trees that were planted by the City in 2019 behind the existing soccer goals would need to be removed. Flora and fauna studies are only necessary to be completed if it is proposed to clear more than 0.5 ha of vegetation (as they are usually required to be submitted with a clearing permit). As the building and carpark have been relocated away from existing vegetation onto the soccer field, it is not proposed to undertake any substantial clearing, and therefore a clearing permit is not envisaged to be required.
- Given the prominence of vegetation at Lake Joondalup, a Bushfire Attack Level (**BAL**) assessment (**Attachment 5**) has resulted in the building being located outside areas of high bushfire risk.
- Advice received from the City's internal Environmental Planning and Land Development team recommended consideration be given to moving the building position to avoid locating the building inside the 50m wetland buffer. The building was therefore repositioned on the eastern side of the cleared sports field, and outside of the 50m wetland buffer.

Impact on Turtle Population

A prominent issue that was raised through the community engagement period related to the impact of the proposed development on turtle populations and nesting sites. This is a valid concern as any development in this location would need to consider the impact on turtle nesting sites and determine whether this could be appropriately managed.

The need to consider the impact of the development on turtle populations was not identified through initial planning stages, as the species is not protected under the state Biodiversity Conservation Act 2016 or the federal Environmental Protection and Biodiversity Conservation Act 1999. However, through the process of revising the concept design and considering the relocation of the building to the adjacent playing field, the importance of considering turtle habitat was confirmed.

Turtles within the area have been studied extensively, with this data given to a consultant to prepare a Turtle Management Plan (**TMP**). A draft TMP (**Attachment 8**) was subsequently prepared to provide advice on how the City should manage the impacts of construction on known turtle nesting sites. The draft TMP recommended that the whole site area be fenced at the appropriate time to quarantine the site in advance from turtle nesting prior to any construction works commencing.

While preliminary engagement with the Department of Biodiversity, Conservation and Attractions (**DBCA**) and Friends of Yellagonga on the draft TMP has occurred, the TMP is still in draft stage and detailed feedback from these key stakeholders is required to finalise the Plan. Furthermore, given the significance of this issue to the community, further work may be necessary to better understand the impact of the proposed development on the turtle population and habitat and to consider how or if the Sports Hub design might be amended to minimize the impact on turtle populations.

Unsuitable location

> *"This location does not seem the ideal place with all the valid concerns the community has regarding traffic, safety, access, environmental and wildlife impacts."*
>
> *"This location is not appropriate."*

There are limited site options available in the Wanneroo locality to accommodate a facility like the proposed Sports Hub. Through feasibility investigations undertaken by Administration in 2021 to provide direction on the potential development opportunities, a number of site options were investigated, including:

1. Wanneroo Recreation Precinct / Scenic Park.
2. Pezaj Park.
3. Crisafulli Avenue, next to the Wanneroo Sports and Social Club.
4. Leach Road, next to Wanneroo Sports and Social Club.

Consultation on these sites was undertaken with Council Members, key user groups and relevant State Sporting Associations, and the investigations considered the opportunities and constraints of each site, and the indicative costs of developing a Sports Hub.

Through this process, the Wanneroo Recreation Precinct on Scenic Drive was identified as the preferred site, as other locations within the Wanneroo area either had similar environmental considerations, required substantial vegetation clearing or were closer to adjacent residential areas. This investigation informed Council's decision on 18 July 2023 to progress with the Sports Hub at Scenic Park (CP01-07/23) and subsequent concept design work.

Although the proposed site at Scenic Park does have some environmental constraints, the Yellagonga Regional Park Management Plan 2003–2013 (which, although dated, is still the guiding Management Plan for the development, management and improvement of the Yellagonga Regional Park) designates the Wanneroo Recreation Precinct area for recreational use (refer precinct 8 at **Attachment 10**) and establishes appropriate uses and future improvements.

In particular, the Management Plan designates the Wanneroo Recreation Precinct/Scenic Park area for sport and recreation uses, including both indoor and outdoor activities. Due to high visitor use, management activities in the area should focus on:

- reducing conflicts with surrounding parkland; and
- minimising environmental impacts through careful facility placement and access design.

The Management Plan notes that visible management interventions are often required (typically involving weed control, rehabilitation, landscaping, and reticulation), and that development of the area for active recreation may include sporting ovals, car parks, buildings, and landscaped areas with irrigation. Commercial visitor services can also be considered appropriate.

Petition PT03-11/25 suggested a number of alternative sites for the Sports Hub for consideration of Council. In addition, some Council Members have identified potential alternatives for investigation. Preliminary comment on each of these locations is included below:

- Greenfields Park, Hocking
  Located on the corner of Elliot and Wanneroo Road, this 1.6ha site currently accommodates a number of mature trees, an open kickabout space and a small playground. This site is considered too small to accommodate a sports hub facility and associated carparking infrastructure.

- Bembridge Park, Hocking
  This 4.8ha neighbourhood park currently comprises a large open grassed area surrounded by mature trees, located within a contained residential catchment. A sports hub could technically fit on this space but it is considered that it would have adverse impacts on surrounding residents, create traffic issues on local roads and impact on the recreational use of the park by local residents.

- Willespie Park, Pearsall
  Located adjacent to the Wanneroo Road/Ocean Reef Read interchange, this site comprises irrigated an unirrigated turf areas grassland, a playspace and a number of mature trees. The location is not considered suitable for a sports hub due to restricted vehicular access, vegetation clearing requirements and impact on local amenity.

- Sinagra Neighbourhood Open Space (Lot 300, Geranium Dr, Sinagra)
  This 4.7ha site adjoins a future primary school site in the new Illyarrie Estate and is intended to accommodate a senior sized playing field, potential future sports amenities building, alongside urban drainage functions. Given site constraints there is not considered to be sufficient space at this location to accommodate a Sports Hub facility.

- East Wanneroo Precinct 3 Public Open Space
  The Precinct 3 Local Structure Plan includes provision for a 4.5ha neighbourhood sporting space collocated with a primary school. Administration does not consider this site to be a viable alternative at this time, as the structure plan is not yet endorsed, the site has not yet been subject to detailed planning or landscape design and the timing for the development of the space is currently unknown. In addition, this site is outside the catchment of the proposed sports hub and would need to accommodate future community demand generated by the East Wanneroo development.

- Crisafulli Ave/Leach Road, next to the Wanneroo Sports and Social Club.
  This site was investigated in some detail as part of previous feasibility investigations, with Lot 504, Leach Road being the better location for a facility of this nature over the vacant portion of the lot fronting Crisafulli Avenue. The investigation found that the Leach Road site could accommodate the facility components associated with the sports hub, but that it would need respond to the natural slope of the site to split the functions of the building into two floors. The options was considered viable but noted that further investigation would be required into carparking requirements and options to minimise impact on adjacent residents. The study noted that the footprint of the site could be reduced by removing some functions to the Community Hub.

- A more general location in East Wanneroo
  A detailed assessment of the suitability of locations in East Wanneroo to accommodate the sports hub facility has not been undertaken. However as the specific details of potential locations and their timing for delivery is still largely unknown, and potential locations will also be required to meet the needs of the new population generated by the East Wanneroo development, Administration does not consider this broad location to be a suitable alternative at this time. Sites in East Wanneroo are also outside the catchment of the proposed sports hub.

Increased traffic and safety

"It will become more noisy, more dangerous for kids and bike riders and no doubt involve cars being parked on peoples verges."

"The Lakelands need to stay and traffic will be dangerous to kids and wildlife."

Parking, traffic and access requirements have been carefully assessed to ensure safe and sufficient movement within and around the site. A detailed Traffic Impact Assessment (**TIA**) was commenced prior to the community engagement period but was put on hold until the outcomes of the engagement period were known. Given the prominence of traffic impacts as in issue during the community engagement process, the TIA has since been finalised (**Attachment 9**), with the following findings:

- The proposed Sports Hub can be safely and efficiently accommodated by the existing transport network, with no requirement for external road upgrades (to Scenic Drive) and no expected adverse impacts on the surrounding area.
- Future traffic volumes on Scenic Drive will remain well within the capacity of the existing two-lane distributor road.
- SIDRA traffic impact modelling demonstrates that both proposed crossovers will continue to operate at Level of Service A (the best possible quality of traffic flow, representing "free flow" conditions with very low vehicle density and high speeds), with minimal delay or queuing under 2037 post-development conditions.
- Sightline assessments confirm compliance with Austroads requirements for both pedestrian crossing and stopping sight distance. The consultant Traffic Engineer recommends removing five on-street bays between the crossovers to maintain clear sightlines, and it should be noted that the existing design would need minor adjustments to accommodate this should Council decide to proceed with the project in its current location.
- Parking analysis shows that the development will provide 183 precinct parking bays, including the existing WRC parking supply, against a peak forecast demand of 149 bays. This results in an efficient utilisation rate of approximately 81%, with sufficient capacity to accommodate higher-use recreation activities and events.

Given the outcomes of the TIA, it is considered that traffic impacts would be able to be managed effectively at the Scenic Park site.

Loss of green space/oval

> *"Scenic Park is one of the few remaining accessible green spaces in the area. It is open, usable space where people gather for sport, picnics, quiet reflection, birdwatching, and outdoor learning. Replacing it with a large concrete facility would damage this environment and create ongoing risks."*
>
> *"Please leave this green space for us to enjoy in a variety of ways."*

There is a large playing field to the north of the existing WRC building, and two playing fields to the south that have not been formally activated with supporting sport and recreation amenities. The proposed Sports Hub is planned for development on the southern playing field closest to the existing centre, with the remaining southern space to be retained as is, to support broader community use and public open space.

In reviewing the land use allocation in the precinct, there is approximately 89% public open space vs 11% built infrastructure. This would change to 83% vs 17% after the construction of the building and carpark.

It is acknowledged that the proposed Sports Hub development would result is a loss of some open green space, and that this space is currently highly valued for its landscape character, and the opportunities that it provides for informal recreation. It is understood that the area is well used by local residents for dog walking, informal sporting activities, picnics and other recreational pursuits. However, it is considered that there are significant other areas of comparable open grassland space within the balance of the Wanneroo Recreation Precinct and across the greater Yellagonga Regional Park for informal uses, quiet reflection and other low impact activities. Removing part of this open grassland area to accommodate the Sports hub facility would not have an overall effect on the ability of local residents to undertake informal recreational activities in the local area.

Upgrade existing building

> *"We need to keep working on location alternatives or consider renovation of current buildings such as the Rec centre."*
>
> *"Why can't the current recreational centre be upgraded along the sheds to the north of the rec centre."*

The redevelopment of the existing WRC as a single building was the City's initial preference. However, needs and feasibility investigations into redevelopment options confirmed that:

- irrespective of the preferred site, one facility cannot cater for projected future growth within the catchment, and that the optimum solution was to separate functions across multiple facilities/sites (i.e. a Sports Hub building and a Community Hub building);
- maintaining the status quo will not enable community groups to grow and evolve over time.
- there is a need to provide a range of community, sport and recreation infrastructure that caters for the growing and diverse community across all age ranges, specifically
    - community rooms and meeting spaces for playgroups, music, arts and crafts and other socialisation activities;
    - function rooms to cater for larger events and programs such as dance and martial arts;
    - sports courts to enable the continuation of basketball and badminton; and
    - education spaces that can provide for environmental and Aboriginal cultural experiences.
- It is not feasible or cost effective to "build up" on the existing site while accommodating for all requirements.

Accordingly, the provision of two separate facilities - a Sports Hub and a Community Hub - was endorsed at the June 2024 Ordinary Council Meeting (CP04-06/24).

Support for the project

> *"This is so good! The community really could do with this!"*
>
> *"What a great community project the Wanneroo Sports Hub is in bringing together a vibrant, multi-purpose centre that will provide many members of all ages with facilities under one roof."*

Some comments praised the location and its alignment with existing facilities, and potential to boost youth engagement, health, and social outcomes. Submissions in support for the project see it as a much-needed addition that will benefit local sporting groups and enhance property values, while offering inclusive opportunities for all ages.

These comments are noted, and are consistent with feedback received in previous engagement phases. It is possible that further positive feedback for the proposal and constructive input in relation to the design of the facility was generally not forthcoming due to the overwhelming concern generated in the community by the proposal and the fact that stakeholder requirements had already been determined through previous planning phases.

Consultation

Community engagement for the revised concept design was open from 28 July to 24 August 2025. Due to significant community interest, it was then extended until 14 September 2025.

The following engagement tools were used:

- 'Your Say' community engagement page.
- Initial mailout to 880 residents and landowners within 800m radius.
- Follow up mailout to extended radius capturing 2,272 residents and landowners.
- Direct email to 37 current facility users.
- Social media posts (City-wide).
- Included in City's monthly eNews (10,000+ subscribers).
- On site signage at strategic locations around the building with QR code to Your Say.
- Two community drop-in sessions on site on 13 August 2025.
- Given the community interest in the proposal, Administration prepared a FAQ document that was made available on the City's Your Say Page to provide additional information on the project and respond to questions and queries as they were received. The intent was to update this document as new issues arose during the engagement period, however as the engagement period progressed the submissions did not elicit any new issues that necessitated an updated FAQ to be issued during the engagement period. However an updated version of this document was included in the Strategic Project Working Group Agenda for its meeting on 3 November 2025.

The feedback resulting from the most recent community engagement phase was mostly negative, despite previous engagement phases eliciting mostly positive feedback. An overview of consultation results for the entire life of the project is included at **Attachment 11** for information.

Due to significant community interest in the project, Administration engaged an external consultant to review all feedback received during the consultation period and provide recommendations for future actions – particularly in relation to the community engagement process.

The consultant's review identified several areas where Administration's engagement approach could be better aligned with the project's scope, complexity, and level of community interest. While many sound engagement methods were applied, Administration acknowledges that gaps in timing, design, and communication reduced the overall effectiveness of the community engagement process and contributed to heightened community concern around the impacts of the proposal.

Throughout the project Administration has provided regular updates to the Member for Wanneroo and the Department of Creative Industries, Tourism & Sport (CITS) to keep them up to date on the project changes and feedback received through community engagement. This included the following formal correspondence to the Member for Wanneroo at key milestones:

- 24 September 2024 – to advise of the Council's decision CP04-06/24 to endorse the initial concept design and progress planning for both a sports hub and community hub;
- 28 July 2025 - to advise of Council's decision CP02-07/25 to endorse the revised concept design for the purpose of community engagement, summarise the proposed changes and provide an update on the community hub aspect of the project; and
- 25 August 2025 – to advise of community concerns raised through the community engagement period and an extension to the engagement period.

Comment

The proposed Sports Hub facility is a complex project involving multiple stakeholders, on a site that is highly valued by community members and local residents for a range of reasons, but predominantly for its environmental values and the range of recreational activities that it supports.

Based on Administration's assessment of the submissions received during the community engagement period, the following options have been identified for Council's consideration:

- **Option 1: Continue with the project as planned**

  This option involves acknowledging that the proposed site at Scenic Park and current concept design are the best solutions considering the range of constraints that exist around site locations and design responses. It would involve continuing with detailed design (based on the advertised concept which already reflects stakeholder input), maintain the existing timeline, secure current funding, and align with the City's strategic objectives.

  A significant amount of work has already been undertaken to progress investigation, planning and design work for the new Sports Hub over a number of years, and Council has already made previous decisions in relation to the site location and approach to delivering project scope (i.e. Sports Hub and Community Hub).

  While the feedback received during the most recent community engagement phase was mainly negative, the issues raised through this process have either already been addressed, or can be addressed through the balance of the detailed design phase of the project. Further targeted engagement with the DBCA and Friends of Yellagonga is recommended to finalise the TMP with the aim of minimising the impact of the proposed development on turtle habitat and nesting sites.

  Should Council prefer this option, the project would proceed in accordance with the following adjusted delivery schedule (accounting for the six-month delay while the project was paused to allow for an extended community engagement process):

  - Detailed Design: Restart in December 2025

- Detailed Design Completion & Pre-Tender Estimate: July–August 2026; Tender Documents compiled.
- Construction Tender Procurement: July/August 2026 to October/November 2026.
- Tender Award: Complete procurement activities, recommendation report, and award at OCM by November/December 2026.
- Construction Commencement: from December 2026 to February 2027, depending on contractor availability during the Christmas period.
- Project Completion: envisaged between January and April 2028

- **Option 2: Discontinue the project as planned and re-scope**

  Council also has the option to discontinue the project in its current form and revisit alternative site locations and facility delivery options to meet local community needs. This would acknowledge and respond to the negative feedback received through the most recent community engagement phase and provide the City with an option to re-engage with local residents and stakeholders to further explore alternative sites or design responses.

  However, this option involves disregarding the extensive work undertaken over the last four years and Council's previous deliberations and decisions relating to the site location and concept designs. It would not address the positive input provided by stakeholders and user groups through previous planning phases, or the comments in support of the proposal during the recent engagement phase.

  Given the constraints that exist around finding suitable sites for this type of facility, the City would need to completely restart the project, which would have to be re-scoped. This would significantly extend the project timeline, and require additional costs for engagement and consultancy. Although the City is up to date with payments to the current Architect and Quantity Surveyor, should the City need to cancel the existing contracts with these contractors, it will be liable to pay for any services completed but not yet invoiced.

  In addition, it would risk losing existing grant funding commitments from the State Government and exacerbate asset management issues associated with the existing facilities at the Wanneroo Recreation Precinct.

  Given the extent of previous needs and feasibility work undertaken to investigate site and design options for this project, Administration does not think that there is merit in this approach and is not confident that a feasible alternative option would emerge for Council to consider.

An assessment of both options available to Council finds that there are significant financial, reputational and asset related risks involved in progressing with option 2. Committing additional time and resources to address matters that have already been extensively investigated does not come with any guarantee of arriving at a different or better outcome. Although option 1 may not be well received by people who made submissions opposing the project, it is considered to be a lower risk option given that the concerns raised in submissions have already been addressed, or can be addressed through subsequent project stages.

Statutory Compliance

Nil

Strategic Implications

The proposal aligns with the following objective within the Council Plan 2025 – 2035:

4 ~ A Connected and Liveable City

4.1 - Create welcoming community spaces

Risk Appetite Statement

In pursuit of strategic objective goal 4, we will accept a Medium level of risk, extended to High in the areas of Community / Reputation & Financial / Commercial impacts. Shifting transport modes and usage in the City may require short term pain for longer term gain as the City supports the development, maintenance and connection of alternatives to car use (e.g. cycle ways) and the supporting infrastructure.

Risk Management Considerations

RISK TITLE		RISK RATING
Level 1 Strategic Risk	1.0 Financial Sustainability	Medium
Level 2 Corporate Risk	1.1 Long Term Financial Planning	Low
ACCOUNTABILITY		**ACTION PLANNING OPTION**
Director Corporate Strategy & Performance		Manage

RISK TITLE		RISK RATING
Level 1 Strategic Risk	3.0 Community Engagement & Stakeholder Relationships	Medium
Level 2 Corporate Risk	3.2 Stakeholder Relationships	Medium
ACCOUNTABILITY		**ACTION PLANNING OPTION**
Chief Executive Officer		Manage

Policy Implications

Community engagement is undertaken in accordance with the City's Community Engagement Policy.

Financial Implications

The initial budget estimate for detailed design and construction of the New Sports Hub was $18.4M. This estimate is inclusive of all project fees, construction works, infrastructure modifications and landscaping.

As a result, the project has been incorporated into the City's Capital Works Budget (PR-4279 Wanneroo Recreation Centre, Wanneroo) and is reflected in the draft Long Term Financial Plan, which is currently being reviewed. The funding allocations currently listed in the Long Term Financial Plan, are outlined below:

Year	Detail - Sports Hub	Muni Funds	Grants	Reserve	Total
2020/21 - 2024/25 (Prior Years)	Planning and approvals	$50,000	-	$266,137	**$316,137**
2025/26 (Year 0)	Detailed design	$200,000	$1,150,000	$93,863	**$1,443,863**
2026/27 (Year 1)	Detailed Design & Construction	-	$1,000,000	$4,000,000	**$5,000,000**
2027/28 (Year 2)	Construction Continued, DLP	-	$5,350,000	$6,300,000	**$11,650,000**
2028/29 (Year 3)	DLP, Closure	-	-	$100,000	**$100,000**
Overall Total Budget		**$250,000**	**$7,500,000**	**$10,493,863**	**$18,510,000**

The City has incurred a number of expenses on this project to date as summarised below:

Planning Stage	Incurred Costs
• Wanneroo Recreation Centre Masterplan	$50,000
• Feasibility Investigations	$74,150
• Initial Concept Design Stage	$27,919
• Revised Concept Design Stage	$317,626
• External review of submissions and engagement process	$7,800
TOTAL	**$477,495**

Some of these costs, in particular the expenses associated with the initial concept and revised concept stages, would be sacrificial should Council decide not to proceed with the development of the Sports Hub facility at Scenic Park.

The City has an existing funding agreement with the State Government through the CITS to the value of $5 million. The purpose of the funding is *"…to assist the City of Wanneroo to undertake major upgrades to the Wanneroo Recreation Centre Precinct, including the provision of a New Sports Hub"*. The agreement includes reference to the initial concept design and the CITS has advised that if the City were to proceed with the updated design as advertised, a formal variation to the agreement to change the scope/design and project timeframes must be submitted to CITS for Ministerial approval. There is a risk that this variation would not be approved and that the funding would not be available to progress the project. Any proposal by the City to seek the transfer of funds to deliver a sports hub at an alternative location would also be subject to Ministerial approval through a variation request and there is no guarantee of approval.

The Wanneroo Recreation Centre Precinct Upgrade was identified as one of the City's high-priority advocacy projects in the Connect Wanneroo 2025 Advocacy Campaign, however no additional funding commitments were secured through either the state or federal election.

Administration intends to apply to the Department of Creative Industries, Tourism and Sport (CITS) under the Community Sport and Recreation Facilities Fund (CSRFF) during the next available funding round, seeking a funding contribution of $2.5M.

An updated cost estimate, prepared in June 2025 as part of the revised concept design process, incorporates adjustments for both the updated design and a delayed construction start date. The estimate is detailed as follows:

Item Description (QS Estimate June 2025)	Cost (ex. GST)
Allowance for professional fees, miscellaneous charges & costs)	$1,275,000
Escalation of Construction Costs (to August 2026)	$1,004,000
Construction	$16,589,405
Headworks charges, application fees, fit out, contingencies	$2,345,000
TOTAL	**$21,213,405**
Costs about $18.4M budget allocation	$2,813,405

Based on the latest cost estimate, there is a total funding shortfall of approximately $10.4M, due to both increased project costs and the absence of confirmed funding. Pending the outcomes of additional consultation, grant funding applications and advocacy efforts any funding shortfall will be listed in the draft Long-Term Financial Plan in 2026/27 for Council's consideration.

Voting Requirements

Simple Majority

Recommendation

That Council:-

1. ACCEPTS the outcomes of the community engagement and NOTES Administration's responses to the key issues as outlined in the body of this report;
2. SUPPORTS Option 1 and REQUESTS Administration to continue with the current project scope to deliver the Wanneroo Sports Hub at Scenic Park, Wanneroo; and
3. DOES NOT SUPPORT Petition PT03-11/25 and Petition PT05-11/25 and AUTHORISES Administration to advise the lead petitioners of its decision.

THE MOTION LAPSED FOR WANT OF A MOVER

Alternative Motion

Moved Cr Miles, Seconded Cr Moore

That Council:-

1. ACCEPTS the outcomes of the community engagement and NOTES Administration's responses to the key issues as outlined in the body of this report;
2. DISCONTINUES work on the development of the Wanneroo Sports Hub at Scenic Park, Wanneroo;
3. REQUESTS Administration progress the replacement of the Wanneroo Recreation Centre with the intent to establish two buildings:
    a. a new Community Hub on the site of the existing Wanneroo Recreation Centre; and
    b. a new Sports Hub – Administration to investigate alternate sites within the Central Ward for a new Sports Hub including lot 504 (11) Leach Road, Wanneroo adjacent to the Wanneroo Sports & Social Club;
4. REQUESTS Administration to maintain the current project timelines and design consultants if possible;
5. SUPPORTS Petition PT03-11/25 and Petition PT05-11/25 and AUTHORISES Administration to advise the lead petitioners of its decision; and

Motion to Amend

Moved Cr Rowe

To add a further item as Recommendation 6:

6. REQUIRES the City to consult with the Local Member (Sabine Winton MLA) throughout every stage of this project.

With the consent of the mover and seconder, Recommendation 6 was added.

Motion to Amend

Moved Cr Parker

To amend recommendation 3. a. by adding the words 'or refurbished' after the words 'a new' to read as follows

a. A new or refurbished community hub on the site of the existing Wanneroo Recreation Centre; and

With the consent of the mover and seconder, the recommendation was amended.

Alternative Motion as Amended

Moved Cr Miles, Seconded Cr Moore

That Council:-

1. **ACCEPTS the outcomes of the community engagement and NOTES Administration's responses to the key issues as outlined in the body of this report;**
2. **DISCONTINUES work on the development of the Wanneroo Sports Hub at Scenic Park, Wanneroo;**
3. **REQUESTS Administration progress the replacement of the Wanneroo Recreation Centre with the intent to establish two buildings:**
   a. **a new or refurbished Community Hub on the site of the existing Wanneroo Recreation Centre; and**
   b. **a new Sports Hub – Administration to investigate alternate sites within the Central Ward for a new Sports Hub including lot 504 (11) Leach Road, Wanneroo adjacent to the Wanneroo Sports & Social Club;**
4. **REQUESTS Administration to maintain the current project timelines and design consultants if possible;**
5. **SUPPORTS Petition PT03-11/25 and Petition PT05-11/25 and AUTHORISES Administration to advise the lead petitioners of its decision; and**
6. **REQUIRES the City to consult with the Local Member (Sabine Winton MLA) throughout every stage of this project.**

CARRIED
10/1

For the motion: **Mayor Aitken, Cr Bedworth, Cr Berry, Cr Figg, Cr Miles, Cr Moore, Cr Parker, Cr Rowe, Cr Seif, and Cr Smith**

Against the motion: **Cr H Nguyen**

Attachments:

1	*Attachment 1 - Wanneroo Sports Hub - Project Background*	*25/448085*
2	*Attachment 2 - Revised Wanneroo Sports Hub Concept Design*	*25/179713*
3	*Attachment 3 - Wanneroo Sports Hub - Arboricultural Assessment 1*	*25/479630*
4	*Attachment 4 - Wanneroo Sports Hub - Arboricultural Assessment 2*	*25/479635*
5	*Attachment 5 - Wanneroo Sports Hub - Bushfire Management Plan*	*25/196064*
6	*Attachment 6 -Wanneroo Sports Hub - Environmental Planning Considerations Report*	*24/170654*
7	*Attachment 7 - Wanneroo Sports Hub - Environmental Matters Advice*	*24/184067*
8	*Attachment 8 - Wanneroo Sports Hub - Draft Turtle Management Plan*	*25/276531*
9	*Attachment 9 - Wanneroo Sports Hub - Traffic Impact Assessment.pdf*	*25/444933*
10	*Attachment 10 - Yellagonga Regional Park Management Plan 2003-2013 Management Zones and Areas*	*25/443947*
11	*Attachment 11 - Wanneroo Sports Hub - Community Engagement Summary Report*	*25/461535*

PREVIOUS PLANNING WORK UNDERTAKEN FOR WANNEROO SPORTS HUB

Wanneroo Recreation Centre Precinct Master Plan

In 2020 the City prepared the Wanneroo Recreation Centre Precinct Master Plan (Master Plan) to identify opportunities to enhance and improve the Wanneroo Recreation Centre and surrounding area to ensure that it could continue to meet evolving community needs.

Key findings from the Master Plan included:

- The precinct plays an important role in connecting active recreational and sporting use with more diverse recreational and nature-based activities.
- Alignment with Aboriginal and cultural significance is particularly important.
- There are local heritage interests and high environmental values that need to be balanced against increased community activation.
- The demographic profile and projected future growth indicate that the predominate use will come from a 2km catchment of the site.
- Within the catchment there is a high proportion of families with children household types. This highlights the importance of maintaining and expanding club-based opportunities for families and children.
- The current built infrastructure is ageing, functionally poor and would benefit from rationalisation.

The Master Plan was informed by engagement with existing user groups, Aboriginal Elders, Friends of Yellagonga and key State Government Departments – Department of Biodiversity, Conservation and Attractions (DBCA), Department of Water and Environment Regulation (DWER), Department of Local Government, Sport and Cultural Industries (DLGSC), Perth Transit Authority (PTA) and Lotterywest.

The Master Plan made a number of recommendations in relation to the infrastructure and further planning considerations:

- Essential inclusions:
  - Redevelopment of Wanneroo Recreation Centre.
  - Incorporate Boxing Club and Scouts within Wanneroo Recreation Centre.
  - Redeveloped changing facilities to service Lake Joondalup Oval.
  - Development of a boardwalk and bird viewing tower.
  - Aboriginal interpretive signage, amphitheatre and yarning/educational area.
  - Incorporation of landscape components to protect the wetland area.

- Medium to long term development considerations:
  - Changeroom facilities to service Scenic Park Ovals (potentially as part of the redeveloped recreation centre).
  - Gradual reduction in sporting space on Scenic Park to support the design for the space to respond to Noongar heritage value and desire for the precinct to fulfil a quiet contemplative function.
  - Replacement of floodlighting towers (as part of asset renewal program).
  - Redesign and development of the Regional Playground.
  - Potential realignment of the Pétanque Court to respond more effectively to the Recreation Centre.
  - Incorporation of a Noongar Cultural experience within the redeveloped Wanneroo Recreation Centre.

Feasibility Investigations

Following completion of the Master Plan, specific feasibility investigations were initiated for the redevelopment of the Wanneroo Recreation Centre (as opposed to the wider precinct). In 2021 a Feasibility Study was prepared to provide direction on the potential development opportunities, having regard to the existing and other potential sites in the locality.

The Feasibility Study considered a detailed analysis of the following site options:

1. Redevelop WRC at Scenic Park.
2. Redevelop WRC at Scenic Park plus a second storey environmental and heritage centre and café.
3. Relocate WRC to Pezaj Park.
4. Relocate WRC to Crisafulli Avenue (next to Wanneroo Sports and Social Club).
5. Relocate WRC to Leach Road (next to Wanneroo Sports and Social Club).

The Feasibility Study was informed by engagement with the same stakeholders from the Master Plan, along with relevant State Sporting Associations. A summary of the findings included:

- Irrespective of the preferred site, one facility cannot cater for the future growth within the catchment, with the optimum solution being to separate functions across multiple sites i.e. a Sports Hub building and a Community Hub building.
- Maintaining the status quo will not enable community groups to grow and evolve over time.
- There is a need to provide a range of community, sport and recreation infrastructure to caters for the growing and diverse community across all age ranges, specifically:
    - Community rooms and meeting spaces for playgroups, music, arts and crats and other socialisation activities;
    - Function rooms to cater for larger events and programs such as dance and martial arts;
    - Sports courts to enable the continuation of basketball and badminton; and
    - Education spaces that can provide for environmental and Aboriginal cultural experiences
- It is not feasible or cost effective to “build up” on the existing site while accommodating for all the requirements.

Based on all the above, the recommendations of the Feasibility Study were to develop two buildings:

1. Community Hub to include:
    a. Community rooms and function spaces.
    b. Pottery room.
    c. Scout hall.
    d. Calisthenics hall.
    e. Café with alfresco area.
    f. Community kitchen.
    g. Environmental and cultural heritage education rooms

2. Sports Hub to include:
    a. Two indoor sports courts.
    b. Dedicated boxing centre.
    c. Two meeting rooms (large and small).
    d. Kiosk.
    e. Staff offices.
    f. Admin areas for the Wanneroo Ag Society (were currently based at the site).



WANNEROO RECREATION SPORTS HUB

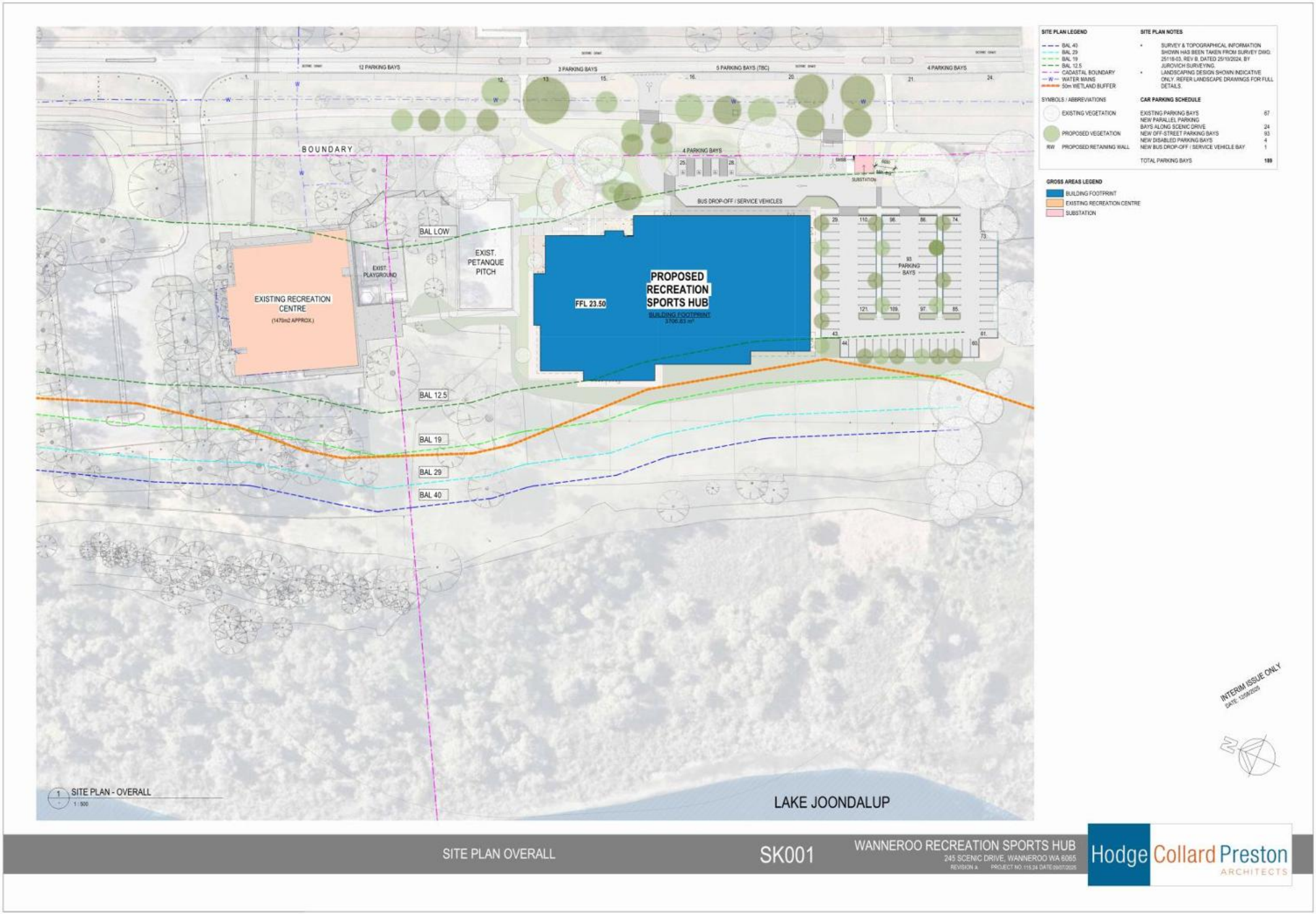
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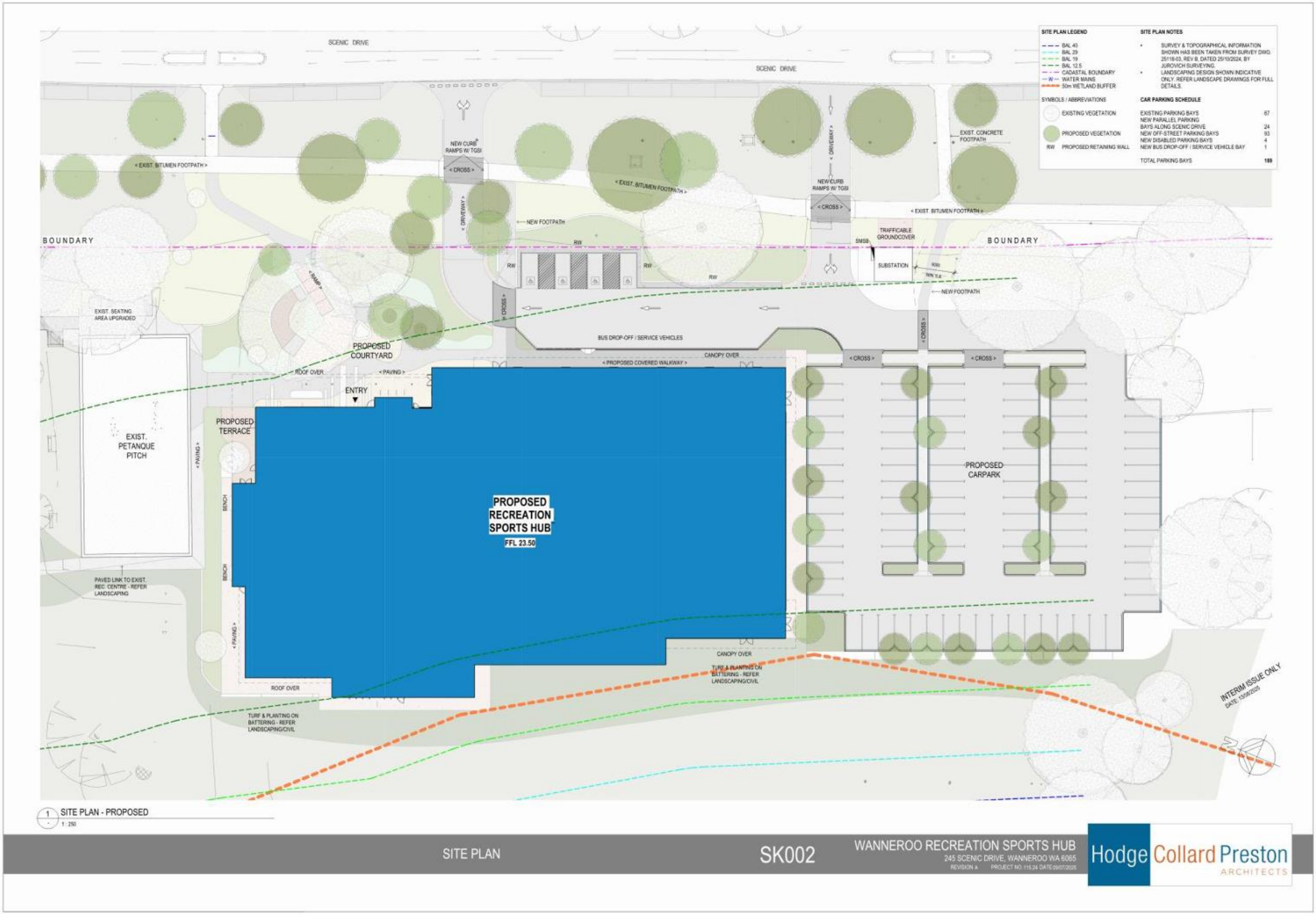
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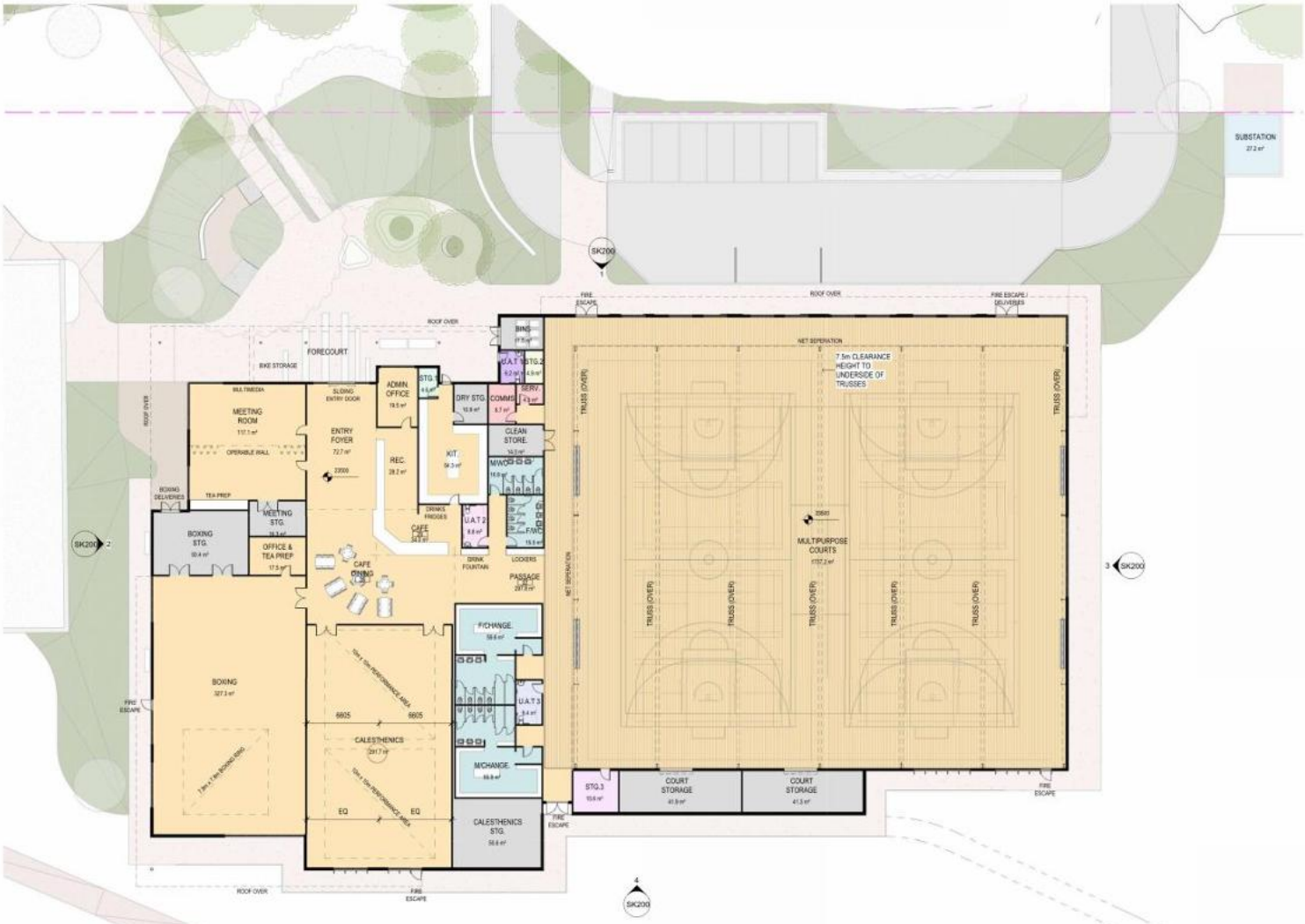
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SK000	COVER PAGE	A	16/05/2025
SK001	SITE PLAN OVERALL	A	16/05/2025
SK002	SITE PLAN	A	16/05/2025
SK100	GA FLOOR PLAN	A	16/05/2025
SK200	ELEVATIONS	A	16/05/2025
SK900	3D VIEWS	A	16/05/2025
SK901	3D VIEWS	A	16/05/2025
SK902	3D VIEWS	A	16/05/2025
SK904	3D VIEWS	A	16/05/2025

COVER PAGE SK000 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025

Hodge Collard Preston ARCHITECTS


SITE PLAN LEGEND
BAL 40
BAL 29
BAL 19
BAL 12.5
CADASTAL BOUNDARY
WATER MAINS
50m WETLAND BUFFER
SYMBOLS / ABBREVIATIONS
EXISTING VEGETATION
PROPOSED VEGETATION
RW PROPOSED RETAINING WALL
SITE PLAN NOTES
* SURVEY & TOPOGRAPHICAL INFORMATION SHOWN HAS BEEN TAKEN FROM SURVEY DWG: 25118-03, REV B, DATED 25/10/2024, BY JUROVICH SURVEYING.
* LANDSCAPING DESIGN SHOWN INDICATIVE ONLY. REFER LANDSCAPE DRAWINGS FOR FULL DETAILS.
CAR PARKING SCHEDULE
EXISTING PARKING BAYS 67
NEW PARALLEL PARKING BAYS ALONG SCENIC DRIVE 24
NEW OFF-STREET PARKING BAYS 93
NEW DISABLED PARKING BAYS 4
NEW BUS DROP-OFF / SERVICE VEHICLE BAY 1
TOTAL PARKING BAYS 189
GROSS AREAS LEGEND
BUILDING FOOTPRINT
EXISTING RECREATION CENTRE
SUBSTATION
12 PARKING BAYS
3 PARKING BAYS
5 PARKING BAYS (TBC)
4 PARKING BAYS
4 PARKING BAYS
BOUNDARY
SUBSTATION
BUS DROP-OFF / SERVICE VEHICLES
BAL LOW
EXIST. PLAYGROUND
EXIST. PETANQUE PITCH
EXISTING RECREATION CENTRE
(1470m2 APPROX.)
PROPOSED RECREATION SPORTS HUB
FFL 23.50
BUILDING FOOTPRINT
3706.83 m²
93 PARKING BAYS
BAL 12.5
BAL 19
BAL 29
BAL 40
LAKE JOONDALUP
1 SITE PLAN - OVERALL
1 : 500
INTERIM ISSUE ONLY
DATE: 12/08/2025
SITE PLAN OVERALL
SK001
WANNEROO RECREATION SPORTS HUB
245 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 118.24 DATE: 09/07/2025
Hodge Collard Preston
ARCHITECTS


SCENIC DRIVE
SCENIC DRIVE
SITE PLAN LEGEND
BAL 40
BAL 29
BAL 19
BAL 12.5
CADASTAL BOUNDARY
WATER MAINS
50m WETLAND BUFFER
SYMBOLS / ABBREVIATIONS
EXISTING VEGETATION
PROPOSED VEGETATION
RW PROPOSED RETAINING WALL
SITE PLAN NOTES
* SURVEY & TOPOGRAPHICAL INFORMATION SHOWN HAS BEEN TAKEN FROM SURVEY DWG. 25118-03, REV B, DATED 25/10/2024, BY JUROVICH SURVEYING.
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CAR PARKING SCHEDULE
EXISTING PARKING BAYS 67
NEW PARALLEL PARKING BAYS ALONG SCENIC DRIVE 24
NEW OFF-STREET PARKING BAYS 93
NEW DISABLED PARKING BAYS 4
NEW BUS DROP-OFF / SERVICE VEHICLE BAY 1
TOTAL PARKING BAYS 189
< EXIST. BITUMEN FOOTPATH >
NEW CURB RAMPS W/ TGSI
< CROSS >
< DRIVEWAY >
EXIST. CONCRETE FOOTPATH
NEW FOOTPATH
BOUNDARY
BOUNDARY
TRAFFICABLE GROUNDCOVER
SMSB
SUBSTATION
< RAMP >
EXIST. SEATING AREA UPGRADED
PROPOSED COURTYARD
BUS DROP-OFF / SERVICE VEHICLES
CANOPY OVER
< PROPOSED COVERED WALKWAY >
ROOF OVER
< PAVING >
ENTRY
PROPOSED TERRACE
EXIST. PETANQUE PITCH
BENCH
PROPOSED RECREATION SPORTS HUB
FFL 23.50
PROPOSED CARPARK
PAVED LINK TO EXIST. REC. CENTRE - REFER LANDSCAPING
TURF & PLANTING ON BATTERING - REFER LANDSCAPING/CIVIL
INTERIM ISSUE ONLY
DATE: 15/08/2025
1 SITE PLAN - PROPOSED
1 : 250
SITE PLAN
SK002
WANNEROO RECREATION SPORTS HUB
245 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 118.24 DATE 09/07/2025
Hodge Collard Preston
ARCHITECTS



ROOM SCHEDULE		
NAME	AREA	USE
ADMIN. OFFICE	19 m²	ADMIN OFFICE & STORE JOINERY
BINS	12 m²	BIN STORAGE
BOXING	327 m²	BOXING
BOXING STG.	50 m²	BOXING STORAGE
CAFE	34 m²	CAFE
CAFE DINING	111 m²	CAFE DINING
CALESTHENICS	292 m²	CALESTHENICS
CALESTHENICS STG.	51 m²	CALESTHENICS STORAGE
CLEAN STORE.	14 m²	CLEANER-ROOF LADDER
COMMS	9 m²	COMMUNICATIONS
COURT STORAGE	41 m²	COURTS STORAGE
COURT STORAGE	42 m²	COURTS STORAGE
DRY STG.	11 m²	DRY STORE & CHEST FREEZERS
ENTRY FOYER	73 m²	CIRCULATION
F/CHANGE.	60 m²	FEMALE CHANGEROOM
F/WC	16 m²	FEMALE WC
FORECOURT	93 m²	CIRCULATION
KIT.	54 m²	KITCHEN
M/CHANGE.	56 m²	MALE CHANGEROOM
M/WC	17 m²	MALE WC
MEETING ROOM	117 m²	MEETING ROOM
MEETING STG.	16 m²	MEETING FURNITURE STORE
MULTIPURPOSE COURTS	1737 m²	MULTIPURPOSE COURTS
OFFICE & TEA PREP	18 m²	OFFICE & TEA PREP
PASSAGE	298 m²	CIRCULATION
REC.	28 m²	RECEPTION
Room	27 m²	
SERV.	4 m²	SERVICES
STG.1	5 m²	KITCHEN CLEANER & BINS
STG.2	5 m²	STORAGE
STG.3	16 m²	STORAGE
U.A.T 1	6 m²	PUBLIC U.A.T
U.A.T 2	9 m²	UNIVERSALLY ACCESSIBLE TOILET
U.A.T 3	9 m²	UNIVERSALLY ACCESSIBLE CHANGEROOM

AREAS LEGEND

- REC CENTRE (MAIN AREAS)
- REC CENTRE AMENITIES
- REC CENTRE DECK
- REC CENTRE SERVICES
- REC CENTRE STORAGE
- PUBLIC AMENITIES

1 GROUND FLOOR
1 : 200

GA FLOOR PLAN SK100 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025
Hodge Collard Preston ARCHITECTS


GROUND FLOOR
23500
1 EAST ELEVATION
1 : 200
GROUND FLOOR
23500
3 SOUTH ELEVATION
1 : 200
GROUND FLOOR
23500
4 WEST ELEVATION
1 : 200
GROUND FLOOR
23500
2 NORTH ELEVATION
1 : 200
ELEVATIONS
SK200
WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
Hodge Collard Preston
ARCHITECTS



1 SCENIC DRIVE STREET ELEVATION
1 : 200

ELEVATIONS SK201 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION PROJECT NO: 118.24 DATE
Hodge Collard Preston ARCHITECTS



NORTHEAST PEDESTRIAN LINK & PETANQUE PITCH CONNECTION

3D VIEWS SK900 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025
Hodge Collard Preston ARCHITECTS



BUILDING MATERIALITY



CONCRETE PANELS - RIBBED FINISH



CONCRETE - HONED FINISH



NINELINE BOX CLADDING - MONUMENT



CONCRETE PANELS - FLAT FINISH



CONCRETE PANELS - RIBBED FINISH



NINELINE BATTEN CLADDING - SURFMIST

3D VIEWS SK901 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025
Hodge Collard Preston ARCHITECTS



BUILDING MATERIALITY



CONCRETE PANELS - RIBBED FINISH



CONCRETE - HONED FINISH



NINELINE BOX CLADDING - MONUMENT



CONCRETE PANELS - FLAT FINISH



CONCRETE PANELS - RIBBED FINISH



NINELINE BATTEN CLADDING - SURFMIST

3D VIEWS SK902 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025
Hodge Collard Preston ARCHITECTS



BUILDING MATERIALITY



CONCRETE PANELS - RIBBED FINISH



CONCRETE - HONED FINISH



NINELINE BOX CLADDING - MONUMENT



CONCRETE PANELS - FLAT FINISH



CONCRETE PANELS - RIBBED FINISH



NINELINE BATTEN CLADDING - SURFMIST

3D VIEWS SK904 WANNEROO RECREATION SPORTS HUB
275 SCENIC DRIVE, WANNEROO WA 6065
REVISION A PROJECT NO: 115.24 DATE: 16/05/2025
Hodge Collard Preston ARCHITECTS

PAPERBARK TECHNOLOGIES
Arboricultural Consultants

Arboricultural Report Wanneroo Recreation Centre

January 15, 2025
Total Tree Count: 47

Brief

This consultant has been commissioned by City of Wanneroo to inspect and submit a report in respect of 47 selected trees located around the Wanneroo Recreation Centre, due to plans for a new development on the southern side of the existing building and a possible upgrade of the existing premises.

The objective of the audit was to identify and tag the trees at this location, assess the trees' current health and structural condition and provide advice on any problems or works they may require.
The survey scope requires:

- The identification of tree species and tagging 1 - 47.
- Measurement of the height & canopy spread of the trees.
- Measurement of trunk diameters.
- Tree age.
- Current health and structural condition of the trees.
- Problems identified and itemised.
- Retention Value (Low, Medium, High).
- ULE (Useful Life Expectancy).
- Tree Protection Zone Radius (TPZ).
- Structural Root Zone Radius (SRZ).
- Recommended remedial pruning or other works that may be required.

All trees are digitally mapped, and this consultant confirms that the site inspection was carried out on the 9th, 10th and 15th of January 2025 with a total of 47 trees audited and tagged.

Scope of works

This consultant was provided with a draft concept plan for the site and a site meeting was held with the Senior Project Manager – Mark Little of City of Wanneroo to determine the trees to be audited and the requirements of the audit. It is recommended that all works are maintained as far away from the TPZ radius of retained trees as possible to ensure damage is reduced. If works are to come inside the TPZ radius of any trees it is recommended to confirm the works with a qualified arborist from Paperbark Technologies prior to works being carried out. Selective trees may require further investigation to confirm how to proceed.

The TPZ and SRZ radius details for each tree provided in the report are based upon AS 4970-2009 *Protection of trees on development sites* and provide a guide to assist with the care and protection of trees to be retained.

Summary & Recommendations

The 47 trees inspected were found to be predominantly in good & fair health and predominantly sound structural condition at this time. Tree number 31 – *Eucalyptus nicholii* (Narrow leafed Peppermint) has recently died.

Tree numbers 22/23/24/25 fall within the new building floor plan and would require removal. These are young *Agonis flexuosa* (WA Peppermints) and the majority are poorly formed.

In the proposed new car park area on Scenic Drive the existing mature tree should be retained, ensuring in the design the TPZ can be accommodated. There are extensive surface roots in the area around trees 38/39/40/41/42/43/44 and these must be protected.

Excavation in proximity of trees to be retained is to be carried out by small, tracked machinery fitted with a flat bladed bucket with an Arborist Spotter wherever practicable. The initial use of smaller machinery adjacent trees to be retained is likely to limit root damage by allowing roots to be exposed and cleanly cut prior to larger machinery working the area, thereby preventing splitting and tearing of roots that may extend back to the base of the tree.

Where works are proposed inside the TPZ of the trees, an Arborist Spotter would be required on site to oversee tree roots which may be found. If roots are located, then the Arborist can assess the roots for pruning. Roots are to be cleanly cut using a hand saw or secateurs. Roots above 30mm diameter are not to be cut without authorisation from a qualified Arborist.

The removal of live canopy and major limbs may significantly damage the trees. Therefore, work methods and equipment must be suitable to the scale of works and operating space to ensure accidental canopy and structural damage are prevented.

It is also recommended that all trees are protected by temporary fencing to delineate tree protection areas consistent with AS4970-2009 (refer to below 'Appendix - Tree Protection Fencing') and that it is installed prior to works commencing. It is to be an area of tree and root protection with no digging and no storage of equipment or tools. No filling, trenching or other earthworks shall be carried out unless there is written arborist approval. Soil is not to be lowered or raised within this zone and no washing of tools or cement/paint or chemicals is to be deposited in this zone.

Where temporary fencing cannot be achieved due to the restricted amount of practicable space within the site during the development works, it is recommended to provide at least trunk/branch and ground protection to avoid mechanical injuries from small and large machinery.

Supplementary watering of the retained trees closest to the works is required to minimise stress on the trees associated with site disruption and root loss. It is generally recommended to water once per week with a minimum of 600 litres per tree, however this may vary. Water is to be applied in a manner that minimises runoff and it is recommended that the initial watering incorporates a wetting agent to assist water infiltration. Storage of tools and equipment and the storage of materials are recommended to be located within an open area, preferably not within 6m of trees to be retained. The parking of vehicles should be accommodated in the existing carpark.

The future management, maintenance and condition of the trees have a considerable bearing on their location, with safety to property and persons the main priority. Therefore, each tree retained is recommended to be re-inspected annually to ensure that the trees remain healthy and in a structurally sound condition with a level of risk that is acceptable.

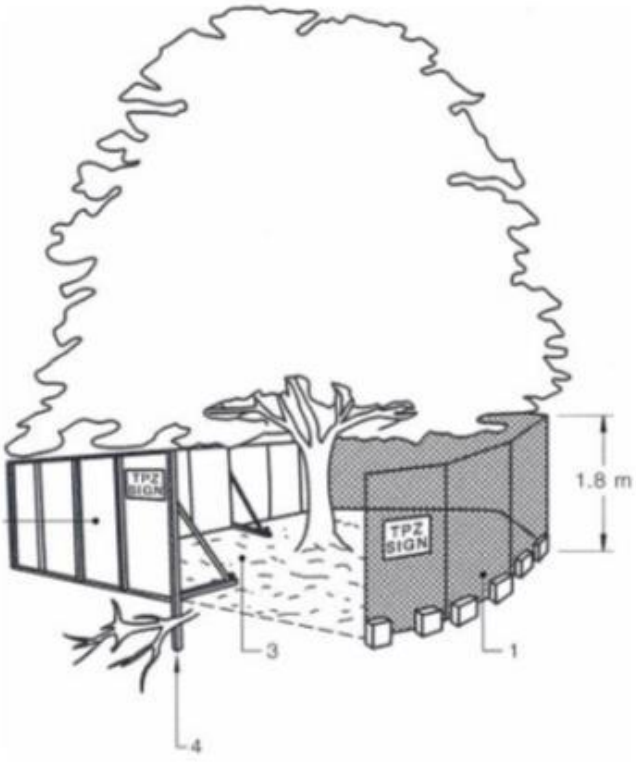


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Limitation of liability
Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk.
This report only covers identifiable defects present at the time of inspection. Paperbark Technologies accepts no responsibility and cannot be held liable for any structural defect or unforeseen event/situation or adverse weather conditions that may occur after the time of inspection. Paperbark Technologies cannot guarantee that the tree/s contained within this report will be structurally sound under all circumstances, and is not able to detect every condition that may possibly lead to the structural failure of a tree. Paperbark Technologies cannot guarantee that the recommendations made will categorically result in the tree being made safe.
Unless specifically mentioned this report will only be concerned with above ground inspections, as such all observations have been visually assessed from ground level. Trees are living organisms and as such cannot be classified as safe under any circumstances. Trees fail in ways that the arboriculture industry does not fully understand.
The recommendations are made on the basis of what can be reasonably identified at the time of inspection therefore Paperbark Technologies accepts no liability for any recommendations made. All care has been taken to obtain information from reliable sources, however Paperbark Technologies can neither guarantee nor be responsible for the accuracy of information provided by others. In the event that reinspection of the tree/s is recommended it is the client's responsibility to make arrangements with Paperbark Technologies.

Appendix - Tree Protection Fencing

(AS4970- 2009 *Protection of trees on development sites*)



LEGEND:
1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.


Map of trees at Wanneroo Recreation Centre
Common Name
Bauhinia cimber
Chinese Banyan tree (4)
English Oak
False cypress
Flooded Gum
Horsetail Sheok (5)
Illawarra Flame Tree (6)
kings park special (3)
Lemon Scented Gum
Narrow-leaved Peppermint (2)
River Red Gum (2)
Silky Oak (2)
Sugar Gum (4)
Swamp Mahogany (8)
Tuart
WA Weeping Peppermint (4)
Yellow Gum


Map of TPZ radius of trees at Wanneroo Recreation Centre
Common Name
Bauhinia climber
Chinese Banyan tree (4)
English Oak
False cypress
Flooded Gum
Horsetail Sheok (5)
Illawarra Flame Tree (6)
kings park special (3)
Lemon Scented Gum
Narrow-leaved Peppermint (2)
River Red Gum (2)
Silky Oak (2)
Sugar Gum (4)
Swamp Mahogany (8)
Tuart
WA Weeping Peppermint (4)
Yellow Gum


Map of SRZ radius of trees at Wanneroo Recreation Centre
Common Name
Bauhinia climber
Chinese Banyan tree (4)
English Oak
False cypress
Flooded Gum
Horsetail Sheok (3)
Illawarra Flame Tree (6)
kings park special (3)
Lemon Scented Gum
Narrow-leaved Peppermint (2)
River Red Gum (2)
Silky Oak (2)
Sugar Gum (4)
Swamp Mahogany (8)
Tuart
WA Weeping Peppermint (4)
Yellow Gum

False cypress Tree ID #1

275 Scenic Drive

Tree Details

Latin Name:	Chamaecyparis lawsoniana
Latitude:	-31.753520707353
Longitude:	115.79520437495
Tree Height (Estimated) [m]:	14
Canopy Spread [m]:	11
DBH [cm]:	73
Health:	Good
Structure:	Good
Problems:	Deadwood minor <50, Trunk Decay, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	8.76
Structural Root Zone (SRZ) [m]:	3.53
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

kings park special Tree ID #2

275 Scenic Drive

Tree Details

Latin Name:	Callistemon Kings Park Special
Latitude:	-31.753548076177
Longitude:	115.79512524979
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	7
DBH [cm]:	35.36
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Deadwood minor <50, Included bark, Leaning, Surface roots
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	4.24
Structural Root Zone (SRZ) [m]:	2.83
Useful Life Expectancy:	6-10 years
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Chinese Banyan tree Tree ID #3

275 Scenic Drive

Tree Details

Latin Name:	Ficus microcarpa
Latitude:	-31.753581146828
Longitude:	115.79505551235
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	3
DBH [cm]:	18.87
Health:	Good
Structure:	Fair
Problems:	Codominant Stem
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.26
Structural Root Zone (SRZ) [m]:	1.94
Useful Life Expectancy: 6-10 years	
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

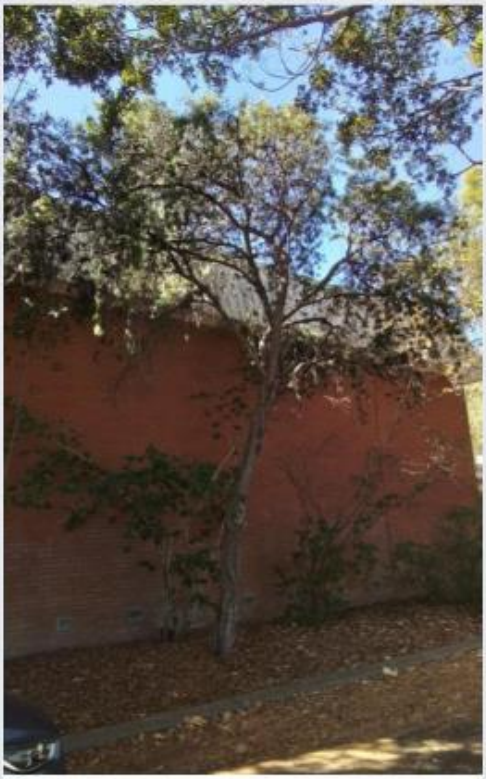
kings park special Tree ID #4

275 Scenic Drive

Tree Details

Latin Name:	Callistemon Kings Park Special
Latitude:	-31.753610796368
Longitude:	115.79499650376
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	5
DBH [cm]:	29
Health:	Good
Structure:	Good
Problems:	Codominant Stem, Included bark, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.48
Structural Root Zone (SRZ) [m]:	2.28
Useful Life Expectancy:	6-10 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Bauhinia climber Tree ID #5

275 Scenic Drive

Tree Details

Latin Name:	Bauhinia galpinii
Latitude:	-31.753639305532
Longitude:	115.7949509062
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	4
DBH [cm]:	29
Health:	Good
Structure:	Good
Problems:	Deadwood minor <50
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.48
Structural Root Zone (SRZ) [m]:	2.02
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Lemon Scented Gum Tree ID #6

275 Scenic Drive

Tree Details

Latin Name:	Corymbia citriodora
Latitude:	-31.753657551392
Longitude:	115.79489994423
Tree Height (Estimated) [m]:	16
Canopy Spread [m]:	12
DBH [cm]:	47
Health:	Good
Structure:	Fair
Problems:	Other, Deadwood minor <50, Leaning, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	Recent branch failure over roof
Tree Protection Zone (TPZ) [m]:	5.64
Structural Root Zone (SRZ) [m]:	2.47
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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14/01/2025

River Red Gum Tree ID #7

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus camaldulensis var.camaldulensis
Latitude:	-31.753753342099
Longitude:	115.79481545465
Tree Height (Estimated) [m]:	21
Canopy Spread [m]:	20
DBH [cm]:	80
Health:	Good
Structure:	Good
Problems:	Codominant Stem, Root Girdling, Deadwood minor <50, Included bark, Surface roots
Notes:	Trim branch back from roof
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	Branch touching roof
Tree Protection Zone (TPZ) [m]:	9.6
Structural Root Zone (SRZ) [m]:	3.18
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Yellow Gum Tree ID #8

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus leucoxylon
Latitude:	-31.753840009796
Longitude:	115.79483557122
Tree Height (Estimated) [m]:	9
Canopy Spread [m]:	11
DBH [cm]:	47
Health:	Good
Structure:	Good
Problems:	Root Girdling, Deadwood minor <50, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	5.64
Structural Root Zone (SRZ) [m]:	2.74
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Chinese Banyan tree Tree ID #9

275 Scenic Drive

Tree Details

Latin Name:	Ficus microcarpa
Latitude:	-31.753932379226
Longitude:	115.79487848656
Tree Height (Estimated) [m]:	18
Canopy Spread [m]:	20
DBH [cm]:	83
Health:	Good
Structure:	Fair
Problems:	Hollow, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	9.96
Structural Root Zone (SRZ) [m]:	3.62
Useful Life Expectancy:	40+ years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Swamp Mahogany Tree ID #10

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.754027029287
Longitude:	115.79510513322
Tree Height (Estimated) [m]:	21
Canopy Spread [m]:	10
DBH [cm]:	55
Health:	Good
Structure:	Fair
Problems:	Deadwood major >50, Leaning, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch, Canopy lift, Remove major deadwood
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	6.6
Structural Root Zone (SRZ) [m]:	2.74
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Sugar Gum Tree ID #11
275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus cladocalyx
Latitude:	-31.754104573843
Longitude:	115.79508233444
Tree Height (Estimated) [m]:	23
Canopy Spread [m]:	10
DBH [cm]:	104
Health:	Good
Structure:	Fair
Problems:	Root Girdling, Deadwood minor <50, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	12.48
Structural Root Zone (SRZ) [m]:	3.52
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Sugar Gum Tree ID #12

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus cladocalyx
Latitude:	-31.754272206706
Longitude:	115.79511183874
Tree Height (Estimated) [m]:	21
Canopy Spread [m]:	8
DBH [cm]:	81
Health:	Good
Structure:	Fair
Problems:	Root Girdling, Deadwood minor <50, Leaning, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	9.72
Structural Root Zone (SRZ) [m]:	3.36
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Flooded Gum Tree ID #13
275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus grandis
Latitude:	-31.754371417849
Longitude:	115.79509038107
Tree Height (Estimated) [m]:	38
Canopy Spread [m]:	25
DBH [cm]:	160
Health:	Good
Structure:	Fair
Problems:	Root Girdling, Deadwood minor <50, Included bark, Surface roots
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	15
Structural Root Zone (SRZ) [m]:	4.24
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Swamp Mahogany Tree ID #14

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.754315540322
Longitude:	115.79490262644
Tree Height (Estimated) [m]:	10
Canopy Spread [m]:	7
DBH [cm]:	66
Health:	Poor
Structure:	Fair
Problems:	Deadwood major >50, Surface roots, Multi Crown leaders, Decline
Notes:	
Priority:	Low
Tree Work:	Add Mulch, Add nutrients, Remove major deadwood
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	7.92
Structural Root Zone (SRZ) [m]:	3.06
Useful Life Expectancy: 20-40 years	
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Swamp Mahogany Tree ID #15

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.754452383186
Longitude:	115.7948610522
Tree Height (Estimated) [m]:	14
Canopy Spread [m]:	12
DBH [cm]:	92
Health:	Fair
Structure:	Good
Problems:	Root Girdling, Deadwood minor <50, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	11.04
Structural Root Zone (SRZ) [m]:	3.38
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Sugar Gum Tree ID #16

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus cladocalyx
Latitude:	-31.754049836516
Longitude:	115.79529288785
Tree Height (Estimated) [m]:	4
Canopy Spread [m]:	4
DBH [cm]:	31
Health:	Poor
Structure:	Poor
Problems:	Lopped
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.72
Structural Root Zone (SRZ) [m]:	2.23
Useful Life Expectancy:	1-5 years
Retention Value:	Low
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Silky Oak Tree ID #17

275 Scenic Drive

Tree Details

Latin Name:	Grevillea robusta
Latitude:	-31.75411654763
Longitude:	115.79527344183
Tree Height (Estimated) [m]:	12
Canopy Spread [m]:	6
DBH [cm]:	52
Health:	Fair
Structure:	Fair
Problems:	Deadwood minor <50, Trunk Decay, Surface roots, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	6.24
Structural Root Zone (SRZ) [m]:	2.8
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Horsetail Sheok Tree ID #18

275 Scenic Drive

Tree Details

Latin Name:	Casuarina equisetifolia
Latitude:	-31.754097731679
Longitude:	115.795397494
Tree Height (Estimated) [m]:	12
Canopy Spread [m]:	12
DBH [cm]:	39
Health:	Fair
Structure:	Good
Problems:	Deadwood minor <50, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	4.68
Structural Root Zone (SRZ) [m]:	2.63
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736390912527537576558964546 28.jpg
09/01/2025

Horsetail Sheok Tree ID #19

275 Scenic Drive

Tree Details

Latin Name:	Casuarina equisetifolia
Latitude:	-31.754060099768
Longitude:	115.79547125475
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	4
DBH [cm]:	29
Health:	Fair
Structure:	Good
Problems:	Codominant Stem, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.48
Structural Root Zone (SRZ) [m]:	2.28
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736391295485603408279416727031O.jpg
09/01/2025

Horsetail Sheok Tree ID #20

275 Scenic Drive

Tree Details

Latin Name:	Casuarina equisetifolia
Latitude:	-31.754027029287
Longitude:	115.79558658974
Tree Height (Estimated) [m]:	12
Canopy Spread [m]:	6
DBH [cm]:	31
Health:	Good
Structure:	Good
Problems:	Codominant Stem, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.72
Structural Root Zone (SRZ) [m]:	2.25
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736391649604752217325803258101 1.jpg
09/01/2025

Silky Oak Tree ID #21

275 Scenic Drive

Tree Details

Latin Name:	Grevillea robusta
Latitude:	-31.753854264344
Longitude:	115.79532976822
Tree Height (Estimated) [m]:	10
Canopy Spread [m]:	7
DBH [cm]:	22
Health:	Good
Structure:	Good
Problems:	Multi Crown leaders
Notes:	Trim back from roof
Priority:	Low
Tree Work:	Other (Describe Below)
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.64
Structural Root Zone (SRZ) [m]:	1.97
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736392828595545498112150019871 6.jpg
09/01/2025

WA Weeping Peppermint Tree ID #22

275 Scenic Drive

Tree Details

Latin Name:	Agonis flexuosa
Latitude:	-31.754397646065
Longitude:	115.79532507436
Tree Height (Estimated) [m]:	4
Canopy Spread [m]:	3
DBH [cm]:	11
Health:	Good
Structure:	Fair
Problems:	Included bark, Leaning, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.45
Useful Life Expectancy:	11-20 years
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736393311205104504839841164125 5.jpg
09/01/2025

WA Weeping Peppermint Tree ID #23

275 Scenic Drive

Tree Details

Latin Name:	Agonis flexuosa
Latitude:	-31.754411330348
Longitude:	115.7954551615
Tree Height (Estimated) [m]:	1.5
Canopy Spread [m]:	3
DBH [cm]:	13
Health:	Poor
Structure:	Poor
Problems:	Included bark, Leaning, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.53
Useful Life Expectancy:	1-5 years
Retention Value:	Low
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736393558524384363709648580294 2.jpg
09/01/2025

WA Weeping Peppermint Tree ID #24

275 Scenic Drive

Tree Details

Latin Name:	Agonis flexuosa
Latitude:	-31.754342908911
Longitude:	115.79561207073
Tree Height (Estimated) [m]:	2
Canopy Spread [m]:	3
DBH [cm]:	16
Health:	Fair
Structure:	Poor
Problems:	Included bark, Leaning, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.61
Useful Life Expectancy:	1-5 years
Retention Value:	Low
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736393886850734682610057561221 8.jpg
09/01/2025

WA Weeping Peppermint Tree ID #25

275 Scenic Drive

Tree Details

Latin Name:	Agonis flexuosa
Latitude:	-31.754314399964
Longitude:	115.79571399467
Tree Height (Estimated) [m]:	4
Canopy Spread [m]:	4
DBH [cm]:	14
Health:	Good
Structure:	Good
Problems:	Included bark, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.61
Useful Life Expectancy:	1-5 years
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Swamp Mahogany Tree ID #26

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.754382821422
Longitude:	115.79598892109
Tree Height (Estimated) [m]:	16
Canopy Spread [m]:	15
DBH [cm]:	59
Health:	Good
Structure:	Good
Problems:	Deadwood major >50, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch, Remove major deadwood
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	7.08
Structural Root Zone (SRZ) [m]:	3.18
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736395127368101745995552659844 2.jpg
09/01/2025

Illawarra Flame Tree Tree ID #27

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.754318961396
Longitude:	115.79597685115
Tree Height (Estimated) [m]:	5
Canopy Spread [m]:	4
DBH [cm]:	23
Health:	Good
Structure:	Fair
Problems:	Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.76
Structural Root Zone (SRZ) [m]:	1.85
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

River Red Gum Tree ID #28

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus camaldulensis var.camaldulensis
Latitude:	-31.754290452442
Longitude:	115.79585212843
Tree Height (Estimated) [m]:	20
Canopy Spread [m]:	18
DBH [cm]:	65
Health:	Good
Structure:	Fair
Problems:	Deadwood minor <50, Included bark, Leaning, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	7.8
Structural Root Zone (SRZ) [m]:	2.98
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Illawarra Flame Tree Tree ID #29

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.754144486457
Longitude:	115.79588297384
Tree Height (Estimated) [m]:	6
Canopy Spread [m]:	4
DBH [cm]:	23
Health:	Good
Structure:	Good
Problems:	Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.76
Structural Root Zone (SRZ) [m]:	1.88
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Horsetail Sheok Tree ID #30

275 Scenic Drive

Tree Details

Latin Name:	Casuarina equisetifolia
Latitude:	-31.754073784101
Longitude:	115.79583201186
Tree Height (Estimated) [m]:	18
Canopy Spread [m]:	16
DBH [cm]:	57
Health:	Good
Structure:	Good
Problems:	Deadwood minor <50, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	6.84
Structural Root Zone (SRZ) [m]:	2.92
Useful Life Expectancy:	11-20 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Narrow-leaved Peppermint Tree ID #31

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus nicholii
Latitude:	-31.753991678071
Longitude:	115.79548064248
Tree Height (Estimated) [m]:	12
Canopy Spread [m]:	8
DBH [cm]:	51
Health:	Dead
Structure:	Poor
Problems:	Dieback
Notes:	
Priority:	Low
Tree Work:	Remove Tree
Observation Comments:	Tree has recently died
Tree Protection Zone (TPZ) [m]:	6.12
Structural Root Zone (SRZ) [m]:	2.85
Useful Life Expectancy: 0 years	
Retention Value:	Low
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Tuart Tree ID #32
275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.753950625029
Longitude:	115.79556915538
Tree Height (Estimated) [m]:	22
Canopy Spread [m]:	20
DBH [cm]:	96
Health:	Good
Structure:	Good
Problems:	Codominant Stem, Deadwood minor <50, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	11.52
Structural Root Zone (SRZ) [m]:	3.62
Useful Life Expectancy:	40+ years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Narrow-leaved Peppermint Tree ID #33

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus nicholii
Latitude:	-31.753897027974
Longitude:	115.79555037992
Tree Height (Estimated) [m]:	18
Canopy Spread [m]:	6
DBH [cm]:	47
Health:	Good
Structure:	Fair
Problems:	Deadwood minor <50, Leaning, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	5.64
Structural Root Zone (SRZ) [m]:	2.63
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Illawarra Flame Tree Tree ID #34

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.754016452723
Longitude:	115.79579780265
Tree Height (Estimated) [m]:	3
Canopy Spread [m]:	2
DBH [cm]:	14
Health:	Good
Structure:	Fair
Problems:	Included bark, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.68
Useful Life Expectancy:	6-10 years
Retention Value:	Medium
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Horsetail Sheok Tree ID #35

275 Scenic Drive

Tree Details

Latin Name:	Casuarina equisetifolia
Latitude:	-31.75396822286
Longitude:	115.79576933726
Tree Height (Estimated) [m]:	7
Canopy Spread [m]:	3
DBH [cm]:	19
Health:	Good
Structure:	Fair
Problems:	Included bark, Leaning, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.28
Structural Root Zone (SRZ) [m]:	2.13
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Illawarra Flame Tree Tree ID #36

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.753938573435
Longitude:	115.79575324401
Tree Height (Estimated) [m]:	4
Canopy Spread [m]:	4
DBH [cm]:	15
Health:	Good
Structure:	Good
Problems:	Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.61
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736400771415830527891309179856 5.jpg
09/01/2025

English Oak Tree ID #37

275 Scenic Drive

Tree Details

Latin Name:	Quercus robur
Latitude:	-31.753903870153
Longitude:	115.79576763885
Tree Height (Estimated) [m]:	5
Canopy Spread [m]:	5
DBH [cm]:	17
Health:	Good
Structure:	Good
Problems:	Deadwood minor <50, Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.04
Structural Root Zone (SRZ) [m]:	1.72
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736401066493853029027108329985 6.jpg
09/01/2025

Sugar Gum Tree ID #38
275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus cladocalyx
Latitude:	-31.753795535593
Longitude:	115.7956938781
Tree Height (Estimated) [m]:	24
Canopy Spread [m]:	18
DBH [cm]:	97
Health:	Good
Structure:	Fair
Problems:	Root Girdling, Deadwood minor <50, Included bark, Surface roots, Multi Crown leaders, Decayed pruning stub
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	Tree trunk has nearby Ficus tree root girdling it
Tree Protection Zone (TPZ) [m]:	11.64
Structural Root Zone (SRZ) [m]:	3.72
Useful Life Expectancy:	20-40 years
Retention Value:	
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736401338215161884039050659852 4.jpg
09/01/2025

Chinese Banyan tree Tree ID #39

275 Scenic Drive

Tree Details

Latin Name:	Ficus microcarpa
Latitude:	-31.753713429316
Longitude:	115.79565766828
Tree Height (Estimated) [m]:	20
Canopy Spread [m]:	18
DBH [cm]:	68
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Hollow, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	8.16
Structural Root Zone (SRZ) [m]:	3.31
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Chinese Banyan tree Tree ID #40

275 Scenic Drive

Tree Details

Latin Name:	Ficus microcarpa
Latitude:	-31.75369176237
Longitude:	115.79569656031
Tree Height (Estimated) [m]:	20
Canopy Spread [m]:	16
DBH [cm]:	62
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Hollow, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	7.44
Structural Root Zone (SRZ) [m]:	4.38
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



173640283273889345799092188506 57.jpg
09/01/2025

Illawarra Flame Tree Tree ID #41

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.753650709195
Longitude:	115.79564157502
Tree Height (Estimated) [m]:	7
Canopy Spread [m]:	4
DBH [cm]:	18
Health:	Good
Structure:	Good
Problems:	Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.16
Structural Root Zone (SRZ) [m]:	1.75
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736403111904358452845947345899 2.jpg
09/01/2025

Swamp Mahogany Tree ID #42

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.753821763972
Longitude:	115.79555976765
Tree Height (Estimated) [m]:	10
Canopy Spread [m]:	4
DBH [cm]:	33
Health:	Good
Structure:	Good
Problems:	Multi Crown leaders
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.96
Structural Root Zone (SRZ) [m]:	2.18
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



1736403432541337903398526183910 4.jpg
09/01/2025

Swamp Mahogany Tree ID #43

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.753746499909
Longitude:	115.79549673574
Tree Height (Estimated) [m]:	14
Canopy Spread [m]:	16
DBH [cm]:	62
Health:	Good
Structure:	Good
Problems:	Deadwood major >50, Hanging branch, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Remove hanger, Remove major deadwood
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	7.44
Structural Root Zone (SRZ) [m]:	2.93
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



image.jpg
09/01/2025

Swamp Mahogany Tree ID #44

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.753723692605
Longitude:	115.79556915538
Tree Height (Estimated) [m]:	12
Canopy Spread [m]:	8
DBH [cm]:	50
Health:	Good
Structure:	Good
Problems:	Deadwood major >50, Included bark, Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	6
Structural Root Zone (SRZ) [m]:	2.63
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

kings park special Tree ID #45

275 Scenic Drive

Tree Details

Latin Name:	Callistemon Kings Park Special
Latitude:	-31.753618778935
Longitude:	115.7954551615
Tree Height (Estimated) [m]:	7
Canopy Spread [m]:	7
DBH [cm]:	37
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Included bark, Surface roots
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	4.44
Structural Root Zone (SRZ) [m]:	2.37
Useful Life Expectancy:	11-20 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

Swamp Mahogany Tree ID #46

275 Scenic Drive

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.753553778014
Longitude:	115.79553965108
Tree Height (Estimated) [m]:	19
Canopy Spread [m]:	13
DBH [cm]:	69
Health:	Good
Structure:	Good
Problems:	Surface roots, Multi Crown leaders
Notes:	
Priority:	Low
Tree Work:	Add Mulch
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	8.28
Structural Root Zone (SRZ) [m]:	3.2
Useful Life Expectancy:	20-40 years
Retention Value:	Very high
Risk of Harm Number:	Not applicable

Photos Street View Map View



image.jpg
09/01/2025

Illawarra Flame Tree Tree ID #47

275 Scenic Drive

Tree Details

Latin Name:	Brachychiton acerifolius
Latitude:	-31.753606234901
Longitude:	115.79566035049
Tree Height (Estimated) [m]:	5
Canopy Spread [m]:	3
DBH [cm]:	18
Health:	Good
Structure:	Good
Problems:	
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.16
Structural Root Zone (SRZ) [m]:	1.79
Useful Life Expectancy:	20-40 years
Retention Value:	High
Risk of Harm Number:	Not applicable

Photos Street View Map View



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09/01/2025

PAPERBARK TECHNOLOGIES
Arboricultural Consultants

Arboricultural Report - Wanneroo Recreation Centre, Scenic Drive

30th May 2025
Total Tree Count: 7

Brief

This consultant has been commissioned by the City of Wanneroo to inspect and submit a report in respect of 7 extra selected trees located on the southeastern side of the Wanneroo Recreation Centre, due to plans for a new development. The first 47 trees were surveyed by Paperbark Technologies in January 2025.

The objective of the audit was to identify and tag the trees at this location, assess the trees' current health and structural condition and provide advice on any problems or works they may require.
The survey scope requires:

- The identification of tree species and tagging 48 - 54.
- Measurement of the height & canopy spread of the trees.
- Measurement of trunk diameters.
- Tree age.
- Current health and structural condition of the trees.
- Problems identified and itemised.
- Retention Value (Low, Medium, High).
- ULE (Useful Life Expectancy).
- Tree Protection Zone Radius (TPZ).
- Structural Root Zone Radius (SRZ).
- Recommended remedial pruning or other works that may be required.

All trees are digitally mapped, and this consultant confirms that the site inspection was carried out on the 30th of May 2025 with a total of 7 trees audited and tagged.

Scope of works

This consultant has not been provided with an updated draft concept plan for the site. However, it is understood that the building design has been modified, which has resulted in the Architect rotating the building roughly 90 degrees on the soccer pitch, this means it is now longer and extends further N-S rather than E-W as before.
It is recommended that all works are maintained as far away from the TPZ radius of retained trees as possible to ensure damage is reduced. If works are to come inside the TPZ radius of any trees it is recommended to confirm the works with a qualified arborist from Paperbark Technologies prior to works being carried out. Selective trees may require further investigation to confirm how to proceed.

The TPZ and SRZ radius details for each tree provided in the report are based upon AS 4970-2009 Protection of trees on development sites and provide a guide to assist with the care and protection of trees to be retained.

Summary & Recommendations

The 7 trees inspected were found to be predominantly in good & fair health and predominantly sound structural condition at this time.

Where works are proposed inside the TPZ of the trees, an Arborist Spotter would be required on site to oversee tree roots which may be found. If roots are located, then the Arborist can assess the roots for pruning. Roots are to be cleanly cut using a hand saw or secateurs. Roots above 30mm diameter are not to be cut without authorisation from a qualified Arborist.

Excavation in proximity of trees to be retained is to be carried out by small, tracked machinery fitted with a flat bladed bucket with an Arborist Spotter wherever practicable. The initial use of smaller machinery adjacent trees to be retained is likely to limit root damage rather than using larger machinery working the area.

The removal of live canopy and major limbs may significantly damage the trees. Therefore, work methods and equipment must be suitable to the scale of works and operating space to ensure accidental canopy and structural damage are prevented.

It is also recommended that all trees are protected by temporary fencing to delineate tree protection areas consistent with AS4970-2009 (refer to below 'Appendix - Tree Protection Fencing') and that it is installed prior to works commencing. It is to be an area of tree and root protection with no digging and no storage of equipment or tools. No filling, trenching or other earthworks shall be carried out unless there is written arborist approval. Soil is not to be lowered or raised within this zone and no washing of tools or cement/paint or chemicals is to be deposited in this zone.

Where temporary fencing cannot be achieved due to the restricted amount of practicable space within the site during the development works, it is recommended to provide at least trunk/branch and ground protection to avoid mechanical injuries from small and large machinery.

Supplementary watering of the retained trees closest to the works is required to minimise stress on the trees associated with site disruption and root loss. It is generally recommended to water once per week with a minimum of 600 litres per tree, however this may vary. Water is to be applied in a manner that minimises runoff and it is recommended that the initial watering incorporates a wetting agent to assist water infiltration.

Storage of tools and equipment and the storage of materials are recommended to be located within an open area, preferably not within 6m of trees to be retained. The parking of vehicles should be accommodated in the existing carpark.

The future management, maintenance and condition of the trees have a considerable bearing on their location, with safety to property and persons the main priority. Therefore, each tree retained is recommended to be re-inspected annually to ensure that the trees remain healthy and in a structurally sound condition with a level of risk that is acceptable.

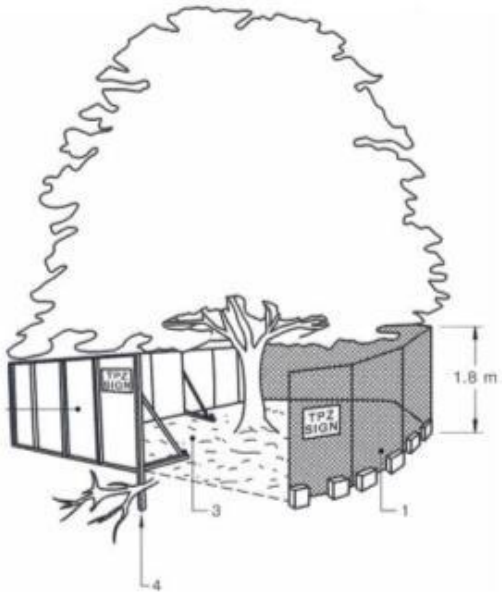


Zana Sheary & Darcie Hill - Arboricultural Consultants
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Limitation of liability
Trees can be managed, but they cannot be controlled. To live or work near a tree involves a degree of risk.
This report only covers identifiable defects present at the time of inspection. Paperbark Technologies accepts no responsibility and cannot be held liable for any structural defect or unforeseen event/situation or adverse weather conditions that may occur after the time of inspection. Paperbark Technologies cannot guarantee that the tree/s contained within this report will be structurally sound under all circumstances, and is not able to detect every condition that may possibly lead to the structural failure of a tree. Paperbark Technologies cannot guarantee that the recommendations made will categorically result in the tree being made safe.
Unless specifically mentioned this report will only be concerned with above ground inspections, as such all observations have been visually assessed from ground level. Trees are living organisms and as such cannot be classified as safe under any circumstances. Trees fail in ways that the arboriculture industry does not fully understand.
The recommendations are made on the basis of what can be reasonably identified at the time of inspection therefore Paperbark Technologies accepts no liability for any recommendations made. All care has been taken to obtain information from reliable sources, however Paperbark Technologies can neither guarantee nor be responsible for the accuracy of information provided by others. In the event that reinspection of the tree/s is recommended it is the client's responsibility to make arrangements with Paperbark Technologies.

Appendix - Tree Protection Fencing

(AS4970- 2009 *Protection of trees on development sites*)



LEGEND:
1 Chain wire mesh panels with shade cloth (if required) attached, held in place with concrete feet.
2 Alternative plywood or wooden paling fence panels. This fencing material also prevents building materials or soil entering the TPZ.
3 Mulch installation across surface of TPZ (at the discretion of the project arborist). No excavation, construction activity, grade changes, surface treatment or storage of materials of any kind is permitted within the TPZ.
4 Bracing is permissible within the TPZ. Installation of supports should avoid damaging roots.

Maps of Trees at Wanneroo Recreation Centre, Scenic Drive: 48- 54




Map of Trees at Wanneroo Recreation Centre, Scenic Drive - TPZ
Common Name
Bauhinia clamber
Chinese Banyan tree (4)
English Oak
False cypress
Flooded Gum
Horsetail Sheok (5)
Illawarra Flame Tree (6)
kings park special (3)
Lemon Scented Gum
Narrow-leaved Peppermint (2)
River Red Gum (2)
Silky Oak (2)
Sugar Gum (4)
Swamp Mahogany (9)
Tuart (7)
WA Weeping Peppermint (4)
Yellow Gum


Map of Trees at Wanneroo Recreation Centre, Scenic Drive - SRZ
Common Name
Bauhinia clamber
Chinese Banyan tree (4)
English Oak
False cypress
Flooded Gum
Horsetail Sheok (5)
Illawarra Flame Tree (6)
kings park special (3)
Lemon Scented Gum
Narrow-leaved Peppermint (2)
River Red Gum (2)
Silky Oak (2)
Sugar Gum (4)
Swamp Mahogany (9)
Tuart (7)
WA Weeping Peppermint (4)
Yellow Gum

Tuart Tree ID #48

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.754366352532
Longitude:	115.79609206685
Tree Height (Estimated) [m]:	6
Canopy Spread [m]:	4
DBH [cm]:	14.5
Health:	Fair
Structure:	Fair
Problems:	Codominant Stem, Deadwood minor <50, Epicormic growth
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.65
Useful Life Expectancy:	40+ years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Tuart Tree ID #49

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.754544248119
Longitude:	115.79615509876
Tree Height (Estimated) [m]:	5
Canopy Spread [m]:	3
DBH [cm]:	13
Health:	Fair
Structure:	Poor
Problems:	Lopped, Epicormic growth
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2
Structural Root Zone (SRZ) [m]:	1.49
Useful Life Expectancy:	40+ years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Tuart Tree ID #50

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.754633195784
Longitude:	115.79620471963
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	5
DBH [cm]:	21
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Epicormic growth
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.52
Structural Root Zone (SRZ) [m]:	1.85
Useful Life Expectancy:	40+ years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Swamp Mahogany Tree ID #51

Tree Details

Latin Name:	Eucalyptus robusta
Latitude:	-31.754792032757
Longitude:	115.79625164713
Tree Height (Estimated) [m]:	18.5
Canopy Spread [m]:	13
DBH [cm]:	159
Health:	Good
Structure:	Poor
Problems:	Hanging branch, Deadwood minor <50, Epicormic growth, Previous limb failure, Bark wound, Bird browsing, Multi Crown leaders
Notes:	
Priority:	Moderate
Tree Work:	Remove hanger, Cleanly prune jagged branch stubs
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	15
Structural Root Zone (SRZ) [m]:	4.07
Useful Life Expectancy:	20-40 years
Retention Value:	Very high

Photos Street View Map View



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30/05/2025

Tuart Tree ID #52

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.755000276922
Longitude:	115.79631865592
Tree Height (Estimated) [m]:	8
Canopy Spread [m]:	6
DBH [cm]:	27
Health:	Good
Structure:	Fair
Problems:	Codominant Stem, Epicormic growth
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	3.24
Structural Root Zone (SRZ) [m]:	2.02
Useful Life Expectancy:	40+ years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Tuart Tree ID #53

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.755103886222
Longitude:	115.79636522736
Tree Height (Estimated) [m]:	5
Canopy Spread [m]:	2.5
DBH [cm]:	17.5
Health:	Fair
Structure:	Fair
Problems:	Codominant Stem, Deadwood minor <50, Epicormic growth
Notes:	
Priority:	None
Tree Work:	No Works
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	2.1
Structural Root Zone (SRZ) [m]:	1.68
Useful Life Expectancy:	40+ years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Tuart Tree ID #54

Tree Details

Latin Name:	Eucalyptus gomphocephala
Latitude:	-31.755236769036
Longitude:	115.79638575758
Tree Height (Estimated) [m]:	21.1
Canopy Spread [m]:	23
DBH [cm]:	130.5
Health:	Fair
Structure:	Fair
Problems:	Deadwood major >50, Deadwood minor <50, Epicormic growth, Multi Crown leaders
Notes:	
Priority:	Moderate
Tree Work:	Remove major deadwood
Observation Comments:	
Tree Protection Zone (TPZ) [m]:	15
Structural Root Zone (SRZ) [m]:	3.9
Useful Life Expectancy:	20-40 years
Retention Value:	Very high

Photos Street View Map View



image.jpg
30/05/2025

Bushfire Management Plan Coversheet

Site address:	Lots 39 and 40 (275) Scenic Drive Wanneroo

Site visit: Yes ✓ No

Date of site visit: Day 12 Month December Year 2024

Report author or reviewer: Mike Scott

Not accredited | Level 1 BAL assessor | Level 2 practitioner | Level 3 practitioner ✓

BPAD accreditation number: 27795 Accreditation expiry: Month February Year 2026

Bushfire management version number: V1.0

Bushfire management plan date: 10 February 2025

If one or more of the following responses are yes, then these should be automatically referred to DFES.	Yes	No
Strategic planning is required to address SPP 3.7 and the Guidelines		✓
The application is a vulnerable land use	✓	

If one or more of the following responses are yes, and the decision-maker requires input from DFES, then the application can be referred.	Yes	No
The BAL rating has been calculated by a method other than Method 1 as prescribed by AS 3959		✓
An outcomes-based approach has been submitted to demonstrate compliance with the bushfire protection criteria		✓

Note: If a subdivision or development application meets all the acceptable solutions and does not otherwise trigger a referral as listed above, seeking advice from DFES on SPP 3.7 or other matters is at the discretion of the decision-maker.

The information provided within this bushfire management plan, to the best of my knowledge, is true and correct:

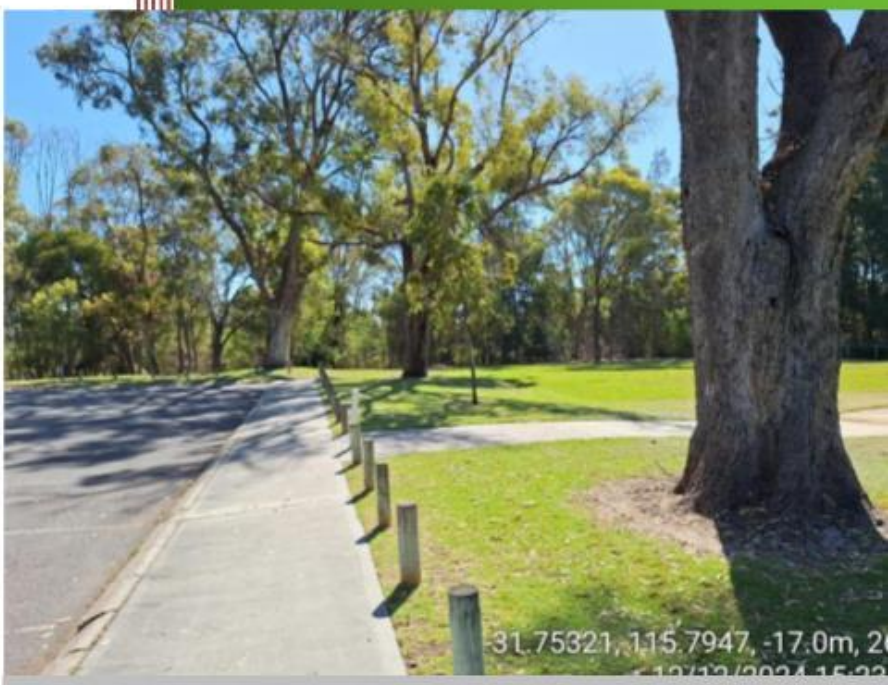
Signature of report author or reviewer:  Date 27-May-25

BUSHFIRE PRONE PLANNING

Wanneroo Recreation Centre

Bushfire Management Plan

(PREPARED FOR PLANNING APPLICATION ASSESSMENT PURPOSES)



Compiled in accordance with State Planning Policy 3.7 Bushfire and the Planning for Bushfire Guide

275 Scenic Drive,
Wanneroo
WA 6065

Shire of Wanneroo

Development Application - Vulnerable Land Uses

27 May 2025

Job Reference No: 241078

BPP GROUP PTY LTD T/A BUSHFIRE PRONE PLANNING

ACN: 39 166 551 784 | ABN: 39 166 551 784

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BUSHFIRE PRONE PLANNING

DOCUMENT CONTROL

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Reviewed:	Mike Scott (BPAD Level 3 No. 27795)	

VERSION HISTORY		
Version	Status/Details	Date
1.0	Original	27 May 2025
-		

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Lee Yaw	lyaw@hcparch.com	-		☐	☐

Limitations: *The protection measures that will be implemented based on information presented in this Bushfire Management Plan are minimum requirements and they do not guarantee that buildings or infrastructure will not be damaged in a bushfire, persons injured, or fatalities occur either on the subject site or off the site while evacuating.*

This is substantially due to the unpredictable nature and behaviour of fire and fire weather conditions. Additionally, the correct implementation of the required protection measures (including bushfire resistant construction) and any other required or recommended measures, will depend upon, among other things, the ongoing actions of the landowners and/or operators over which Bushfire Prone Planning has no control.

All surveys, forecasts, projections and recommendations made in this report associated with the proposed development are made in good faith based on information available to Bushfire Prone Planning at the time. All maps included herein are indicative in nature and are not to be used for accurate calculations.

Notwithstanding anything contained therein, Bushfire Prone Planning will not, except as the law may require, be liable for any loss or other consequences whether or not due to the negligence of their consultants, their servants or agents, arising out of the services provided by their consultants.

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STATEMENT OF PURPOSE – THE 'PLANNING' BUSHFIRE MANAGEMENT PLAN

EXPLANATORY INFORMATION

SITE/USE PLANNING

This BMP is produced to present the information necessary for a planning proposal's assessment against the State's bushfire planning requirements. The developed information is to inform and assist decision-making authorities, planners, landowners/proponents and referral agencies in their implementation WA's State Planning Policy 3.7 Bushfire – and where relevant, any supplementary provisions of a local planning scheme or policy.

Policy Document Versions Applied in This BMP	State Planning Policy 3.7 Bushfire (SPP 3.7)	November 2024	Planning for Bushfire Guidelines (supporting SPP 3.7	November 2024

The Stated Intent of SPP 3.7 is to *implement effective, risk based land use planning and development which in the first instance avoids bushfire risk, but where unavoidable, manages and/or mitigates the risk to people, property and infrastructure to an acceptable level. The preservation of life and the management of bushfire impact are paramount.*

SITE OPERATIONS

This BMP is not an 'operational' BMP for property and operations management. Such a BMP would apply additional and more specific bushfire protection measures to more comprehensively reduce the level of risks associated with a bushfire event. These being the potential loss of life, injury, or destroyed or damaged assets which results in personal loss and economic loss.

However, this 'planning' BMP does establish certain responsibilities for the implementation and maintenance of the bushfire protection measures that are considered the minimum for bushfire planning decision making.

BUSHFIRE RESISTENT CONSTRUCTION

This 'planning' BMP is not required to consider the requirement to construct certain buildings, in designated bushfire prone areas, to the standard corresponding to the Bushfire Attack Level (BAL) they are subject to. This requirement is dealt with under the State Building Act 2011/Building Regulations 2012 and the referenced Building Code of Australia.

DETERMINED BUSHFIRE ATTACK LEVEL (BAL) RATINGS AND CONSTRUCTION – CAUTION!

For construction purposes a determined (not indicative) BAL rating is required to be known and a BAL Certificate produced for submission with a building application. This establishes the construction design and materials that are to be complied with in accordance with AS 3959 Construction in bushfire prone areas (as amended) and/or NS 300 NASH Standard Steel Framed Construction in Bushfire Areas (as amended).

This 'planning' BMP cannot necessarily determine a BAL rating that will apply to a future building. All variables required for that calculation may not be known at the assessed stage of planning. For example, actual location of a building footprint on a lot and/or any classified vegetation that will remain, at the time of construction, within the lot or on neighbouring lots.

This 'planning' BMP is only required to identify if a viable sized building can be located on a lot and be subject to a BAL rating not exceeding BAL-29, based on certain allowable assumptions. This is a planning requirement not a building requirement and a BAL contour map can be used to illustrate this information as an 'indicative' BAL rating.

Be aware that typically you cannot derive the determined BAL rating for a future building(s) on a specific lot from a BAL contour map (when presented in a BMP prepared for planning approval purposes). This is only possible in limited circumstances.

Planning assessment requirements are different to building assessment requirements. Refer to explanatory information above and Appendix B1 for additional information.

1 THE PLANNING PROPOSAL

1.1 Details, Plans and Maps

SUBJECT LAND AND PROPONENT (LANDOWNER)	
Address Details	275 Scenic Dr, Wanneroo WA 6065
Applicable Local Government	28 hectares
Proponent	City of Wanneroo
Entity Commissioning Production of the BMP	Hodge Collard Preston Architects

THE PLANNING PROPOSAL STAGE AND TYPE		
Strategic Planning Document	☐	N/A
Structure Plan	☐	N/A
Subdivision Application	☐	N/A
Development Application	☑	Construction of a habitable building that is subject to bushfire planning requirements.

DESCRIPTION
Proposed Sports Hub

EXPLANATORY INFORMATION

Note: A habitable building is defined in the *Planning and Development (LPS) Regulations 2015* to mean:

A permanent or temporary structure on land that:

(a) Is fully or partially enclosed; and

(b) Has at least one wall of solid material and a roof of solid material; and

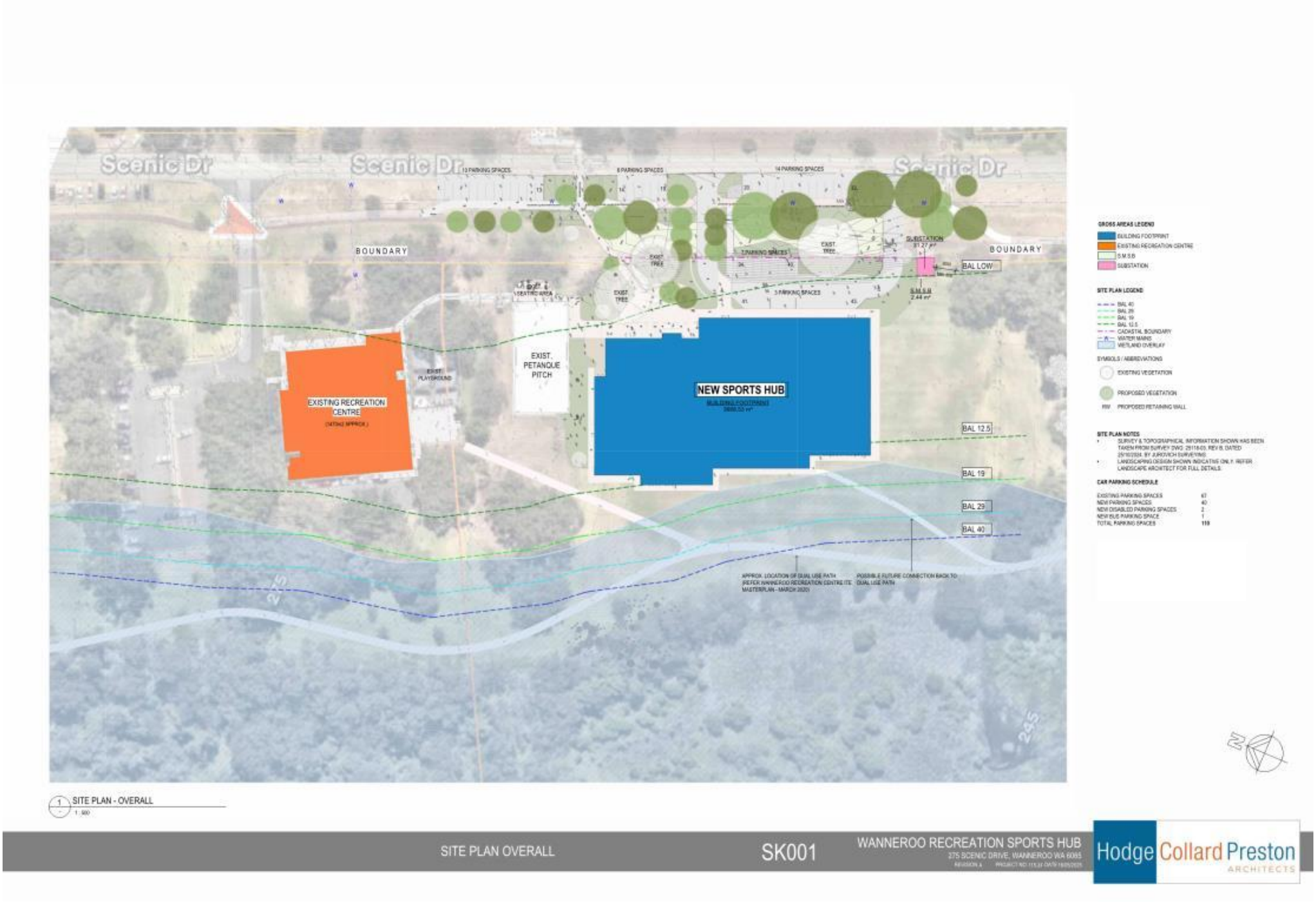
(c) Is used for a purpose that involves the use of the interior of the structure by people for living, working, studying or being entertained.

The Primary Proposed Construction		
Type(s)	New Building(s)	N/A
BCA Classification	Class 9b (assembly building)	N/A

Vulnerable Land Use Determination	
Applying the definition established in SPP 3.7:	
• A land use which is designed to accommodate people who are less physically or mentally able and likely to present evacuation challenges; and/or	☐
• A land use which due to the building design or use, or the number of people accommodated, likely to present evacuation challenges; and/or	☑

• A land use which involves visitors who are unfamiliar with the surroundings.	☑
Applying the guidance established in the Guidelines, Appendix B5 in determining whether a day use is vulnerable, consideration is to be given to:	
• The location and to the number of employees and visitors on-site at any one time; and	☑
• If the decision-maker considers that the preparation of a bushfire emergency plan is warranted, then the use should be considered vulnerable.	☐
Assessment Supporting Details: The Sports Hub will have children and adults who are not familiar with the area.	

Development Type for Assessment Against the Bushfire Protection Criteria			
Development Residential	Construction of, or addition to, a habitable building, including a single house, ancillary dwelling, grouped dwelling, multiple dwelling or mixed used development. Includes an associated Class 10A building or deck (non-habitable) within 6 m of the habitable building. *[Guidelines s6]*		
Development Commercial and Industrial	Construction of or addition to, a habitable building for commercial or industrial uses. *[Guidelines s7]*		
Development Vulnerable Land Use - Commercial and Industrial	Construction, and/or use of, or additions to a habitable building for a vulnerable commercial or industrial land use. *[Guidelines s8]*		
Development Vulnerable Land Use - Certain NCC Class 9 Buildings/Uses	Construction, and/or use of, or additions to the certain NCC 2022 Class 9 buildings subject to bushfire construction provisions and considered by the Guidelines to be relevant vulnerable land uses for the purpose of bushfire planning. *[Guidelines s8]*	Class 9a health-care building	☐
		Class 9b early childhood centre and primary or secondary school	☐
		Class 9c residential care building	☐
		Class 10a building or deck within 6 m of the relevant Class 9 building.	☑
Development Vulnerable Land Use - Tourism Land Uses and Day Uses	For the construction, and/or use of, or additions to a habitable building for a vulnerable tourism land use. *[Guidelines s8]*	Tourist and visitor accommodation.	☐
		Day Uses (no overnight stay)	☑
		Outdoor Events (may include overnight camping).	☐
		Caravan Park, nature based park and/or camping ground, with or without a habitable building(s).	☐
Assessment Supporting Details: The Sports Hub is intended for day-use only.			



1 SITE PLAN - OVERALL
1 : 500

SITE PLAN OVERALL SK001 WANNEROO RECREATION SPORTS HUB
375 SCENIC DRIVE, WANNEROO WA 6065
Hodge Collard Preston ARCHITECTS



Proposed Development

Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo

------ LEGEND ------

- Subject Site
- Cadastral
- Hydrants
- 150m Assessment Area
- 100m Assessment Area

Buildings

- Existing Playground
- Existing Recreation Building
- New Sports Hub
- Driveways / Accessways

0 20 40 60 80 100

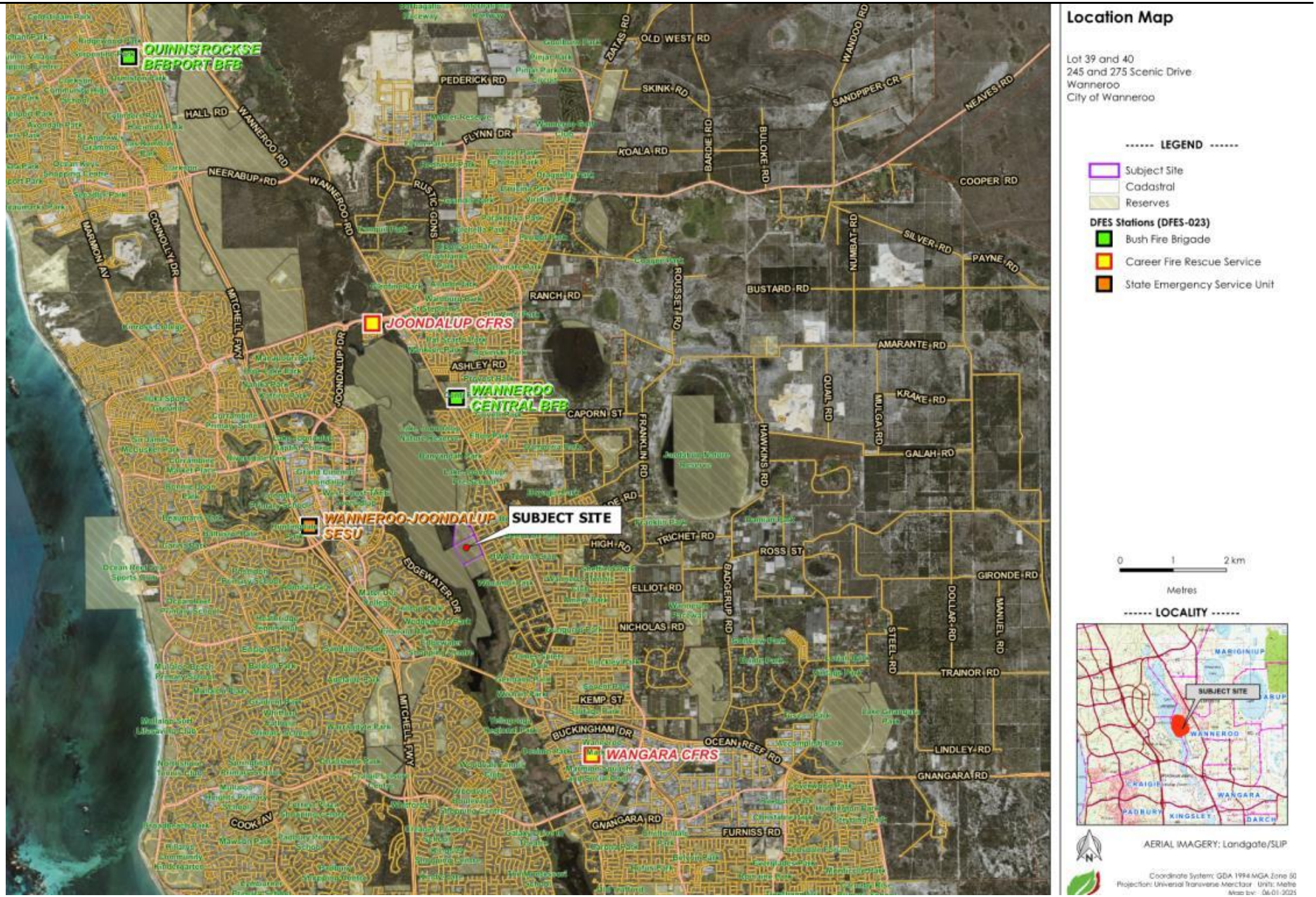
Metres

------ LOCALITY ------



AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map by: 27-05-2025


Location Map
Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo
LEGEND
Subject Site
Cadastral
Reserves
DFES Stations (DFES-023)
Bush Fire Brigade
Career Fire Rescue Service
State Emergency Service Unit
QUINNS ROCKSE BFB
PORT BFB
JOONDALUP CFRS
WANNEROO CENTRAL BFB
WANNEROO-JOONDALUP SESU
SUBJECT SITE
WANGARA CFRS
OLD WEST RD
PEDERICK RD
SKINK RD
HALL RD
WANNEROO RD
FLYNN DR
KOALA RD
NEERABUP RD
COOPER RD
SILVER RD
PAYNE RD
BUSTARD RD
RANCH RD
AMARANTE RD
ASHLEY RD
CAPORN ST
KRAKE RD
GALAH RD
TRICHET RD
ROSS ST
GIRONDE RD
ELLIOT RD
NICHOLAS RD
TRAINOR RD
KEMP ST
BUCKINGHAM DR
OCEAN REEF RD
LINDLEY RD
GNANGARA RD
FURNISS RD
COOK AV
MARMION AV
CONNOLLY DR
MITCHELL FWY
JOONDALUP DR
RUSTIC GDNS
ROUSSET RD
FRANKLIN RD
HAWKINS RD
QUAIL RD
MULGA RD
BARDIE RD
BULOKE RD
NUMBAT RD
ZATAS RD
WANDOO RD
SANDPIPER CR
NEAVES RD
EDGEWATER DR
BADGERUP RD
STEEL RD
DOLLAR RD
MANUEL RD
0 1 2 km
Metres
LOCALITY
MARIGINIUP
SUBJECT SITE
WANNEROO
CRAIGIE
WANGARA
PADBURY
KINGSLEY
DARCH
AERIAL IMAGERY: Landgate/SLIP
Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre

1.2 The Need to Apply Bushfire Planning Requirements

EXPLANATORY INFORMATION

Note: 'Development' means the development or use of any land, including (a) any demolition, erection, construction, alteration of or addition to any building or structure on the land (b) the carrying out on the land of any excavation or other works (Planning and Development Act 2005, Part1, s.4; and

'Development Site' means that part of a lot on which a building that is the subject of development stands or is to be constructed - Planning and Development (LPS) Regulations 2015, s.78A.

1.2.1 The Statutory Triggers to Lodge an Application for Planning Approval

A PLANNING APPLICATION IS TO BE SUBMITTED TO WAPC FOR DETERMINATION

The proposed development (construction and/or use) is a category for which WAPC is the decision maker rather than the local government.

Determination will be made under the Planning and Development Act 2005, its relevant subsidiary legislation and associated State Planning Policies.

As the subject site is wholly or partly within a designated bushfire prone area (Map of Bushfire Prone Areas), due regard must be given to State Planning Policy 3.7 Bushfire.

A PLANNING AND A BUILDING APPLICATION IS TO BE SUBMITTED TO THE LOCAL GOVERNMENT FOR DETERMINATION

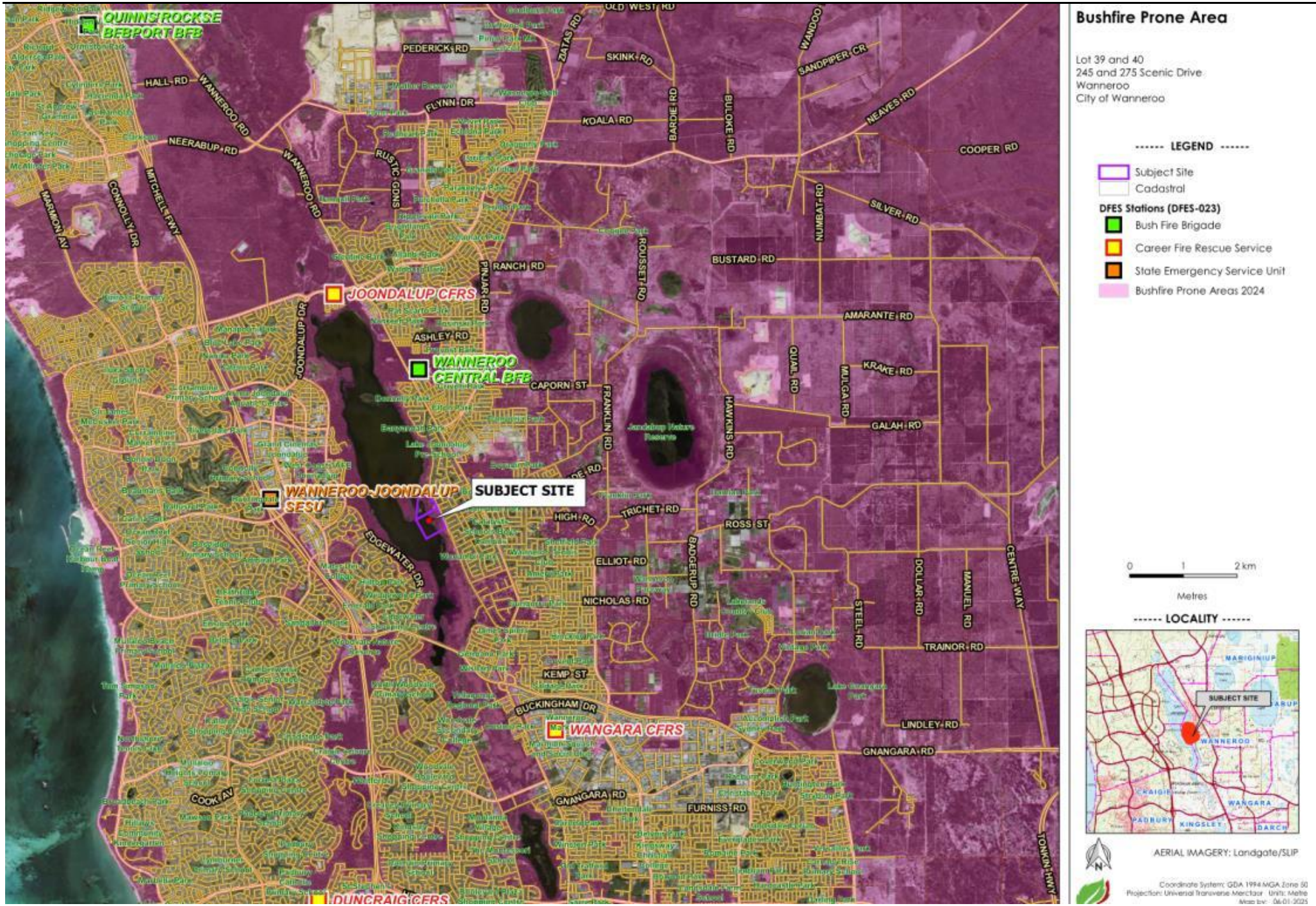
For the proposed development (construction and/or use) the local government is the decision maker. The local government determination will be made under:

- The Planning and Development Act 2005, its relevant subsidiary legislation (e.g. Regulations) and associated policies that establish the objectives and high-level guidance; and/or
- The local government's local planning scheme and associated policies that establishes objectives and guidance, specific to the jurisdiction, in addressing the requirements established by the above legislation and associated policy.

The statutory triggers to require development approval and therefore be subject to planning schemes and bushfire planning policies, are identified below.

BUILDING APPLICATION REQUIRES A BAL RATING The proposed development includes the construction of a building. It requires a building permit (under the Building Act 2011 / Building Regulations 2012) and is subject to the Building Code of Australia. A building permit application must be submitted to the local government. The proposed development is in a designated bushfire prone area (Map of Bushfire Prone Areas) and is a class of building subject to bushfire construction requirements in accordance with the Building Code of Australia (i.e. Classes 1, 2, 3 buildings and associated Class 10a, and certain Class 9 buildings). A Bushfire Attack Level (BAL) is to be calculated for the building to determine the bushfire resistant construction requirements to be applied. (and a BAL certificate provided).	-
WHERE PRE-DEVELOPMENT BUSHFIRE ATTACK LEVEL (BAL) OF RELEVANT BUILDINGS IS BAL-40 OR BAL-FZ The Deemed Provisions in Schedule 2 of the Planning and Development (Local Planning Schemes) Regulations 2015, Part 10A – Bushfire risk management, establish: 1. If the proposed development is: (a) The construction or use, or construction and use, of a single house or ancillary dwelling on a lot or lots with a total area of 1,100 m^2 or more; or (b) The construction or use, or construction and use, of	✓

(i) a habitable building other than a single house or ancillary dwelling; or (ii) a specified building; and (c) Is not the use of a dwelling as hosted or unhosted short-term rental accommodation (STRA) which is specifically excluded; and 2. The development site is wholly or partly within a designated bushfire prone area (Map of Bushfire Prone Areas), requiring the developer to have prepared a BAL assessment for the development site: then 3. Where the pre-development (before the establishment of an APZ), calculated bushfire attack level of the development site is BAL-40 or BAL-FZ, then the developer must have development approval to commence any development on the development site.	
Assessment Supporting Details: None required.	



Bushfire Prone Area

Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo

------ LEGEND ------

- Subject Site
- Cadastral

DFES Stations (DFES-023)

- Bush Fire Brigade
- Career Fire Rescue Service
- State Emergency Service Unit
- Bushfire Prone Areas 2024

0 1 2 km

Metres

------ LOCALITY ------

AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map by: 04-01-2025

1.2.2 The Need to Apply State Planning Policy 3.7 Bushfire

EXPLANATORY INFORMATION

State Planning Policy 3.7 Bushfire (SPP 3.7) provides broad objectives and high-level guidance for how planning proposals and development applications within bushfire prone areas should be considered. Implementation is supported by more detailed instructions within the *Planning for Bushfire Guidelines*.

The following table identifies the guidance that has resulted in the planning proposal being required to apply SPP 3.7.

Inconsistent Guidance: As of December 2024, there are inconsistences between the messaging within SPP 3.7, the Guidelines and the legislated 'triggers' to lodge proposals, plans and applications for planning approval (refer to the triggers identified in the previous section of this BMP).

Until amendments are progressed, the advice from WAPC/DPLH is that the decision maker should apply SPP 3.7 and the Guidelines as they deem necessary. *(Source: Explanatory Note SPP 3.7, DPLH, 25/11/24)*

Bushfire Prone Planning's Current Approach:

- To apply the guidance for requiring assessment against SPP 3.7/Guidelines in accordance with the current version (November 2024) of Planning for Bushfire Guidelines (Guidelines) in Sections 6, 7 and 8 - as it is aligned with the current version (3 Nov 2024) of the LPS Regulations 2015; unless
- It is deemed necessary by the decision maker to apply SPP 3.7/Guidelines and this is confirmed in writing to the proponent.

	SPP 3.7 AND THE GUIDELINES - ESTABLISHING THE NEED TO GIVE DUE REGARD TO SPP 3.7	APPLICABLE
1	THE LAND SUBJECT TO THE PLANNING PROPOSAL IS:	
	Designated bushfire prone and 'Area 1 (Urban)' on the Map of Bushfire Prone Areas (refer to Figure 1.4); or	No
	Designated bushfire prone and 'Area 2' on the Map of Bushfire Prone Areas (refer to Figure 1.4).	Yes
	AND	
2	THE PLANNING PROPOSAL WILL:	
	Result in the intensification of development (or land use); or	Yes
	Result in an increase of visitors, residents or employees; or	Yes
	Adversely impact or increase the bushfire risk to the subject or surrounding site(s).	No
	AND	
3	THE PLANNING PROPOSAL IS A: (Source: Guidelines s.8) This section applies to development applications in areas designated as Area 1 (Urban) or Area 2 on the Map of BPA for the construction and/or use of, or additions to: o A habitable building for: - A vulnerable commercial or industrial land use; - A vulnerable Class 9 building identified within the 2022 edition of the Building Code of Australia (BCA); or - A vulnerable tourism land use. o A caravan park, nature-based park and/or camping ground, with or without a habitable building(s).	

	Note: A development application for additions to a vulnerable land use should address the bushfire protection criteria for the entire site. It should be noted that there are no requirements under SPP 3.7 or the Guidelines to retrofit existing buildings to the appropriate bushfire construction standard, or any requirement for these existing buildings to be located within an area with a radiant heat impact not exceeding 29 kW/m^2 (BAL-29).
Assessment Supporting Details: None required.	

1.3 The Required 'Bushfire Planning' Assessments and Documents

INFORMATION PRESENTED IN THIS 'PLANNING' BMP (OR THE BEP) - PROVIDED TO ACCOMPANY THE PROPONENT'S PLANNING SUBMISSION							
The requirements are established by SPP 3.7 Part 4, Guidelines Section 1.2, 4.4, 5.5, 6.4, 7.2, and 8.3. The green highlighted column identifies the required information for the subject planning proposal.		Strategic Planning Document		Structure Plan / Subdivision Application		Development Application	
Required Information	Details	Map of Bushfire Prone Areas Designation					
		Area 1 (Urban)	Area 2	Area 1 (Urban)	Area 2	Areas 1 & 2	
Environment - Identification of environmental, biodiversity or conservation values on subject site(s)	Presented in the BMP. Identifies how proposal siting and design avoids and/or minimises clearing of native vegetation in applying required bushfire protection measures.	BUSHFIRE PLANNING ASSESSMENTS ARE NOT REQUIRED	✓	✓	✓	✓	
BLA - Broader Landscape Assessment	Presented in the BMP. Considers subject site suitability based on exposure to bushfire hazards, potential for landscape scale bushfire, road network and suitable evacuation destinations.		✓	-	✓	-	
BHL - Bushfire Hazard Level Assessment (pre-development)	Presented in the BMP. Can include detail of treatments required to achieve BHL of moderate and/or low.		✓	-	-	-	
BAL - Bushfire Attack Level Assessment	Presented in the BMP in BAL contour map format as a requirement and in table format as an additional option.		-	✓	✓	-	
	Presented in the BMP in table format and/or BAL contour map format – dependant on which is more efficient and effective at presenting the results (e.g. BAL contour map for multiple buildings).		-	-	-	✓	
BPC - Assessment against the relevant Elements (E1 – E4) of the Bushfire Protection Criteria	Presented in the BMP. Strategic planning will necessarily focus on Element 1: Location. Can demonstrate compliance using acceptable solutions and/or an outcomes-based approach.		✓	✓ **Excluding E1**	✓	✓ **Excluding E1**	
BEP - Bushfire Emergency Plan	For vulnerable land uses only. Provided as a separate document or an addition / modification to an existing BEP or site Emergency Management Plan.		-	-	-	-	
LMP – Landscape Management Plan	For vulnerable land uses only. Provided as a separate document or an addendum to the BMP.						

1.4 Other Documents Relevant to Preparing the BMP

EXPLANATORY INFORMATION

This section identifies any known assessments, reports or plans that have been conducted and prepared previously, or are being prepared concurrently, and are relevant to the subject planning proposal.

They may have implications for the assessment of bushfire hazard threats and the identification and implementation of the bushfire protection measures that are established by this BMP.

RELEVANT DOCUMENTS

Document	Relevant	Exists	To Be Concurrently Developed	Copy Provided by Proponent / Developer	Title
Structure Plan	No	-	-	-	-
Bushfire Management Plan	No	-	-	-	-
Preliminary bushfire advice (may include a BAL contour map)	No	-	-	-	-
Bushfire Emergency Plan	Yes	No	-	-	-TBD
Implications for the BMP: Typically, a Bushfire Evacuation Plan (BEP) is required for a vulnerable use which, given its operational nature,could be provided at a later stage of development as required by the decision maker.					
Bushfire Risk Report	No	-	-	-	-
Environmental Asset or Vegetation Survey	No	N/A	N/A	N/A	-
Landscape Management Plan	No	-	-	-	-
The site is part of an existing management program on an established reserve. No native vegetation will be removed or planted as part of the development.					
Revegetation Plan	No	-	-	-	-

2 ENVIRONMENTAL CONSIDERATIONS – NATIVE VEGETATION

EXPLANATORY INFORMATION

Some bushfire prone areas also have high biodiversity values. SPP3.7 objective 5.4 prioritises the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.

Clearing or modification of native vegetation for the purpose of land use or development is assessed under **State Planning Policy 2: Environment (SPP 2), State Planning Policy 2.8: Bushland policy for the Perth Metropolitan Region (SPP 2.8)** and relevant environmental legislation. A key objective of these polices is to avoid development that may result in unacceptable environmental damage.

Any 'modification' or 'clearing' of vegetation to reduce bushfire risk is considered 'clearing' under the ***Environmental Protection Act 1986*** (EP Act) and requires a clearing permit under the ***Environmental Protection (Clearing of Native Vegetation) Regulations 2004*** (Clearing Regulations) – unless for an exempt purpose.

Clearing native vegetation is an offence, unless done under a clearing permit or the clearing is for an exempt purpose. Exemptions are contained in the EP Act or are prescribed in the Clearing Regulations (note: these exemptions do not apply in environmentally sensitive areas).

The ***Department of Water and Environmental Regulation*** (DWER) is responsible for issuing 'clearing' permits and the framework for the regulation of clearing. Approvals under other legislation, from other agencies, may also be required, dependent on the type of flora or fauna present.

Local Planning Policy or Local Biodiversity Strategy: Natural areas that are not protected by the above Act and Regulation (or any other National or State Acts) may be protected by a local planning policy or local biodiversity strategy. Permission from the local government will be required for any modification or removal of native vegetation in these Local Natural Areas (LNA's). Refer to the relevant local government for detail.

For further Information refer to Native vegetation clearing permits | Western Australian Government, the Planning for Bushfire Guidelines (as amended) and the Bushfire and Vegetation Factsheet - WAPC, Dec 2021.

2.1 Biodiversity or Conservation Values Identified

EXPLANATORY INFORMATION

The required information, relevant to bushfire planning and informing the production of this BMP, is sourced and presented as indicated below.

Note that where a 'desktop' assessment has been conducted, this should not be considered a replacement for a full Environmental Impact Assessment. It is a summary of potential biodiversity or conservation values at the subject site, inferred from information contained in public available datasets and/or reports, which are only current to the date of last modification.

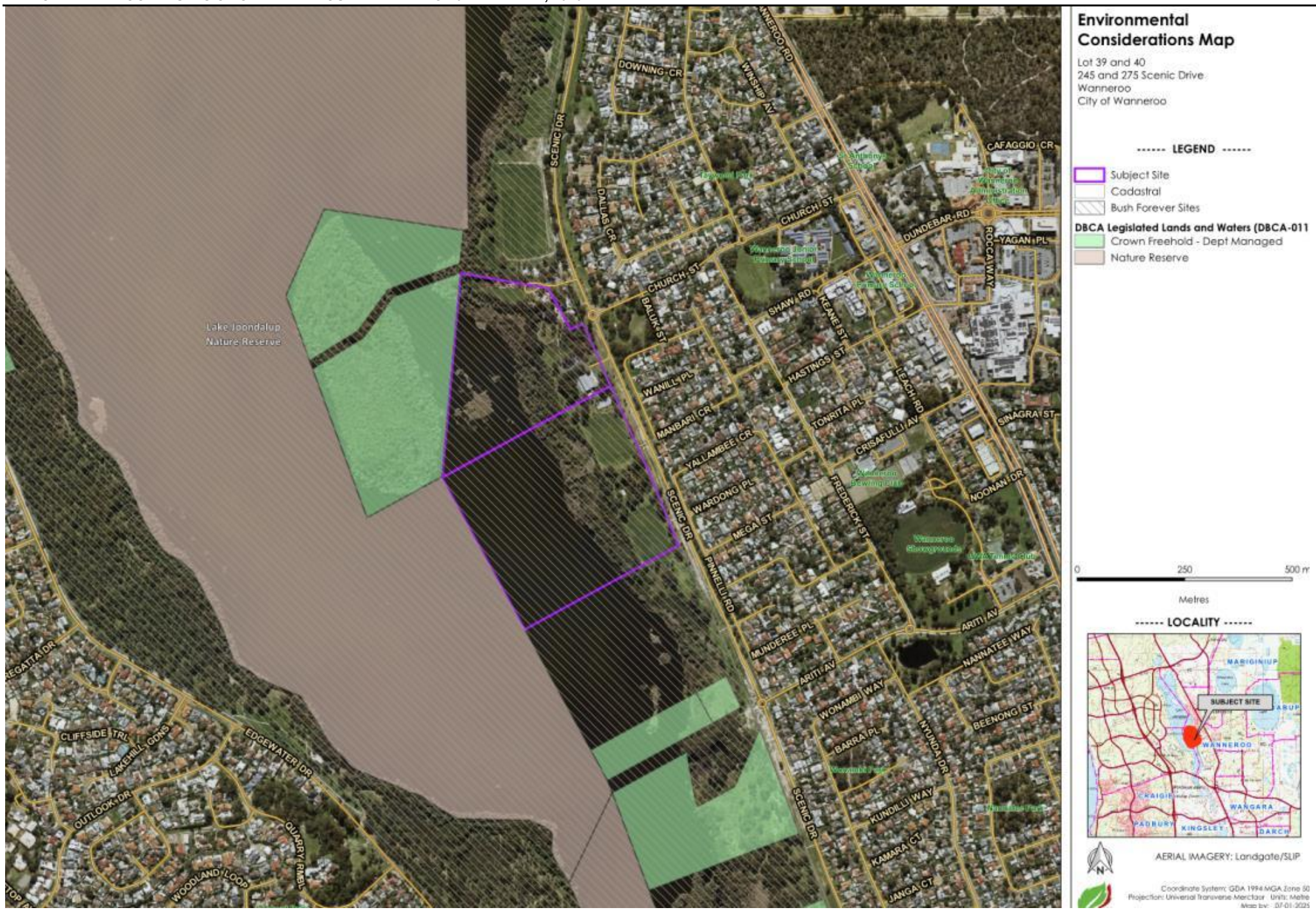
The information provided in the BMP should be considered indicative where the subject site has not previously been subject to a site-specific environmental assessment by an appropriate professional.

The required information is sourced from the environmental/planning consultant report developed for the subject site and provided to the bushfire consultant (details below when applicable). The information it contains is not repeated in this BMP as it will accompany the planning submission. The implications for the subject planning proposal and this BMP are stated below when relevant.	No Report Available / Provided
The required information is sourced by the bushfire consultant as a 'desktop' assessment from publicly available data bases and/or a local government's local biodiversity strategy or local planning strategy. When applicable, this information is presented on the following pages of this BMP.	No Report Available / Provided

IDENTIFICATION OF RELEVANT BIODIVERSITY OR CONSERVATION VALUES							
Dataset	Relevant to Subject Planning Proposal	Influence on Bushfire Threat Levels and / or Application of Bushfire Protection Measures	Information Source(s) Applied				Further Action Required by Proponent
			WA Govt. Agency Dataset (ID)		Landowner or Developer Statements	Environmental Asset or Vegetation Survey Report	
Department of Biodiversity, Conservation and Attractions (DBCA) Datasets							
Conservation Category Wetlands and Buffer (geomorphic wetlands – relevant area)	N/A	-	☒	DBCA-011	☐	☐	None
RAMSAR Sites (wetlands of international importance)	N/A	-	☒	DBCA-010	☐	☐	None
Threatened and Priority Flora	N/A	-	Restricted Scale of Data Available (security)	DBCA-036	☐	☐	None
Threatened Ecological Communities	N/A	-		DBCA-038	☐	☐	None
Legislated Lands and Waters (national/conservation parks, nature/crown reserves, state forest)	Yes	Yes - Significant	☒	DBCA-011	☐	☐	Confirm with relevant agency
Department of Planning, Lands and Heritage (DPLH) Datasets							
Bush Forever Areas 2000	Yes	Yes - Significant	☒	DPLH-019, 022 and MRS Bush Forever	☐	☐	Confirm with relevant agency
Department of Water and Environmental Resources (DWER) Datasets							
Clearing Regulations – Environmentally Sensitive Areas	N/A	-	☒	DWER-046	☐	☐	None
Swan Bioplan Regionally Significant Natural Areas 2010	N/A	-	☒	DWER-070	☐	☐	None

ADDITIONAL INFORMATION

Bushforever located on the western/riverbank boundary. It is a Class A Forest vegetation. This cannot be managed by the proponent.


Environmental Considerations Map
Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo
------ LEGEND ------
Subject Site
Cadastral
Bush Forever Sites
DBCA Legislated Lands and Waters (DBCA-011
Crown Freehold - Dept Managed
Nature Reserve
Lake Joondalup Nature Reserve
DOWNING CR
WANNEROO RD
SCENIC DR
DALLAS CR
CHURCH ST
DUNDEBAR RD
CAFAGGIO CR
YAGAN PL
ROCCA WAY
BALUK ST
SHAW RD
KEANE ST
HASTINGS ST
WANILL PL
MANBARI CR
YALLAMBEE CR
WARDONG PL
MEGA ST
TONRITA PL
LEACH RD
CRISAFULLI AV
SINAGRA ST
NOONAN DR
FREDERICK ST
PINNELLI RD
MUNDEREE PL
ARITI AV
NANNATEE WAY
WONAMBI WAY
BARRA PL
NYUNDA DR
BEENONG ST
KUNDILLI WAY
KAMARA CT
JANGA CT
REGATTA DR
CLIFFSIDE TRL
LAKEHILL GDNS
EDGEWATER DR
OUTLOOK DR
QUARRY RMBL
WOODLAND LOOP
0
250
500 m
Metres
------ LOCALITY ------
MARIGINIUP
SUBJECT SITE
WANNEROO
CRAIGIE
WANGARA
PADBURY
KINGSLEY
DARCH
AERIAL IMAGERY: Landgate/SLIP
Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre

ADDITIONAL INFORMATION

Bush forever located on the western/riverbank boundary. It is a Class A Forest vegetation. This cannot be managed by the proponent.

2.2 Response of the Planning Proposal to Protection of Native Vegetation

The protection of native vegetation is to be prioritised by avoiding areas that would require clearing or modification of native vegetation, specifically for the purpose of bushfire mitigation (BMP Manual, November 2024 DPLH).

SOLUTIONS APPLIED TO MINIMISE NATIVE VEGETATION REMOVAL / MODIFICATION	
Clearing and/or modification of native vegetation is proposed and necessary.	Not required
Conservation Response	
The proposal reserves native vegetation for conservation, recreation or environmental protection purpose. These can include ecological linkage, local natural area, waterway, or foreshore area or wetland buffer.	Not required
Siting / Design / Construction Responses	
Reduction in the proposed intensification of land use or development potential.	Not required
Containing or clustering areas of intensification of land use to reduce clearing requirements.	Not required
Consideration of locating proposed development to have greater initial vegetation separation distances from bushfire hazards by utilising non-vegetated interfaces.	Not required
Modification or redesign of the proposed areas of intensification of land use to avoid areas with high environmental, biodiversity or conservation values.	Considered and applied
Assessment Supporting Details: Proposed buildings moved to be site in BAL-19 and avoid clearing native vegetation.	
The proposal has applied a reduction in the intensification of land use or development potential (e.g. reduced lot yield or smaller building footprints), to ensure the retention of greater areas of native vegetation while achieving the required vegetation separation distances to limit exposure to unacceptable levels of potential bushfire impact.	Not required
The proposal situates required non-vegetated elements (e.g. footpaths, paved areas, roads, parking, open drainage channels, and major services delivery installed in common corridors), between bushfire hazards and elements at risk – to effectively achieve required vegetation separation distances with less vegetation clearing and/or modification.	Not required
The proposal applies building envelopes, and these have located to minimise the requirement to clear and/or modify native vegetation.	Not required
The proposal utilises the clustering habitable buildings to reduce requirements for native vegetation clearing and/or modification.	Not required

The proposal aligns roads and pathways to work around trees and other vegetation, preserving their ecological values.	Not required
The proposal establishes requirements for the construction of building(s) to satisfy the requirements corresponding to higher BAL ratings to ensure a reduced vegetation separation distance requirement.	Not required

3 THE BUSHFIRE HAZARD – POTENTIAL IMPACT - LANDSCAPE AND VEGETATION DATA

3.1 Bushfire Attack Level (BAL) Assessment Summary (Contour Map Format)

EXPLANATORY INFORMATION

Caution! Future building works require a 'determined' BAL rating for building permit applications. When a BAL contour map is being used for planning assessment purposes, (as opposed to a building assessment purpose), the required 'determined' BAL rating typically is not able to be derived from the map (there are only limited scenarios where this is possible).

The BAL ratings identified from the map will more likely be only 'indicative' of what can be achieved – with planning compliance for this factor being achieved when BAL-29 is indicated.

Otherwise, an additional assessment of the site data for building application purposes is required, and potentially approval will need to be obtained for native vegetation modification and/or removal from the relevant authority.

Refer to Appendix B for additional information including interpretation of the BAL Contour Map.

3.1.1 BAL Determination Methodology and Location of Data and Results

LOCATION OF DATA & RESULTS					
BAL Determination Methodology		Location of the Site Assessment Data			Location of the Results
AS 3959:2018	Applied to Assessment	Classified Vegetation and Topography Map(s)	Calculation Input Variables		Assessed Bushfire Attack Levels and/or Radiant Heat Levels
			Summary Data	Detailed Data with Explanatory and Supporting Information	
Method 1 (Simplified)	Yes	Figure 3.1	Table 3.2	Appendix A1	Table 3.1 Table 3.3 / BAL Contour Map
Method 2 (Detailed)	No	N/A	N/A	N/A	

3.1.2 BAL Ratings Derived from the Contour Map

Table 3.1: Indicative and determined BAL(s) for existing and/or proposed building works.

BUSHFIRE ATTACK LEVEL FOR EXISTING/PLANNED BUILDINGS/STRUCTURE [1]		
Building/Structure Description	Indicative BAL [2]	Determined BAL [2]
Sports Hub	BAL-LOW	BAL-19

[1] The assessment data used to derive the BAL ratings is sourced from Table 3.1 and Figure 3.2 'BAL Contour Map'.

[2] Refer to the start of Section 3 for an explanation of indicative versus determined BAL ratings.

3.1.3 Site Assessment Data Applied to Construction of the BAL Contour Map(s)

RELEVANT CLASSIFIED VEGETATION	
Identification of Classified Vegetation that is Relevant to the Production of the BAL Contour Map(s)	Relevant Vegetation Map
The relevant vegetation will be all areas of classified vegetation that exist at the time of the site assessment – both within the subject site (onsite) and external to the subject site (offsite).	Figure No 3.1
The relevant vegetation for the post-development BAL contour map will be any area of classified vegetation - both within the subject site (onsite) and external to the subject site (offsite) - that will remain at the intended end state of the subject development once earthworks, any clearing and/or landscaping and re-vegetation have been completed.	Figure No 3.1
Supporting Assessment Details: None required.	

Table 3.2: Calculation inputs applied to deriving the vegetation separation distances corresponding to different levels of potential radiant heat transfer.

DATA APPLIED TO CALCULATE THE SITE SPECIFIC VEGETATION SEPARATION DISTANCES CORRESPONDING TO POTENTIAL RADIANT HEAT TRANSFER LEVELS [1]												
Applied BAL Determination Method		METHOD 1 - SIMPLIFIED PROCEDURE (AS 3959:2018 CLAUSE 2.2)										
The Calculation Input Variables - Corresponding to the Applied BAL Determination Method [2]												
Methods 1 and 2		Method 1			Method 2							
Vegetation Classification		FDI	Effective Slope		Site Slope	FFDI or GFDI	Flame Temp.	Elevation of Receiver	Flame Width	Fireline Intensity	Flame Length	Modified View Factor
			Applied Range	Measured								
Area	Class		degree range	degrees	degrees		K	metres	metres	kW/m	metres	% Reduction
1	(A) Forest	80	Downslope >0-5	d/slope 2								
3	Excluded cl 2.2.3.2(e & f)	N/A	N/A	-								

Note 1: The values used to indicate levels of potential radiant heat transfer (from fire in bushfire prone vegetation to exposed elements at risk), will be stated in subsequent tables as either as a bushfire attack level (BAL) and/or as kilowatts per square metre (kW/m2), as relevant to the application of the value and the type and use of the element at risk.

Note 2: All data and information supporting the determination of the classifications and values stated in this table is presented in Appendix A. Where the values are stated as 'default' these are either the values stated in AS 3959:2018, Table B1 or the values calculated as intermediate or final outputs through application of the equations of the AS 3959:2018 BAL determination methodology. They are not values derived by the assessor.

Table 3.3: Vegetation separation distances corresponding to the stated levels of potential radiant heat transfer.

THE CALCULATED (SITE SPECIFIC) VEGETATION SEPARATION DISTANCES CORRESPONDING TO THE STATED LEVEL OF POTENTIAL RADIANT HEAT TRANSFER (METRES) [1]									
Vegetation Classification		Maximum Radiant Heat Transfer (Flux)							
		>40 kW/m²	40 kW/m²	29 kW/m²	19 kW/m²	12.5 kW/m²	N/A [2]	10 kW/m²	2 kW/m²
		Bushfire Attack Levels							
Area	Class	BAL-FZ	BAL-40	BAL-29	BAL-19	BAL12.5	BAL-LOW		
1	(A) Forest	<20	20-<27	27-<37	37-<50	50-<100	>100		
2	Excluded cl 2.2.3.2(e & f)	N/A	N/A	N/A	N/A	N/A	N/A		

Note 1: The calculated results are illustrated in Figure 3.2 as a BAL Contour Map and/ or additional defining lines as necessary. All applied calculation input variables are presented in Table 3.2. A copy of the radiant heat calculator output for each area of classified vegetation is presented in Appendix A3.

Note 2: The BAL-LOW rating does not represent a maximum level of radiant heat transfer. The rating is applied when the separation distance is at least 100m from all classified vegetation except Grassland, for which 50m applies.



Classified Vegetation & Topography (Existing)

Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo

------ LEGEND ------

- Subject Site
- Cadastral
- Photo and Direction
- Hydrants
- Vegetation Distance (m)
- 150m Assessment Area
- 100m Assessment Area

Classified Vegetation

- Forest
- Excluded 2.2.3.2 (e and f)

Buildings

- Existing Playground
- Existing Recreation Building
- New Sports Hub

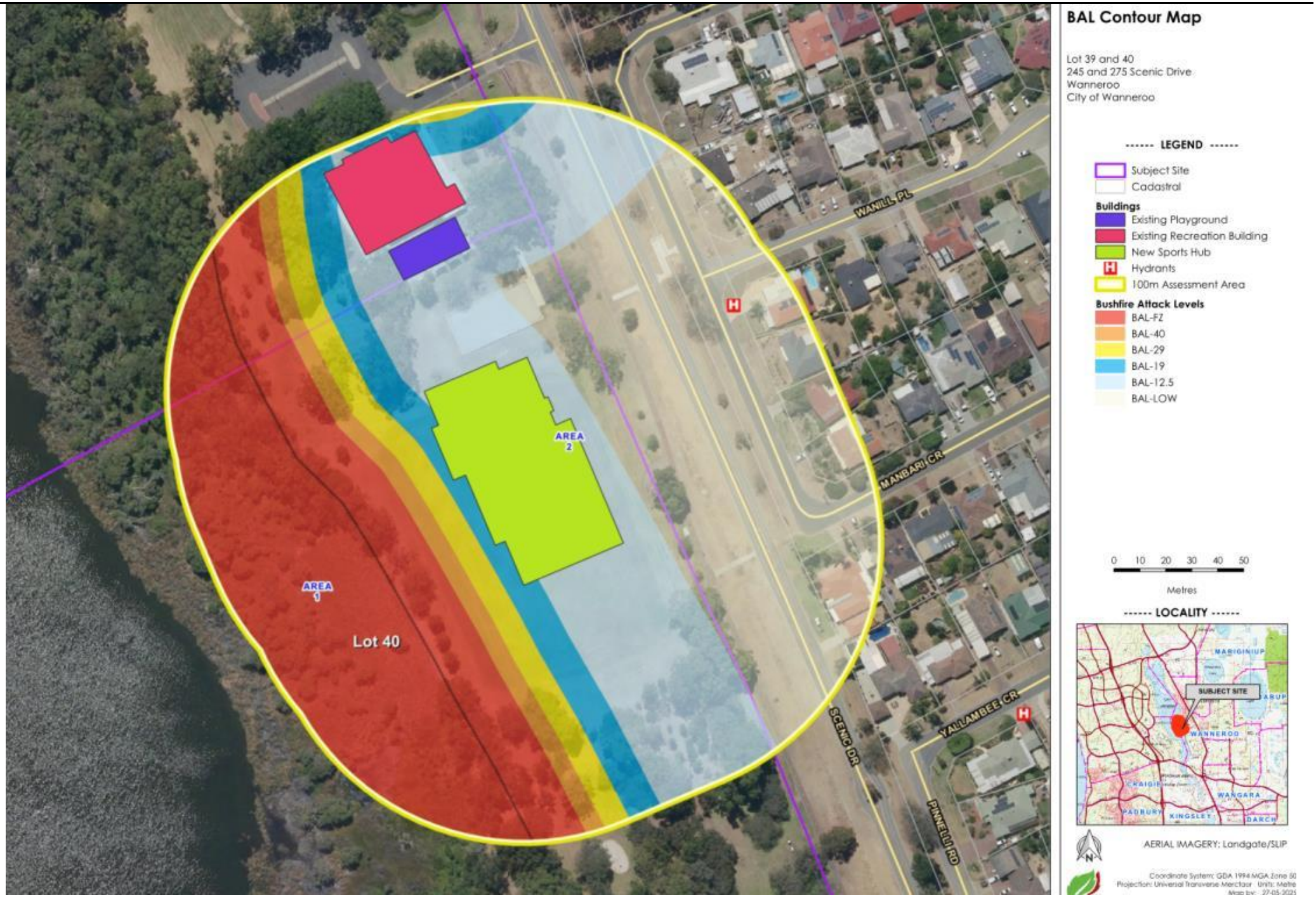
0 20 40 60 80 100

Metres

------ LOCALITY ------

AERIAL IMAGERY: Landgate/SLIP

Coordinate System: GDA 1994 MGA Zone 50
Projection: Universal Transverse Mercator Units: Metre
Map by: 27-05-2025


BAL Contour Map
Lot 39 and 40
245 and 275 Scenic Drive
Wanneroo
City of Wanneroo
------ LEGEND ------
Subject Site
Cadastral
Buildings
Existing Playground
Existing Recreation Building
New Sports Hub
Hydrants
100m Assessment Area
Bushfire Attack Levels
BAL-FZ
BAL-40
BAL-29
BAL-19
BAL-12.5
BAL-LOW
AREA 1
AREA 2
Lot 40
WANILL PL
MANBARI CR
YALLAMBEE CR
SCENIC DR
PINNELLI RD
0 10 20 30 40 50
Metres
------ LOCALITY ------
SUBJECT SITE
MARIGINIUP
WANNEROO
CRAIGIE
WANGARA
PADBURY
KINGSLEY
DARCH
AERIAL IMAGERY: Landgate/SLIP

4 IDENTIFICATION OF BUSHFIRE HAZARD ISSUES

The subject site is recognised as a Bushforever reserve even though there is clear distinction between areas that are currently managed to a parkland setting and unmanaged native riparian vegetation along the western/riverbank boundary, which must be classified under AS3959 as Class A Forest vegetation. This cannot be managed by the proponent. No additional revegetation of this locality is envisaged.

The site is readily accessible via Scenic Drive and the lot is reticulated therefore complying with the relevant Bushfire Prone Citeria. The building is a Class 9b assembly building and may require a Bushfire Evacuation Plan (if requested by local government).

The Broader Landscape/Environment – The Potential for Bushfire Intensification and Extreme Events	
The type of bushfire prone vegetation surrounding the proposed development. Referencing the potential levels of each bushfire threat mechanism (direct and indirect).	The western river boundary to the subject site is predominantly Class A Forest. The broader surrounding is a residential suburban which is managed.
The extent of bushfire prone vegetation surrounding the proposed development – both in area and continuity (fragmentation). Identification of conserved vegetation.	The Class A Forest within the subject site is Bush Forever. This is a continuous vegetation to the north and south.
The potential for the surrounding topography to support known dynamic fire behaviours that can lead to an extreme fire event and intensification through atmospheric interaction (pyroconvective events).	Bushfires are possible within the locality however these would only be along the Lake Joondalup edge. The broader landscape is flat or undulating terrain.
Broader Landscape Assessment - Bushfire Threat Levels Not Considered in the	
The proximity of settlements and availability of emergency services	The subject site is part of a large area of urban settlement. Wanneroo Central Bushfire Brigade is located 6 minutes from the proposed development.
BAL Assessment	
Constraints to implementing required and/or additional bushfire protection measures	None
Constraints to implementing required BPM due to Vegetation with enviro/conserve values	
Potential constraints	None

Issues to be Considered at Subsequent Planning Stages (additional assessments/documents)	
Specific land uses to be addressed	N/A
Additional assessments	N/A
Additional documents	Bushfire Evacuation Plan

5 ASSESSMENT AGAINST THE BUSHFIRE PROTECTION CRITERIA (BPC)

EXPLANATORY INFORMATION

The bushfire protection criteria (BPC) consist of five elements each focussed on a primary set of bushfire protection measures considered by the Department of Planning, Lands and Heritage / the Western Australian Planning Commission, as the most important to be considered in land use planning.

[Note: the additional primary bushfire protection measure of bushfire construction requirements that are to apply to certain classes of habitable buildings in WA (corresponding to their assessed Bushfire Attack Level) - is implemented through the process of applying the Building Code of Australia (Volumes 1 and 2 of the National Construction Code) in accordance with WA building legislation – not through any planning legislation].

The elements of the BPC are Location (applicable to strategic and structure plan/subdivision planning stages), and Siting and Design, Vehicular Access and Water Supply (applicable to all planning stages and land uses).

The BPC establish a set of acceptable solutions that are considered a 'deemed to comply' pathway to satisfying intent, objectives and outcomes of State Planning Policy 3.7 Bushfire (SPP 3.7).

When all applicable acceptable solutions cannot be met, the use of the alternative pathway of an outcomes-based approach is available. In brief, this involves the development of a merit based case, specific to the planning proposal, that potentially involves the use of innovative, alternative and or additional bushfire protection measures and addressing the level of risks associated with a bushfire event. This is then presented to the decision-maker for their discretionary decision.

The requirement to prepare a Bushfire Emergency Plan (BEP) for vulnerable land uses is an additional bushfire protection measure established by SPP 3.7. This is to be produced as a separate standalone operational document. However, some requirements identified in the BEP may necessarily incorporated into this BMP and the responsibilities it creates.

5.1 Local Government Variations to Apply

EXPLANATORY INFORMATION

1. Local governments may add to or modify the acceptable solutions contained within the Guidelines, through regional or local variations that form part of a local planning strategy and/or local planning scheme to recognise special local or regional circumstances that reinforce the SPP 3.7 objectives and outcomes (via a scheme amendment or special control area).

   This could include acceptable solutions that address topography, vegetation or climate to the satisfaction of the Western Australian Planning Commission (WAPC) that the modifications comply with the corresponding SPP 3.7 objectives and outcomes. (Planning for Bushfire Guidelines, s. 3.4, 2024).

2. Under the relevant state legislation (LPS Regulations 2015), SPP 3.7 does not apply to hosted or unhosted short-term rental accommodation. However, the local government under its Local Planning framework (i.e. Strategy / Scheme and Policy as applicable), may require that certain bushfire protection measures or variations to the measures (the bushfire protection criteria), established by SPP 3.7 and the Guidelines, are to be applied.

Endorsed regional or local variations to the acceptable solutions apply to the assessments against the Bushfire Protection Criteria for the planning proposal?	No
The proposed land use for hosted or unhosted short-term rental accommodation, and the local government requires certain bushfire protection measures, contained within the BPC, to be applied, that under the LPS Regulations 2015, would otherwise not be required?	No

5.2 Assessment Summary

HOW THE REQUIRED BUSHFIRE PLANNING OUTCOMES OF SPP 3.7 ARE ACHIEVED FOR THE PLANNING PROPOSAL		
DEVELOPMENT – VULNERABLE TOURISM LAND USES AND DAY USES		
The Bushfire Protection Criteria (BPC) Elements and Acceptable Solutions	Compliance Pathway Applied and Assessment Outcome	
	Deemed to Comply	Outcomes-Based Approach
	Requires Compliance with All Applicable Acceptable Solutions	Expert Opinion Identifies Achieving the Required SPP 3.7 Outcomes can be Demonstrated [1]
E2: SITING AND DESIGN	Fully Compliant	Not Required
A2.1a Siting and design	Fully Compliant	
A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)	Not Applicable	
A2.2 Asset Protection Zone (APZ)	Fully Compliant	
A2.3 Clearing of native vegetation	Fully Compliant	
A2.4 Landscape management plan	Not Applicable	
A2.5 Onsite shelter (safer building) - schools	Not Applicable	
E3: VEHICULAR ACCESS	Fully Compliant	Not Required
A3.1 Public roads	Fully Compliant	
A3.2a Access routes	Fully Compliant	
A3.2b Access routes for a day use with no overnight accommodation	Fully Compliant	
A3.3a No-through roads	Not Applicable	
A3.3b No-through roads technical requirements	Not Applicable	
A3.4 Emergency access way	Not Applicable	
A3.5 Onsite shelter	Not Applicable	
A3.6 Fire service access route	Not Applicable	
A3.7 Internal vehicular access & private driveways	Fully Compliant	
A3.8 Signage	Not Applicable	
E4: WATER SUPPLY	Fully Compliant	Not Required
A4.1 Water supply	Fully Compliant	
Note 1: Assessment details addressing the criteria established by SPP 3.7 cl. 7.5, are provided in the following section when this compliance pathway is applied.		

5.3 Assessment Statements (BPC 8: Development – Vulnerable Tourism Land Uses and Day Uses)

5.3.1 Element 2: Siting and Design

ELEMENT 2: SITING AND DESIGN (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)	
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced. **EXPLANATORY INFORMATION (ADDITIONAL INFORMATION IN APPENDIX B3)** The assessment against this element of the bushfire protection criteria is a 'planning assessment' being conducted for planning approval purposes. This is not an assessment conducted for building approval purposes. The acceptable solutions and required assessment are aligned with the following bushfire planning policy guidance and to which due regard must be given: *SPP 3.7 Bushfire, Policy Objectives, cl. 5.5 states – "Prioritise the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.* *SPP 3.7 Bushfire, Policy Outcomes, cl. 6.2 - establishes that clearing of native vegetation is to be avoided or minimised in managing or mitigating bushfire risk.* *The Guidelines, Appendix B2, B.2.1 states - "clearing or modification of native vegetation to reduce the radiant heat impact below 29 kW/m² is generally not supported."* Consequently, to comply with the relevant acceptable solutions the subject planning proposal only needs to demonstrate it will be possible to install the minimum sized asset protection zone (APZ), to the required technical requirements, surrounding a habitable or specified building, while applying the APZ location constraints and allowances established by the Guidelines. The minimum sized APZ is one that will subject buildings works to BAL-29. Consequently, deriving 'determined' BAL ratings for future building works, to be used in building permit applications, is not the intended outcome of this planning assessment (although in limited situations, this outcome can also be achieved). *Note: The dimensions of the APZ that will be the responsibility of a landowner to implement and maintain around a habitable or specified building - to align the building's bushfire resistance i.e. construction, to its level of exposure to flames, radiant heat and embers - will be those corresponding to the building's 'determined' BAL rating.* *This rating will account for the building's separation distance from classified vegetation, the type of vegetation and the slope of the ground supporting that vegetation.* *The dimensions of the 'BAL-29 APZ' identified in this BMP will not necessarily be the APZ that is to be implemented and maintained by a landowner in perpetuity.*	
	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved
O2	**SPP 3.7, 6.2: Ensure siting and design solutions:** • **Manage or mitigate the bushfire risk to people, property and infrastructure; and** • **Avoid, or where unavoidable, minimises the clearing of native vegetation.**
	Statement for Compliance with Element E1 – The Deemed to Comply Pathway
E2	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.
	Alternative Pathway Applied to Achieve SPP 3.7 Outcomes

	N/A

ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS				
Check Box Legend:	☑ Relevant & met	☒ Relevant & not met	⊘ Not relevant	
A2.1a Siting and design	Applicable:	Yes	Compliant:	Yes
☐ ☐ ⊘	BPC 8 establishes A2.1a is applicable to the planning stage and land use. However, A2.1b provides an additional acceptable solution (dealing with the same protection measure), that establishes a higher level of radiant heat impact that will be considered for planning approval, if it can be satisfactorily demonstrated that the allowable constraints apply to the subject development site. For the subject planning proposal, A2.1a is not applicable as A2.1b can be satisfactorily applied.			
☑ ☐ ☐	Every habitable building achieves a radiant heat impact not exceeding 29 kW/m² (BAL-29).			
Assessment Supporting Details:				
A2.1b Siting in an area with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ)	Applicable:	No	Compliant:	-
☐ ☐ ⊘	BPC 8 establishes A2.1b is applicable to the planning stage and land use. However, A2.1a provides an additional acceptable solution that addresses the same protection measure of siting. For the subject planning proposal, A2.1b is not applicable as A2.1a can be complied with.			
☐ ☐ ⊘	The habitable building(s) or structure(s) is sited with a radiant heat impact exceeding 29 kW/m² (BAL-40 or BAL-FZ) and is unable to establish an APZ in accordance with A2.2. However, meeting **all** of the following established requirements allows consideration for approval.			
☐ ☐ ⊘	There are no bushfire construction standards required under the BCA; and			
☑ ☐ ☐	There are demonstrated site characteristics and/or environmental values that prevent the achievement of a radiant heat impact not exceeding 29 kW/m2 (BAL-29); and			
☐ ☐ ⊘	It is acknowledged within the bushfire management plan that it is understood that in the event of a bushfire it is possible the building or structure will be damaged or destroyed; and			
☐ ☐ ⊘	The vegetation immediately surrounding the building(s) or structure(s) can and will be managed as defendable space in accordance with Appendix B.2, Table 9 – APZ technical requirements.			
Assessment Supporting Details: None required.				
A2.2 Asset Protection Zone (APZ)	Applicable:	Yes	Compliant:	Yes
Where a habitable building(s) cannot be wholly within an area with a radiant heat impact not exceeding 29 kW/m² (BAL-29) in its pre-development state, an indicative APZ is to be provided and meet the following requirements for width, location and management:				
☑ ☐ ☐	**APZ Width:** The APZ, when measured from the development site (or any external wall or supporting post or column), is of sufficient size to ensure the radiant heat impact of a bushfire does not exceed 29 kW/m² (BAL-29) to any part of the building, in all circumstances.			

☑ ☐ ☐	**APZ Location – Option 1:** The indicative 'Planning BAL-29' APZ can be contained solely within the boundaries of the lot.
☐ ☐ ⊘	**APZ Location – Option 2:** The indicative 'Planning BAL-29' APZ cannot be contained solely within the boundaries of the lot. However, the relevant vegetation on the adjoining land / lot(s) is, and will continue to be, on an ongoing basis in perpetuity, low threat as per: • Clause 2.2.3.2 of AS 3959 (including non-vegetated land such as a sealed or unsealed road, or a water body); or • The requirements of the Guidelines Appendix B.2, Table 9 – APZ technical requirements; or • The alternative standard in the local planning scheme (when it exists).
☐ ☐ ⊘	**APZ Management:** The APZ can and will be managed in accordance with the requirements established in the Guidelines, Appendix B.2 or the alternative standard in the gazetted local planning scheme (when it exists).

Assessment Supporting Details:

All buildings will be sited in BAL-29 or lower. Onsite Bush forever cannot be managed so all proposed buildings will have appropriate separation distances.

A2.3 Clearing of native vegetation	Applicable:	Yes	Compliant:	Yes

☐ ☐ ⊘	The development avoids, or where unavoidable, minimises the clearing of native vegetation.

Assessment Supporting Details: None required.

A2.4 Landscape management plan	Applicable:	No	Compliant:	-

☑ ☐ ☐	A landscape management plan has been prepared to identify ongoing onsite vegetation management.

Assessment Supporting Details: The Wanneroo Recreation Centre is subject to it ongoing maintenance program.

A2.5 Onsite shelter (if required)	Applicable:	No	Compliant:	-

☐ ☐ ⊘	An onsite shelter is proposed. It will comply with A3.5 Onsite shelter and can and will meet all the relevant following established requirements.
☐ ☐ ⊘	An onsite shelter building(s) is proposed for which there is sufficient separation distance from the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 10 kW/m² (applying an assumed flame temperature of 1200 K.
☐ ☐ ⊘	The building(s) identified as suitable for onsite shelter will be designed in accordance with Building Code of Australia and the ABCB Design and Construction of Community Bushfire Refuges Handbook.
☐ ☐ ⊘	An open space area is proposed to function as an onsite shelter. There is sufficient separation distance between the open space area and the bushfire prone vegetation to avoid exposure to a radiant heat flux exceeding 2 kW/m² (applying an assumed flame temperature of 1200 K).
☐ ☐ ⊘	Pedestrian paths to any onsite shelter(s) can and will be provided and clearly signposted.

Assessment Supporting Details: None required.

5.3.2 Element 3: Vehicular Access

ELEMENT 3: VEHICULAR ACCESS (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)	
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced. The technical construction requirements for access types and components are established in the Guidelines Appendix B.3, Table 10 (certain information is copied and presented in Appendix C of this BMP). The local government will advise the proponent where different requirements are to apply and when any additional specifications such as those for signage and gates are to apply. These are included in the appendix if requested by the local government.	
O3	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved
	SPP 3.7, 6.3: Ensure the design and capacity of vehicular access and egress provide: • **For efficient and effective evacuation to a suitable destination(s); and/or** • **As a contingency measure for vulnerable land uses, an on-site shelter, where demonstrated appropriate, as a last resort option.**
E3	Statement for Compliance with Element E1 – The Deemed to Comply Pathway
	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.
	Alternative Pathway Applied to Achieve SPP 3.7 Outcomes
	N/A

ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS			
Check Box Legend:	☑ Relevant & met	☒ Relevant & not met	⊘ Not relevant
A3.1 Public roads	Applicable: Yes	Compliant: Yes	
☑ ☐ ☐	Public roads meet the technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts).		
☐ ☐ ⊘	Public roads meet the technical requirement recommended in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres.		
☐ ☐ ⊘	Public road technical requirements for minimum horizontal clearance, gradients and curves should be in accordance with the class of road as specified in the Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards, any applicable or relevant Main Roads standards, supplements, policies and any applicable or relevant local government standards or policies. The applicable class(s) of road and their technical requirements have been confirmed with the relevant local government/Main Roads WA. These can and will be complied with.		
Assessment Supporting Details: None required.			

A3.2a Access routes	Applicable:	Yes	Compliant:	Yes

☐ ☐ ⊘	BPC 8 establishes A3.2a is applicable to the planning stage and use. However, the subject planning proposal is for a day use and will not provide any overnight accommodation. Therefore, A3.2b is the applicable acceptable solution for access routes and A3.2a is not applicable.
☐ ☐ ⊘	Subject site is in Area 1 (Urban) (Map of BPA). Public road access, with all-weather surfaces, is to be provided to at least one suitable destination.
☑ ☐ ☐	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is provided in two different directions, to at least two different suitable destinations.

Assessment Supporting Details: Wanneroo Recreation Centre is serviced by Scenic Drive which provides appropriate access and egress.

A3.2b Access routes for a day use with no overnight accommodation	Applicable:	Yes	Compliant:	Yes

☐ ☐ ⊘	BPC 8 establishes A3.2b is applicable to the planning stage. However, A3.2b is not applicable to the subject planning proposal as it will provide overnight accommodation.
☐ ☐ ⊘	Subject site is in Area 1 (Map of BPA). Public road access, with all-weather surfaces, is to be provided in one direction to a single suitable destination.
☑ ☐ ☐	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is to be provided in two different directions, to at least two different suitable destinations.
☐ ☐ ⊘	Subject site is in Area 2 (Map of BPA). Public road access, with all-weather surfaces, is provided in one direction to a single suitable destination and can be considered an acceptable solution as the following established requirements can be met:
☐ ☐ ⊘	It is demonstrated that secondary access (including an emergency access way), cannot be provided due to site constraints; and
☑ ☐ ☐	The tourism land use / day use is within a residential built out area; or
☐ ☐ ⊘	The required Bushfire Emergency Plan (BEP) plan provides for: • Closure during days forecasted to be an extreme or catastrophic fire danger rating and a total fire ban; and • For the early evacuation of patrons and staff; or
☐ ☐ ⊘	The required Bushfire Emergency Plan (BEP) provides for non-operation during the bushfire season.

Assessment Supporting Details: Wanneroo Recreation Centre is serviced by Scenic Drive which provides appropriate access and egress.

A3.3a No-Through Roads	Applicable:	No	Compliant:	-

☐ ☐ ⊘	BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, as the subject site is in Area 1 (Urban) (Map of BPA), for which there is no limitation on no-through road lengths, A3.3a is not applicable to the subject planning proposal.

☑ ☐ ☐	BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, access to the subject site is via a private driveway from a public road with two-way access. Vehicular access to the site does not have a no-through road component. Therefore, A3.3a is not applicable to the subject planning proposal.
☐ ☐ ⊘	BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, the subject planning proposal is for a day use with no overnight accommodation which results in A3.2b being the applicable access route acceptable solution. This dictates whether A3.3a is applicable to the subject planning proposal or not. The subject planning proposal's assessment against A3.2b has determined it is compliant with the 'exception conditions', and a single suitable destination can be considered an acceptable solution. Consequently, no limitation is being enforced on the access route length to the suitable destination and therefore A3.3a is not applicable to the subject planning proposal. *(Refer to Section 4 'Identified Bushfire Planning Issues' for additional information, to inform the decision maker, regarding the single access route and the nature of factors that will contribute to levels of risks associated with a bushfire event, to persons using the available route).*
☐ ☐ ⊘	BPC 8 establishes A3.3a is applicable to the planning stage and land use. However, the subject planning proposal is for a day use with no overnight accommodation which results in A3.2b being the applicable access route acceptable solution. This dictates whether A3.3a is applicable to the subject planning proposal or not. The subject planning proposal's assessment against A3.2b has determined it is unable to comply with the 'exception conditions', and public road access in two different directions to two suitable destinations is to be provided. Consequently, A3.3a is applicable to the subject planning proposal.
☐ ☐ ⊘	Subject site is in Area 2 (Map of BPA). Access to the subject site is via a no-through public road that does not exceed the established maximum of 200 metres in length from the subject site boundary to an intersection where two-way access is provided.
☐ ☐ ⊘	Subject site is in Area 2 (Map of BPA). Access to the subject site is via a no-through public road that exceeds the established maximum of 200 metres in length from the proposed lot(s) boundary to an intersection where two-way access is provided. The additional road length can be considered to satisfy the acceptable solution as the following established requirements can be met:
☐ ☐ ⊘	It is demonstrated that that an alternative access, including an emergency access way, cannot be provided due to site constraints; and
☐ ☐ ⊘	The no-through road travels towards a suitable destination; and
☐ ☐ ⊘	The balance of the no-through road that is greater than 200 metres from the subject site is: • Wholly within a residential built-out area; or • Wholly within an area designated Area 1 (Urban) on Map of BPA; or • Potentially subject to radiant heat levels from adjacent bushfire prone vegetation not exceeding 12.5 kW/m² / BAL-LOW (Guidelines Figure 29).

Assessment Supporting Details:

None required.

A3.3b No-through roads technical requirements	Applicable:	No	Compliant:	-

☑ ☐ ☐	BPC 8 establishes A3.3b is applicable to the planning stage and land use. However, the assessment for A3.3a has established that vehicular access to the site does not have a no-through road component. Therefore, A3.3b is not applicable to the subject planning proposal.
☐ ☐ ⊘	The no-through road meets the public road technical requirements for minimum vertical clearance (4.5 metres) and minimum weight capacity (15 tonnes - includes bridges, culverts).
☐ ☐ ⊘	The no-through road meets the public road technical requirement recommended in the Guidelines in Appendix B3, B3.1 for a minimum horizontal clearance of 6 metres.
☐ ☐ ⊘	The applicable class(s) of road and their technical requirements have been confirmed with the relevant local government/Main Roads WA. These can and will be complied with.
☐ ☐ ⊘	The turnaround area / head requirements (Guidelines, Figure 30) can and will be complied with.

Assessment Supporting Details: None required.

A3.4 Emergency access way	Applicable:	No	Compliant:	-

☑ ☐ ☐	BPC 8 establishes A3.4 is applicable to the planning stage and land use. However, the subject planning proposal has been assessed as either: • Compliant with A3.2, A3.3a and A3.3b; or • Compliant with A3.2, A3.4; or • Compliant with A3.2 and A3.3a and A3.3b are not applicable. Therefore, an emergency access way is not required and A3.4 is not applicable.
☐ ☐ ⊘	The requirements established for acceptable no-through road access to the subject site in A3.2 and A3.3 cannot be achieved. An emergency access way (EAW) is provided as the alternative access and can be considered as an acceptable solution, when the following established requirements are met:
☐ ☐ ⊘	It is demonstrated that site constraints prevent the requirements of A3.2 and A3.3 being met; and
☐ ☐ ⊘	The access way is no more than 500 metres in length, provides a through connection to a public road connecting to a public road network; and
☐ ☐ ⊘	The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and
☐ ☐ ⊘	The access way meets the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and
☐ ☐ ⊘	The access way will be signposted and, if gated, gates will open for the whole carriageway width and remain unlocked; and
☑ ☐ ⊘	The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the emergency access way.

Assessment Supporting Details: None required.

A3.5 Onsite shelter	Applicable:	No	Compliant:	-

☑ ☐ ☐ BPC 8 establishes A3.5 is applicable to the planning stage and land use. However, the subject planning proposal has been assessed as either:

- Compliant with A3.2, A3.3a and A3.3b; or
- Compliant with A3.2 and A3.4; or
- Compliant with A3.2, and where A3.3a, A3.3b and A3.4 have been assessed as not applicable.

Compliant two-way access has been provided; therefore, an onsite shelter is not required and A3.5 is not applicable.

☐ ☐ ⊘ The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved. Consequently, an onsite shelter will be provided in accordance with A2.5.

☐ ☐ ⊘ The proposed development has a capacity of up to a maximum of 50 guests and employees at any one time and the requirement for compliant two-way access cannot be achieved and the bushfire practitioner considers an onsite shelter not necessary.

An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk.

☐ ☐ ⊘ The proposed development has a capacity greater than 50 guests and employees at any one time, the requirement for compliant two-way access cannot be achieved and/or the bushfire practitioner considers an onsite shelter not necessary.

An outcomes-based approach may be prepared to determine the level of relevant risks to persons and property and whether adequate protection measures can be implemented to result in an acceptable or tolerable level of residual risk.

Assessment Supporting Details: None required.

A3.6 Fire service access route	Applicable:	No	Compliant:	-

☐ ☐ ⊘ BPC 8 establishes A3.6 is applicable to the planning stage and land use. However, the proposed lots only adjoin Class G Grassland (classified under AS 3959). Therefore, A3.6 is not applicable to the subject planning proposal.

☑ ☐ ☐ BPC 8 establishes A3.6 is applicable to the planning stage and land use. However, suitable access is currently available to all classified vegetation that is not Class G Grassland (under AS 3959). Therefore, A3.6 is not applicable to the subject planning proposal.

☐ ☐ ⊘ The proposed lots adjoin classified vegetation that is not Class G Grassland (classified under AS 3959. A fire service access route is provided for firefighter access where suitable access is not available to the classified vegetation that is not Class G Grassland. It can and will meet the following established requirements.

☐ ☐ ⊘ The access route is a through-route with no dead-ends, no further than 500 metres from a public road and will be signposted; and

☐ ☐ ⊘ The access route meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (Map of BPA Area 1 (Urban) = 6 metres and Area 2 = 10 metres), minimum vertical

	clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and
☐ ☐ ⊘	The access route meets the technical requirements (Guidelines Appendix B3, Table 10) for crossfalls and gradients for different surfaces and dips; and
☐ ☐ ⊘	When gated, gates will open the whole carriageway width and can be locked by the local government and/or the emergency services, when keys are provided for each gate; and
☐ ☐ ⊘	The proponent has obtained consent from the local government, that it will accept care, control and management responsibilities for the fire service access route (unless it is a Crown reserve managed by another entity).

Assessment Supporting Details:
None required.

A3.7 Internal vehicular access and private driveways	Applicable:	No	Compliant:	-

☑ ☐ ☐	BPC 8 establishes A3.7 is applicable to the planning stage and land use. However, the subject planning proposal does not contain vehicular access and private driveways longer than 70 metres. Therefore, A3.7 is not applicable.
☐ ☐ ⊘	There are internal vehicular access and private driveways longer than 70 metres and the subject site will meet all the following established requirements:
☐ ☐ ⊘	The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum horizontal clearance (6 metres) or where not required to comply with the Guidelines width, it meets the requirements of the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision; and
☐ ☐ ⊘	The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for minimum vertical clearance (4.5 metres), minimum weight capacity (15 tonnes - includes bridges, culverts) and minimum inner radius of road curves (8.5 metres); and
☐ ☐ ⊘	The private driveway meets the technical requirements (Guidelines Appendix B3, Table 10) for the gradients of different surfaces and dips; and
☐ ☐ ⊘	Passing bays can and will be installed every 200 metres with a minimum length of 20 metres and a minimum additional carriageway width of 2 metres i.e. the combined carriageway width of the passing bay and constructed private driveway will be a minimum 6 metres; and
☐ ☐ ⊘	The turnaround area / head requirements (Guidelines, Figure 30) can and will be complied with.

Assessment Supporting Details: Proposed driveway will not be longer than 70m from two-way access.

A3.8 Signage	Applicable:	No	Compliant:	-

☐ ☐ ⊘	Signage can and will be provided within the subject site, advising of where each access route travels to and the distance and general information on what to do in the event of a bushfire.

Assessment Supporting Details: None required.

5.3.3 Element 4: Water Supply

ELEMENT 4: WATER SUPPLY (DEVELOPMENT –VULNERABLE TOURISM LAND USES AND DAY USES)	
All details of acceptable solution requirements are established in the Planning for Bushfire Guidelines (Guidelines) – WA Department of Planning, Lands and Heritage (DPLH, as amended). When relevant, the 'Bushfire Management Plan Guidance for the Dampier Peninsula' (DPLH, 2021 Rev B), is also referenced.	
O4	State Planning Policy 3.7 Bushfire - Outcomes to be Achieved
	SPP 3.7, 6.4: Ensure that sufficient water is available and accessible for emergency services, to enable people, property and infrastructure to be defended from bushfire.
E4	Statement for Compliance with Element E1 – The Deemed to Comply Pathway
	The planning proposal is fully compliant with all applicable acceptable solutions and therefore achieves the required outcomes of this element.
	Alternative Pathway Applied to Achieve SPP 3.7 Outcomes
	N/A

ACCEPTABLE SOLUTIONS - ASSESSMENT STATEMENTS					
Check Box Legend:	☑ Relevant & met	☒ Relevant & not met	⊘ Not relevant		
A4.1 Water supply			Applicable:	Yes	Compliant: Yes
☑ ☐ ⊘	Evidence is provided that a reticulated water supply, available for firefighting purposes, exists or can be provided. Hydrant connection(s) will be provided in accordance with the specifications established by the relevant water supply authority (refer also to hydrant location information in Appendix D of this BMP).				
☐ ☐ ⊘	The subject site will have a reticulated water supply but is in an area designated as Area 2 on the Map of BPA and/or the local government area has known issues with water supply or pressure. The proposed development will adopt the Guidelines recommendation to provide water supply tank(s) and fittings dedicated to firefighting purposes that satisfy the construction and design requirements established in the Guidelines, Appendix B4: Water Supply.				
☐ ☐ ⊘	The subject site is serviced by reticulated water. However, the distance from the public road (along which the fire hydrant is located) to the farthest part of the habitable building is greater than 70 metres, exceeding the reach of a hose reel. A water supply tank will be installed within the lot in accordance with the relevant requirements of Guidelines, Appendix B4: Water Supply.				
☐ ☐ ⊘	The provision of or the specifications of a reticulated water supply cannot be met. Evidence is provided that a sufficient, sustainable and accessible non-reticulated water supply, dedicated to firefighting purposes, can and will be provided in accordance with the specifications established in the Guidelines, Appendix B4: Water Supply.				
☐ ☐ ⊘	The planning proposal is for a vulnerable land use development (not camping ground). For each habitable building a water supply, dedicated to firefighting purposes, will be stored in tanks at 10,000 litres of water per 500 m^2 of floor area up to 50,000 litres in total.				

☐ ☐ ⊘	The planning proposal is for a 'camping ground' vulnerable land use development. The required water supply dedicated to firefighting purposes is to be determined at the discretion of the local government and this will be complied with. Evidence is provided of the determined requirements and is presented as an Addendum in this BMP.
☐ ☐ ⊘	The above ground water supply tank(s), dedicated to firefighting purposes (and tank stand(s) when applicable), will be constructed of non-combustible material and as necessary, will comply with AS/NZS 3500.1(as amended). This includes not using the same water supply for both domestic use and firefighting purposes. If a combined use tank(s) is to be used, it will separate the storage compartments in accordance with the provisions of the standard (i.e. internal installation of double partition walls).
Assessment Supporting Details: The subject site is reticulated and will the proposal will have access to an internal hydrant. [Refer to additional technical requirement information contained in Appendix D]	

6 RESPONSIBILITY CHECKLISTS

EXPLANATORY INFORMATION

This section of the BMP sets out the responsibilities of the relevant entity or person for:

- The initial implementation of the required bushfire protection measures and their timing; and
- The ongoing maintenance of the required bushfire protection measures to ensure their continued effectiveness.

6.1 Bushfire Protection Measures - Maintenance Checklists

6.1.1 Landowner Responsibilities

TABLE 6.4
LANDOWNER RESPONSIBILITIES – MAINTENANCE OF BUSHFIRE PROTECTION MEASURES

No.	MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established Under SPP 3.7 / Guidelines
1	Maintain the 'Required' Asset Protection Zone (APZ) around habitable buildings (and other structures as required) to satisfy: • The minimum required dimensions (i.e. separation distances form classified vegetation) that correspond to the determined BAL rating for the building(s) / structure(s); and • The required APZ technical requirements. Refer to Appendices B3 and B4 (of this bmp) for APZ technical requirements and dimension guidance.
2	Maintain private driveways within a lot to ensure surface conditions and horizontal and vertical clearances continue to comply with technical requirements established in the Guidelines Appendix B3: Vehicular access.
3	When the property changes ownership or occupancy, to assist with the ongoing maintenance of the implemented bushfire protection measures, ensure that the relevant person(s) is aware of the BMP, and the responsibilities it contains. Provide access to a copy of the BMP (Note: this BMP may be superseded by a subsequent BMP produced specially for development on a lot).
	MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established Under the Building Act 2011/ Building Regulations 2012/ Building Code of Australia
4	Ensure that builders engaged to construct the proposal are aware of the existence of this approved Bushfire Management Plan (BMP). The plan identifies that the development site is within a designated bushfire prone area. A BAL assessment report may be required to determine the applicable BAL rating. A BAL certificate will need to be issued to accompany building permit applications. Compliance with the Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to certain buildings in designated bushfire prone areas (i.e. Class 1, 2 and 3 and certain Class 9 buildings and associated Class 10a buildings and decks).

	The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).
6	Maintain and repair buildings to ensure continuing compliance with the bushfire resistant construction requirements, corresponding to the BAL rating applied to the building, in accordance with AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended). In particular, ensure the minimisation of gaps and effectiveness of screening is maintained to prevent ember entry to internal spaces and combustible materials.

6.1.2 Local Government Responsibilities

TABLE 6.5 LOCAL GOVERNMENT RESPONSIBILITIES – MAINTENANCE OF BUSHFIRE PROTECTION MEASURES	
No.	MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established by the Bushfire Management Plan
1	To be aware of the potential consequences of any significant changes in the local government's management of land (including potential re-vegetation), of which they have vested control, that could have an adverse impact on the determined BAL ratings that apply to adjacent existing or future buildings and where: • The applicable 'determined' BAL ratings have been established by an existing BMP or a BAL Assessment; and • The BAL has been correctly determined with appropriate consideration of what could reasonably be expected to potentially change in the future with regards to the composition and structure of the vegetation on the local government controlled land and therefore its correct classification under AS 3959:2018 BAL determination methodology.

6.1.3 Dept. Biodiversity, Conservation and Attractions (DBCA) Responsibilities

TABLE 6.6 DBCA RESPONSIBILITIES – MAINTENANCE OF BUSHFIRE PROTECTION MEASURES	
No.	MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established by the Bushfire Management Plan
1	Within the BMP (refer to Sections 2.3.1 and/or 2.3.2 and the Addendum), an arrangement for the management of specified areas of vegetation has been established and is understood and accepted by the agency with written evidence provided in the BMP. The agency is responsible for the ongoing management of the vegetation, in perpetuity as agreed, to ensure: • It remains in a low bushfire threat state; and/or • It continues to satisfy the requirements to remain the same vegetation classification as was applied in the BMP.

6.2 Bushfire Protection Measures - Implementation Checklist

TABLE 6.1
PROPONENT/LANDOWNER RESPONSIBILITIES PRIOR TO SALE/OCCUPANCY/OPERATION

No.	IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES Measures Established Under SPP 3.7 / Guidelines
1	Establish the Asset Protection Zone (APZ) around habitable buildings (and other structures as required) that consists of: 1. Non-vegetated areas and low bushfire threat vegetation maintained in perpetuity in a low threat state by complying with the established APZ technical requirements (Guidelines Appendix B2); and 2. The required zone dimensions that are established by the required separation distances from any areas classified vegetation. These distances should in most situations correspond to either: • The determined BAL rating for a relevant building(s) / structure(s); or • The maximum acceptable level of radiant heat transfer that is to apply. This distances will account for the specific site conditions. This ensures the building's/structure's constructed bushfire resistance continues to align with its calculated potential exposure to flame and radiant heat. To inform the landowner regarding possible APZ dimensions, the following table is provided for the subject planning proposal. **IMPORTANT:** **1. REFER TO APPENDICES B3, B4 AND B5 (OF THIS BMP) FOR APZ TECHNICAL REQUIREMENTS AND DIMENSION GUIDANCE.** **2. IF NATIVE VEGETATION IS REQUIRED TO BE MODIFIED OR REMOVED, ENSURE THAT PRIOR APPROVAL HAS BEEN RECEIVED FROM THE RELEVANT AUTHORITY (REFER TO THE RELEVANT LOCAL GOVERNMENT FOR ADVICE).**
2	Construct the private driveways / internal vehicular access to comply with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 3: Vehicular access A3.67 Internal vehicular access and private driveways or A3.7 Internal vehicular access and private driveways.
3	The development site's use stores quantities of hazardous, flammable and/or combustible materials in a quantity that does not trigger the requirement for a licence under the Dangerous Goods Safety Act 2004 or the Environmental Protection Act 1986. These must be stored in the designated storage area(s) that are compliant with the following:

INDICATIVE DISTANCES (SITE SPECIFIC) ESTABLISHING THE REQUIRED APZ DIMENSIONS [1]

Building	Vegetation Classification [2]		Minimum Metres Corresponding to Potential Bushfire Impact				
	Area / Class		BAL-29	BAL-19	BAL12.5	10 kW/m²	2 kW/m²
Sports Hub	1	(A) Forest	27	37	50	-	-
	2	Excluded cl 2.2.3.2(e & f)	-	-	-	-	-

Note 1: Will include the application of the radiant heat barrier when applicable to the proposal.
Note 2: Refer to the Vegetation and Topography Map (Figure 3.1).

	• Subject to a radiant heat impact not exceeding 29 kW/m² (BAL-29); • Consist of non-combustible construction that shields the materials to reduce their exposure to radiant heat from the bushfire to levels significantly lower than 29 kW/m², and prevents the entry of debris and embers; and • Construction of the storage area limits, to the degree necessary and practical, the escape of sources of ignition from the stored materials into bushfire prone vegetation.
4	A purchaser, occupier and/or operator of the site must be made aware of the existence of this approved BMP and provided with access to a copy and be informed of their ongoing responsibilities it contains.
5	The development is a 'vulnerable use', and if Bushfire Emergency Plan (BEP) has been produced for site operations. Complete all relevant actions contained within the 'Site Preparation Procedure'.
6	The development is a 'vulnerable use', and the requirement for an onsite shelter has been identified (building or area). Refer to the BMP at Element 2: Siting and design, A2.5 and ensure: • For a building, all referenced design and construction requirements are met; • The necessary separation distances from bushfire prone vegetation are met; and • Associated pedestrian paths are clearly signposted.
	IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES Measures Established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954
7	Install the required firebreaks, providing emergency access within the lot, to the stated specifications established by the City of Wanneroo Firebreak Notice
	IMPLEMENTATION OF BUSHFIRE PROTECTION MEASURES Measures Established by the Building Code of Australia (Vol. 1 and 2 of the National Construction Code)
8	Inform builders engaged to construct dwellings/additions and/or other relevant structures on the lot of the existence of this approved Bushfire Management Plan (BMP). The BMP identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when stated ratings are only indicative. BAL certificates will need to be produced to accompany building applications. The BMP may also establish, as a 'Required Additional Bushfire Protection Measure', that bushfire construction requirements to be applied must be those corresponding to a specified higher BAL rating. Compliance with the current Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks) and certain Class 9 buildings. Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as a 'Required Additional Bushfire Protection Measure' bushfire protection measure within the BMP. The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).

6.3 Bushfire Protection Measures - Maintenance Checklist

TABLE 6.2 LANDOWNER/OCCUPIER – MAINTENANCE OF BUSHFIRE PROTECTION MEASURES	
No.	MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established Under SPP 3.7 / Guidelines
1	Annually review and enact the following maintenance responsibilities established in this approved BMP for the development site prior to the bushfire season.
2	The site's use is a 'vulnerable use', and if a Bushfire Emergency Plan (BEP) should be produced for site operations. Once prepared, the landowner representative should complete all relevant actions contained within the 'Site Preparation Procedure' annually prior to the bushfire season.
3	Maintain the Asset Protection Zone (APZ) around habitable buildings (and other structures as required) that consists of: 1. Non-vegetated areas and low bushfire threat vegetation maintained in perpetuity in a low threat state by complying with the established APZ technical requirements (Guidelines Appendix B2); and 2. The required zone dimensions that are established by the required separation distances from any areas classified vegetation. These distances should in most situations correspond to either: • The determined BAL rating for a relevant building(s) / structure(s); or • The maximum acceptable level of radiant heat transfer that is to apply. This distances will account for the specific site conditions. This ensures the building's/structure's constructed bushfire resistance continues to align with its calculated potential exposure to flame and radiant heat. **IMPORTANT:** **1. REFER TO THE APPLICABLE APZ DIMENSIONS IN TABLE 6.1.** **2. REFER TO APPENDICES B3, B4 AND B5 FOR APZ TECHNICAL REQUIREMENTS AND DIMENSION GUIDANCE.**
4	Maintain the private driveways / internal vehicular access to comply with the technical requirements stated and/or referenced in Section 5.3 of the BMP at Element 3: Vehicular access, A3.1 Private driveways or A3.6 Internal vehicular access and private driveways or A3.7 Internal vehicular access and private driveways.
5	When the property changes ownership or occupancy, to assist with the ongoing maintenance of the implemented bushfire protection measures, ensure that the relevant person(s) is aware of the BMP, and the responsibilities it contains. Provide access to a copy of the BMP and the Bushfire Emergency Plan (BEP).
MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established by a Local Government's Section 33 Notice Under the Bush Fires Act 1954	
6	Maintain the required firebreaks, providing emergency access within the lot, to the stated specifications established by the City of Wanneroo Firebreak Notice.

MAINTENANCE OF BUSHFIRE PROTECTION MEASURES Measures Established by the Building Code of Australia (Vol. 1 and 2 of the National Construction Code)	
7	Prior to any future building work, inform the builder of the existence of this approved Bushfire Management Plan (BMP). The BMP identifies that the development site is within a designated bushfire prone area and states the indicative (or determined) BAL rating(s) that may (or will) be applied to buildings/structures. A BAL assessment report may be required to confirm determined ratings and will be required when stated ratings are only indicative. BAL certificates will need to be produced to accompany building applications. The BMP may also establish, as a 'Required Additional Bushfire Protection Measure', that bushfire construction requirements to be applied must be those corresponding to a specified higher BAL rating. Compliance with the current Building Code of Australia (Volumes 1 and 2 of the National Construction Code), will require certain bushfire resistant construction requirements be applied to residential buildings in bushfire prone areas (i.e., Class 1, 2 and 3 and associated Class 10a buildings and decks) and certain Class 9 buildings. Other classes of buildings may also be required to comply with these construction when established by the relevant authority or if identified as a 'Required Additional Bushfire Protection Measure' bushfire protection measure within the BMP. The deemed to satisfy solutions that will meet the relevant bushfire performance requirements are found in AS 3959 – Construction of Building in Bushfire Prone Areas (as amended) and the NASH Standard - Steel Framed Construction in Bushfire Areas (as amended).

APPENDIX A: DETAILED BAL ASSESSMENT DATA AND SUPPORTING INFORMATION

A1: BAL Assessment Inputs Common to the Method 1 and Method 2 Procedures

A1.1: FIRE DANGER INDICES (FDI/FDI/GFDI)

When using Method 1 the relevant FDI value required to be applied for each state and region is established by AS 3959:2018, Table 2.1. Each FDI value applied in Tables 2.4 – 2.7 represents both the Forest Fire Danger Index (FFDI) and a deemed equivalent for the Grassland Fire Danger Index (GFDI), as per Table B2 in Appendix B. When using Method 2, the relevant FFDI and GFDI are applied.

The values may be able to be refined within a jurisdiction, where sufficient climatological data is available and in consultation with the relevant authority.

Relevant Jurisdiction:	WA	Region:	Whole State	Method 1	Applied FDI:	80
				Method 2	Applied FFDI:	N/A
					Applied GFDI:	N/A

A1.2: VEGETATION ASSESSMENT AND CLASSIFICATION

Vegetation Types and Classification

In accordance with AS 3959:2018 Clauses 2.2.3 and C2.2.3.1, all vegetation types within 100 metres of the 'site' (defined as "the part of the allotment of land on which a building stands or is to be erected"), are identified and classified. Any vegetation more than 100 metres from the site that has influenced the classification of vegetation within 100 metres of the site, is identified and noted. The maximum excess distance is established by AS 3959: 2018 Clause 2.2.3.2 and is an additional 100 metres.

Classification is also guided by the Visual Guide for Bushfire Risk Assessment in WA (WA Department of Planning February 2016) and any relevant FPA Australia practice notes.

Modified Vegetation

The vegetation types have been assessed as they will be in their natural mature states, rather than what might be observed on the day. Vegetation destroyed or damaged by a bushfire or other natural disaster has been assessed on its expected re-generated mature state. Modified areas of vegetation can be excluded from classification if they consist of low threat vegetation (refer to Appendix B) and that any required active management can be expected to continue in perpetuity, and this can be adequately justified.

The Influence of Ground Slope

Where significant variation in effective slope exists under a consistent vegetation type, these will be delineated as separate vegetation areas to account for the difference in potential bushfire behaviour, in accordance with AS 3959:2018 Clauses 2.2.5 and C2.2.5.

THE INFLUENCE OF VEGETATION GREATER THAN 100 METRES FROM THE SUBJECT SITE	
Vegetation area(s) within 100m of the site whose classification has been influenced by the existence of bushfire prone vegetation from 100m – 200m from the site:	None
Assessment Statement:	No vegetation types exist close enough, or to a sufficient extent, within the relevant area to influence classification of vegetation within 100 metres of the subject site.

VEGETATION AREA 1						
Classification	A. FOREST					
Types Identified	Open forest A-03					
Exclusion Clause	N/A					
Effective Slope	Measured	d/slope 2 degrees	Applied Range (Method 1)	Downslope >0-5 degrees		
Foliage Cover (all layers)	30-70%	Shrub/Heath Height	>2m	Tree Height	8-12m-	
Dominant & Sub-Dominant Layers	Mixed eucalyptus species as part of remnant swamp and a lakeside reserve.					
Understorey	Tall shrubs including banksia and acacia over scattered					
Justification Comments:	Not Required.					
Post Development Assumptions:	None required.					



PHOTO ID: 1



PHOTO ID: 2



PHOTO ID: 3



PHOTO ID: 4

VEGETATION AREA 2	
Classification	**N/A**
Exclusion Clause	2.2.3.2 (e) Non-vegetated areas and (f) Low threat vegetation - minimal fuel condition.
Justification Comments:	Areas include existing managed reserve, verge, Asset Protection Zones and accessways. Note that the portion of the reserve to the southwest has been heavily modified to only include a managed lawn or no understory. All trees within the reserve are pruned up to 2m.
Post Development Assumptions:	Areas to remain managed in perpetuity.



PHOTO ID: 5



PHOTO ID: 6



PHOTO ID: 7



PHOTO ID: 8

	
PHOTO ID: 9	PHOTO ID: 10

A1.3: EFFECTIVE SLOPE

EXPLAINING THE ASSESSMENT METHODOLOGY APPLIED BY BUSHFIRE PRONE PLANNING

DEFINITION: Effective slope is "the slope under that classified vegetation which most influences the bushfire attack" (AS 3959:2018, Clause 1.5.11).

"The effective slope under the classified vegetation is not the same as the average slope for the land surrounding the site of the proposed building. The effective slope is that slope which most significantly influences bushfire behaviour" (AS 3959:2018, Clause CB4).

The slope is described as upslope, flat or downslope when viewed from an exposed element (e.g., building) and looking towards the vegetation. It is measured in degrees.

[Note: Additional relevant guidance provided by AS 3959:2018 and NSW RFS, Planning for Bushfire Protection (2019) is incorporated into the applied assessment methodology and is presented at the end of this explanation.]

COMPOUND SLOPES UNDER VEGETATION AND DETERMINING SLOPE SIGNIFICANCE

Non-Linear Slopes: When the slope of ground under the vegetation out to the distance to be assessed (100 m or further if necessary), is not a straight line or nearly straight line slope, then it is made up of several different slopes i.e., it is a compound slope. The different slope angles and lengths must be factored into the determination of the effective slope value to be applied. Different slopes will potentially influence the bushfire rate of spread and intensity, both increasing and decreasing it.

Significant Slope: The AS 3959:2018 bushfire attack level determination methodology, with default inputs, models a fully developed bushfire. Therefore, a 'significant' slope is one that will significantly influence bushfire behaviour. To be 'significant' the length of the slope must be 'sufficient' to support a fully developed fire on that slope. The angle of a significant slope could be the determined effective slope for the area of classified vegetation if it is the one that 'most influences the bushfire attack'.

Sufficient Slope Length: Is a slope that will, as a minimum, allow the entire flame depth (flaming zone) of a fully developed fire (100m flame width) to exist on that slope.

The expected flame depth of a fully developed bushfire is a function of the length of time the flaming phase will exist on a section of the fuel bed (the 'residence time') and the bushfire's 'rate of spread'. For a given rate of spread, longer residence times result in greater flame depths. Greater flame depths are correlated with greater flame temperatures and greater flows of radiant heat.

The primary factors that will increase the residence time are:

- Heavier fine fuel loads of grass, leaf litter, twigs, bark etc less than 6mm in width and existing within the surface and near surface layers (and elevated fuel layers when contiguous with the base layers); and
- A greater percentage of larger fine fuels within the fuel load.

The primary factors that increase the rate of spread (apart from fire weather factors), include finer fuels, drier fuels, horizonal continuity of fuel and steeper upward ground slope in the direction of fire travel.

Example values:

- Residence Time: Grassfire 5 – 15 seconds, Forest fire 25 -50 seconds.
- Rate of Spread: Grassfires of a few km/hr are considered fast moving, 5-10 km/hr is common and fastest in the order of 25km/hr. Forest fire typically recorded in metres/hour with 1-1.5 km/hr being considered fast moving and fastest in the order of 3–4 km/hr.
- Flame Depth: More typically, a few metres for grasses to tens of metres for forest fires.

An Isolated Slope: For scenarios where there is a single significant slope (based on the above criteria) additional consideration would need to be given to the time and distance consumed by a bushfire still in its 'developing' phase. This will require due consideration be given to how it is potentially ignited i.e., from a single or multiple points, as this will influence the time and distance required to fully develop. For such scenarios, a normally significant slope may not be sufficiently long. It may be necessary to determine the potential bushfire impact more accurately by

justifying the application of a lesser effective slope, or a lower threat vegetation classification, or calculating a reduced head fire width (using short fire run modelling).

Determined Effective Slope: Only a 'significant' slope can potentially be the effective slope by itself. In which case, for a defined area of classified vegetation area, the worst significant slope under that vegetation is to apply.

The table below presents Bushfire Prone Planning's considerations applied to assessing short and/or compound slopes in determining the effective slope.

Slope Length (m)	Considered a Significant Slope	Considerations in Determining the Effective Slope
< 5	No	Where these short slopes exist as part of a compound slope under an area of classified vegetation, they can be ignored as they will not influence the fire behaviour in that vegetation.
5-20	No	These slopes will have a range of influence on fire behaviour from very little to a degree of influence that must be accounted for to some extent by the determined effective slope that is applied (i.e., with a greater length apply to a greater extent). But the actual slope of these shorter slopes is likely not to be applied as it is not a 'significant' length.
20-30	Maybe	The same considerations applied to the 5-20m slope lengths should be applied here. However, more justification would need to be presented to support their assessment as not being 'significant' slopes. For these slope lengths, consideration must be given more broadly to the potential level of risks associated with a bushfire event in this location. The risk level will be a function of the bushfire hazard threat levels (direct attack mechanisms) within the immediate and broader assessment area as influenced by local topography, vegetation extents and types and the exposure and vulnerability of persons and/or buildings/structures to these threats. Higer risk levels require greater precaution meaning these slopes should be considered 'significant', and vice versa. Consider the potential for a bushfire on adjoining or nearby land be a source of ignition and/or pre-heating to vegetation on the subject slope. Consider if vegetation on the slope is likely be ignited by a single ignition point or is multipoint ignition possible from bushfire an adjoining slopes or the surrounding area. Single point ignition will require a fire to travel further before being fully developed (DFES considers less than 100m fire runs may be considered a short fire run for forest, woodland and scrub vegetation classifications, RFS NSW applies 150m). Isolated slopes of this length are less likely to be considered significant as compared to when part of a compound slope.
>30	Yes	Likely to always be a significant slope unless isolated (i.e., exists alone) – in which case, justifying the application of a lesser effective slope, or a lower threat vegetation classification, or calculating a reduced head fire width, are approaches that may need to be applied.

BPP Approach - Slope Variation Within Areas of Vegetation

When multiple 'significant' slope lengths with large differences in degrees of effective slope (or different applicable slope ranges when AS 3959:2018 Method 1 is applied), exists under a single vegetation classification, these will be delineated as separate vegetation areas of classified vegetation to account for the difference in potential bushfire behaviour and impact, in accordance with AS 3959:2018 clauses 2.2.5 and C2.2.5.

Effective Slope Variation Due to Multiple Development Sites

When the effective slope, under a single area of bushfire prone vegetation, will vary significantly relative to multiple proposed development sites (exposed elements), then the effective slopes corresponding to each of the different

locations, are separately identified. The relevant (worst case) effective slope is determined in the direction corresponding to the potential directions of fire spread towards the subject building(s).

AS 3959:2018 EFFECTIVE SLOPE DETERMINATION - GUIDANCE

The Standard presents a broad set of guidance statements that indicate the intent of deriving an effective slope value for use in calculations, rather than detailing the 'in the field' determination process. These include:

- Highlighting the importance of the value by stating "The slope of the land under the classified vegetation has a direct influence on the rate of fire spread, the severity of the fire and the ultimate level of radiant heat flux" (Clause C2.2.5). [Note: A common rule of thumb is that for every 10 degrees of upslope, a fire will double its rate of spread if moving in the direction of the prevailing wind].
- It may be necessary to consider the slope under the classified vegetation for distances greater than 100 m in order to determine the effective slope for that vegetation classification.
- "Where there is more than one slope within the classified vegetation, each slope shall be individually assessed, and the worst case Bushfire Attack Level shall apply" (Clause 2.2.5).

NSW RFS 2019, PLANNING FOR BUSHFIRE PROTECTION - APPENDIX A1.5 - ADDITIONAL DETERMINATION GUIDANCE

- "In identifying the effective slope - it may be found that there are a variety of slopes covering different distances within the vegetation. The effective slope is considered to be the slope under the vegetation which will most significantly influence the bushfire behaviour for each aspect. This is usually the steepest slope. In situations where this is not the case, the proposed approach must be justified".
- "Vegetation located closest to an asset may not necessarily be located on the effective slope".

SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

The effective slopes determined from the site assessment are recorded in Table 3.2 of this Bushfire Management Plan.

Explanation and justification of their determination is presented below.

A1.4: SEPARATION DISTANCE

Measuring

The separation distance is the distance in the horizontal plane between the receiver (building/structure or area of land being considered) and the edge of the classified vegetation (AS 3959:2018, clause 2.2.4)

The relevant parts of a building/structure from which the measurement is taken is the nearest part of an external wall or where a wall does not exist, the supporting posts or columns. Certain parts of buildings are excluded including eaves and roof overhangs.

The edge of the vegetation, for forests and woodlands, will be determined by the unmanaged understorey rather than either the canopy (drip line) or the trunk (AS 3959:2018, clause C2.2.5).

Measured Separation Distance as a Calculation Input

If a separation distance can be measured because the location of the building/structure relative to the edge of the relevant classified vegetation is known, this figure can be entered into the BAL calculation. The result is a determined BAL rating.

Assumed Separation Distance as a Calculation Input

When the building/structure location within the lot is not known, an assumed building location may be applied that would establish the closest positioning of the building/structure relative to the relevant area of vegetation.

The assumed location would be based on a factor that puts a restriction on a building location such as:

- An established setback from the boundary of a lot, such as a residential design code setback or a restrictive covenant; or
- Within an established building envelope.

The resultant BAL rating would be indicative and require later confirmation (via a Compliance Report) of the building/structure actual location relative to the vegetation to establish the determined BAL rating.

Separation Distance as a Calculation Output

With the necessary site specific assessment inputs and using the AS 3959:2018 bushfire modelling equations, the range of separation distances that will correspond to each BAL rating (each of which represents a range of radiant heat flux), can be calculated. This has application for bushfire planning scenarios such as:

- When the separation distance cannot be measured because the exact location of the exposed element (i.e., the building, structure or area), relative to classified vegetation, is yet to be determined.

  In this scenario, the required information is the identification of building locations onsite that will correspond to each BAL rating. That is, indicative BAL ratings can be derived for a variety of potential building/structure locations; or

- The separation distance is known for a given building, structure or area (and a determined BAL rating can be derived), but additional information is required regarding the exposure levels (to the transfer of radiant heat from a bushfire), of buildings or persons, that will exist at different points within the subject site.

The calculated range of separation distances corresponding to each BAL rating can be presented in a table and/or illustrated as a BAL Contour Map – whichever is determined to best fit the purpose of the assessment.

For additional information refer to the information boxes in Section 3 'Bushfire Attack Levels (BAL) - Understanding the Results and Section 3.2. 'Interpretation of the BAL Contour Map'.

SITE ASSESSMENT DETAILS - EXPLANATION & JUSTIFICATION

For the subject development/use the applicable separation distances values are derived from calculations applying the assessed site data. They are an output value, not an input value and therefore are not presented or justified in this appendix.

The derived values are presented in Section 3, Table 3.1 and illustrated as a BAL contour map in Figure 3.2.

APPENDIX B: GUIDANCE – BUSHFIRE ATTACK LEVELS AND ASSET PROTECTION ZONES

B1: Bushfire Attack Level (BAL) - Understanding the Results

UNDERSTANDING A BAL RATING

The potential transfer (flux/flow) of radiant heat from a bushfire to a receiving object is measured in kW/m². The AS 3959:2018 Bushfire Attack Level (BAL) determination methodology establishes the ranges of radiant heat flux that correspond to each bushfire attack level. These are identified in increasing levels of flux as BAL-LOW, BAL-12.5, BAL-19, BAL-29, BAL-40 and BAL-FZ.

The bushfire performance requirements for certain classes of buildings are established by the Building Code of Australia (Vol. 1 & 2 of the NCC). The BAL will establish the bushfire resistant construction requirements that are to apply in accordance with AS 3959:2018 - *Construction of buildings in bushfire prone areas* and the NASH Standard – *Steel framed construction in bushfire areas (NS 300 2021),* whose solutions are deemed to satisfy the NCC bushfire performance requirements.

DETERMINED BAL RATINGS

A BAL can only be classed as 'determined' for an existing or future building/structure when:

1. The building/structure final design and position on the lot are known and the stated separation distance from classified bushfire prone vegetation exists and can justifiably be expected to remain in perpetuity; or
2. The building/structure will always remain subject to the same BAL regardless of:
    (a) The retention of all existing classified vegetation either onsite or offsite; and
    (b) Its design or position on the lot - including, as relevant and necessary, accounting for any regulatory or enforceable building setbacks from lot boundaries (i.e. R-codes, restrictive covenants and defined building envelopes).

A BAL Certificate <u>can</u> be issued for a determined BAL. If the BMP derives determined BAL(s), the BAL Certificate(s) required for submission with building applications can be provided, using the BMP as the supporting assessment data.

INDICATIVE AND CONDITIONAL BAL RATINGS

An indicative BAL indicates the highest BAL rating that exists for the applied set of assessment parameters (which may vary resulting in the inability to be considered 'determined').

A conditional BAL establishes the BAL rating that will be considered as a 'determined' rating once the stated required conditions are approved by the relevant authority and confirmed as being met.

The possible variables of the 'conditions' include:

- The future development sites being either identified accurately or modified; and/or
- Classified vegetation being modified or removed to establish the required vegetation separation distances.

A BAL Certificate <u>cannot</u> be issued for an indicative or conditional BAL rating.

B2: BAL Contour Map Interpretation

THE BAL CONTOUR MAP

Caution! *Future building works require a 'determined' BAL rating for building permit applications. When a BAL contour map is being used for planning assessment purposes, (as opposed to a building assessment purpose), the required 'determined' BAL rating typically is not able to be derived from the map (there are only limited scenarios where this is possible).*

The BAL ratings identified from the map will more likely be only 'indicative' of what can be achieved – with planning compliance for this factor being achieved when BAL-29 is indicated.

Otherwise, an additional assessment of the site data for building application purposes is required, and potentially approval will need to be obtained for native vegetation modification and/or removal from the relevant authority.

The Bushfire Attack Level (BAL) contour map, when used, is a diagrammatic representation of the results of the bushfire attack level assessment that has been conducted. It presents different coloured contours extending out from the different areas of classified vegetation.

Each contour represents a set range of radiant heat, corresponding to the BAL rating as defined by the AS 3959:2018 BAL determination methodology. When an exposed element (building, person or other defined element), is fully or partly located within a specific contour, it is potentially subject to the corresponding level of radiant heat transfer.

The width of each coloured BAL contour is dependent on both the BAL rating it represents, and the relevant site specific calculation inputs and will vary. It represents the minimum and maximum vegetation separation distances that correspond to each BAL rating for that site.

For post development BAL contour maps, the areas of classified vegetation applied to the production of the BAL contours, are those that will remain at the intended end state of the subject development once earthworks, clearing and/or landscaping and/or re-vegetation have been completed.

B3: The Asset Protection Zone (APZ)

THE APZ – DESCRIPTION, DIMENSION AND TECHNICAL REQUIREMENTS

DESCRIPTION AND PURPOSE

An Asset Protection Zone (APZ) is an area surrounding a habitable or specified building that is not vegetated and/or supports retained or planted vegetation that can be considered to present a low bushfire threat as a result of flammability and/or moisture content characteristics and/or minimal fuel loads (either naturally or as a result of continual maintenance).

The primary objectives of establishing an APZ are to ensure:

1. A reduction in the exposure of the building/structure to bushfire direct attack mechanisms (threats) of flame contact, radiant heat transfer and ember attack, by establishing appropriate separation from each area of classified vegetation. [The required APZ dimensions will be dependent on site specific conditions and the use of the site and are measured from the nearest part of an external wall and/or supporting posts of building parts without external walls]; and
2. A reduction in the exposure of the building/structure to bushfire indirect attack mechanisms (threats) by:
    - Preventing surface fire spreading to the building/structure;
    - Minimising the potential for tree strike; and
    - Limiting the potential for consequential fire to impact the building/structure by eliminating, reducing and/or shielding consequential fire fuels. These fuels include accumulated debris, stored combustible/flammable items and constructed combustible items. Consequential fire, typically ignited by embers, is the primary cause of building loss in a bushfire event; and
3. To provide a defendable space for firefighting activities.

DIMENSIONS

Established by the Guidelines

No APZ dimensions are established by the Planning for Bushfire Guidelines, DPLH/WAPC (as amended). The Guidelines are intended to inform the application of State bushfire planning policy. For planning approval purposes, it only needs to be demonstrated that a BAL-29 dimensioned APZ can be appropriately established, surrounding a building/structure for the specific development site conditions.

For certain vulnerable land uses, evidence of the ability to implement a larger APZ may be required to inform planning decisions. These include dimensions corresponding to radiant heat impact levels of 10 kW/m^2 and/or 2 kW/m^2 and calculated using a flame temperature of 1200 K rather than 1090 K.

Established by the 'Determined' BAL Rating

The dimensions of the APZ that will be the responsibility of a landowner to implement and maintain around a habitable or specified building - to align the building's bushfire resistance construction level, to its level of exposure to flames, radiant heat and embers - will be those corresponding to the building's 'determined' BAL rating.

This rating will account for the relevant physical characteristics of a specific site and the applicable building's separation distance from classified vegetation, the type of vegetation it is exposed to and the slope of the ground supporting that vegetation.

Variations to these dimensions (i.e. vegetation separation distances) will only exist as the result of either:

- A requirement presented within an associated Bushfire Management Plan to increase the size of the APZ as part of a required additional protection measure; or
- A directive of the relevant Local Government through their annual notice, issued under s.33 of the Bushfires Act 1954 (see below), that results in a larger dimension.

Established by the Relevant Local Government

To satisfy the local governments requirements, a required APZ dimension may be stated in the notice issued annually by the relevant local government under s.33 of the Bushfires Act 1954 (e.g. Bushfire Risk Reduction Notice or Firebreak and Hazard Reduction Notice etc).

For certain vegetation/sites, based on environmental considerations, a maximum allowable dimension may be established, typically that corresponding to a BAL-29 rating for the relevant building – which will vary in response to the site specific conditions.

The existence of any such restrictions is information that would need to be sought from the relevant local government planning department.

TECHNICAL REQUIREMENTS

Established by the Guidelines

The relevant technical requirements for an APZ are established in the Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), Appendix B2: Siting and design and available online at Planning WA - SPP 3.7 Bushfire

Established by the Relevant Local Government

Refer to the notice issued annually by the relevant local government under s33 of the Bushfires Act 1954 (e.g. Bushfire Risk Reduction Notice or Firebreak and Hazard Reduction Notice etc). It may state technical requirements that vary from and/or are additional to those established by the Guidelines to be complied with. Refer to the ratepayer notice and/or the local government's website for the current version.

The local government's technical requirements may be established by their gazetted local planning scheme.

B4: BAL /APZ and Planning vs Building Approval Requirements

BAL RATINGS AND APZ DIMENSIONS - PLANNING VERSUS BUILDING APPROVAL REQUIREMENTS

Statement: It is not the purpose of this 'planning' BMP to derive a 'determined' BAL rating that will apply to an existing or future habitable or specified building to establish its bushfire resistant construction requirements in accordance with the Building Code of Australia (although in limited situations this can be done – refer to Appendix B1).

Planning Applications: To be compliant, a planning proposal must demonstrate it will be possible to install the required minimum sized Asset Protection Zone (APZ), to the required technical requirements, surrounding a habitable or specified building, while applying APZ location constraints and allowances established by the Guidelines.

The Minimum Sized APZ: Is one whose dimensions ensure the potential radiant heat impact on the relevant buildings does not exceed 29 kW/m^2 from fire in any surrounding types of classified vegetation. This is the upper limit of the range of radiant heat flux corresponding to the BAL-29 rating. The dimensions of this 'BAL-29 APZ' will vary dependent on the site specific conditions.

Building Permit Applications: Require a determined BAL rating for proposed buildings works (stated on a BAL Certificate). The lower the BAL rating the greater the size of the corresponding APZ that would need to be installed and maintained in a low bushfire threat state to ensure the building's exposure to bushfire threats continues to be matched to the bushfire resistant construction applied.

APZ Dimensions: A larger APZ, potentially requiring the modification/removal of additional native vegetation, is required to subject a building to a lower BAL rating. However, bushfire planning policy does not support such an approach as evidenced by the following guidance to which due regard must be given:

> *SPP 3.7 Bushfire, Policy Objectives, cl. 5.5 states – "Prioritise the retention of native vegetation for biodiversity conservation, environmental protection and landscape amenity.*
>
> *SPP 3.7 Bushfire, Policy Outcomes, cl. 6.2 - establishes that clearing of native vegetation is to be avoided or minimised in managing or mitigating bushfire risk.*
>
> *The Guidelines, Appendix B2, B.2.1 states "clearing or modification of native vegetation to reduce the radiant heat impact below 29 kW/m^2 is generally not supported."*

Additional Assessment and Reporting: The implication of the planning policy's guidance is if developers/landowners desire to lower the BAL rating to which future building works are subjected – by modification or removal of native vegetation greater than the BAL-29 dimensioned APZ - additional site assessment and reporting would be required to be submitted to the relevant authority for approval to modify/remove that vegetation.

Consequently, the determination of a BAL rating for building permit application purposes is likely to require a separate assessment as:

- It will potentially have implications regarding the obtaining of approvals for native vegetation modification and/or removal – the retention of which is an objective of State Planning Policy 3.7 Bushfire; and/or
- The precise location of a future building/structure within a lot and relative to any bushfire hazard may not be known at the time of producing this BMP.

Dimensions of the APZ to be Installed and Maintained by the Landowner: The dimensions of the APZ that will be the responsibility of a landowner to implement and maintain around a habitable or specified building (to align the building bushfire resistance to its level of exposure to flames, radiant heat and embers), will be those corresponding to the building's 'determined' BAL rating and the site specific conditions.

The dimensions of the 'BAL-29 APZ' identified in this BMP for planning assessment purposes, will not necessarily be the APZ that is to be implemented and maintained by a landowner in perpetuity.

B5: Vegetation Excluded from Classification – Ensure Continued Low Threat Status

MAINTAINING THE LOW THREAT STATUS OF EXCLUDED VEGETATION

When applying AS 3959:2018 BAL determination methodology, vegetation adjoining or adjacent to the subject site can be excluded from classification based on being a 'low bushfire threat'. To maintain this status, certain requirements must continue to be met in accordance with the below extract from AS3959:2018. Refer to the 'Classified Vegetation and Topography Map' for the relevant low threat areas associated with the subject site.

Determination of 'low threat' vegetation is based on factors such as - proximity to the subject site / small areas of vegetation / low flammability / higher moisture content / low fuel load.

Aside from a naturally occurring low fuel load, vegetation maintained in a minimal fuel condition through active management can be excluded. The associated key requisite is that the active management can be expected to continue in perpetuity, and this can be adequately justified.

Acceptable forms of justification typically involve supportable evidence or the existence of an enforceable mechanism. Examples of enforceable mechanisms include:

- Requirements established by a Section 33 (Bush Fires Act 1954) notice issued by a local government;
- An appropriate and enforceable agreement between relevant parties (which may involve additions to land titles); and
- For public open space or crown land, written evidence that the land manager e.g. local government or a State Government department, agrees to maintain the designated area of land in a low threat state in perpetuity.

2.2.3.2 *Exclusions—Low threat vegetation and non-vegetated areas*

The following vegetation shall be excluded from a BAL assessment:

(a) Vegetation of any type that is more than 100 m from the site.

(b) Single areas of vegetation less than 1 ha in area and not within 100 m of other areas of vegetation being classified vegetation.

(c) Multiple areas of vegetation less than 0.25 ha in area and not within 20 m of the site, or each other or of other areas of vegetation being classified vegetation.

(d) Strips of vegetation less than 20 m in width (measured perpendicular to the elevation exposed to the strip of vegetation) regardless of length and not within 20 m of the site or each other, or other areas of vegetation being classified vegetation.

(e) Non-vegetated areas, that is, areas permanently cleared of vegetation, including waterways, exposed beaches, roads, footpaths, buildings and rocky outcrops.

(f) Vegetation regarded as low threat due to factors such as flammability, moisture content or fuel load. This includes grassland managed in a minimal fuel condition, mangroves and other saline wetlands, maintained lawns, golf courses (such as playing areas and fairways), maintained public reserves and parklands, sporting fields, vineyards, orchards, banana plantations, market gardens (and other non-curing crops), cultivated gardens, commercial nurseries, nature strips and windbreaks.

NOTES:

1 Minimal fuel condition means there is insufficient fuel available to significantly increase the severity of the bushfire attack (recognizable as short-cropped grass for example, to a nominal height of 100 mm).

2 A windbreak is considered a single row of trees used as a screen or to reduce the effect of wind on the leeward side of the trees.

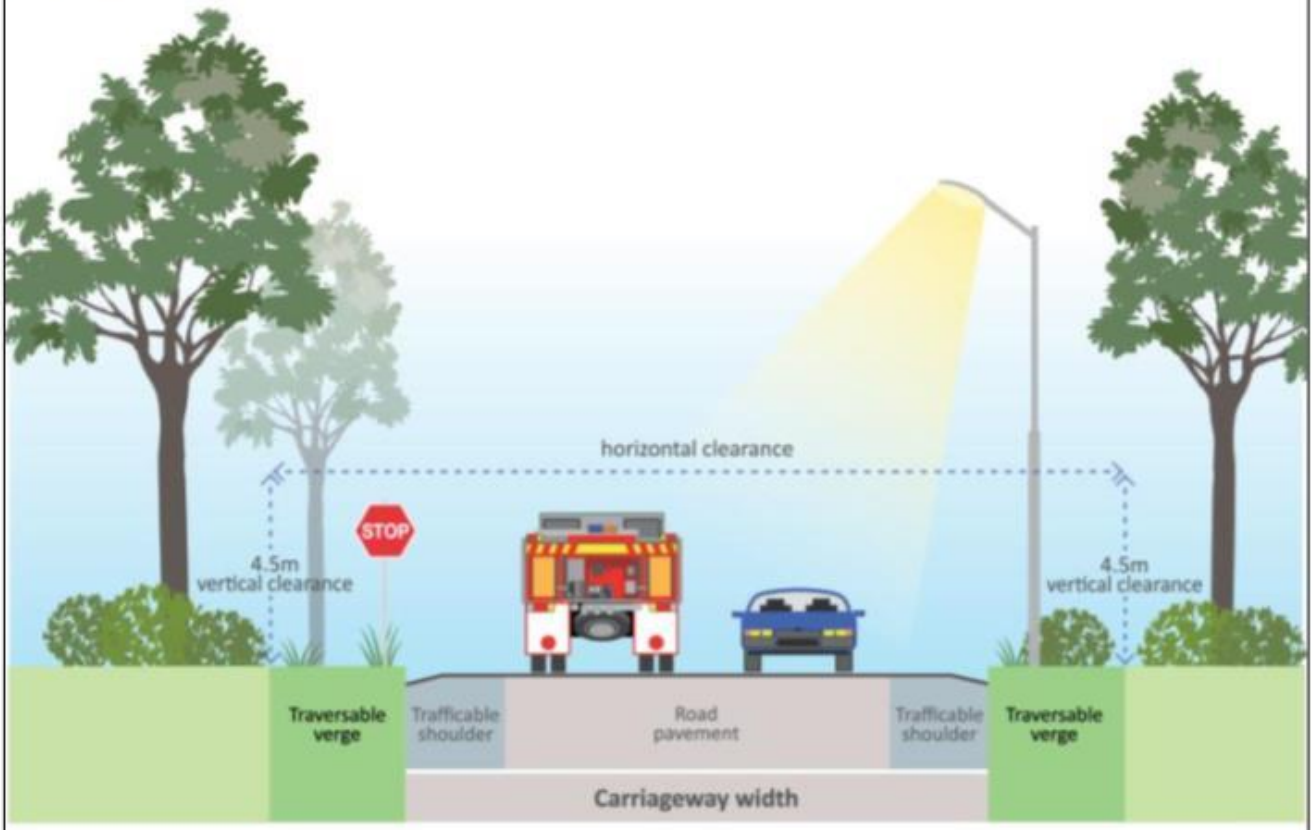
APPENDIX C: GUIDANCE - TECHNICAL REQUIREMENTS FOR VEHICULAR ACCESS

The relevant technical requirements are established in the Planning for Bushfire Guidelines (DPLH/WAPC) (as amended), Appendix B3: Vehicular access and available online at Planning WA - SPP 3.7 Bushfire

The following excerpts are presented here as a quick reference to applicable terminology and design requirements applied in the assessment against the bushfire protection criteria, Element 3: Vehicular access in this BMP.

C1: Road Component Terminology

Figure 26: Area encompassing horizontal clearance and vertical clearance



Horizontal clearance: The carriageway width (including the road pavement and trafficable shoulder) and traversable verge that provides for the movement and parking of vehicles and area required by emergency services to operate. Infrastructure and vegetation within the traversable verge should be frangible, however, non-frangible items can occur providing they do not restrict vehicular movement in the event of an emergency.

C2: Vehicular Access Technical Requirements

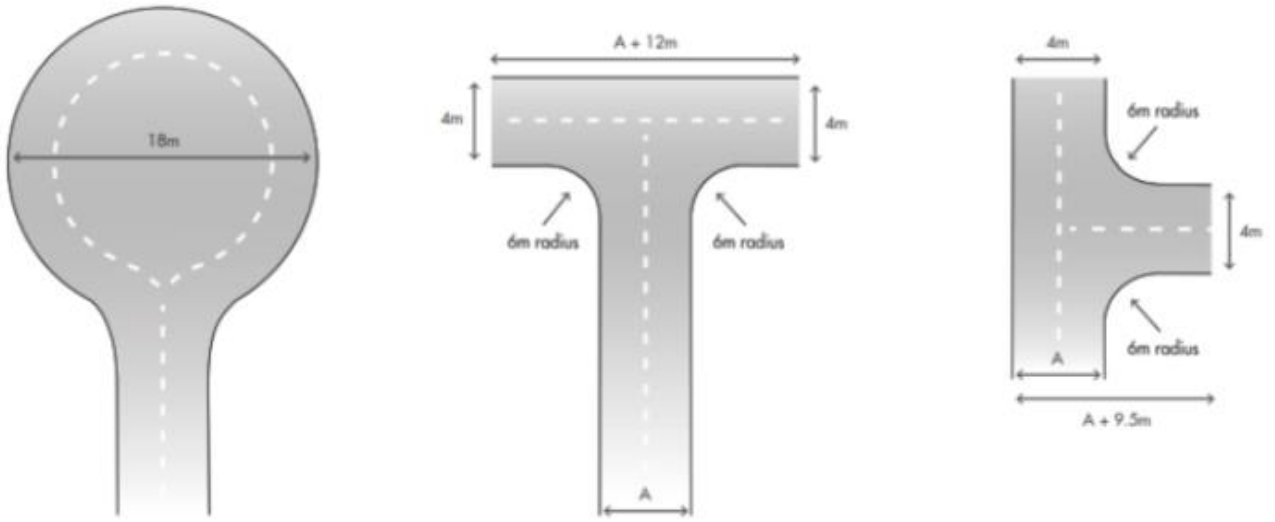
Table 10: Vehicular access technical requirements

	1		2		3		4		5	
TECHNICAL REQUIREMENTS	**PERIMETER ROADS**		**PUBLIC ROADS**		**EMERGENCY ACCESS WAY[3]**		**FIRE SERVICE ACCESS ROUTE[3]**		**BATTLE-AXE & PRIVATE DRIVEWAYS[1]**	
MAP OF BUSH FIRE PRONE AREAS DESIGNATION	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**	**Area 2**	**Area 1**
Minimum horizontal clearance (metres)	12	8	See note 5		10	6	10	6	6	
Minimum vertical clearance (metres)	4.5									
Minimum weight capacity (tonnes)	15									
Maximum grade unsealed road[2]	See note 5		See note 5		1:10 (10% or 6°)					
Maximum grade sealed road[2,4]					1:7 (14.3% or 8°)					
Maximum average grade sealed road					1:10 (10% or 6°)					
Minimum inner radius of road curves (metres)					8.5					

Notes:

1. Driveways and battle-axe legs to comply with the Residential Design Codes and Development Control Policy 2.2 Residential Subdivision where not required to comply with the widths in this Appendix or the Guidelines.
2. Dips must have no more than a 1 in 8 (12.5% - 7.1 degrees) entry and exit angle.
3. To have crossfalls between 3 per cent and 6 per cent.
4. For sealed roads only the maximum grade of no more than 1 in 5 (20 per cent) (11.3 degrees) for no more than 50 metres is permissible, except for short constrictions to 3.5 metres for no more than 30 metres in length where an obstruction cannot be reasonably avoided or removed.
5. As outlined in the Institute of **Public Works Engineering Australasia (IPWEA) subdivision guidelines, Liveable Neighbourhoods, Austroads Standards** Main Roads standard, supplement, policy or guideline and/or any applicable or relevant local government standard or policy.

Figure 30: Design requirements for a turn-around area



City of Wanneroo

Environmental Planning Considerations Report (EPC)

Based on data supplied by WALGA and Landgate

©Western Australian Land Information Authority (2020):
Cadastral/Property boundaries
Hydrography lines
Crown Reserves

Reports are generated only for datasets covering the selected area. Absence of threatened flora, fauna and ecological communities' records within a selected area does not necessarily mean those features are not present. See further information on how to interpret the datasets in the Explanatory Notes.

Reported generated Monday 27 May 2024 14:38:30 by Legg, Stephanie

Acknowledgement

This report and the application it is produced from is based on the discontinued WALGA Environmental Planning Tool developed by Fluffy Software.

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3 Summary

If any of the listed matters are mapped in or within a defined buffer of the selected area read corresponding section in this report for details or seek further advice.

'No data' status indicates there is no data recorded in the system and shall not be interpreted as absence of the reported environmental matter. Confirmation may require field survey.

Environmental Matters Requiring Further Investigation	**Status**	**See section**
EPC Site ID	1150	3.1
Selected Area in Hectare (ha) or square meters (m²)	15749.73 m²	3.1
Federal and State Offsets	No Data	3.9
Environmentally Sensitive Area *	Yes	5.2
Native Vegetation **	No Data	4.2.2
Threatened Ecological Communities	Yes	4.1.4
Threatened or Priority Flora within selected area	No Data	4.1.1
Threatened or Priority Flora within 5km Buffer	Yes	4.1.1
WAHerb Threatened or Priority Flora within selected area	No Data	4.1.2
WAHerb Threatened or Priority Flora within 5km Buffer	Yes	4.1.2
Threatened or Priority Fauna within selected area	No Data	4.1.3
Threatened or Priority Fauna within 5km Buffer	Yes	4.1.3
Mapped as potential fauna habitat	Yes	4.1.6 – 4.1.8
Geomorphic Wetland	No Data	4.3
Ecological Linkages	No Data	4.5
Adjoining a conservation area (DBCA managed)	Yes	10.3 &10.5
Environmental Policy and other relevant matters	**Status**	**See section**
Acid Sulfate Soils	Yes	7.7
Public Drinking Water Source Area	Yes	11.2
RIWI Groundwater/ Surface Areas	Perth Groundwater Areas	11.4
Bush Forever	Yes	10.3
Regional Park	Yes	10.4
Aboriginal Cultural Heritage	See Section 7.11.1 for action item'	7.11.1
Heritage –State (State Identified)		7.11.2
Heritage – Local (COW Identified)		7.11.3
Contaminated Site	No Data	7.12
Bushfire Prone Areas	Yes	7.13
CHRMAP Polygon	No Data	8.2
Karst	Low	8.3
Unexploded Ordnance (UXO)	No Data	8.4
Local Government Specific Information	**Status**	**See section**
Local Biodiversity Strategy		8.1
Intersected Cadastre Lots		3.2
Address of Intersected Lots		3.2

* No exemptions for clearing of native vegetation apply.

** Note vegetation extent mapping does not show small patches, some wetlands and native trees. Confirm presence/absence via aerial photography or site visit.

3.1 Site and Area

Calculated area of Site 1150 is 15749.73 m².

3.2 Intersected Cadastre Lots

The polygon of the EPC site intersects the below listed cadastre lots.

Lot: 39 DP: 32924, Lot: 40 DP: 32924
275 Scenic Drive WANNEROO, 245 Scenic Drive WANNEROO

3.8 Services Trails

The site is near DBCA Services trails.

The selected area is within 50m of the following track and trail types:
No Data

3.9 Federal and State Offset Sites

If State and/or Federal Offset Sites are found within the project area, please consult with EAO/EAPs before progressing with the planning of this project or await the EMA advice to be provided. Federal and State Offset Sites have significant conditions and limitations on land use and clearing activities. Failing to comply with these conditions can result in significant penalties.

The information provided in Section 3.9.1 has been collated by thoroughly reviewing historical records contained in the City of Wanneroo's current Content Manager Systems as well as the former Content Manager System (PowerDocs). This dataset encompasses both historical Offset Sites and additional locations that may not be readily accessible in other publicly available records.

The information provided in Section 3.9.2 is extracted from the "Referrals Spatial Database – Public" spatial database provided by the of Department of Agriculture, Water and the Environment at

http://www.environment.gov.au/fed/catalog/search/resource/details.page?uuid=%7BC65F30AC-CD38-4EC6-BD62-2A0D37C661EE%7D. This dataset includes locations and details of referrals submitted to the Department under the Environment Protection and Biodiversity Conservation (EPBC Act) 1999.

The information in Section 3.9.3 is extracted from the "Offsets Register - Offsets (DWER-078)" spatial database provided by the Department of Water and Environmental Regulations at https://catalogue.data.wa.gov.au/dataset/offsets-register-offsets. This dataset includes all environmental offsets required under Part IV and Part V of the Environmental Protection Act since 1 July 2011. It provides spatial data on environmental offsets conditioned for the projects in Western Australia through the Environmental Protection Act 1986 approvals processes.

The information in Section 3.9.4 is extracted from the "Clearing Instruments Conditions (Areas Subject to Conditions) (DWER-077)" spatial database provided by the Department of Water and Environmental Regulations at

https://catalogue.data.wa.gov.au/en/dataset/clearing-instruments-conditions. This dataset includes locations and details of areas subject to conditions under a clearing permit granted under the Environmental Protection Act 1986. Data captured represents the land clearing areas where conditions may apply, including offset sites.

3.9.1 State And/Or Federal Offset Sites – City's Historical Records

This selected area is within the following State and/or Federal Offset Site:

State And Federal Offset Sites	
EPBC Decision	No Data
EPBC Decision HPE PowerDoc	No Data
Offset Name	No Data

Clearing Permit Number	No Data
Clearing Permit HPE PowerDoc	No Data
Other References	No Data
Management Plan	No Data
Landscaping Drawings	No Data
Additional Information	No Data
Federal Government Web Site	No Data
State Government Web Site	No Data

3.9.2 Federal Offset Sites – EPBC Referrals

This selected area is within the following Federal Offset Site:

EPBC Spatial Referrals Public	
Reference	No Data
Project Name	No Data
Referral Decision	No Data
Status Decision	No Data
Stage Name	No Data
Year	No Data
URL EPBC Spatial Referrals Public	No Data

3.9.3 State Offset Sites – DWER Offset Register

This selected area is within the following State Offset Site:

SLIP Clearing Conditions DWER 077	
Clearing Permit Number	No Data
Permit Status	No Data
Permit Proponent	No Data
Permit Assessment Criteria	No Data
Clearing Impact	No Data
Offset Type	No Data
Offset Rationale	No Data
Offset Second Argument	No Data
Decision Date	No Data

3.9.4 State Offset Sites – DWER Clearing Subject to Conditions

This selected area is within the following State Offset Site:

Offsets Register Offsets DWER 078	
Clearing Permit Number	No Data
Clearing Permit Holder	No Data
Status of Application	No Data
Permit Condition	No Data
Permit Condition Details	No Data

4 Environmental Considerations

4.1 Threatened flora, fauna and ecological communities

To search for Matters of National Environmental Significance that might occur in the area of your interest go to Protected Matters Search Tool available through the Department of Environment.

For parts of the State with poor data coverage, additional information might be found by searching the Department of Water and Environmental Regulations online portal, Index of Biodiversity Surveys for Assessments which provides access to information about land-based surveys in Western Australia. IBSA can be searched by geographic regions.

4.1.1 Threatened and Priority Listed Flora Summary

Records of Threatened and/or Priority Listed Flora are available for the selected area. Threatened flora are protected and cannot be removed without ministerial consent. Advice should be sought from the Department of Biodiversity, Conservation and Attractions before development occurs on this site. Refer to the EPA Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment to select appropriate flora and vegetation survey protocols

Summary of records within the selected area by conservation status (number of records)	
Threatened – EPBC Act listed	No data
Threatened – State listed	0
Priority	0
Summary of records within 5km of the selected area by conservation status (Number of records)	
Threatened – EPBC Act listed	No data
Threatened – State listed	0
Priority	8

4.1.2 WA Herbarium Threatened and Priority Listed Flora Summary

Summary of records within the selected area by conservation status (number of records)	
Threatened – WAHerb listed	0
Priority – WAHerb listed	0
Summary of records within 5km of the selected area by conservation status (Number of records)	
Threatened – WAHerb listed	0
Priority – WAHerb listed	10

For the full list of records refer to Appendix 1.1

4.1.3 Threatened and Priority Fauna and Fauna Habitat Summary

Records of Priority or Threatened Fauna are available for the selected area. Advice should be sought from the Department of Biodiversity, Conservation and Attractions before development occurs on this site. Refer to the EPA Technical Guidance Terrestrial Fauna Surveys to select appropriate fauna survey protocols

Summary of records within the selected EPC Site by conservation status (number of records)	
Threatened – EPBC Act listed	0
Threatened/Specially protected – State listed	0
Priority	0
Summary of records within 5km of the selected area by conservation status (Number of records)	
Threatened – EPBC Act listed	318
Threatened – State listed	324
Priority	138

For the full list of records refer to Appendix 1.2.

4.1.4 Threatened and Priority Ecological Communities

This selected area may contain a threatened or priority ecological community. Advice should be sought from the Department of Biodiversity, Conservation and Attractions (DBCA) before development occurs on this site. Further information on a TEC or PEC record can be obtained from DBCAs Species and Communities Branch by quoting the **Occ_Unique number** for that record and the source data reference number **Ref: 15-0221EC**.

For information to assist in referral, environmental assessment and compliance issues relating to TECs listed under the Commonwealth legislation, refer to the Listing Advice and/or Conservation Advice and Recovery Plan. The Listing and/or Conservation Advice define the national ecological community and may include Key Diagnostic Characteristics, Condition Thresholds, Priority Research and Conservation Actions and additional considerations. For further information on EPBC Listed TECs, please go to the Department of the Environment and Energy website: Threatened species and ecological communities page.

Summary of Threatened and Priority Listed Ecological Community's Records Intersecting EPC Site	
Threatened – EPBC Act listed	0
Threatened/Specially protected – State listed	0
Priority	0
Summary of Threatened and Priority Listed Ecological Community's Records Intersecting EPC Site within 5km Buffer	
Threatened – EPBC Act listed	263
Threatened/Specially protected – State listed	1
Priority	266

For the full list of records refer to Appendix 1.3

4.1.6 Carnaby's Cockatoo Habitat

Carnaby's cockatoo (*Calyptorhynchus latirostris*) is listed as 'fauna that is rare or likely to become extinct' (generally referred to as threatened fauna) under the Western Australian Wildlife Conservation Act 1950 Wildlife Conservation (Specially Protected Fauna) Notice 2011. It has been ranked as 'Endangered' under the Commonwealth *Environmental Protection and Biodiversity Conservation Act 1999*.

If the selected area contains remnant vegetation, investigation for Carnaby's cockatoo feeding habitat is required.

Carnaby Cockatoo Habitat **The selected area is within the following mapping layers :**	
Remnant vegetation (ha)	0
Confirmed feeding habitat (ha)	0
'Confirmed' breeding area buffer (ha)	0
'Possible' breeding area buffer (ha)	0
'Confirmed' roosting area (ha)	0
'Confirmed' roosting area, buffered 6km (ha)	1.575
'Possible' roosting area (ha)	0
'Possible' roosting area, buffered 6km (ha)	1.575

4.1.7 Key Biodiversity Areas (Birds)

This selected area contains or is adjacent to a Key Biodiversity Area (Birds). Key Biodiversity Areas (Birds) dataset has been prepared by Birds Australia to support the conservation of birds and biodiversity by all spheres of Government and community. The selected area intersects the below listed Key Biodiversity Area (KBA)

Key Biodiversity Area (KBA)
26933 - Northern Swan Coastal Plain IBA , More information

4.1.8 Potential Quenda Habitat

Quenda or southern brown bandicoot (*Isoodon obesulus fusciventer*) is listed as Priority 4 species by State Government. The potential Quenda habitat layer indicates where this species is likely to occur in the Swan Region. It can be used to identify where targeted site visits should focus to confirm the habitat presence, its use and quality.

The selected area contains potential Quenda habitat (in ha):
0

4.2.2 Remnant Vegetation

This area contains remnant vegetation. The clearing of remnant native vegetation is prohibited unless a clearing permit is obtained from the Department of Environmental Regulations, or for an exempt purpose or activity under the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

4.2.2.1 Environmental Protection (Clearing of Native Vegetation) Regulations 2004, Statewide vegetation statistics

To view the retention and protection status of Beard vegetation associations, download reports prepared by the DBCA Statewide Vegetation Statistics.

The selected area retains native vegetation representative of the following Beard vegetation acssociations by IBRA 7.1 subregion	
IBRA Subregion (Code) :	Perth - SWA2
Beard Vegetation Association	SPEARWOOD_126 - Freshwater lake, SPEARWOOD_37 - Thicket
Remnant Vegetation (Ha)	0.17, 1.405

4.2.2.3 Environmental Protection (Clearing of Native Vegetation) Regulations 2004, Vegetation extent by Vegetation complexes

Conservation significance of vegetation complexes for the Perth and Peel Regions is summarised in the following document: Poorly Represented Vegetation Complexes, including the explanation for the retention and protection thresholds used below.

Vegetation complexes occurring within the Swan Coastal Plain and Jarrah Forest are classified into the following categories shown in brackets after the complex name:

a) Vegetation complexes with less than 10% of pre-European extent remaining and < 10% being protected within the Swan Coastal Plain and Jarrah Forest IBRA regions

b) Vegetation complexes with less than 30% of pre-European extent remaining and less than 10% being protected within the Swan Coastal Plain and Jarrah Forest IBRA regions

c) Vegetation complexes with only 1500 ha or 15% or less protected for conservation in the Jarrah Forest IBRA-region

d) Vegetation complexes with only 400 ha or 10% or less protected for conservation on the Swan Coastal Plain portion of Perth and Peel

e) Vegetation complexes with less than 10% of pre-European extent protected within the Swan Coastal Plain and Jarrah Forest IBRA regions (and not already listed above)

f) Vegetation complexes with less than 30% of pre-European extent remaining within the Swan Coastal Plain and Jarrah Forest IBRA regions

g) Vegetation complexes not meeting any of the above criteria

To view the retention and protection statistics for vegetation complexes at the regional and Local Government level, download the 2017 Statewide vegetation statistics reports published by the Department of Biodiversity, Conservation and Attractions on DataWA: DBCA South West Vegetation Complex Statistics.

The selected area retains native vegetation representative of the following vegetation complexes (in ha):
Bassendean Complex-Central and South, Bassendean Complex-Central and South Transition, Bassendean Complex-North, Bassendean Complex-North Transition, Beermullah Complex, Bootine Complex, Caladenia Complex, Coonambidgee Complex, Cottesloe Complex-Central and South, Cottesloe Complex-North, Forrestfield Complex, Gingin Complex, Guildford Complex, Herdsman Complex, Karamal Complex-South, Karrakatta Complex-Central and South, Karrakatta Complex-North, Karrakatta Complex-North Transition, Moondah Complex, Mungala Complex, Pinjar Complex, Quindalup Complex, Reagan Complex, Southern River Complex, Swan Complex, Vasse Complex, Yanga Complex

4.2.2.4. Remnant Vegetation Within 10km buffer of Selected Area

Area of remnant vegetation remaining within 10km of the selected area (local area vegetation retention). Land area is based on pre-European extent of Beard Vegetation Association mapping within the 10km buffer.

Veg area:	**Land area:**	**Remn veg remaining:**
59.070 km2	282.951 km2	20.877 %

4.2.3 Perth Region Plant Community Reference Sites

The selected area is within or near a Reference Site. For more information available for this area go to Perth Region Plant Biodiversity Project.

The following Reference Sites are in the area (Site Group – Reference):
Bush Forever –299

4.3 Surface Water

4.3.5 Geomorphic Wetlands of the Swan Coastal Plain

This selected area contains or is within 50m of a wetland. Advice should be sought from the DBCA before development occurs on this site.

The selected area is within 50m of the following wetland types by indicated overlapping area (in ha):	
Evaluation	Conservation, Multiple Use, Not Applicable, Resource Enhancement
Geomorphic Wetland (ha)	0.283, 0.000

4.5 Regional Ecological Linkages

4.5.1 Gnangara Mound Linkages

The remnant vegetation on this site is within Gnangara Mound Ecological Linkages (GMEL).

The selected area is within the following GMEL categories: **Link Type – GMEL (ha)**
Area for Conceptual Linkage 0 Ha, Bush Forever associated with Conceptual Linkage 1.2 Ha, Conceptual Linkage 0 Ha, Linkage Site (Post-Pine Banksia Rehabilitation) 0 Ha

4.5.2 Regional Ecological Linkage

The remnant vegetation on this site is within a regional Ecological Linkage. Regional Ecological Linkages should be mainatained where possible.

The selected area is within the following Regional Ecological Linkage area.
No Data

5 Vegetation/Natural Areas with Some Level of Protection

Natural areas protected through Local Planning Scheme provisions are not identified through this report. Check current land uses by turning on Local Planning Scheme and Reserve layers in the Zoning Module.

5.2 Environmentally Sensitive Areas

The remnant vegetation on this selected area is within an Environmentally Sensitive Area. Native vegetation cannot be cleared from this site except for maintenance of existing railways or roads, or in accordance with the Environmental Protection (Clearing of Native Vegetation) Regulations 2004.

The selected area is within an Environmentally Sensitive Area (in ha):
1.208

6 Priorities for Further Investigation

This information is available for the following regions: Perth and Peel Wheatbelt Geraldton Regional Flora and Vegetation Survey study area

6.1 Priorities for Further Investigation of Local Natural Areas for Biodiversity Conservation

6.1.3 Level 1 Prioritisation Criteria

Remnant vegetation in the selected area has the following distribution of conservation significance criteria:

Number of criteria met - area of remnant vegetation (in ha)	
Level 1 Criteria	No Data
Criteria Area (ha)	0

Approximately 0 Ha of remnant vegetation meets criteria with legislative protection.

6.1.3.3 Prioritisation Level 3: Potentially Threatened Vegetation Complexes

The selected area includes complexes considers potentially threatened. Retention and protection of remnant vegetation representative of these vegetation complexes should be a priority of consideration.

Vegetation Complex Priority (Level 3) – area (in ha)

Vegetation Comple	No Data
Enviro Veg Area Ha	0

6.2 South West Ecoregion Initiative

The selected area is within the Southwest Australia Ecoregion study area.

https://www.environment.gov.au/land/nrs/science/ibra/australias-ecoregions

Refer to the above listed URL for site specific information on potential conservation priorities.

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7 Additional Considerations

Landscape character, soil systems, land capability and quality categories relevant to the selected site are not identified through this report. Check by turning on individual layers in the mapping viewer to access the relevant information or run a soils report.

7.7 Acid Sulfate Soils

This selected area is in a “high to moderate” or “moderate to low” Acid Sulfate Soil risk area. Acid sulfate soils should not be disturbed. Advice should be sought from the Acid Sulfate Soils Planning Guidelines and the Contaminated Sites Branch of the Department of Environmental Regulation.

Selected area containing acid sulphate soils (in ha)	Risk Category
No Data	No Data

Note: The ASS risk maps are not intended to provide site specific acid sulfate soil information but rather a broad scale identification of where the ASS layers are present. The data derived from the maps cannot be used to determine whether a specific property is affected by ASS but should be used to trigger site-specific investigations and management strategies for ASS soil disturbance and/or lowering of the water table.

7.11.1 Aboriginal Cultural Heritage

Aboriginal Cultural Heritage Action Item	Status of Aboriginal Cultural Heritage is no longer completed as part of the EPC Report process. An assessment of Aboriginal Cultural Heritage will now involve completing the City's Due Diligence Assessment (DDA) template via Content Manager 23/37493 and querying the Department of Planning Lands and Heritage (DPLH) mapping system. https://espatial.dplh.wa.gov.au/AHIS/index.html?viewer=AHIS For further guidance on the new Aboriginal Heritage legislation, please visit DPLH's website https://www.wa.gov.au/organisation/department-of-planning-lands-and-heritage/aboriginal-cultural-heritage-act-2021 or contact the City's Heritage Advisor.

7.11.2 State Heritage Sites

The site overlays the following state government identified heritage sites.

State Heritage	
State Dataset	
State Site_ID	
State Heritage Site Name	
State Comments	

7.11.3 City of Wanneroo Heritage Sites

The site overlays the following City of Wanneroo identified heritage sites.

This data is inaccurate. Check with Susan Dalgleish, Heritage Advisor, Cultural Development for details.

COW Heritage	No Data
COW Dataset	No Data

COW Site_ID	No Data
COW Heritage Site Name	No Data
COW Comments	No Data

7.12 Contaminated Sites

The selected area contains the following contaminated site:
No Data

7.13 Bushfire Prone Area

The selected area is within a mapped Bushfire Prone Area (in ha):
1.233

Additional planning and building requirements may apply to developments within designated bush fire prone areas, in accordance with Schedule 2 Part 10A of the Planning and Development (Local Planning Schemes) Regulations 2015, State Planning Policy 3.7 Planning in Bushfire Prone Areas, the supporting Guidelines for Planning in Bushfire Prone Areas and the Building Code of Australia. Certain exemptions and exclusions may apply.

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8 Local Government Specific Information

8.1 Local Biodiversity Strategies

The selected area is within the following local government authority (LGA) with a local biodiversity strategy (LBS)

Local Government Authority (LGA)
City_of_Wanneroo
More Information

8.2 Coastal Hazard Risk Management & Adaption Planning

CHRMAP:	No Data

8.3 Karst

The selected area has the following cave risk:
Cave Risk Category: Low

8.4 UXO

The selected area has the following unexploded ordnance:	
UXO Site Name	No Data
UXO Alternative Name	No Data
UXO General Location	No Data
UXO Category	No Data
UXO URL	More Information
UXO Description	No Data

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10 Administrative Boundaries

10.1 Interim Biogeographic Regionalisation for Australia, Version 7.1 Sub-regions

This selected area is within the following IBRA 7.1 Sub-regions.

IBRA Sub-region

Swan Coastal Plan

10.3 Bush Forever

This selected area contains or is within a Bush Forever Area. Advice should be sought from the Department of Planning.

The selected area occurs on the following Bush Forever Areas:
299

10.4 Regional Parks

This selected area is within or adjacent (50m) to a Regional Park:
Yellagonga

10.5 DBCA Managed Lands and Waters

This selected area is within or adjacent to land managed for conservation by the Department of Biodiversity, Conservation and Attractions.

The selected area is within or adjacent (50m) to the following DBCA Estate (Reserve identifier: Category):
No Data

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11 Environmental Policy

11.2 Public Drinking Water Source Areas

The selected area is within the following Public Drinking Water Source Areas (in ha):
Perth Coastal Underground Water Pollution Control Area - P3

11.4 RIWI Act Groundwater Areas and Subareas; Surface Water Areas and Irrigation Districts

The selected area is within the following RIWI Act area/s.

RIWI Act Area
Perth Groundwater Areas

Appendix 1.1 Threatened and Priority Listed Flora Records

Records of Threatened and/or Priority Listed Flora are available for the selected area. Threatened flora are protected and cannot be removed without ministerial consent. Advice should be sought from the Department of Biodiversity, Conservation and Attractions before development occurs on this site. Refer to the EPA Technical Guidance Flora and Vegetation Surveys for Environmental Impact Assessment to select appropriate flora and vegetation survey protocols.

DBCA records

The selected area has the following **DBCA records**:

Population ID	Conservation Status	State Ranking
No Data	No Data	No Data

The following **DBCA records are within 5km** of the selected area. Use the information to seek advice from the Department of Biodiversity, Conservation and Attractions:

Population ID	Conservation Status	State Ranking
84822, 86275, 86874, 98915, 98916, 98917, 98929, 98930	3, 2, 4	No Data

WA Herbarium records

The selected area has the following **WA Herbarium records**:

Sheet Number	Conservation Status
No Data	No Data

The following **WA Herbarium records are within 5km** of the selected area. Use the information to seek advice from the Department of Biodiversity, Conservation and Attractions:

Sheet Number	Conservation Status

169579, 278696, 703656, 718297, 920320, 1016539, 3378632, 3378640, 3409171, 3416089	2, 3, 1

Key to the Conservation Status	
CR = Critically Endangered	1 = Priority 1: Poorly Known Taxa
EN = Endangered	2 = Priority 2: Poorly Known Taxa
VU = Vulnerable	3 = Priority 3: Poorly Known Taxa
EX = Extinct	4 = Priority 4: Rare Taxa

Appendix 1.2 Threatened and Priority Fauna and Fauna Habitat Records

Records of Priority or Threatened Fauna are available for the selected area. Advice should be sought from the Department of Biodiversity, Conservation and Attractions before development occurs on this site. Refer to the EPA Technical Guidance Terrestrial Fauna Surveys to select appropriate fauna survey protocols.

The selected area has the following **Fauna records:**

Class Name - EPBC Ranking - State Ranking		
No Data	No Data	No Data

The following protected fauna species have been recorded within 5km of the selected area. Use the information to seek advice from the Department of Biodiversity, Conservation and Attractions.

Class Name - EPBC Ranking - State Ranking		
24215, 24328, 24345, 24731, 24733, 24734, 24784, 24788, 24806, 24808, 24809, 24843, 25249, 25335, 25554, 25575, 25624, 25741, 33992, 47975, 48400, 48588, 48595, 48597,	MAMMAL, BIRD, REPTILE, INVERTEBRATE	P4, EN, VU, CR, MI, P3, OS

48935		

Appendix 1.3 Threatened and Priority Ecological Communities Records

This selected area may contain a threatened or priority ecological community. Advice should be sought from the Department of Biodiversity, Conservation and Attractions (DBCA) before development occurs on this site. Further information on a TEC or PEC record can be obtained from DBCAs Species and Communities Branch by quoting the **Occ_Unique number** for that record.

For information to assist in referral, environmental assessment and compliance issues relating to TECs listed under the Commonwealth legislation, refer to the Listing Advice and/or Conservation Advice and Recovery Plan. The Listing and/or Conservation Advice define the national ecological community and may include Key Diagnostic Characteristics, Condition Thresholds, Priority Research and Conservation Actions and additional considerations. For further information on EPBC Listed TECs, please go to the Department of the Environment and Energy website: Threatened species and ecological communities page.

The following threatened and priority vegetation communities have been recorded within the selected area.

OCC Unique Number	State Ranking	EPBC Ranking
No Data	No Data	No Data

The following threatened and priority vegetation communities have been recorded within 5km of the selected area. Use the information to seek advice from the Department of Biodiversity, Conservation and Attractions.

OCC Unique Number	State Ranking	EPBC Ranking
0, 117554, 117555, 117556, 117557, 117559, 117576, 117586, 117587, 117588, 117589, 117627, 117632, 117642, 117670, 117671, 117672, 117675, 117679, 117681, 117682, 117686, 117688, 117689, 117690, 117691, 117699, 117700, 117708, 117709, 117710, 117711, 117712, 117724, 117726, 117727, 117728, 117729, 117730, 117731, 117732, 117733, 117734, 117760, 117773, 117780, 117789, 117802, 117805, 117806, 117807, 117808, 117809, 117810, 117825, 117826, 117827, 117828, 117833, 117834, 117843,	Endangered, Priority 3	, Endangered, Critically Endangered

117844, 117845, 117846, 117847, 117848, 117849, 117850, 117851, 117854, 117855, 117856, 117857, 117858, 117871, 117872, 117897, 117898, 117899, 117919, 117920, 117921, 117922, 117923, 117924, 117925, 117926, 117927, 117928, 117929, 117930, 117931, 117932, 117933, 117934, 117935, 117936, 117937, 117938, 117939, 117940, 117941, 117942, 117945, 117946, 117947, 117948, 117949, 117950, 117951, 117952, 117953, 117954, 117955, 117956, 117957, 117958, 117959, 117961, 117962, 117963, 117964, 117965, 117966, 117967, 117968, 117969, 117970, 117971, 117972, 117973, 117974, 117975, 117976, 117977, 118020, 118034, 118035, 118036, 118037, 118038, 118042, 118050, 118051, 118052, 118053, 118057, 118064, 118070, 118075, 118076, 118077, 118078, 118079, 118124, 118125, 118126, 118127, 118128, 118129, 118130, 118140, 118141, 118142, 118143, 118144, 118145, 118146, 118150, 118151, 118152, 118153, 118154, 118155, 118156, 118157, 118158, 118159, 118160, 118161, 118162, 118163, 118164, 118165, 118166, 118169, 118170, 118180, 118181, 118182, 118183, 118184, 118185, 118186, 118187, 118188, 118189, 118190, 118191, 118192, 118195, 118196, 118217, 118324, 118325, 118332, 118333, 118334, 118340, 118341, 118342, 118343, 118348, 118349, 118350, 118351, 118352, 118353, 118354, 118355, 118356, 118357, 118358, 118360, 118367, 118368, 118370, 125130, 125131, 125132, 126598, 126599, 126604, 126605, 126606, 126607, 126608, 126609, 126637, 126639, 126640, 2646		

ENVIRONMENTAL PLANNING CONSIDERATIONS (EPC) REPORT ENVIRONMENTAL MATTERS ADVICE***			
Project Information			
PMO Code	PMO20065	**EPC Report HPE ref**	24/170654
PR number	PR-4279	**EPC Report advisor**	Environmental Asset Officer, Stephanie Legg
PR description	Design and Construction of a New Sports Hub Facility, Carpark and Supporting Path Network – Wanneroo Recreation Centre Precinct Upgrades, Scenic Park, WANNEROO. Site ID 1150	**EPC Advice HPE ref**	24/184067

Environmental Matters Requiring Further Investigation	Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager
Environmentally Sensitive Area – ESA (no exemptions for clearing of native vegetation)	Yes	1.208 ha of the selected site is within an ESA. If native vegetation present and requires removal, then exemption not applicable and clearing permit required to be submitted and approved prior to any vegetation being removed.	No exemptions apply for clearing with ESA – clearing permit will be required.
Federal and State Offsets	No	N/A	N/A
Native Vegetation (Confirm presence/absence via aerial photography, site photographs or site visit)	Yes	The selected site retains remnant native vegetation representative of Beard vegetation associations – Perth(SWA02): SPEARWOOD_126 – Freshwater Lake and SPEARWOOD_37 - Thicket  Image above shows Final Concept Plan	It is recommended that trees are to be retained within project design. If any vegetation within the project area requires removal, a clearing permit will be required. Arborist assessment recommended for tree identification and health. Arborist (tree) report: see additional advice at the end of the EPC Report Environmental Matters Advice Form.

Environmental Matters Requiring Further Investigation		Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager
			 Ariel image taken from Nearmaps April 2024.  Image above shows presence of vegetation within project footprint.	If clearing is required, PM to provide extent of works on aerial image vegetation photographs and arborist report to EAO.
Threatened and Priority ecological communities	Commonwealth listed (*Environmental Protection and Biodiversity Conservation Act 1999*)	Yes	No EPBC TECs or PECs within the selected area. EPBC TECs and PECs within 5kms of the selected area: Critically Endangered and Endangered.	N/A
	State listed (*Biodiversity Conservation Act 2016*)	Yes	No State TECs and PECs within the selected area. State TECs and PECs within 5km of the selected area: Endangered and Priority 3.	N/A
Threatened Flora Within selected area		No	N/A	N/A
Threatened Flora Within buffer of the selected area		Yes	Threatened flora within 5km of the selected area.	N/A
Threatened Fauna Within selected area		No	N/A	N/A
Threatened Fauna Within buffer of the selected area		Yes	Threatened fauna within 5km of the selected area: CR, EN, VU, OS, and MI.	N/A
Priority Flora and Fauna Within selected area		No	N/A	N/A

Environmental Matters Requiring Further Investigation		Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager
Priority Flora and Fauna Within buffer of the selected area		Yes	Priority flora found within 5km of the selected area: P1, P2, P3 and P4. Priority fauna found within 5km of the selected area: P3 and P4.	N/A
Mapped as potential Fauna Habitat		Yes	Carnaby's Cockatoo Habitat: 1.575 ha of the selected area is within a 'confirmed' roosting area buffer. The selected area contains or is adjacent to a Key Biodiversity Area (Birds).	N/A
Wetlands		No	Wetland within 100m of the selected site – Lake Joondalup.	N/A
Ecological Linkages		Yes	The vegetation on this site is within Gnangara Mound Ecological Linkage (GMEL), Bush Forever with Conceptual Linkage: 1.2 ha.	N/A
Adjoining a Conservation Area		Yes	The selected site is near or within a Conservation Area.	N/A
Environmental Policy and other relevant matters	Acid Sulphate Soils	Yes	The selected site contains soils with a high/moderate risk of Acid Sulphate Soils.	Acid sulphate soils should not be disturbed. Advice should be sought from the Acid Sulphate Soils Planning Guidelines and the Contaminated Sites Branch of the Department of Environmental Regulation.
	EPA Policy Area	No	N/A	N/A
	Proposed reserves	No	N/A	N/A
	Public Drinking Water Source Areas	Yes	The selected area is within the Perth Coastal Underground Water Pollution Control Area (P3).	PM to review DWER website for applicable further requirements: http://www.water.wa.gov.au/urban-water/drinking-water

Environmental Matters Requiring Further Investigation		Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager
	RIWI Groundwater Areas	Yes	Perth Groundwater Area. The extraction and licencing of groundwater resources are managed within these areas.	PM to review DoW/DWER websites for applicable further requirements: http://www.water.wa.gov.au/licensing/water-licensing https://online.water.wa.gov.au/
	Bush Forever	Yes	The selected site is within Bush Forever site BF299.	N/A
	Regional Park	Yes	The selected area is within Yellagonga Regional Park.	Liaise with relevant stakeholders / land managers, i.e. external agencies.
	Local Biodiversity Strategy	Yes	Implement the City's LBP requirements if applicable to your project.	PM to review the City's LBP for further applicable requirements: http://www.wanneroo.wa.gov.au/downloads/file/1193/local_biodiversity_strategy
	Cave/Karst Risk	Yes	Low level risk of cave/karst.	PM to review the City's LPP 4.13 Caves and Karstic Features: https://intranet.wanneroo.wa.gov.au/documents/policies-and-procedures/local-planning-policies
	Unexploded Ordinance (UXO) Risk	No	N/A	N/A
	Contaminated Site	No	N/A	N/A
	Dieback	No	N/A	N/A
	Bushfire Prone Area	Yes	1.233 ha of the selected area is within a mapped Bushfire Prone Area.	Additional planning and building requirements may apply to developments within designated bush fire prone areas, in accordance with Schedule 2 part 10a of the *Planning and Development (Local Planning Schemes) Regulations 2015*, State Planning Policy 3.7 Planning in Bushfire Areas, the supporting

Environmental Matters Requiring Further Investigation		Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager
				Guidelines for Planning in Bushfire Prone Areas and the Building Code of Australia. Certain exemptions and exclusions may apply.
	Coastal Hazard Risk Mapping (i.e. CHRMAP)	No	N/A	N/A
	Aboriginal and State Heritage Sites	Yes	Aboriginal Cultural Heritage Inquiry System (ACHIS) viewed on 27/05/2024. Selected site may intersect a cultural heritage site 3740. Image below shows rough polygon of EPC site outlined in red and cultural heritage site in pink cross section. 	Contact Heritage Advisor for advice.

*****Note: If the project footprint is altered in anyway, the above provided ENVIRONMENTAL PLANNING CONSIDERATIONS (EPC) REPORT ENVIRONMENTAL MATTERS ADVICE is void, unless otherwise advised by the EAP/EAO.*****

Vegetation photograph advice:

Trees:
Take photographs of each of the trees and send the HPE reference of the photos to the EAPs/EAO. We will advise on a timeframe to complete the vegetation assessment (i.e. ID of species via your provided photographs).

Photos required to complete ID process – please ensure camera/photos are in focus:

- Close-up photo of tree trunk bark;
- Photo of whole tree (these may need to be taken at distance depending on height of tree);
- Photo of flowers and/or flower buds;
- Photo of tree nuts; and
- Photo of tree leaves.

If you have a required timeframe for receiving the vegetation assessment advice, please ensure you state this timeframe in your email.

Individual shrubs:
Take photographs of each of the shrubs and send the HPE reference of the photos to the EAPs/EAO. We will advise on a timeframe to complete the vegetation assessment (i.e. ID of species via your provided photographs).

Photos required to complete ID process – please ensure camera/photos are in focus:

- Close-up photo of tree trunk bark;
- Photo of whole shrub (these may need to be taken at distance depending on height of shrub);
- Photo of the shrubs flowers and/or flower buds;
- Photo of the shrub's nuts; and

Environmental Matters Requiring Further Investigation	Options (Pending / Yes / No / N/A)	Advice on EPC (for EAP/EAO use)	Recommended Actions for Project Initiator/Manager

- Photo of the shrubs leaves.

Vegetation:
Take photographs from the periphery of the intact areas of vegetation (please ensure camera/photos are in focus) and send the HPE reference of the photos to the EAO's. We will advise on a timeframe to complete the vegetation assessment. Please note, in instances of intact areas of vegetation; a Flora Survey may be required, this information is assessed on a project by project basis and will be communicated as soon as practical.
If you have a required timeframe for receiving the vegetation assessment advice, please ensure you state this timeframe in your email. Please note Flora Surveys are only undertaken during the Spring season and an RFQ is issued in May/June to secure the services of an environmental consultant.

Arborist (tree) Report advice:

Request the Arborist assess the following and include within the Arborist Report (in addition to their usual/general information):

- Species identification of each of the tree's present;
- DBH measurement (in cm's) of each of the tree's present (diameter of the trunk at breast height);
- Presence or absence of tree hollow(s);
- Presence or absence of Black Cockatoo foraging activity, including what type of activity (i.e. Black Cockatoo's in tree at time of site visit, chewed tree cones on the ground etc);
- Assessment of current tree health and recommendations for management – both immediate actions (and long term actions if needed).

In addition to the above:
Provide the arborist an insight into the proposed development works (i.e. construction activities; cut, compaction and trenching etc, the type of the proposed new facilities/infrastructure to be installed, footprint of the proposed works, amount of proposed working space for construction activities and include a Plan). Utilising the aforementioned construction methodologies, request the arborist provide advice on the potential impacts of the proposed construction upon each of the trees in proximity to the proposed works.
Also request that the arborist provide recommendations as to if any of these impacts could be managed without removing the entire tree(s) – i.e. prune canopy/ branches and/or affected tree roots etc.
The additional information should be included within their supplied report.

SLR

Turtle Management Plan

Wanneroo Recreation Centre

City of Wanneroo

23 Dundebar Rd

Wanneroo WA 6065

Prepared by:

SLR Consulting Australia Pty Ltd

SLR Project No.: 675.073292.00001

18 July 2025

Revision: 01

Making Sustainability Happen

Revision Record

Revision	Date	Prepared By	Checked By	Authorised By
01	18 July 2025	S. Subaraj C. Baharom	E. Webb	E. Webb

Basis of Report

This report has been prepared by SLR Consulting Australia Pty Ltd (SLR) with all reasonable skill, care and diligence, and taking account of the timescale and resources allocated to it by agreement with City of Wanneroo. Information reported herein is based on the interpretation of data collected, which has been accepted in good faith as being accurate and valid.

This report is for the exclusive use of the Client. No warranties or guarantees are expressed or should be inferred by any third parties. This report may not be relied upon by other parties without written consent from SLR.

SLR disclaims any responsibility to the Client and others in respect of any matters outside the agreed scope of the work.

Executive Summary

The City of Wanneroo commissioned SLR Consulting Australia to provide a Turtle Management Plan (TMP) for the proposed development of a new Sports Hub building south of the Wanneroo Recreation Centre. The construction of the new Sports Hub building will be situated adjacent to known Oblong Turtle (*Chelodina oblonga*) nesting habitat. The development area covers 1.39 hectares and is located 22 km north of Perth, in the Swan Coastal Plain bioregion of Western Australia.

The objective of the TMP is to manage interactions with Oblong Turtles prior to and during construction of the new Sports Hub building, and to minimise negative outcomes for Oblong Turtles, including injuries and death. A summary of management actions is provided below:

1. Install turtle exclusion fencing:

   Fencing will be installed prior to construction to prevent turtles from entering and nesting within the site and laying eggs. Fencing must be installed after hatching season and before nesting season. This period is from mid-July to late August.

2. Fence Checks and maintenance:

   Fence checks will be undertaken at least once a week between the installation of fencing and the commencement of construction. Any breaches in the fence that may allow Oblong Turtles to enter will be repaired as soon as practicable.

3. Construction staff education and awareness:

   Construction staff, contractors, and site visitors will be briefed on the requirements and responsibilities of the Turtle Management Plan as part of an induction prior to commencing work on the site. During clearing and construction works, any observations of turtles within or adjacent the site will be reported to the Construction Site Supervisor immediately and announced during the site prestart meeting the following morning to maintain and reinforce staff awareness.

4. Pre-clearing site inspection:

   Prior to clearing, the site will be inspected by a qualified fauna spotter/catcher. If a turtle is found within the site it will be captured by the fauna spotter/catcher and released within suitable habitat in the adjacent Yellagonga Regional Park.

5. Fauna handling and rescue during clearing:

   If a turtle is spotted during clearing, works will immediately stop until the turtle is captured by the fauna spotter/catcher. Works will recommence after the turtle is removed from danger. The turtle will be released within suitable habitat in the adjacent Yellagonga Regional Park. If a turtle nest is unearthed, a fauna spotter/catcher will carefully remove each egg from the nest. The eggs will be carefully reburied in Yellagonga Regional Park in the same orientation and approximate depth at which they were found. All observations of turtles and turtle nests will be reported immediately to the Construction Site Supervisor and records will be kept on site.

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1.0 Introduction

1.1 The Project

The City of Wanneroo (CoW) commissioned SLR Consulting Australia (SLR) to provide a Turtle Management Plan (TMP) for the proposed development of a new Sports Hub building south of the Wanneroo Recreation Centre. The construction of the new Sports Hub building will be situated adjacent to known Oblong Turtle (*Chelodina oblonga*) nesting habitat. The development area covers 1.39 hectares and is located 22 km north of Perth, in the Swan Coastal Plain bioregion of Western Australia (Figure 1).

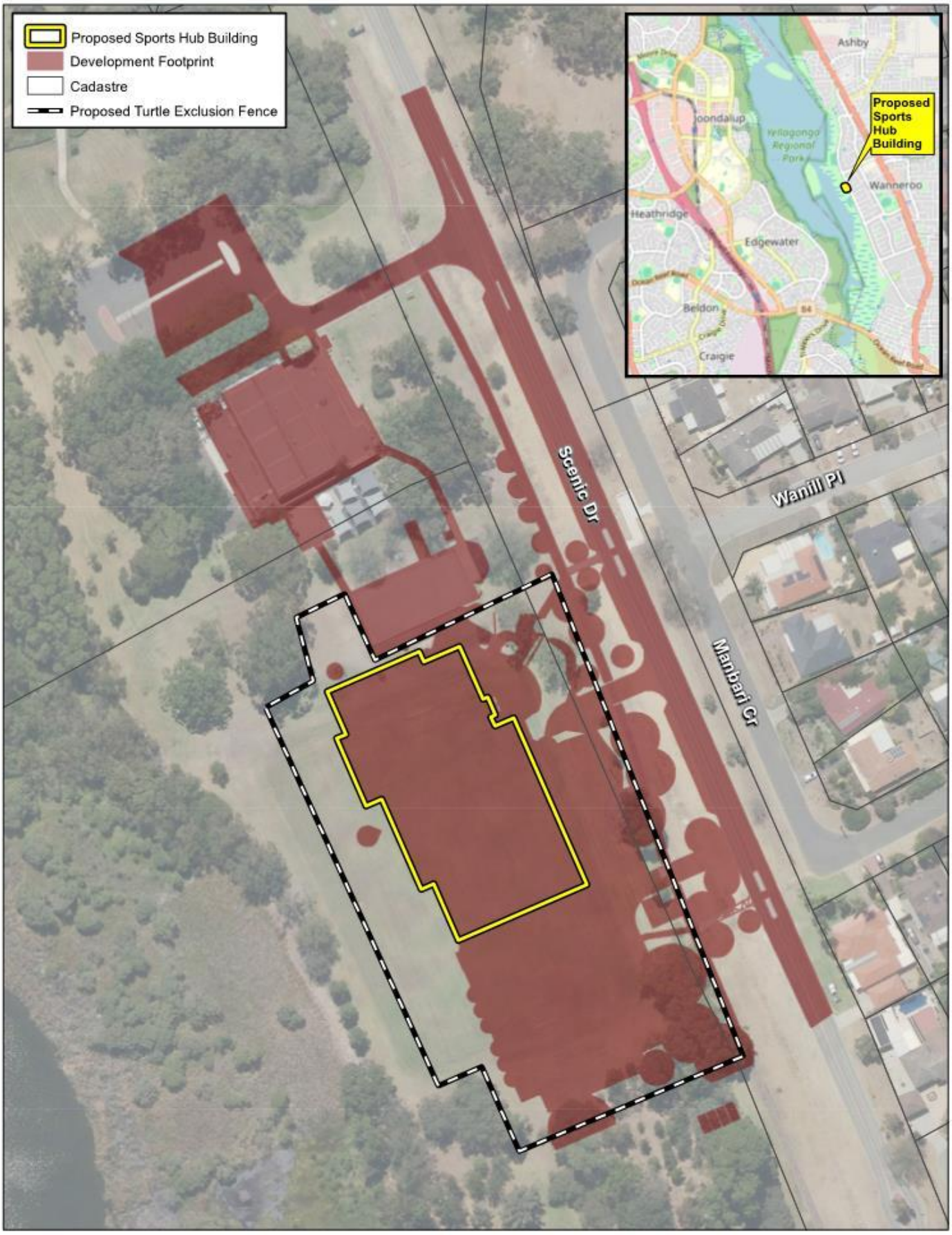
1.2 Objective and Scope

The objective of the TMP is to manage interactions with Oblong Turtles prior to and during construction of the new Sports Hub building, and to minimise negative outcomes for Oblong Turtles, including injuries and death.

The following scope of work was completed:

- Review of information (publicly available and client-provided) relating to Oblong Turtle activity in the vicinity of the development area.
- Review of client-provided project documents for the development area including building plans and landscaping plans.
- Development of appropriate Oblong Turtle exclusion, detection, and management actions to be implemented prior to and during construction activities.
- Provision of a TMP summarising the above scope of works.

The TMP is specific to Oblong Turtles. Management of other fauna will be addressed in a separate Environmental Management Plan (EMP).



SLR

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Service Layer Credits: Landgate / SLIP

Coordinate System: GDA2020 MGA Zone 50
Scale : 1:1,500 @ A4
Project Number : 675.073292.00001
Date Drawn : 10/07/2025
Drawn By : Environmaps
Reviewed By : SS

City of Wanneroo
Wanneroo Recreation Centre
Turtle Management Plan

Site Layout and Proposed Turtle Exclusion Fenc
Figure 1

2.0 Background

2.1 Statutory and Regulatory Framework

Western Australian fauna is governed by the following legislative measures:

- *Environment Protection and Biodiversity Conservation Act 1999* (Commonwealth) (EPBC Act) (Commonwealth of Australia, 1999).
- *Biodiversity Conservation Act 2016* (WA) (BC Act) (Government of Western Australia, 2016).
- *Environmental Protection Act 1986* (WA) (EP Act) (Government of Western Australia, 1986).

In addition to these legislative measures, the following non-legislative lists are considered on a case-by-case basis:

- WA Department of Biodiversity Conservation and Attractions (DBCA) Priority lists for fauna, flora, and ecological communities.
- Recognition of locally significant populations by DBCA.

2.2 Oblong Turtle Background and Ecology

The Oblong Turtle (*Chelodina oblonga*) is a long-necked freshwater turtle endemic to the southwest of Western Australia and occurs in the Perth area north to Hill River, inland to Toodyay, Pingelly, and Katanning and east along the south coast to the Fitzgerald River National Park (Cogger, 2000; Wilson & Swan, 2025). The species inhabits seasonal and permanent waterways including wetlands, damplands, swamps, rivers, and lakes, and survives dry conditions by aestivating in burrows or in the moist top substrate of waterways (Wilson & Swan, 2025). During this time, the species is vulnerable to human activity such as clearing and ground works.

Nesting period occurs across the spring and summer months, between September and January, while hatchling emergence occurs in the cooler months between May and August (Santoro et al., 2020; Shea et al., 2020). Nesting habitat is typically soft sandy substrate with minimal vegetation; however available vegetation is used for concealment and protection from predators (Santoro et al., 2020; Shea et al., 2020).

The Oblong Turtle currently lacks formal conservation status under the BC Act and EPBC Act. Although widespread and abundant throughout much of the south-west region, populations around the Perth metropolitan area are under threat of local extinction from invasive species predation, habitat destruction, and loss of native vegetation around urban wetlands reducing the number of suitable nesting sites (Santoro et al., 2020; Santoro et al., 2024).

Previous Oblong Turtle surveys have been undertaken at Lake Joondalup by the Saving Our Snake-Necked Turtle (SOSNT) project (SOSNT, 2024, 2025); a citizen science and community engagement program aiming to protect local turtle populations from further decline. SOSNT data is uploaded to the Turtle Survey and Analysis Tools (TurtleSAT) citizen science mapping tool, which enables members of the public to upload turtle observations to a publicly accessible database (TurtleSAT, 2025). Heatmaps of turtle records in the vicinity of the development area obtained from the TurtleSAT website are presented below, with all turtle activity shown in Figure 2 and turtle nesting activity shown in Figure 3.

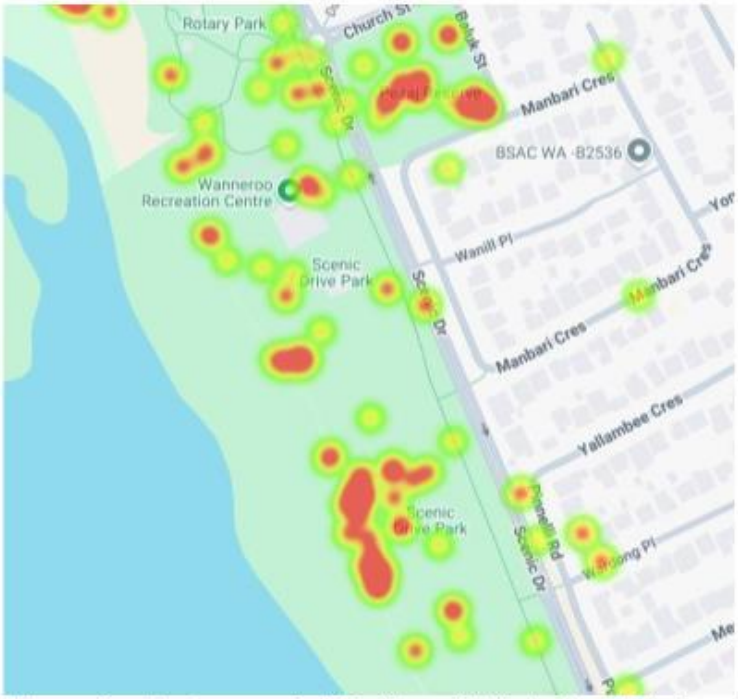


Figure 2: Heatmap of all turtle activity in the vicinity of the existing Wanneroo Recreation Centre (TurtleSAT, 2025)

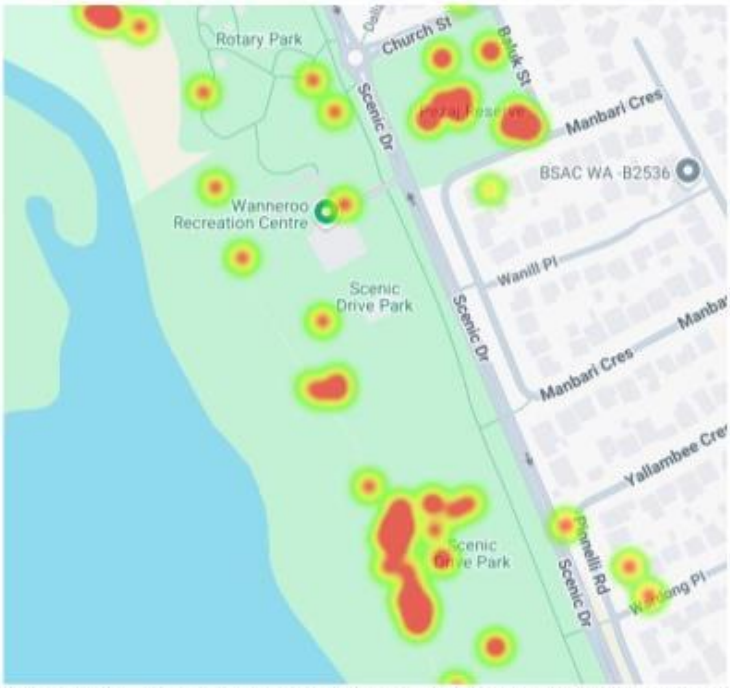


Figure 3: Heatmap of turtle nesting activity in the vicinity of the existing Wanneroo Recreation Centre (TurtleSAT, 2025)

3.0 Management Actions

Table 1 outlines management actions and the persons responsible for each action.

Table 1: Management actions

Action	Description	Responsibility
1. Install turtle exclusion fencing	Fencing will be installed prior to construction to prevent turtles from entering and nesting within the site and laying eggs (Figure 1). Fencing must be installed after hatching season and before nesting season. **This period is from mid-July to late August.** Mature Oblong Turtles can scale wire fences and hatchlings can bypass fencing through gaps. To prevent this from occurring, builder's plastic will be secured to the outside of the fence to a height of approximately 1 metre, with soil heaped on excess plastic at the bottom to prevent the turtles from crawling under.	Project Manager
2. Fence checks and maintenance	Fence checks will be undertaken at least once a week between the installation of fencing and the commencement of construction. Any breaches in the fence that may allow Oblong Turtles to enter will be repaired as soon as practicable. It is recommended that fence checks are undertaken as frequently as possible between September and January (inclusive) because this is when female turtles will be active looking for suitable nesting locations.	Project Manager
3. Construction staff education and awareness	Construction staff, contractors, and site visitors will be briefed on the requirements and responsibilities of the TMP as part of an induction prior to commencing work on the site. Records of environmental training undertaken for all employees will be kept on site, detailing the type and purpose of the training. During clearing and construction works, any observations of turtles within or adjacent the site will be reported to the Construction Site Supervisor immediately and announced during the site prestart meeting the following morning to maintain and reinforce staff awareness.	Project Manager and Construction Site Supervisor
4. Pre-clearing site inspection	Prior to clearing, the site will be inspected by a qualified fauna spotter/catcher. If a turtle is found within the site it will be captured by the fauna spotter/catcher and released within suitable habitat in the adjacent Yellagonga Regional Park.	Construction Site Supervisor and Fauna Spotter/catcher
5. Fauna handling and rescue during clearing	If a turtle is spotted during clearing, works will immediately stop until the turtle is captured by the fauna spotter/catcher. Works will recommence after the turtle is removed from danger. The turtle will be released within suitable habitat in the adjacent Yellagonga Regional Park. In the unlikely event that a turtle nest is unearthed, a fauna spotter/catcher will carefully remove each egg from the nest. The top of each egg will be marked with a xylene-free marker to preserve its original orientation and placed in a bucket. The eggs will be carefully reburied in Yellagonga Regional Park in the same orientation and approximate depth at which they were found. All observations of turtles and turtle nests will be reported immediately to the Construction Site Supervisor and records will be kept on site.	Construction Site Supervisor and Fauna Spotter/catcher

Action	Description	Responsibility
	Injured animals will be removed and treated according to the DBCA Standard Operating Procedure (SOP) for first aid for animals (DBCA, 2023) or treated by a veterinarian (if necessary). As a last resort, if the animal sustains fatal injuries they will be euthanised in the field in accordance with the DBCA SOP for euthanasia of animals under field conditions (DBCA 2024) out of sight of the public.	

5.0 References

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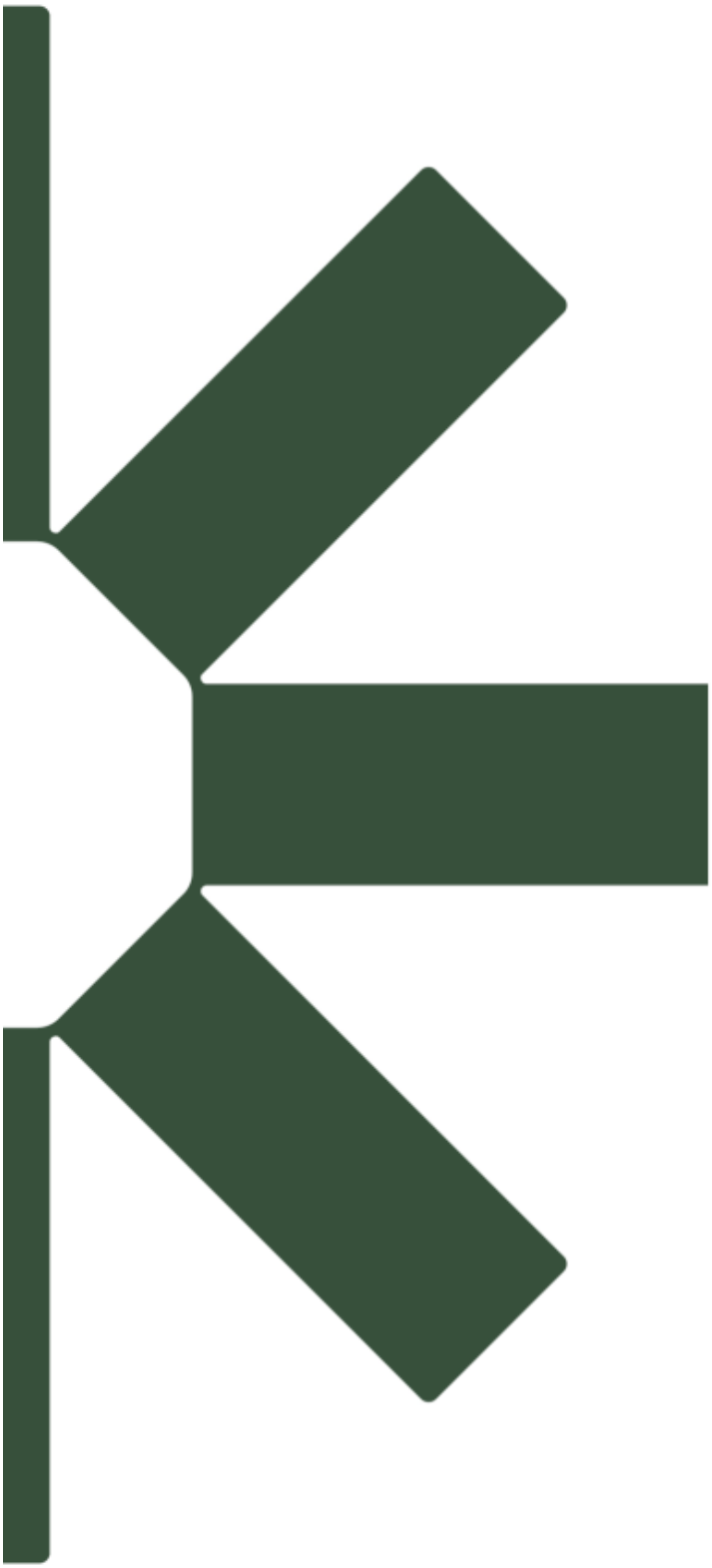
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Making Sustainability Happen

urbii

Sustainable Transport. Safe Solutions

245 Scenic Drive, Wanneroo

Proposed Wanneroo Recreation Sports Hub

TRANSPORT IMPACT ASSESSMENT



Prepared for:

City of Wanneroo

November 2025

245 Scenic Drive, Wanneroo

Prepared for: City of Wanneroo
Prepared by: Paul Ghantous
Date: 16 November 2025
Project number: U24.149

Version control

Version No.	Date	Prepared by	Revision description	Issued to
U24.149.r01	16/11/25	Paul Ghantous	FINAL	Hodge Collard Preston

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1 Executive summary

This Transport Impact Assessment has been prepared for the City of Wanneroo to evaluate the transport implications of the proposed Wanneroo Recreation Sports Hub at 245 Scenic Drive, Wanneroo.

The development will expand the existing recreation precinct by delivering a modern indoor sports and community facility supported by new onsite parking, an internal bus drop-off zone, improved pedestrian links and upgraded access arrangements to Scenic Drive.

Scenic Drive operates as a low-volume Local Distributor with a posted speed limit of 50 km/h and currently accommodates around 901 vehicles per day on weekends, with peak hour traffic volumes of 116 vehicles per hour.

The corridor includes a high-quality shared path and multiple formal pedestrian refuge crossings, and crash data confirms a safe operating environment with no reported incidents over the past five years.

Traffic generation for the proposed Sports Hub has been derived from two weeks of survey data collected at the existing Wanneroo Recreation Centre, normalised against floor area to produce a locally calibrated rate of 5.1 vehicle trips per 100 m². Applying this rate to the proposed 3,706 m² facility results in an estimated peak demand of 189 vehicles per hour, increasing total precinct traffic to 264 peak-hour movements when combined with the existing centre.

Forecasting using the City's population growth rate of 2.69% indicates that future traffic volumes on Scenic Drive will remain well within the capacity of a two-lane distributor road. SIDRA modelling demonstrates that both proposed crossovers will continue to operate at Level of Service A with minimal delay or queuing under 2037 post-development conditions.

Sightline assessments confirm compliance with Austroads requirements for both pedestrian crossing and stopping sight distance, noting that five on-street bays between the crossovers should be removed to maintain clear sightlines.

Parking analysis shows that the development will provide 183 precinct parking bays, including the existing Recreation Centre supply, against a peak forecast demand of 149 bays, resulting in an efficient utilisation rate of approximately 81%, with sufficient residual capacity to accommodate natural variations associated with recreation activities and events.

The site enjoys strong walking and cycling accessibility through the regional Lake Joondalup shared-path network, and although public transport access is currently limited, the development includes a dedicated internal bus drop-off facility to support school and community group transport. Opportunities exist for future service improvements through engagement with the Public Transport Authority.

Overall, the assessment concludes that the proposed Wanneroo Recreation Sports Hub can be safely and efficiently accommodated by the existing transport network, with no requirement for external road upgrades and no adverse impacts expected on the surrounding area.

2 Introduction

This Transport Impact Assessment has been prepared by Urbii on behalf of City of Wanneroo with regards to the proposed Wanneroo Recreation Sports Hub (WRSH), located at 245 Scenic Drive, Wanneroo.

The subject site is situated on the western side of Scenic Drive, to the south of the existing Wanneroo Recreation Centre building, as shown in Figure 1. It is proposed to develop the site into a new recreation sports hub building.

The aim of this Transport Impact Assessment (TIA) is to assess the impact of the proposal on the existing and planned transport network. The TIA was prepared with reference to the WAPC *Transport Assessment Guidelines* 2016.



Figure 1: Subject site

3 Existing situation

3.1 Existing site use, access and parking

The subject site presently accommodates an open active reserve that functions as an outdoor sports field. This area forms part of the broader Scenic Park and Wanneroo Recreation Precinct, which supports a mix of structured and informal recreational activity. Immediately north of the site sits the existing Wanneroo Recreation Centre, a long-standing community facility that provides indoor activity spaces and supports a range of sporting and community programs. The active reserve and the Recreation Centre operate as an integrated precinct with shared access and circulation patterns.

Vehicle access to the precinct is provided exclusively from Scenic Drive, which accommodates a single crossover leading to the existing Recreation Centre car park (Figure 2). This crossover serves both the indoor facility and the adjacent sports fields, effectively functioning as a shared access point for all users in the precinct.

The surrounding park environment also supports a network of pedestrian and shared paths connecting the car park, Recreation Centre building, and sports fields, enabling continuous access between facilities within the precinct.

Parking for the recreation precinct is currently provided in a single surface car park located immediately north of the subject site, adjacent to the existing Recreation Centre. This car park accommodates general recreation centre patrons, sporting participants and visitors to the surrounding open space.



Figure 2: Existing site access

3.2 Surrounding road network and traffic management on roads

Information from online mapping services, Main Roads WA, Local Government, and site visits was collected to assess the existing traffic management on frontage roads.

3.2.1 Scenic Drive

Scenic Drive near the subject site is an approximately 7.5m wide, two-lane divided road. The traffic lanes are separated by a central red-asphalt flush median. This median provides a visual and physical separator between opposing traffic streams while maintaining full traffic movements to adjacent accesses. Within this median, formal pedestrian refuge islands are provided, incorporating cut-throughs and kerb ramps to enable safe crossing movements between the residential area to the east and the shared path network to the west.

The western side of Scenic Drive accommodates a high-quality red-asphalt shared path running parallel to the carriageway and directly adjacent to the subject site boundary. This path forms part of the broader active transport network serving Scenic Drive Park and Lake Joondalup, providing continuous north–south connectivity for walking and cycling.

Local walk links connect this shared path to the crossing refuge and to park access points on the western side of the road. The combination of wide traffic lanes, a flush median, a median island crossing point and adjacent shared-path infrastructure reflects the dual movement and recreational access function of Scenic Drive in this location.

Scenic Drive is classified as a *Local Distributor* road in the Main Roads WA road hierarchy (Figure 3) and operates under a speed limit of 50km/h (Figure 4). Local Distributor roads are the responsibility of Local Government and are typically for the movement of traffic within local areas and connect access roads to higher order Distributors (Figure 5).

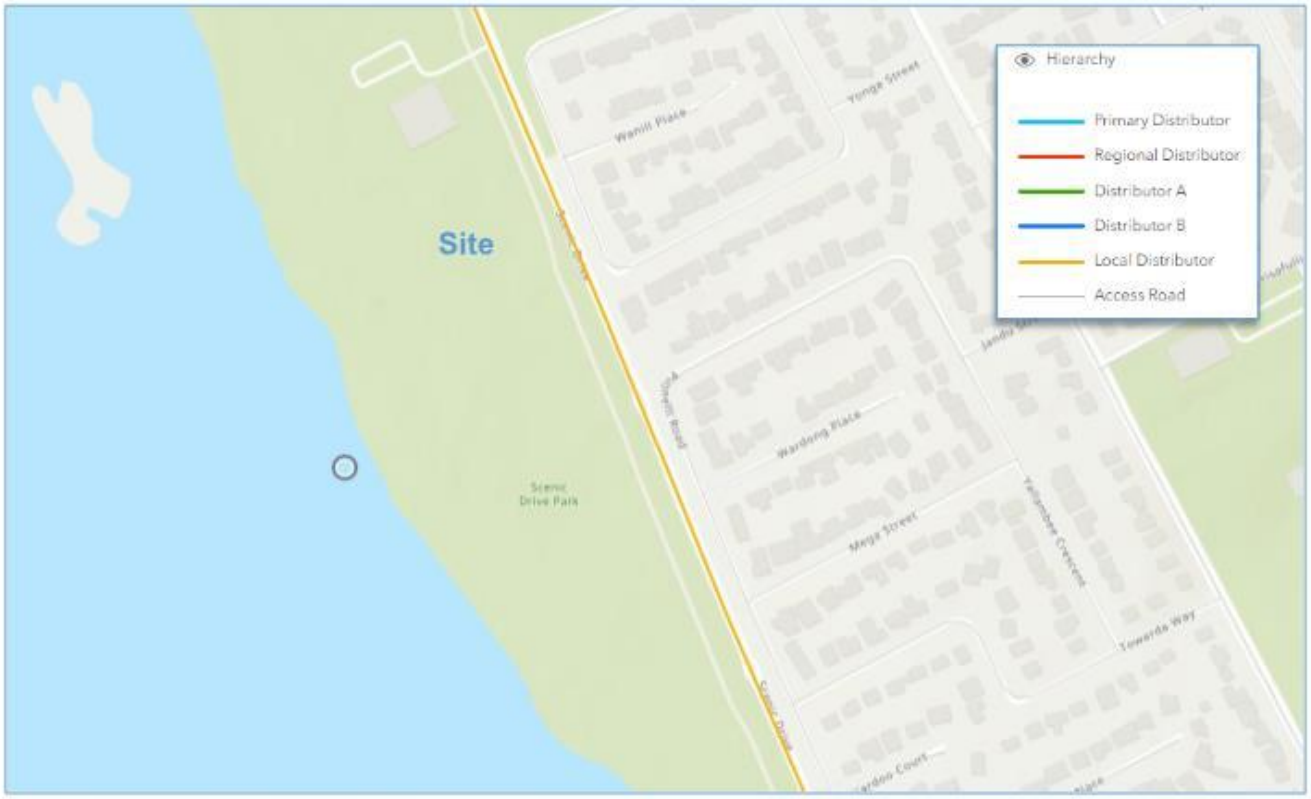


Figure 3: Main Roads WA road hierarchy plan

Source: Main Roads WA Road Information Mapping System (RIM)



Figure 4: Main Roads WA road speed zoning plan

Source: Main Roads WA Road Information Mapping System (RIM)

ROAD HIERARCHY FOR WESTERN AUSTRALIA
ROAD TYPES AND CRITERIA (see Note 1)

CRITERIA	PRIMARY DISTRIBUTOR (PD) (see Note 2)	DISTRICT DISTRIBUTOR A (DA)	DISTRICT DISTRIBUTOR B (DB)	REGIONAL DISTRIBUTOR (RD)	LOCAL DISTRIBUTOR (LD)	ACCESS ROAD (A)
Primary Criteria						
1. Location (see Note 3)	All of WA incl. BUA	Only Built Up Area	Only Built Up Area	Only Non Built Up Area (see Note 4)	All of WA incl. BUA	All of WA incl. BUA
2. Responsibility	Main Roads Western Australia	Local Government.	Local Government.	Local Government.	Local Government.	Local Government.
3. Degree of Connectivity	High. Connects to other Primary and Distributor roads.	High. Connects to Primary and/or other Distributor roads.	High. Connects to Primary and/or other Distributor roads.	High. Connects to Primary and/or other Distributor roads.	Medium. Minor Network Role Connects to Distributors and Access Roads.	Low. Provides mainly for property access.
4. Predominant Purpose	Movement of inter regional and/or cross town/city traffic, e.g. freeways, highways and main roads.	High capacity traffic movements between industrial, commercial and residential areas.	Reduced capacity but high traffic volumes travelling between industrial, commercial and residential areas.	Roads linking significant destinations and designed for efficient movement of people and goods between and within regions.	Movement of traffic within local areas and connect access roads to higher order Distributors.	Provision of vehicle access to abutting properties
Secondary Criteria						
5. Indicative Traffic Volume (AADT)	In accordance with Classification Assessment Guidelines.	Above 8 000 vpd	Above 6 000 vpd.	Greater than 100 vpd	Built Up Area - Maximum desirable volume 6 000 vpd. Non Built Up Area – up to 100 vpd.	Built Up Area - Maximum desirable volume 3 000 vpd. Non Built Up Area – up to 75 vpd.
6. Recommended Operating Speed	60 – 110 km/h (depending on design characteristics).	60 – 80 km/h.	60 – 70 km/h.	50 – 110 km/h (depending on design characteristics).	Built Up Area 50 - 60 km/h (desired speed) Non Built Up Area 60 – 110 km/h (depending on design characteristics).	Built Up Area 50 km/h (desired speed). Non Built Up Area 50 – 110 km/h (depending on design characteristics).
7. Heavy Vehicles permitted	Yes.	Yes.	Yes.	Yes.	Yes, but preferably only to service properties.	Only to service properties.
8. Intersection treatments	Controlled with appropriate measures e.g. high speed traffic management, signing, line marking, grade separation.	Controlled with appropriate measures e.g. traffic signals.	Controlled with appropriate Local Area Traffic Management.	Controlled with measures such as signing and line marking of intersections.	Controlled with minor Local Area Traffic Management or measures such as signing.	Self controlling with minor measures.
9. Frontage Access	None on Controlled Access Roads. On other routes, preferably none, but limited access is acceptable to service individual properties.	Prefer not to have residential access. Limited commercial access, generally via service roads.	Residential and commercial access due to its historic status. Prefer to limit when and where possible.	Prefer not to have property access. Limited commercial access, generally via lesser roads.	Yes, for property and commercial access due to its historic status. Prefer to limit whenever possible. Side entry is preferred.	Yes.
10. Pedestrians	Preferably none. Crossing should be controlled where possible.	With positive measures for control and safety e.g. pedestrian signals.	With appropriate measures for control and safety e.g. median/islands refuges.	Measures for control and safety such as careful siteing of school bus stops and rest areas.	Yes, with minor safety measures where necessary.	Yes.
11. Buses	Yes.	Yes.	Yes.	Yes.	Yes.	If necessary (see Note 5)
12. On-Road Parking	No (emergency parking on shoulders only).	Generally no. Clearways where necessary.	Not preferred. Clearways where necessary.	No – emergency parking on shoulders – encourage parking in off road rest areas where possible.	Built Up Area – yes, where sufficient width and sight distance allow safe passing. Non Built Up Area – no. Emergency parking on shoulders.	Yes, where sufficient width and sight distance allow safe passing.
13. Signs & Linemarking	Centrelines, speed signs, guide and service signs to highway standard.	Centrelines, speed signs, guide and service signs.	Centrelines, speed signs, guide and service signs.	Centrelines, speed signs and guide signs.	Speed and guide signs.	Urban areas – generally not applicable. Rural areas - Guide signs.
14. Rest Areas/Parking Bays	In accordance with Main Roads' *Roadside Stopping Places Policy*.	Not Applicable.	Not Applicable.	Parking Bays/Rest Areas. Desired at 60km spacing.	Not Applicable.	Not Applicable.

Figure 5: Road types and criteria for Western Australia

Source: Main Roads Western Australia D10#10992

3.3 Existing traffic volumes on roads and major intersections

Traffic data obtained from the City of Wanneroo indicates that Scenic Drive carried average weekday traffic flows of 791 vehicles per day (vpd). Weekend traffic flows were higher, with 901 vpd recorded. As demonstrated in Table 1, the peak traffic hour for Scenic Drive is recorded on the weekend at midday, with 116 vehicles per hour (vph) recorded between 1:00pm and 2:00pm on the weekend.

Table 1: Scenic Drive existing hourly traffic flows

Virtual Day Detail Table(2024)												
Time Range			Both directions				South		North	
			Weekday		Weekend		Weekday	Weekend	Weekday	Weekend
00:00	-	01:00	2	0.25%	4	0.44%	1	2	1	2
01:00	-	02:00	2	0.25%	4	0.44%	1	2	1	2
02:00	-	03:00	1	0.13%	2	0.22%	1	1	1	1
03:00	-	04:00	1	0.13%	3	0.33%	1	2	1	1
04:00	-	05:00	3	0.38%	2	0.22%	1	2	1	1
05:00	-	06:00	4	0.51%	2	0.22%	4	1	1	3
06:00	-	07:00	17	2.15%	6	0.67%	12	3	5	3
07:00	-	08:00	38	4.80%	32	3.55%	18	8	19	24
08:00	-	09:00	60	7.59%	40	4.44%	35	22	25	18
09:00	-	10:00	49	6.19%	57	6.33%	20	22	29	34
10:00	-	11:00	46	5.82%	76	8.44%	21	30	25	46
11:00	-	12:00	42	5.31%	91	10.10%	22	44	20	47
12:00	-	13:00	42	5.31%	84	9.32%	22	37	20	47
13:00	-	14:00	43	5.44%	116	12.87%	20	45	23	71
14:00	-	15:00	55	6.95%	77	8.55%	22	36	32	40
15:00	-	16:00	75	9.48%	77	8.55%	29	46	45	31
16:00	-	17:00	96	12.14%	92	10.21%	37	48	59	44
17:00	-	18:00	99	12.52%	62	6.88%	39	36	59	26
18:00	-	19:00	52	6.57%	21	2.33%	26	12	26	9
19:00	-	20:00	26	3.29%	17	1.89%	14	10	11	6
20:00	-	21:00	16	2.02%	13	1.44%	11	8	5	5
21:00	-	22:00	13	1.64%	10	1.11%	8	6	5	4
22:00	-	23:00	6	0.76%	8	0.89%	3	4	3	4
23:00	-	00:00	3	0.38%	5	0.55%	1	3	2	3

Source: City of Wanneroo – traffic data for Scenic Drive (north of Ariti Avenue), 2024

3.4 Existing operation of surrounding intersections

The operation of existing intersections is documented in Section 8.6 of this report.

3.5 Heavy vehicles

The roads near the subject site form part of RAV Network 1 which permits 19m semi-trailers to travel on these roads under general access, or “as of right” status. General access vehicles may operate state-wide provided they are:

- not a road train or b-double;
- within regulation axle mass limits;
- 19 metres or less in combination length (or a maximum 12.5 metres for rigid vehicles);
- total combination mass less than 42.5 tonnes;
- width less than 2.5 metres (excluding mirrors and lights); and
- height less than 4.3 metres.

3.6 Public transport access

Public transport access to the site is currently limited. The nearest bus stops are located along Wanneroo Road, approximately 900 metres to 1 kilometre walking distance from the proposed development.

This walk involves navigating local streets, crossing at Church Street, and continuing west toward Scenic Drive, resulting in a walking time of around 13–14 minutes. Due to the distance and indirect pedestrian connections, it is expected that only a small proportion of patrons would choose to access the proposed WRSH by public transport. The existing network therefore provides only marginal support for the development in its current form.

To address this constraint, the proposed facility has incorporated a dedicated internal bus drop-off zone positioned adjacent to the main building entry. This facility has been designed to accommodate school groups, community groups, sporting clubs and other organised visitors who typically travel by chartered coach or private bus rather than by the public bus network.

The proximity of this drop-off area to the primary pedestrian entrance ensures safe and efficient group arrival and departure, assists in managing peak-event loading, and reduces conflict with general car parking activity. The design therefore provides a practical and effective solution for catering to higher-occupancy group trips that are common for recreation and sporting venues.

Although the current public transport network is not well aligned with the site, there is an opportunity to improve accessibility over time.

It is recommended that the City of Wanneroo engage with the Public Transport Authority to examine the feasibility of diverting or extending an existing bus service to enter the site or to service new stops along Scenic Drive at the site frontage.

A minor adjustment to route alignment has the potential to materially improve public transport access, reduce reliance on private vehicles, and support broader mode-shift objectives for the precinct. Such liaison would be particularly valuable once the WRSH is operational and patronage patterns are better understood.

3.7 Pedestrian access

Information from online mapping services, Main Roads WA, Local Government, and site visits was collected to assess the pedestrian access for the proposed development.

Pedestrian accessibility to the proposed development is supported by a well-established walking network that connects the site with the surrounding recreation precinct, Scenic Park and nearby residential areas. A high-quality red-asphalt shared path runs along the western side of Scenic Drive directly adjacent to the site, forming part of the broader Lake Joondalup active transport corridor. This path provides continuous north–south access for walking and cycling and links into the Recreation Centre, and local parks. Internal walkways proposed as part of the proposed development design will connect seamlessly to this shared path, offering convenient and direct entry to the main building and activity areas.

Safe crossing opportunities across Scenic Drive are provided at multiple locations and are shown in Figure 6. Three mid-block pedestrian crossings are located along the site frontage, each incorporating a median refuge island, kerb ramps and a red-asphalt flush median treatment. These islands enable pedestrians to cross the two-lane carriageway in two stages, reducing exposure to traffic and improving safety for users of all ages and abilities. The spacing between these crossings is less than 200 metres, ensuring that pedestrians have frequent and convenient opportunities to cross the road without needing to walk long distances to reach a safe point.

A fourth pedestrian crossing point is located at the Scenic Drive/Church Street roundabout, also equipped with kerb ramps and splitter islands to facilitate safe movement across each approach. This crossing provides an important link for residents east of the site, connecting Church Street and the local street network into the shared-path system and broader recreation precinct.

Together, the shared path, refuge island crossings and roundabout crossing form a cohesive pedestrian environment that supports safe and direct movement to and from the proposed development. While longer-distance pedestrian accessibility remains limited by the lack of nearby public transport, the immediate precinct benefits from strong walking connections, legible desire-line routes and frequent safe crossing points along Scenic Drive. The proposed site design strengthens these connections by providing clear, accessible, and conveniently located pedestrian routes leading to the main building entry.



Figure 6: Existing pedestrian crossings with median refuge islands

3.8 Bicycle access

Bicycle access to the site is strong, owing to the high-quality shared-path network that runs along the western edge of Scenic Drive and forms part of the Lake Joondalup regional cycling corridor. This path is constructed in red asphalt, is fully separated from the road carriageway and provides continuous, safe and comfortable north–south connectivity for recreational riders, commuters and local residents.

It links directly into Rotary Park, the existing Wanneroo Recreation Centre, the broader Yellagonga Regional Park trail system and the extensive path network encircling Lake Joondalup, which is one of the most heavily used cycling routes in the northern suburbs.

The shared path includes multiple connecting spurs and access points, including those aligned with the pedestrian median refuges along Scenic Drive, enabling cyclists to transition safely between the off-road path and the internal circulation areas of the precinct. A high quality off-road shared path is also provided along the northern side of Church Street, to service the local residential area.

Within the subject site, the proposed development design provides direct connections from the shared path into the main entry forecourt and parking areas, ensuring convenient bicycle access and reducing the need for cyclists to travel along the vehicle driveway system.

In addition to the regional shared-path network, the surrounding residential streets provide low-speed, low-traffic cycling environments that support local access to the site. These streets feed naturally into the shared path, enabling riders from nearby residential catchments to approach the site entirely via safe cycling routes.

Overall, the site benefits from excellent cycling accessibility due to its direct interface with the Lake Joondalup shared-path corridor and its integration with local neighbourhood streets. This provides a genuine alternative to car travel for both recreational users and school or club participants arriving by bike.

Analysis of the Strava Global Heatmap indicates that Scenic Drive forms part of a well-used cycling route along the eastern side of Lake Joondalup (Figure 7). The heatmap shows strong cycling activity concentrated on the Lake Joondalup shared-path loop, which is a popular recreational and fitness cycling route in the northern suburbs.

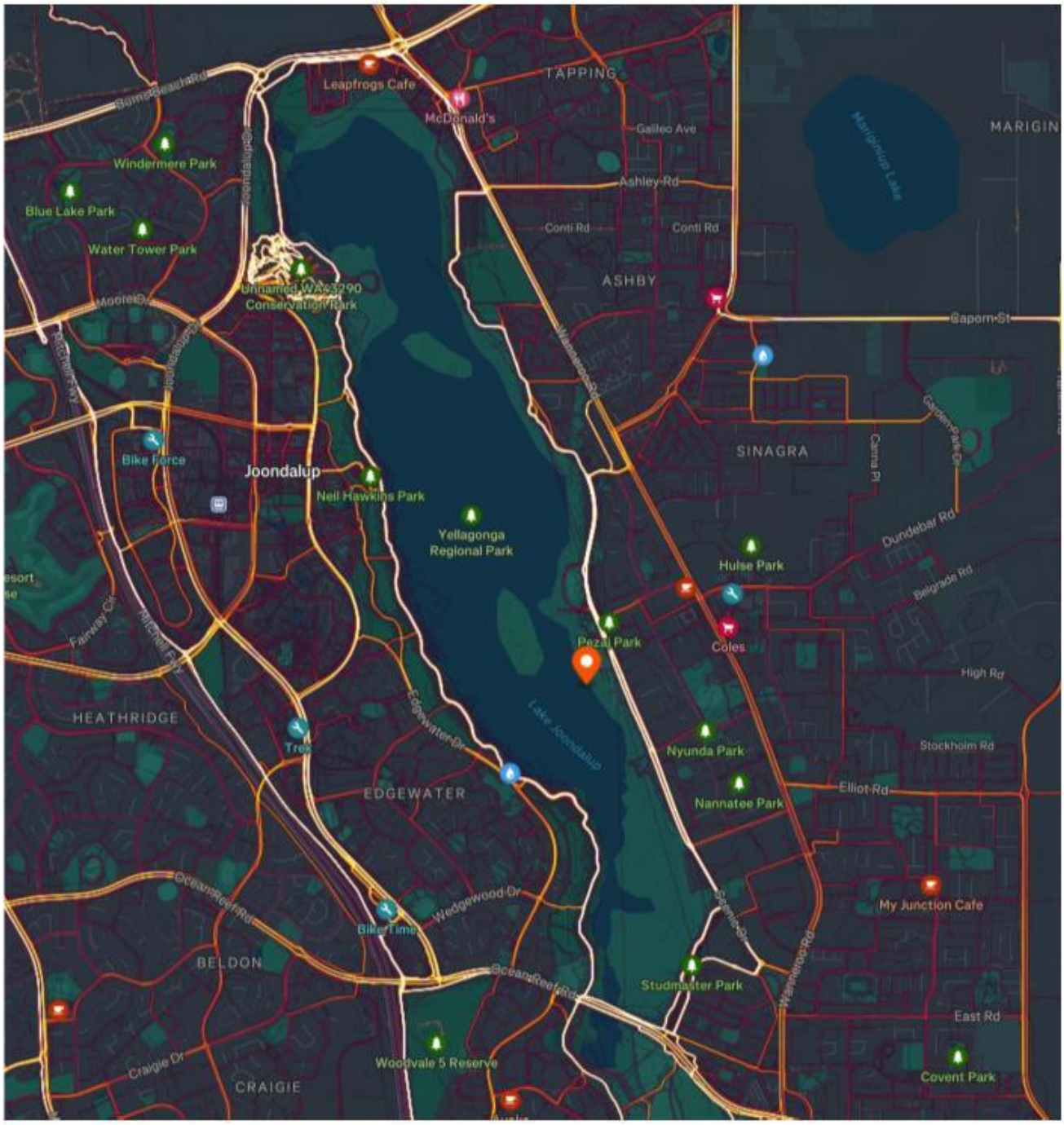


Figure 7: Strava cycling heatmap

3.9 Crash data and safety

The five-year crash history for the road network surrounding the subject site was obtained from the Main Roads WA Crash Map for the period 1 January 2020 to 31 December 2024. As illustrated in Figure 8, **no crashes were recorded along Scenic Drive within the locality over the most recent five-year period**.

The absence of reported crashes is consistent with the nature and function of Scenic Drive, which operates as a low-speed (50 km/h) local distributor carrying modest traffic volumes and serving predominantly recreational and residential trip types.

Scenic Drive benefits from several attributes that inherently reduce crash risk, including a simple two-lane road layout, clear sight lines, a red-asphalt flush median that provides separation between opposing traffic streams, and a high-quality shared path along the western side of the corridor that reduces potential conflicts with cycling.

Pedestrian safety is strongly supported by the network of formalised crossing points adjacent to the site. The presence of these facilities is a key contributing factor to the strong safety performance.

The absence of crashes over a five-year period suggests that **there are no underlying or systemic safety deficiencies** within the existing road environment that would be exacerbated by the proposed development.

Nevertheless, it is appropriate for the TIA to consider opportunities for minor safety enhancements to support the proposed development. Any such enhancements should be proportionate to the existing safety record, road function and anticipated traffic volumes.

Accordingly, the following safety considerations are identified for the City's future planning (noting that none are required to mitigate existing crash issues):

- The existing median refuge crossings already provide safe and compliant crossing opportunities. However, wayfinding signage, tactile paving upgrades or enhanced line marking could further strengthen pedestrian visibility.
- The red-asphalt flush median contributes to good visual separation. Refreshing pavement treatment or edge lines could be considered in future maintenance cycles.
- Should the City desire a stronger traffic-calming presence, low-impact measures such as speed feedback signs, entry threshold treatments at park access points, or additional pavement markings could be considered, noting that these are not required from a crash-mitigation standpoint.

In summary, the crash analysis demonstrates that Scenic Drive is operating safely and without systemic risk, supported by appropriate pedestrian crossing facilities and a well-designed shared-path corridor.

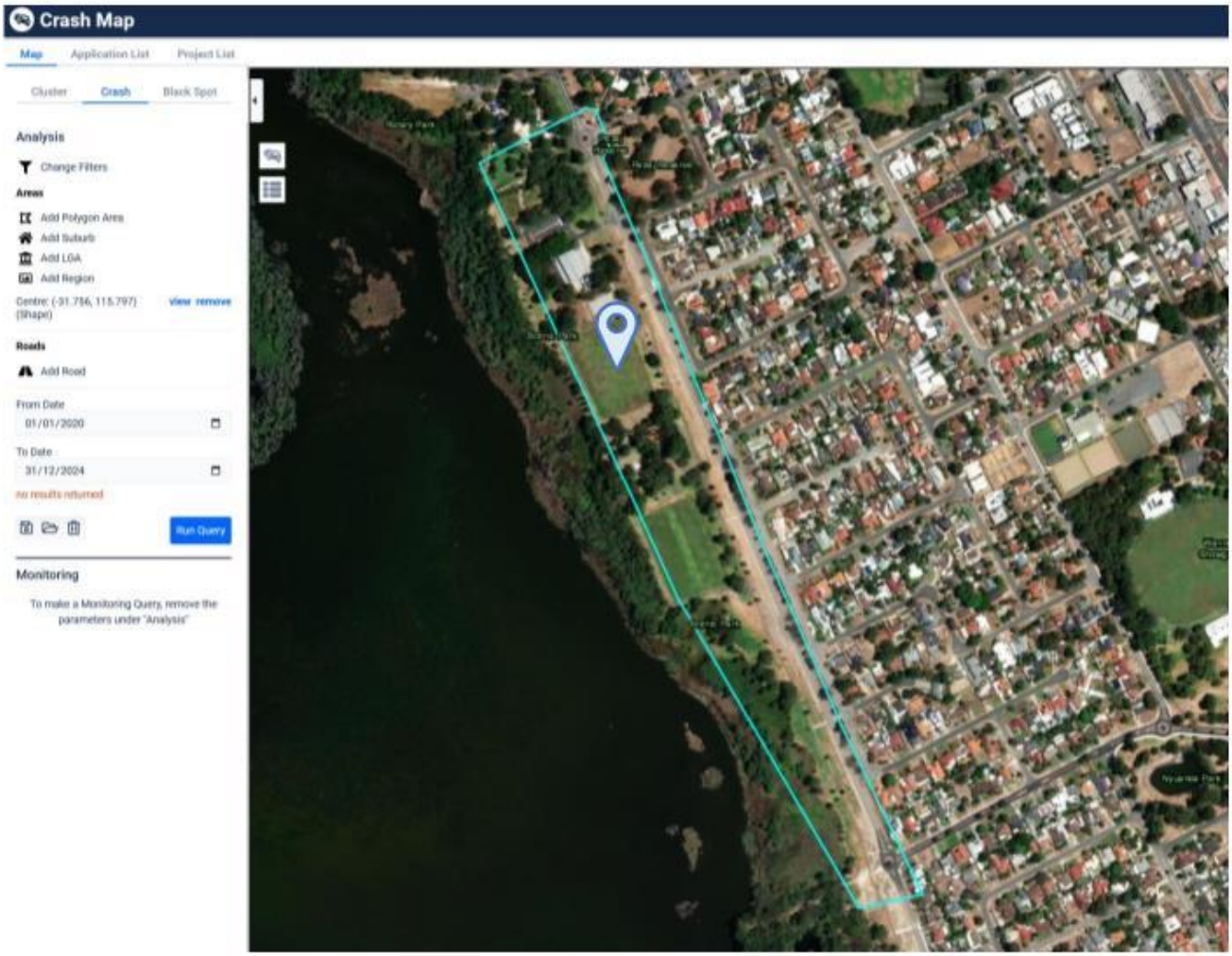


Figure 8: 5-year crash map in the locality (2020-2024)

Source: MRWA crash mapping tool

4 Development proposal

The proposal for the subject site is for a new recreation sports hub comprising:

- Indoor multi-purpose courts;
- Meeting and office rooms;
- Café, kitchen and back of house;
- Boxing and calisthenics rooms;
- Separate male and female showers, change rooms and lockers;
- New off-street car park providing 97 additional car parking bays (including 2 x ACROD bays);
- A shared bus drop-off and service, delivery and waste collection zone;
- On-street parallel parking along Scenic Drive adjacent to the site (potentially up to 24 parallel parking spaces);
- An internal footpath network with pedestrian crossings and kerb ramps within the site; and,
- Four bicycle rails which can park up to 8 bicycles (double-sided).

Vehicle access to the site is proposed via two crossovers on Scenic Drive. Waste will be collected internally within the provided service zone.

People walking and cycling will access the development from the external footpath network adjacent to the site. Site connections are proposed from the site to the shared path running along the western side of Scenic Drive.

The proposed development plans are included for reference in Appendix A.

5 Vehicle access

The proposed vehicular access arrangements have been reviewed for efficient and safe traffic circulation.

The proposed access arrangements are shown in Figure 9. Vehicle access is proposed via two crossovers on Scenic Drive. The southern crossover is entry only and the northern crossover is exit only.

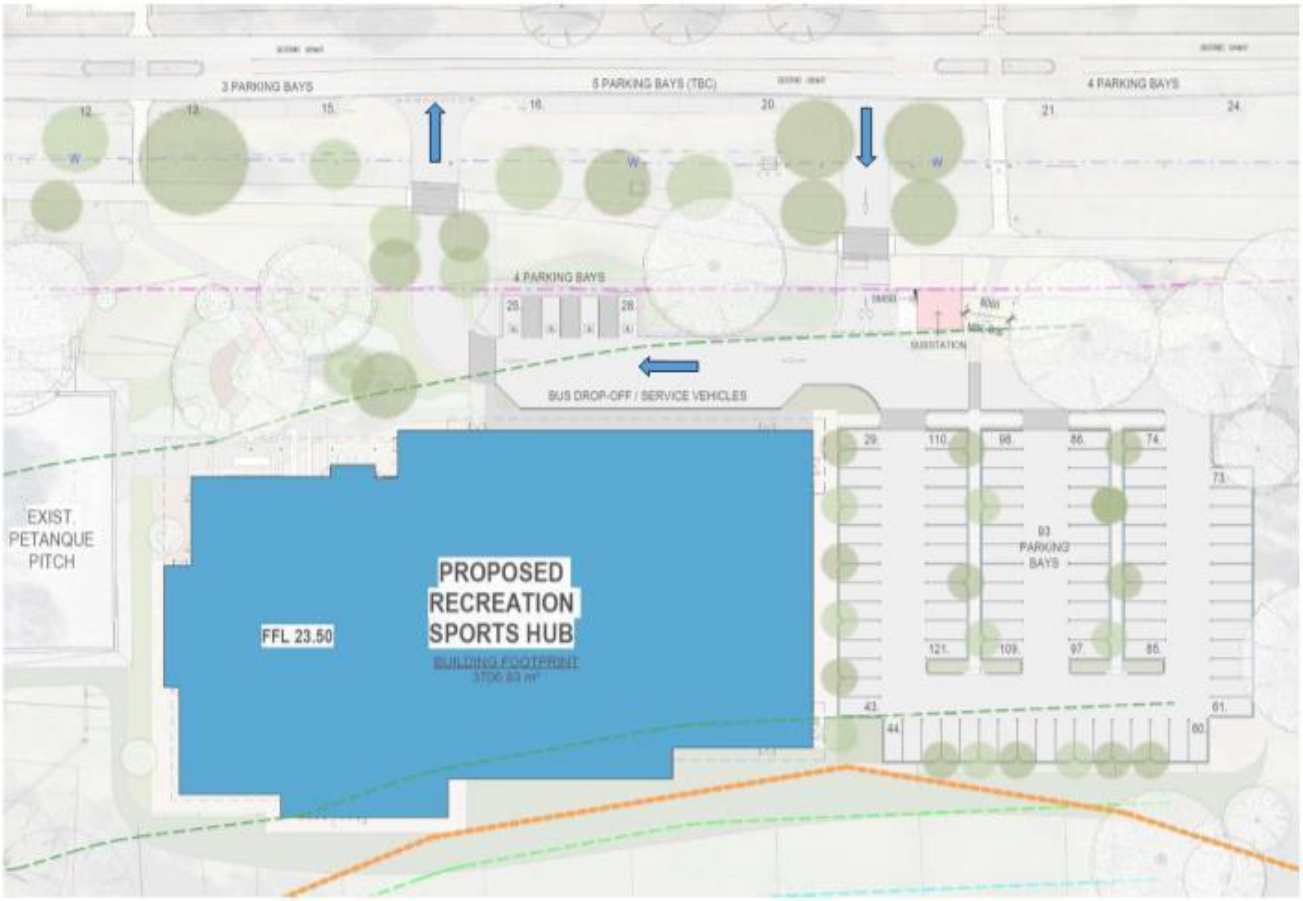


Figure 9: Proposed vehicle access

5.1 Sightline assessment checks

5.1.1 Pedestrian Crossing Sight Distance

Crossing Sight Distance (CSD) is a critical safety requirement used to ensure that pedestrians waiting to cross a roadway have sufficient visibility of approaching traffic, and that drivers also have adequate time to perceive and react to pedestrians entering the crossing. CSD represents the minimum length of clear, unobstructed sight line between a pedestrian and an approaching driver to allow the pedestrian to safely assess traffic gaps and complete the crossing movement.

According to Austroads guidance, CSD is required at any location where a pedestrian is expected to cross a carriageway, particularly where pedestrians do **not** have priority. The purpose of CSD is to ensure that pedestrians can clearly see approaching vehicles in time to judge an acceptable gap, taking into account both crossing distance and walking speed. Likewise, CSD ensures that drivers can perceive the crossing environment and slow down if a pedestrian enters the roadway.

CSD is calculated using the following equation:

$$CSD = t_c \times \frac{V}{3.6}$$

Where:

- **CSD** = required pedestrian crossing sight distance (m)
- **tc** = critical safe gap (seconds), defined as crossing distance ÷ pedestrian walking speed
- **V** = 85th percentile approach speed (km/h)

The critical safe gap accounts for the time a pedestrian requires to walk from the kerb to a position clear of the traffic lane being crossed. Austroads notes that designers should consider a range of pedestrian characteristics, including lower walking speeds for mobility-impaired users. The standard guidance assumes a typical adult walking speed of approximately 1.2 m/s; however, a more conservative value (such as 1.0 m/s) may be applied where vulnerable users are likely. CSD must also remain unobstructed by trees, street furniture, parked vehicles or other roadside objects that could impede pedestrian or driver visibility.

Application of the above calculation results in a CSD requirement of 58m, as detailed in Table 2.

Table 2: Pedestrian Crossing Sight Distance requirement

Variable	Input	Units
Crossing Distance (m)	3.5	m
Walking Speed (m/s)	1	m/s
Vehicle Speed (km/h)	60	km/h
Sight Distance (m) =	**58**	**m**

The sight distance sketch in Appendix B confirms that the proposed on-street parking does not obstruct Crossing Sight Distance.

5.1.2 Crossover Stopping Sight Distance

The crossover sight distance assessment was undertaken in accordance with the Austroads *Guide to Road Design Part 3 – Geometric Design* (AGRD03).

Stopping Sight Distance (SSD) is the distance to enable a normally alert driver, travelling at the design speed on wet pavement, to perceive, react and brake to a stop before reaching a hazard on the road ahead.

SSD is derived from two components:

1. The distance travelled during the total reaction time

2. The distance travelled during the braking time from the design speed to a stop and their relationship is shown in Equation 1.

$$SSD = \frac{R_T V}{3.6} + \frac{V^2}{254(d + 0.01a)} \quad 1$$

where

R_T = reaction time (sec)

V = operating speed (km/h)

d = coefficient of deceleration (longitudinal friction factor)

a = longitudinal grade (%, + for upgrades and – for downgrades)

A reaction time of 2.5 seconds was adopted for the analysis, which is conservative as it assumes the driver is not alert. An operating speed of 60km/h was adopted, which is 10km/h higher than the speed limit. The coefficient of deceleration is 0.36.

The calculated Stopping Sight Distance (SSD) is around 81m, as detailed in Table 3.

Table 3: Stopping Sight Distance calculation

Parameter	Value	Units
Rt	2.5	sec
V	60	km/h
d	0.36	
a	0%	
SSD	**81**	**m**

The sight distance sketch in Appendix B confirms that there are no permanent obstructions within the required sightline clearance areas.

However, it should be noted that five of the proposed on-street car parking bays are located within the sightline clearance envelopes. Cars may be parked within the sightline clearance envelopes at certain times of the day.

It is recommended that the five on-street parking bays located between the development crossovers be removed from the proposal. This will reduce the total on-street parking provision to 19 bays.

6 Changes to surrounding transport networks

Information from relevant planning documents, Main Roads WA, Department of Transport and / or information provided by the Local Government Authority, has been reviewed for planned changes to the surrounding transport network.

A review of publicly available State and Local Government planning documents indicates that no major road upgrades or realignments are proposed for Scenic Drive or the immediate frontage of the site in the short-to-medium term. Scenic Drive is expected to continue operating in its current configuration as a low-speed local distributor providing access to the Lake Joondalup recreation corridor and the surrounding residential area. The City of Wanneroo's current capital works program does not identify any widening, duplication or intersection upgrades along Scenic Drive or at the Scenic Drive–Church Street roundabout.

The most relevant recent improvement in the vicinity is the upgrade of the Church Street shared path, which now provides a high-quality 3-metre-wide red-asphalt connection between Wanneroo Road and Scenic Drive. This improvement strengthens east–west pedestrian and cyclist accessibility to the site and forms part of the City's broader Active Transport Plan, which prioritises completing missing links on the local cycling network and expanding shared-path infrastructure across key corridors. In addition, the City continues to deliver pathway upgrades within Yellagonga Regional Park through its long-term Principal Shared Path program, which will further enhance recreational cycling access along the Lake Joondalup corridor.

At a broader regional scale, major transport investment continues through the METRONET Yanchep Rail Extension and the Mitchell Freeway northern extensions, both of which will improve accessibility to the northern corridor and moderate long-term traffic growth pressures along Wanneroo Road. The City has also identified the future duplication of Dundebar Road within its district planning documents; however, this is a long-term project and is not expected to influence the operation of Scenic Drive during the assessment period.

In summary, while several strategic regional projects are underway that will enhance overall transport connectivity in the northern suburbs, there are no committed changes to the Scenic Drive corridor that would alter access arrangements or affect the operation of the proposed WRSH. As a result, the existing transport network surrounding the site can reasonably be assumed to remain materially unchanged for the purpose of this assessment.

7 Integration with surrounding area

The proposed WRSH is well positioned within an established recreational and community precinct that already attracts regular local activity and supports a range of sport, leisure and passive recreation uses. The site is directly adjacent to Scenic Drive Park and the Yellagonga Regional Park corridor, forming part of a contiguous open-space network that includes the existing Wanneroo Recreation Centre, Rotary Park, recreation facilities, picnic areas and regional shared paths. The development therefore represents a natural extension of the area's longstanding recreational function, consolidating community activity within a precinct that is already familiar to residents and widely used throughout the week.

From a transport perspective, the site integrates effectively with the existing local road network. Scenic Drive provides direct frontage access and is supported by a safe and clearly defined pedestrian and cycling environment, including a high-quality off-road shared path running along the western edge of the carriageway. Multiple refuge-island pedestrian crossings along Scenic Drive, together with a further crossing point at the Church Street roundabout, ensure that the precinct is readily accessible from the surrounding residential catchments. The recently upgraded 3-metre shared path on Church Street strengthens east–west connections between the site and the Wanneroo town centre, improving access from local schools, community facilities and bus stops on Wanneroo Road.

Overall, the proposed development integrates well with the surrounding recreational, transport and community environment. The development capitalises on existing strengths—particularly strong cycling links, safe pedestrian crossing opportunities and a long-established community recreation setting—while also introducing enhancements such as improved internal circulation and dedicated bus access. The project aligns with the broader character and function of the Scenic Drive recreation corridor and is expected to contribute positively to the area's accessibility and community value.

8 Traffic assessment

8.1 Assessment period

The critical time period considered in this traffic assessment reflects the existing peak traffic hour on Scenic Drive:

- Weekend midday peak hour (1:00pm to 2:00pm).

The analysis was undertaken for the following scenarios:

- 2037 post development (with development traffic included).

8.2 Existing traffic flows

Existing traffic flows on Scenic Drive were obtained from the City of Wanneroo, as outlined in Section 3.3 of this report. To establish a baseline trip generation rate for recreational facilities in the locality, a traffic survey was undertaken of the existing Wanneroo Recreation Centre driveway. The hourly traffic profile for each day of the week is detailed in Figure 10. The peak traffic hour for the recreation centre was recorded on Saturday between 1:00pm and 2:00pm, which coincides with the peak traffic hour recorded on Scenic Drive. A peak existing traffic generation of 75 vehicles per hour (vph) was recorded.

Road:	Wanneroo Recreation Centre Driveway
Direction:	Combined
Vehicles:	All Vehicles
Week:	Week 2
Date:	29/07/2025 - 04/08/2025

Show Peaks | Remove Peaks

AM Peak | PM Peak | Weekly Peak

Time	Tuesday	Wednesday	Thursday	Friday	Saturday	Sunday	Monday	Monday - Friday	Monday - Sunday
0:00	0	0	2	1	2	1	1	1	1
1:00	0	1	2	1	0	0	1	1	1
2:00	0	1	0	1	0	2	2	1	1
3:00	0	1	0	0	0	0	0	0	0
4:00	0	0	0	0	0	0	0	0	0
5:00	0	1	0	2	0	2	0	1	1
6:00	12	12	8	6	1	1	14	10	8
7:00	3	4	8	5	2	4	4	5	4
8:00	13	8	26	8	6	0	8	13	10
9:00	21	15	26	18	29	2	5	17	17
10:00	4	15	14	20	40	5	10	13	15
11:00	21	6	23	17	7	10	10	15	13
12:00	13	16	11	21	14	7	5	13	12
13:00	5	10	5	11	75	1	12	9	17
14:00	15	5	21	14	1	4	17	14	11
15:00	21	19	11	18	8	4	10	16	13
16:00	30	25	38	15	26	13	37	29	26
17:00	35	35	34	6	10	1	37	29	23
18:00	49	22	35	3	12	10	20	26	22
19:00	27	14	21	19	2	2	6	17	13
20:00	3	1	16	1	0	0	10	6	4
21:00	6	0	1	9	12	1	8	5	5
22:00	9	0	14	13	0	0	5	8	6
23:00	1	2	2	3	1	0	0	2	1
Total	288	213	318	212	248	70	222	251	224

Figure 10: Existing traffic volumes – Wanneroo Recreation Centre

8.3 Traffic generation

Trip generation for the proposed WRSH has been calculated using a benchmarking approach based on traffic surveys undertaken at the existing Wanneroo Recreation Centre. This method is appropriate for unique or community-specific land uses where published trip rates (such as RTA or ITE rates) are not directly representative of local activity patterns. Recreation centres typically experience highly variable usage dependent on programmed activities, seasonal sports, school events and community functions. As such, locally collected data provides a more reliable indicator of realistic peak-hour traffic demands for the proposed development.

Two weeks of continuous driveway traffic counts were undertaken at the existing Wanneroo Recreation Centre between 22/07/2025–28/07/2025 (Week 1) and 29/07/2025–04/08/2025 (Week 2). The surveys recorded all entering and exiting vehicle movements on an hourly basis. Week 1 recorded a highest weekend peak of 59 vehicles per hour, whereas Week 2 recorded a higher peak of 75 vehicles per hour during the Saturday 13:00–14:00 period. To ensure a conservative and robust assessment, the higher Week 2 peak-hour volume (75 vph) was adopted as the basis for deriving the trip generation rate.

The observed peak hour was then converted into a trip rate by normalising the two-way traffic volume against the existing building's gross floor area (1,470 m²). This resulted in a locally calibrated trip rate of 5.10 vehicle trips per 100 m² GFA, which reflects actual activity levels generated by an established facility of the same land-use type, operating in the same community context.

This rate was applied to the proposed building area of 3,706 m² to estimate the likely peak-hour demand at the WRSH. Using this methodology, the proposed development is estimated to generate 189 vehicle trips in the weekend peak hour. The existing inbound/outbound distribution (55% inbound, 45% outbound), derived from the driveway survey, was retained for the proposed development on the basis that user behaviour and arrival patterns are expected to remain broadly consistent between the existing and future facilities.

The benchmarking survey approach is a well-accepted method for recreational land use and is preferred where reliable local data is available. The use of on-site observed traffic from two full survey weeks, combined with the selection of the higher recorded peak-hour demand, ensures the trip generation estimate applied in this assessment is both evidence-based and conservatively aligned with the operational characteristics expected for the proposed development.

The estimated traffic generation of the proposed development is detailed in Table 4.

Table 4: Peak hour traffic generation

Trip generation	Existing	Proposed development	Total
Site	Wanneroo Recreation Centre	Wanneroo Recreation Sports Hub	
Area (m2)	1470	3706	5176
Peak traffic generation (vph)	75	**189**	264
Trip rate trips per 100m2	5.1		
IN split	55%		
OUT split	45%		
IN traffic	41	**104**	145
OUT traffic	34	**85**	119

8.4 Trip distribution and assignment

Traffic was distributed north-south on Scenic Drive in accordance with existing directional traffic splits provided in the traffic survey data.

The assumed trip distribution and assignment are illustrated in the traffic volume diagrams provided in Appendix C.

8.5 10-year post development forecasting

Forecasting background traffic volumes for the 10-year post development scenario is a complex exercise. Transport demand forecasting is shifting from fixed forecasts to 'scenario modelling.' Scenario modelling recognises that there are multiple known and unknown disrupters to transport behaviour in the coming years, for example:

- Increased work from home activity;
- Increased popularity of micromobility devices such as e-scooters;
- Increased provision of public transport such as light rail and trackless trams;
- Electric Vehicles;
- Autonomous Vehicles; and,
- Government Net Zero emission targets.

For simplicity, this transport assessment assumes that traffic on Scenic Drive will increase at the same rate as population forecasts for the overall City of Wanneroo. As shown in Figure 11, City of Wanneroo forecasts an average annual growth rate of 2.69%.

City of Wanneroo	Forecast year					Change between 2021 and 2041	
Area	2021	2026	2031	2036	2041	Total change	Avg. annual % change
City of Wanneroo	216,435	243,874	285,372	326,532	367,775	+151,340	+2.69

Figure 11: Population forecasts for City of Wanneroo

8.6 Analysis of intersections and development access

Reference was made to Austroads guidance to determine whether SIDRA intersection modelling is warranted for the proposed development accesses. The threshold traffic volumes for further analysis are summarised in Figure 12. The anticipated traffic volumes on Scenic Drive are forecast to be below 400 vehicles per hour in 2037.

This indicates that the existing recreation centre and proposed sports hub site crossovers are expected to operate at a satisfactory level of service (LOS A). As such, detailed SIDRA analysis is not required for the development access based on Austroads criteria for intersection assessment.

Major road type[1]	Major road flow (vph)[2]	Minor road flow (vph)[3]
Two-lane	400	250
	500	200
	650	100
Four-lane	1000	100
	1500	50
	2000	25

Notes:
1. Major road is through road (i.e. has priority).
2. Major road flow includes all major road traffic with priority over minor road traffic.
3. Minor road design volumes include through and turning volumes.

Figure 12: Austroads guidance on the assessment of intersections

Nevertheless, for the purpose of robust traffic impact assessment, capacity analysis of the proposed new crossovers on Scenic Drive was undertaken using the SIDRA 10 computer software package. SIDRA 10 is an intersection modelling tool commonly used by traffic engineers for all types of intersections.

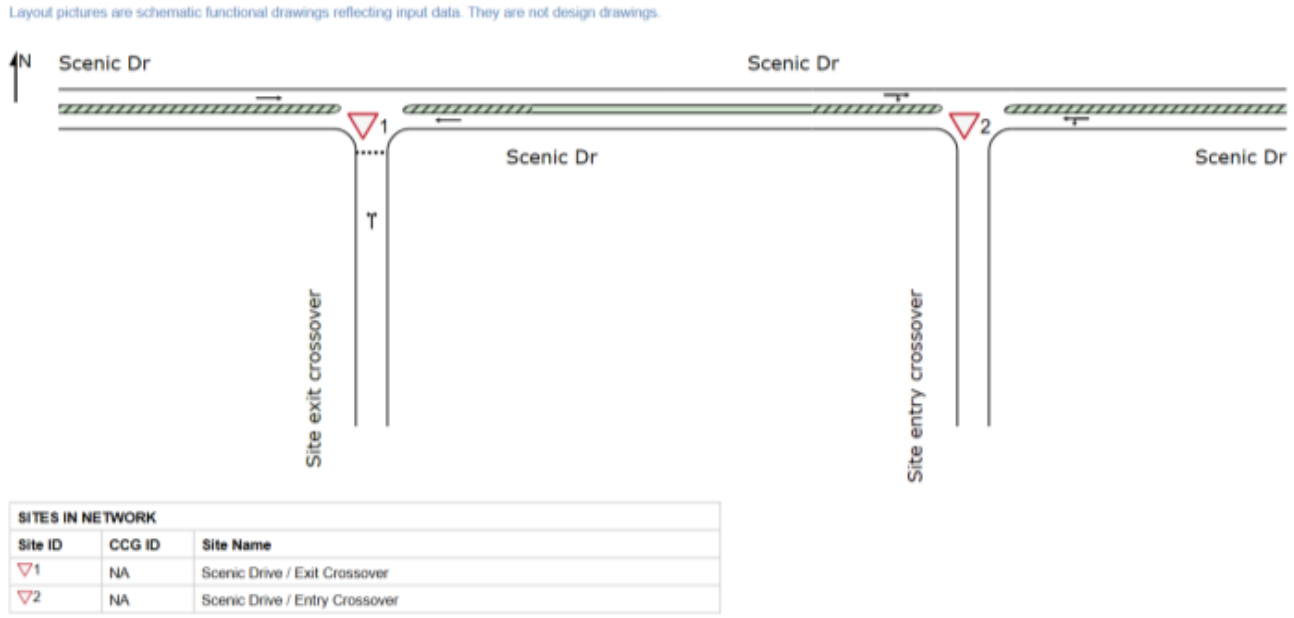
A network model was developed with multiple connected intersections as shown in Figure 13.

A blanket percentage heavy vehicle rate of 6% was conservatively adopted for all traffic movements.

Overall, the SIDRA results indicate that the proposed development will have minimal impact on the road network.

All development crossover movements are assessed to operate at a level of service 'A' with minimal delays or queues.

Detailed SIDRA outputs for each intersection are provided in Appendix D.



SITES IN NETWORK		
Site ID	**CCG ID**	**Site Name**
▽1	NA	Scenic Drive / Exit Crossover
▽2	NA	Scenic Drive / Entry Crossover

Figure 13: SIDRA network model

8.7 Impact on neighbouring areas

The traffic generated by the proposed development is not expected to significantly affect surrounding areas and the proposed land uses are in line with planning for the local area. Therefore, there is not expected to be any impact on neighbouring areas that would require any further consideration.

8.8 Traffic noise and vibration

It requires a doubling of traffic volumes on a road to produce a perceptible 3dB (A) increase in road noise. The proposed development will not increase traffic volumes or noise on surrounding roads anywhere near this level to result in any perceptible increase in noise.

9 Parking demand and supply

9.1 Parking supply

The proposed development will provide 97 onsite car parking bays, including 4 ACROD bays, accommodating universal access requirements. In addition, the site layout incorporates a dedicated bus drop-off area and designated service, delivery and waste collection zone, ensuring safe and efficient separation of vehicle types and operational activities.

The development also proposes parallel on-street parking bays along Scenic Drive adjacent to the site. The concept plan indicates 24 proposed on-street bays; however, to maintain safe driveway sightlines and comply with relevant access standards, five of these bays are recommended to be removed, resulting in a net provision of 19 on-street spaces.

As part of the broader precinct upgrade, a total of 116 new parking bays (onsite plus on-street) will be added to the sporting precinct. When combined with the 67 existing bays at the Wanneroo Recreation Centre, the precinct will have 183 car parking spaces available for shared use between the two facilities. This approach supports efficient utilisation of parking resources across the site and aligns with the integrated nature of the recreational precinct.

9.2 Parking requirements

The traffic survey data of the existing Wanneroo Recreation Centre driveway was analysed to produce an hourly parking demand profile for the two-week survey period. As detailed in Table 5, the existing facility recorded a peak parking demand generation rate of 2.86 bays per 100m^2 GFA. Assuming a similar parking demand pattern for the proposed WRSH will result in a total post-development peak parking demand of **149 bays**.

Table 5: Parking demand analysis

Land use	Day	Parking Demand Rate	Measurement	Area (m2)	Peak Parking Demand
Existing	MON-FRI	2.86	bays / 100 m2 GFA	1470	42
	SAT	1.84	bays / 100 m2 GFA	1470	27
	SUN	0.48	bays / 100 m2 GFA	1470	7
Proposed	MON-FRI	2.86	bays / 100 m2 GFA	5200	149
	SAT	1.84	bays / 100 m2 GFA	5200	96
	SUN	0.48	bays / 100 m2 GFA	5200	25

A total of 183 parking bays will be provided across the precinct, including onsite, ACROD and proposed parallel on-street bays. This supply results in a peak utilisation rate of approximately 81%, which represents efficient use of available parking while retaining adequate spare capacity to support circulating vehicles, reduce search time, and accommodate natural fluctuations in demand associated with programmed sporting activities and community events.

10 Provision for service vehicles

The site layout incorporates a dedicated bus drop-off area and designated service, delivery and waste collection zone, ensuring safe and efficient separation of vehicle types and operational activities.

Swept path analysis was undertaken for a 12.5m Heavy Rigid Vehicle (HRV) in accordance with AS2890.2.

The swept path analysis confirms that vehicles can enter and exit the site in forward gear, with satisfactory space for internal manoeuvring. Some minor amendments to the crossover geometry are required at detailed design stages, to accommodate the HRV swept path.

A selection of swept path sketches is included in Appendix E.

11 Public transport assessment

A detailed review of existing public transport accessibility is provided in Section 3.6 of this report. In summary, public transport access to the site is currently limited, with the nearest bus services operating along Wanneroo Road approximately 900 metres to 1 kilometre walking distance from the site. Due to this separation and the indirect pedestrian connection between the bus stops and Scenic Drive, public transport is expected to play only a minor role in the overall mode share for the development.

To accommodate school groups, community organisations and sporting clubs—who are more likely to travel by chartered bus than by scheduled public services—the development includes a dedicated internal bus drop-off and pick-up zone located immediately adjacent to the main building entry. This facility enables safe and efficient group arrivals and departures without affecting general car park circulation or onsite parking supply.

Although the existing public transport network does not directly serve Scenic Drive, there is potential for future improvement. As noted in Section 3.6, it is recommended that the City of Wanneroo liaise with the Public Transport Authority to examine the feasibility of diverting or extending an existing bus route to operate along Scenic Drive or to establish a new stop near the site frontage. Even a minor route modification could materially enhance accessibility and support broader mode-shift objectives over time, particularly once usage patterns at the new WRSH are better understood.

Overall, while public transport availability is presently limited, the development provides appropriate infrastructure to support group transport needs and offers a clear opportunity for long-term service improvements through coordination with the Public Transport Authority.

12 Walking assessment

Walking access to the proposed WRSH is strong and well supported by the existing pedestrian network described in Section 3.7. A continuous red-asphalt shared path runs along the western side of Scenic Drive, providing direct access to the site and forming part of the wider Lake Joondalup active-transport corridor. This path connects the site with the surrounding recreation precinct, adjacent public open spaces and nearby residential areas.

Safe and frequent crossing opportunities across Scenic Drive are available immediately adjacent to the site, including three mid-block pedestrian refuge crossings and a fourth crossing at the Scenic Drive–Church Street roundabout. All crossings are equipped with kerb ramps, splitter islands and red-asphalt flush-median treatments, enabling pedestrians of all abilities to cross the two-lane carriageway in two stages. The relatively close spacing of the crossings—each less than 200 metres apart—ensures convenient east–west pedestrian permeability along the corridor.

Internal pedestrian connections within the development will integrate seamlessly with the external shared path, providing clear, legible and direct routes between the car parking areas, bus drop-off zone and the main building entry. Taken together, the shared path network, frequent crossing points and integrated site layout establish a safe, accessible and high-quality walking environment that strongly supports active travel to and from the development.

The WAPC Transport Impact Assessment Guidelines for Developments (2016) provide warrants for installing pedestrian priority crossing facilities. This is based on the volume of traffic as the key factor determining if pedestrians can safely cross a road. The guidelines recommend pedestrian priority crossing facilities be considered once the peak hour traffic exceeds the volumes detailed in Table 6.

The traffic volumes in this table are based on a maximum delay of 45 seconds for pedestrians, equivalent to Level of Service E. Traffic volumes on the road network adjacent to the site are expected to be below the threshold for safe pedestrian crossing. Therefore, the pedestrian crossing level of service is satisfactory on the adjacent road network.

Table 6: Traffic volume thresholds for pedestrian crossings

Road cross-section	Maximum traffic volumes providing safe pedestrian gap
2-lane undivided	1,100 vehicles per hour
2-lane divided (with refuge)	2,800 vehicles per hour
4-lane undivided*	700 vehicles per hour
4-lane divided (with refuge)*	1,600 vehicles per hour

13 Cycling assessment

13.1 Bicycle parking and end of trip facilities

The development seeks to promote active transport modes. Extensive bicycle parking and end of trip facilities are provided including 4 bicycle rails which can park up to 8 bicycles (double-sided). The building also provides separate male and female showers, change rooms and lockers.

13.2 Sustainable transport catchment

As detailed in Figure 14, the subject site is well situated for staff and visitors to travel by sustainable modes of transport. A comfortable 8km or 20-25min cycle will provide the development with a large catchment of local residents.

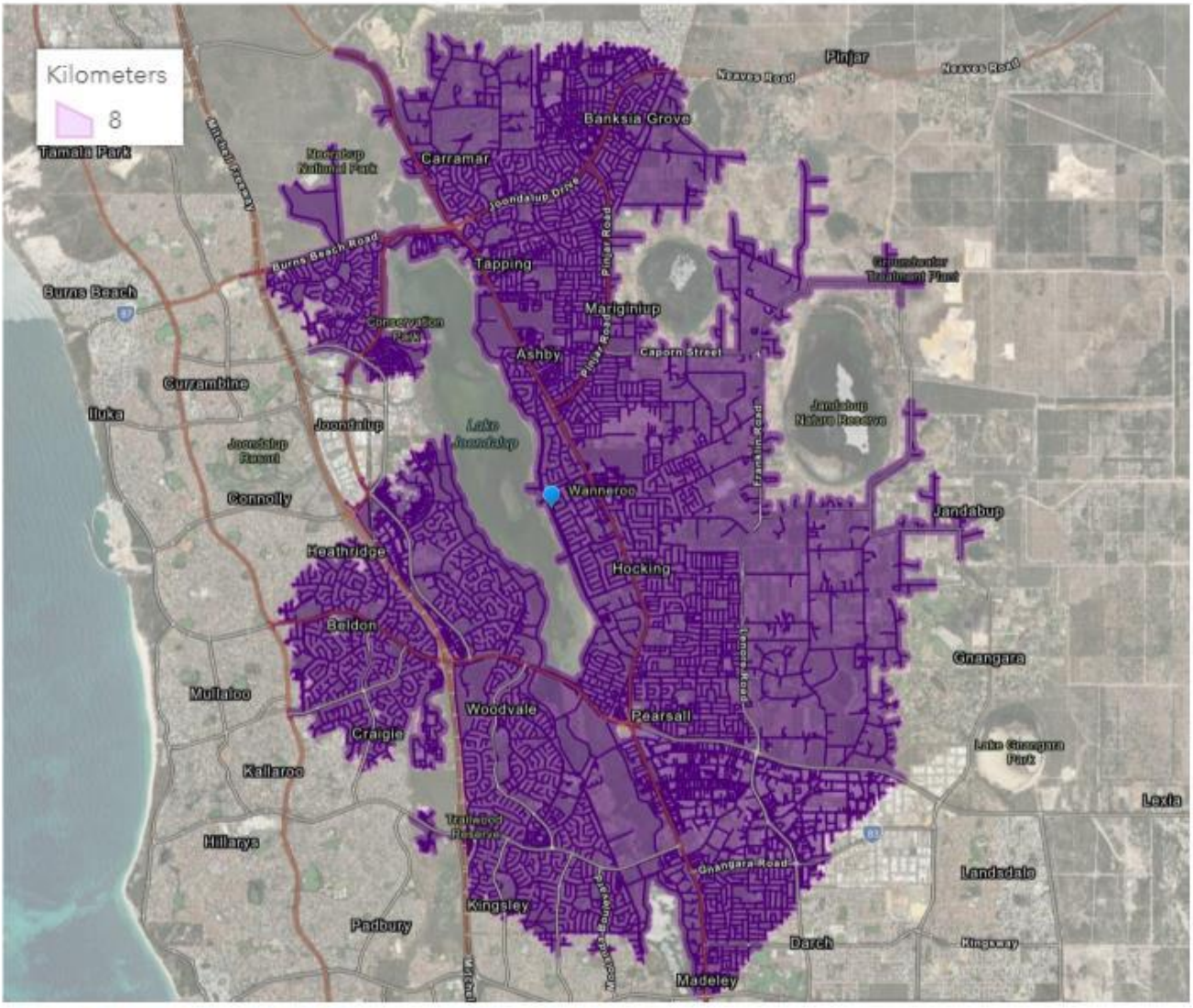


Figure 14: Cycling and micro-mobility catchment

14 Conclusion

This Transport Impact Assessment has been prepared by Urbii on behalf of City of Wanneroo with regards to the proposed Wanneroo Recreation Sports Hub (WRSH), located at 245 Scenic Drive, Wanneroo.

The subject site is situated on the western side of Scenic Drive, to the south of the existing Wanneroo Recreation Centre building. It is proposed to develop the site into a new recreation sports hub building.

Scenic Drive currently operates as a low-volume Local Distributor with a safe operating speed environment, adequate geometric standards and strong active-transport facilities, including a high-quality shared path and multiple formal pedestrian refuge crossings. Analysis of five years of crash data confirms that there are no systemic safety issues within the corridor. Existing traffic volumes are modest, with weekend movements peaking at only 116 vehicles per hour, and the corridor is expected to continue performing well under projected future conditions.

Traffic generation for the proposed Sports Hub has been conservatively estimated using two weeks of continuous survey data collected at the existing Wanneroo Recreation Centre. When applied to the proposed facility, the precinct is forecast to generate approximately 264 peak-hour vehicle movements in the weekend midday period. Even when future background growth is applied, traffic volumes along Scenic Drive remain well below thresholds requiring major intersection analysis or upgrades. SIDRA modelling undertaken for the site access points confirms that both proposed crossovers will operate at Level of Service A under 2037 post-development conditions, with minimal delays and negligible queuing.

Sightline assessments undertaken in accordance with Austroads guidance confirm that both pedestrian crossing sight distance and stopping sight distance requirements are satisfied. To maintain full compliance, five on-street parking bays located between the proposed crossovers should be removed as they fall within critical sightline envelopes.

Swept-path analysis demonstrates that service vehicles, including 12.5-metre heavy rigid vehicles, can manoeuvre safely within the site subject to minor refinements which can be incorporated into the detailed design of the crossovers.

The development provides a substantial increase in parking supply, with 183 precinct bays available when combined with the existing Recreation Centre. Peak parking demand is estimated at 149 bays, resulting in an efficient utilisation rate of approximately 81% and ensuring sufficient capacity during periods of higher recreational activity. The site also benefits from excellent walking and cycling connectivity, supported by the Lake Joondalup shared-path network, and includes a dedicated internal bus drop-off area to accommodate school and community transport.

Overall, the findings of this assessment confirm that the proposed Wanneroo Recreation Sports Hub integrates effectively with the existing transport network, provides safe and efficient access for all modes, and will not create unacceptable impacts on surrounding roads or neighbouring areas. The development is well aligned with the recreational character of the precinct and can be supported from a transport planning and traffic engineering perspective.

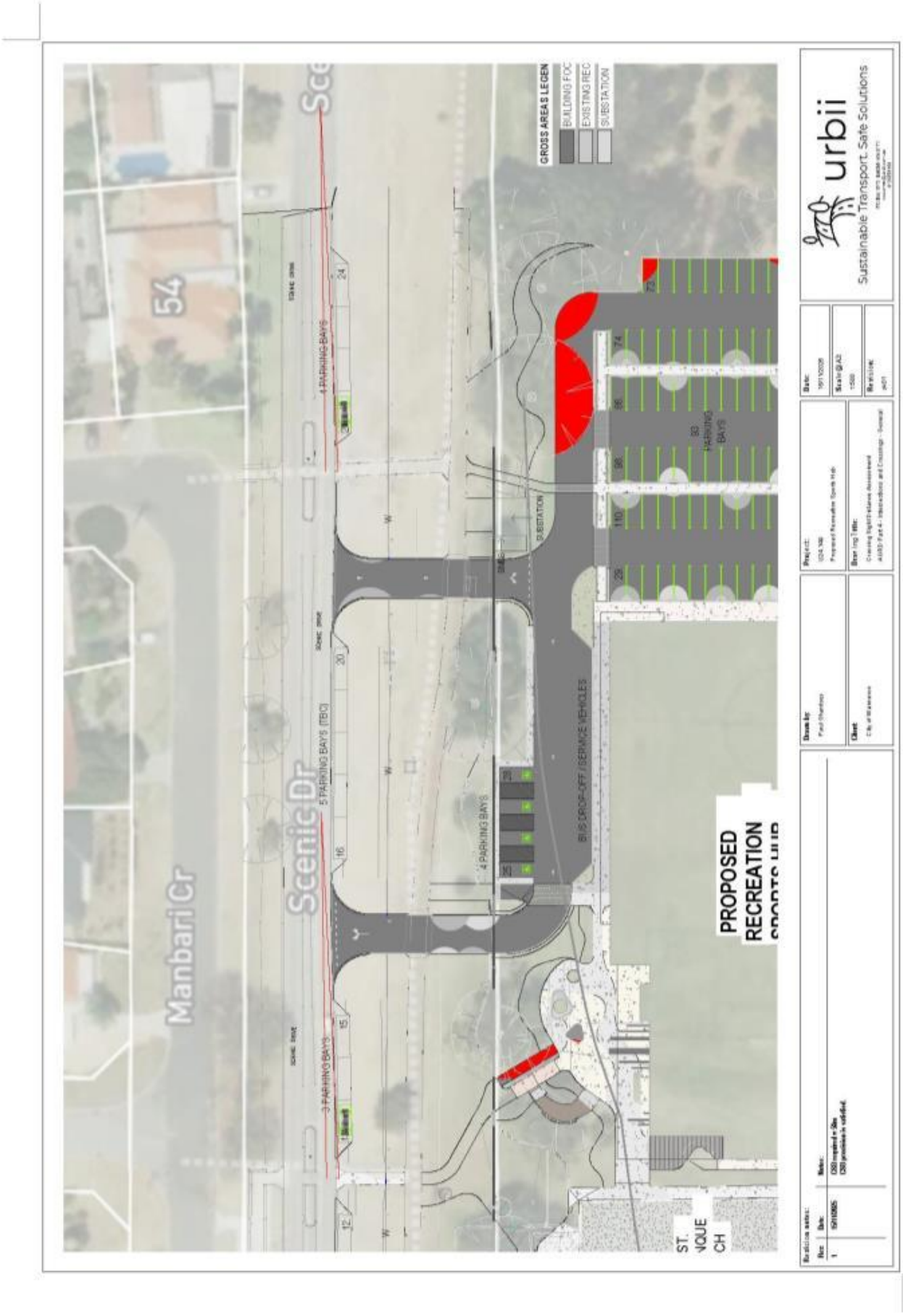
Appendices

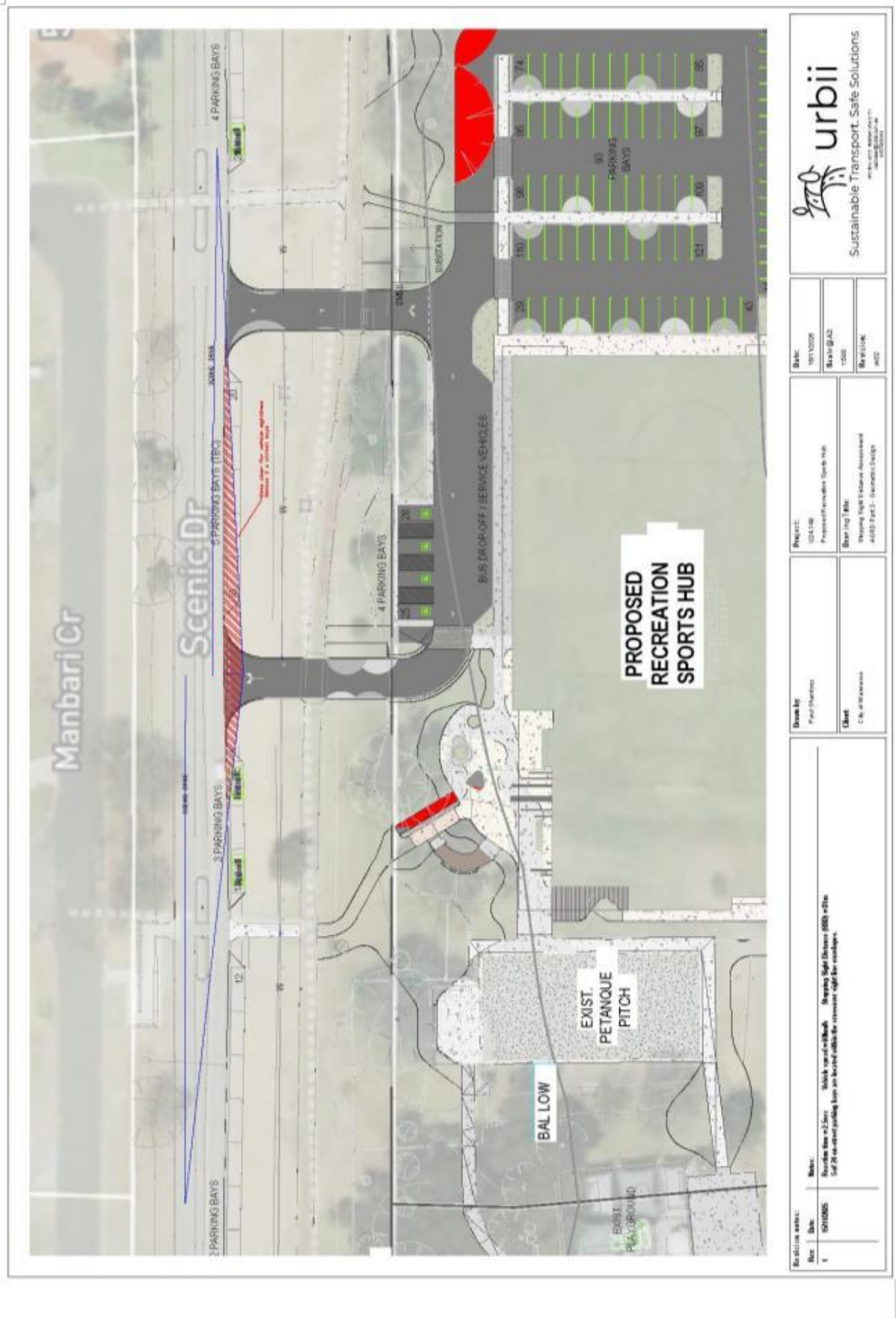
Appendix A: Proposed development plans


PROPOSED RECREATION SPORTS HUB
EXISTING RECREATION CENTRE
BOUNDARY
LAKE JOONDALUP
SITE PLAN - OVERALL
SITE PLAN OVERALL
SK001
WANNEROO RECREATION SPORTS HUB
Hodge Collard Preston
ARCHITECTS


Hodge Collard Preston
WANNEROO RECREATION SPORTS HUB
SK100
GA FLOOR PLAN
GROUND FLOOR

Appendix B: Sightline assessment sketches


Manbari Cr
Scenic Dr
54
3 PARKING BAYS
5 PARKING BAYS (TBC)
4 PARKING BAYS
4 PARKING BAYS
93 PARKING BAYS
BUS DROP-OFF / SERVICE VEHICLES
D.B STATION
PROPOSED RECREATION
GROSS AREAS LEGEN
BUILDING FOO
EXISTING REC
SUBSTATION
urbii
Sustainable Transport. Safe Solutions


Manbari Cr
Scenic Dr
4 PARKING BAYS
3 PARKING BAYS (TBC)
3 PARKING BAYS
2 PARKING BAYS
4 PARKING BAYS
BUS STATION
BUS DROP-OFF / SERVICE VEHICLES
93 PARKING BAYS
PROPOSED RECREATION SPORTS HUB
EXIST. PETANQUE PITCH
BAL LOW
EXIST. PLAYGROUND
urbii
Sustainable Transport. Safe Solutions

Appendix C: Traffic volume diagrams

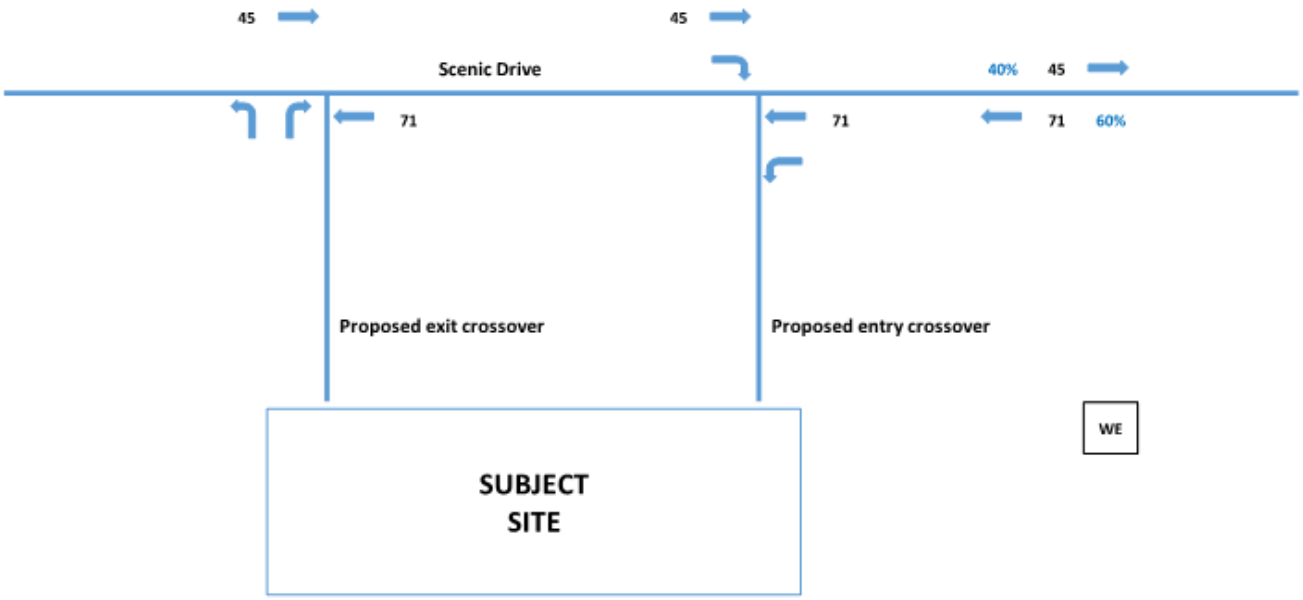


Figure 15: 2025 base – surveyed weekend peak hour traffic volumes

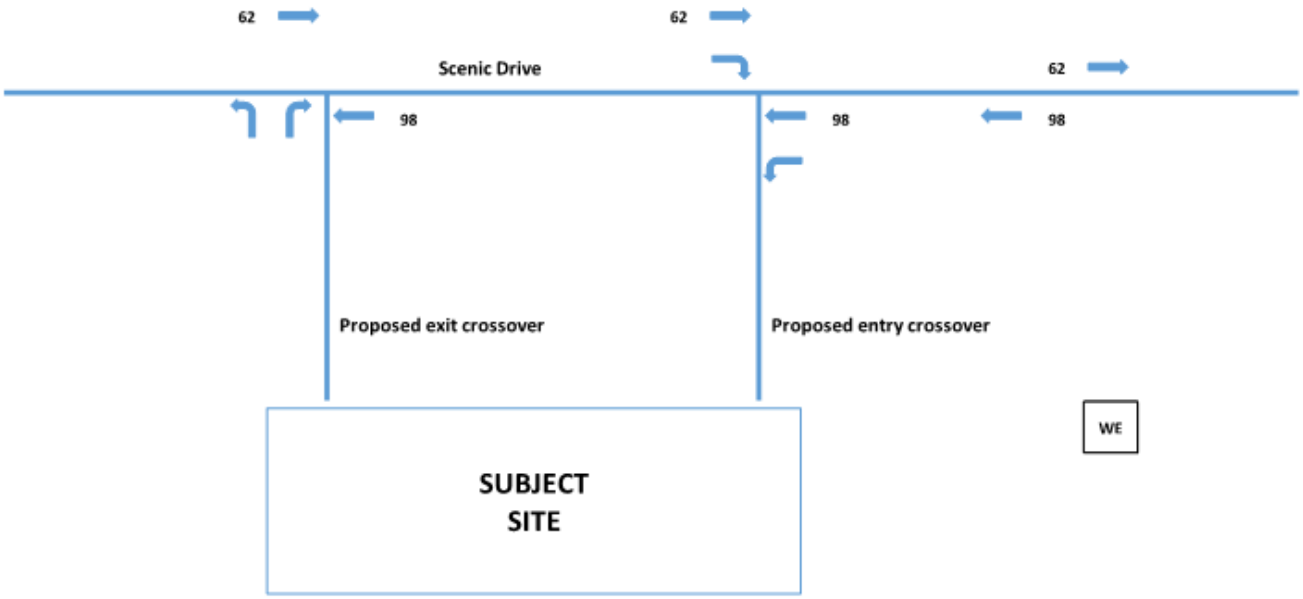


Figure 16: 2037 base – projected weekend peak hour traffic volumes

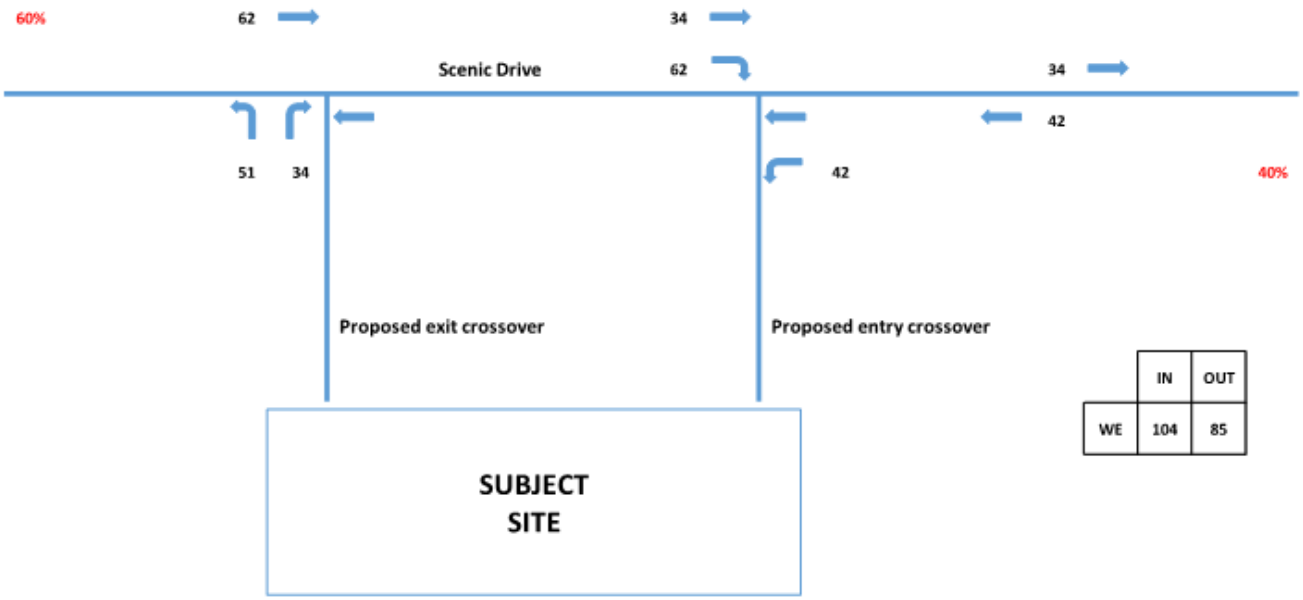


Figure 17: Proposed development – weekend peak hour traffic volumes

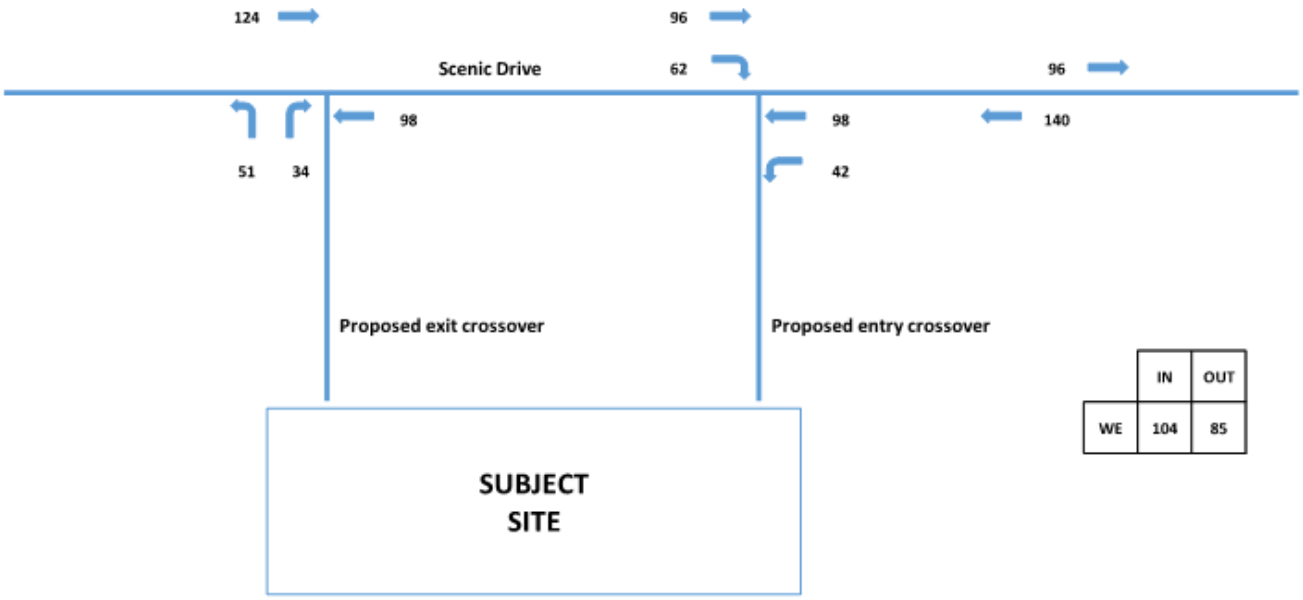


Figure 18: 2037 post development weekend peak hour traffic volumes

Appendix D: SIDRA analysis outputs

SIDRA outputs are presented in the form of Degree of Saturation, Level of Service, Average Delay and 95% Queue. These characteristics are defined as follows:

- **Degree of Saturation (DoS):** is the ratio of the arrival traffic flow to the capacity of the approach during the same period. The Degree of Saturation ranges from close to zero for varied traffic flow up to one for saturated flow or capacity.
- **Level of Service (LoS):** is the qualitative measure describing operational conditions within a traffic stream and the perception by motorists and/or passengers. In general, there are 6 levels of service, designated from A to F, with Level of Service A representing the best operating condition (i.e. free flow) and Level of Service F the worst (i.e. forced or breakdown flow).
- **Average Delay:** is the average of all travel time delays for vehicles through the intersection.
- **95% Queue:** is the queue length below which 95% of all observed queue lengths fall.

2037 weekend midday peak hour (with development traffic)

MOVEMENT SUMMARY

▽ **Site: [1] Scenic Drive / Exit Crossover** (Folder1)
Network: [1] 2037 Weekend Peak Hour (Post Development) (Folder1)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

U24.149 - Wanneroo Recreation Sports Hub
2037 Post Development
Weekend peak hour - 1pm to 2pm
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue [Veh.	Dist]	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
South: Site exit crossover															
1	L2	All MCs	54	6.0	54	6.0	0.073	0.3	LOS A	0.1	0.8	0.23	0.18	0.23	30.1
3	R2	All MCs	36	6.0	36	6.0	0.073	1.8	LOS A	0.1	0.8	0.23	0.18	0.23	17.3
Approach			89	6.0	89	6.0	0.073	0.9	LOS A	0.1	0.8	0.23	0.18	0.23	27.2
East: Scenic Dr															
5	T1	All MCs	103	6.0	103	6.0	0.056	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			103	6.0	103	6.0	0.056	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
West: Scenic Dr															
11	T1	All MCs	131	6.0	131	6.0	0.071	0.0	LOS A	0.0	0.0	0.00	0.00	0.00	50.0
Approach			131	6.0	131	6.0	0.071	0.0	NA	0.0	0.0	0.00	0.00	0.00	50.0
All Vehicles			323	6.0	323	6.0	0.073	0.3	NA	0.1	0.8	0.06	0.05	0.06	42.1

MOVEMENT SUMMARY

▽ **Site: [2] Scenic Drive / Entry Crossover** (Folder1)
Network: [1] 2037 Weekend Peak Hour (Post Development) (Folder1)
Output produced by SIDRA INTERSECTION Version: 10.0.8.241

U24.149 - Wanneroo Recreation Sports Hub
2037 Post Development
Weekend peak hour - 1pm to 2pm
Site Category: (None)
Give-Way (Two-Way)
Network Scenario: 1 | Local Volumes **Site Scenario: 1 | Local Volumes**

Vehicle Movement Performance

Mov ID	Turn	Mov Class	Demand Flows [Total	HV]	Arrival Flows [Total	HV]	Deg. Satn	Aver. Delay	Level of Service	Aver. Back Of Queue [Veh.	Dist]	Prop. Queued	Eff. Stop Rate	Number of Cycles to Depart	Aver. Speed
			veh/h	%	veh/h	%	v/c	sec		veh	m				km/h
East: Scenic Dr															
4	L2	All MCs	44	6.0	44	6.0	0.081	4.7	LOS A	0.0	0.0	0.00	0.16	0.00	42.7
5	T1	All MCs	103	6.0	103	6.0	0.081	0.0	LOS A	0.0	0.0	0.00	0.16	0.00	45.8
Approach			147	6.0	147	6.0	0.081	1.4	NA	0.0	0.0	0.00	0.16	0.00	44.7
West: Scenic Dr															
11	T1	All MCs	101	6.0	101	6.0	0.099	0.3	LOS A	0.2	1.1	0.21	0.27	0.21	44.7
12	R2	All MCs	65	6.0	65	6.0	0.099	4.4	LOS A	0.2	1.1	0.21	0.27	0.21	27.1
Approach			166	6.0	166	6.0	0.099	1.9	NA	0.2	1.1	0.21	0.27	0.21	40.0
All Vehicles			314	6.0	314	6.0	0.099	1.7	NA	0.2	1.1	0.11	0.22	0.11	42.2

Appendix E: Swept path diagrams

Swept path diagrams are included in this section of the report. Different coloured lines are employed to represent the various envelopes of the vehicle swept path, as described below:

Cyan represents the wheel path of the vehicle

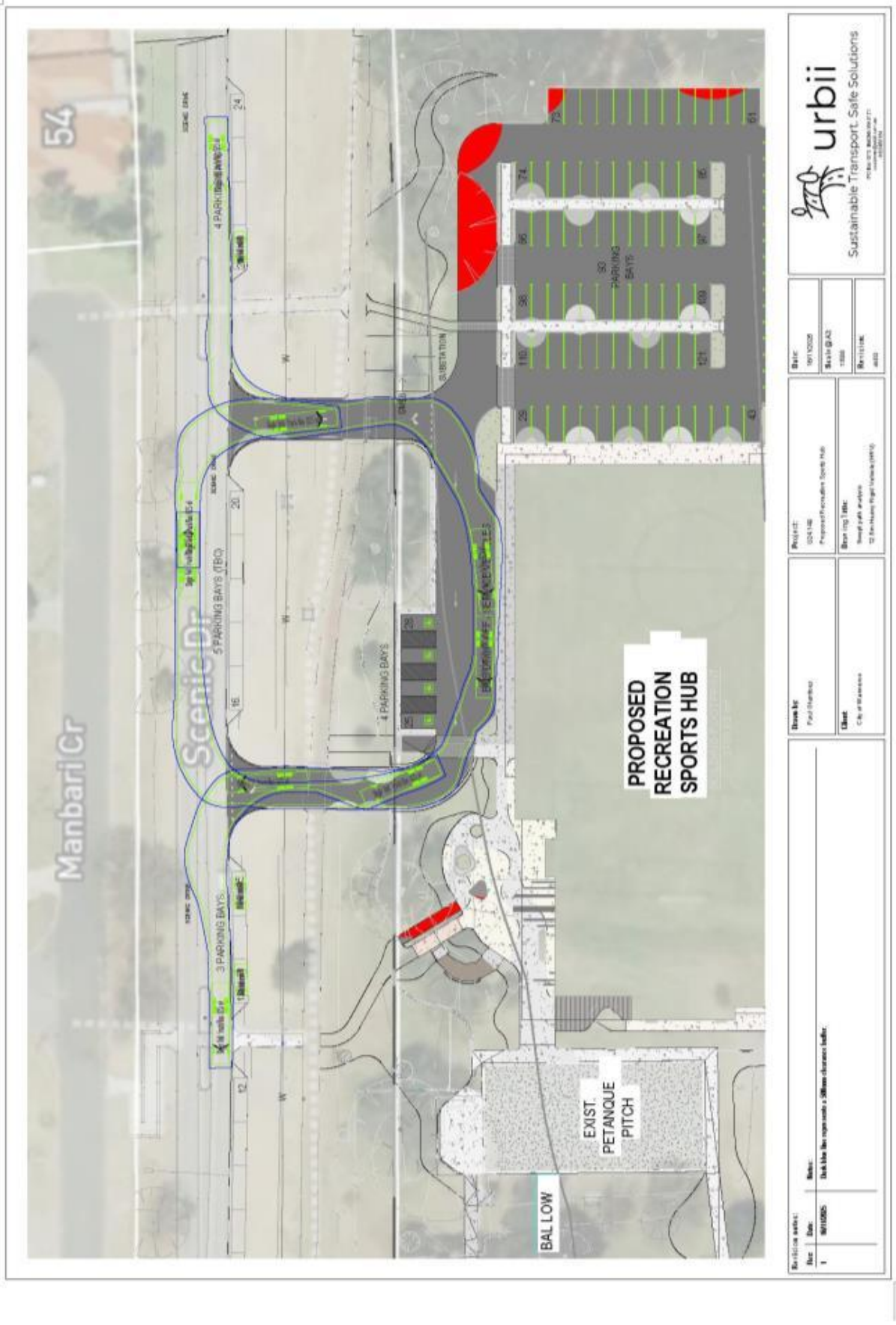
Green represents the vehicle body envelope

Blue represents a 500mm buffer line, offset from the vehicle swept path

Design vehicles tested include:

- AS2890.2: 12.5m Heavy Rigid Vehicles (HRV)

The swept path diagrams are also provided separately in high-quality, A3 PDF format.


Manbari Cr
Scenic Dr
54
PROPOSED RECREATION SPORTS HUB
EXIST. PETANQUE PITCH
BAL LOW
4 PARKING BAYS
5 PARKING BAYS (TBC)
3 PARKING BAYS
30 PARKING BAYS
urbii
Sustainable Transport. Safe Solutions

Part B Principal Management Directions

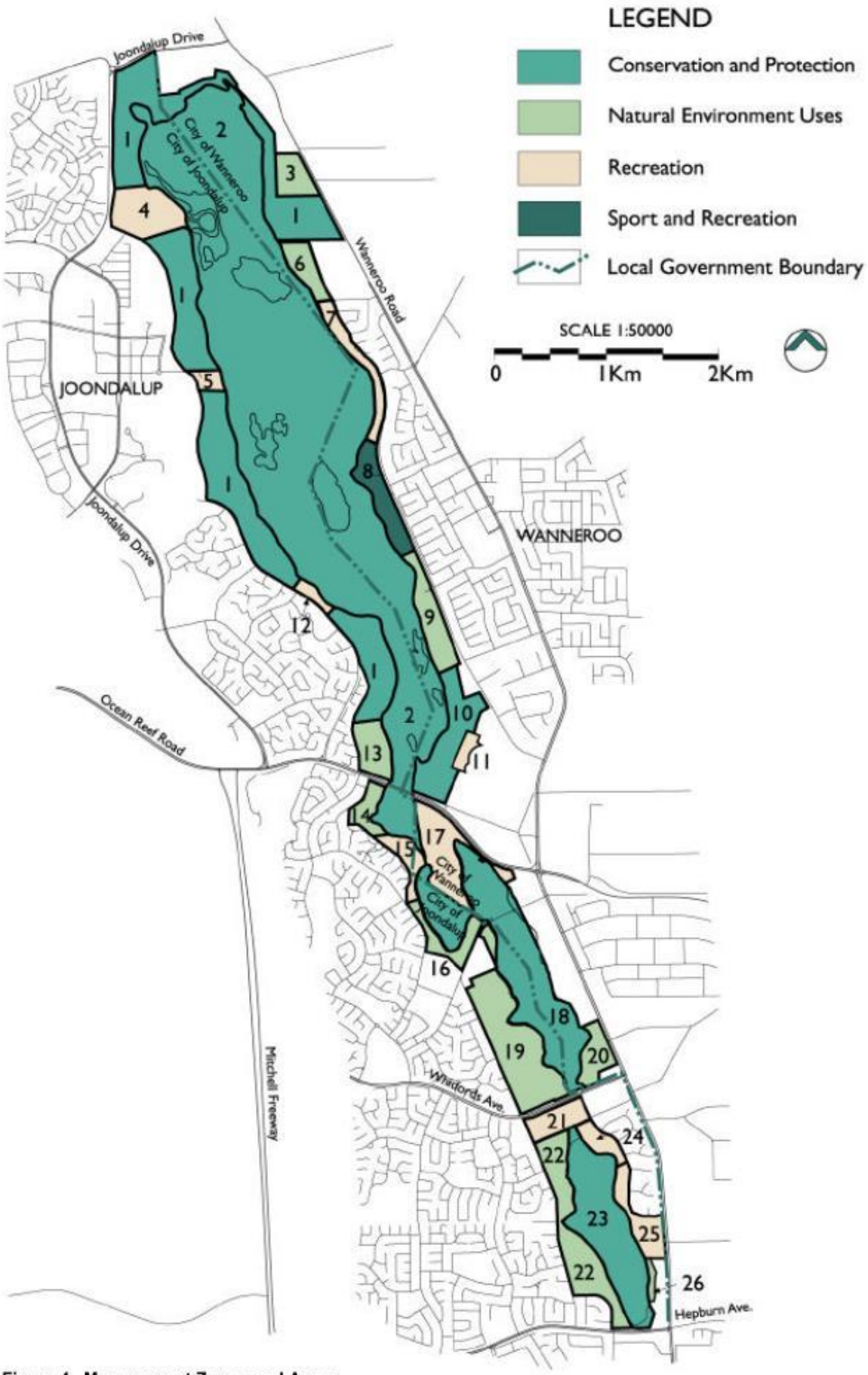


Figure 4 - Management Zones and Areas

Community Engagement Report – Participation in Wanneroo Sports Hub Project

2021 Feasibility Study

Engagement purpose

Following preliminary engagement with key stakeholders as part of the initial Wanneroo Recreation Precinct Master Plan (between July 2019 - August 2020), the City engaged further with key stakeholders and community user groups as part of the Feasibility Study.

Engagement activities

- In-person meetings
- Questionnaires
- Email
- other communication methods

Stakeholder engagement

The following stakeholders were invited to participate in the engagement process which included State Sporting Associations; State Government Agencies, Community User Groups and Aboriginal Elders. Responses were received from 17 out of 38 user groups contacted.

- SSAs - Volleyball WA, Football West, Netball WA, Basketball WA, Badminton Association of WA, Gymnastics WA, Floorball Association of WA
- State Government Agencies - Department of Local Government, Sport and Cultural Industries (DLGSCI), Department of Biodiversity, Conservation and Attractions (DBCA), Department of Water and Environmental Regulation (DWER), Public Transport Authority (PTA), and Lotterywest
- Community User Groups - Chorus, Wanneroo Agricultural Society, Wanneroo Sports and Social Club, Inner Car Club, UA3, Gnangara Art Group, Ukulele Club, Dianne Sigel – Studio Potter, Wanneroo Scout Group, Amateur Boxing Club, Friends of Yellagonga Regional Park, U3A Pétanque, Country Women's Association, Lake Joondalup Badminton Club, Wanneroo Lace Makers Group, Northern Friendship Group, Skoolz Out, Norther Suburbs Stroke Support Group.
- Aboriginal Elders - Dr Noel Nannup and Dennis Simmons

Community sentiment



Community Engagement Report – Participation in Wanneroo Sports Hub Project

2023-24 Consultation

Engagement Activities

The following community engagement activities were carried out between November 2023 and January 2024 with the broader community and local residents close to Scenic Park via the following methods on the guiding concept design for the Wanneroo Recreation Centre Sports Hub, which was approved by Council on 18 July 2023.

Engagement Method / Stakeholders	Number of Views/letters	Number of Unique Visitors	Number of Respondents	Number of Comments	Number at Site Meeting	Facebook			
						Reach	Shares	Clicked Link	Engagement
Facebook						11,649	7	321	381
Your Say	192	146	59	59					
Community mailout 800m	999								
Aboriginal Heritage					2				
On site signage									

Community sentiment



Community Engagement Report – Participation in Wanneroo Sports Hub Project

2025 Consultation

Engagement activities

The following community engagement activities were carried out with the broader community and local residents close to Scenic Park between July and September 2025 on the revised concept plans for the Wanneroo Recreation Centre and Sports Hub.

Engagement Method / Community members	Number of Views/letters	Number of Unique Visitors	Number of Respondents	Number of Comments	Number at Site Meeting	On-line / Social Media			
						Reach	Shares	Clicked Link	Engagement
Facebook						10,513	7	542	591
Comments (Your Say)	4,535	2,473	176	256					
Comments (All channels)			359	461					
Direct email to users	37								
Drop-in sessions x 2					70-80				
Mailout 800m	999								
Mailout extended	1,223								
Public Questions			73						
Other emails received				108					
On site signage									
eNews						10,000+			

Community sentiment



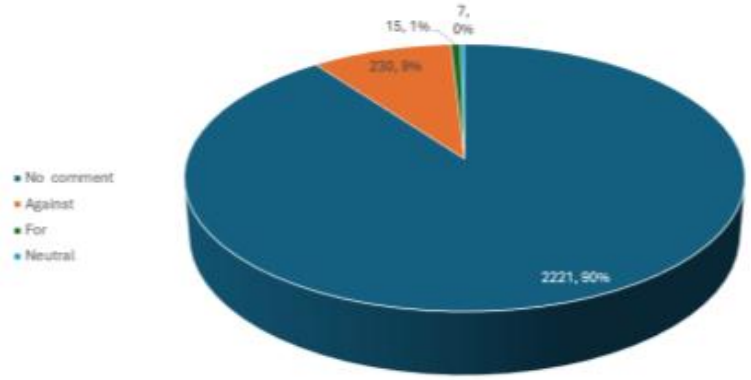
Community Engagement Report – Participation in Wanneroo Sports Hub Project

Overall Engagement Summary – Community sentiment

- There was overwhelming support for the initial engagement with community user groups in 2021 (100% support)
- Support continued in 2023-24 from the broader community and locals when Council approved the initial design (80% support)
- When engagement was carried out in 2025 with the community on the revised concept plans, there was overwhelming objection to the site location by some local residents, park users and others concerned about the environmental impacts (71% against).



Total - Your Say Page visits in 2025 – 2,473 people



Main issues raised by community – 359 people

