

# RIVERLEA MAJOR DEVELOPMENT

## APPLICATION AMENDMENT TO THE EIS

Principally – Precinct 3A Subdivision

*RIVERLEA, RIVERLEA PARK*

NOVEMBER 2025

PREPARED BY WALKER PASTORAL PTY LTD  
9 BONNIN CRESCENT, RIVERLEA PARK SA 5120

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We acknowledge the Traditional Owners of the many lands we live and work on. We respect First Nations Elders, past and present, and thank them for their continued care of their country, culture, and community.

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Version No.	Date of Issue	Revision	Prepared & approved by
Final	October 2025	1	Patrick Mitchell
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## Abbreviations

TERM	MEANING
ACHM	Australian Cultural Heritage Management
AEIS	Amended Environmental Impact Statement
AEP	Annual Exceedance Probability
AHA	<i>Aboriginal Heritage Act 1988</i>
AHD	Australian Height Datum
ASS	Acid Sulphate Soils
CDS	Continuous Deflection Separation
CHAR	Cultural Heritage Assessment Report
CEMP	Construction and Environmental Management Plan
CHMP	Cultural Heritage Management Plan
CHO	Cultural Heritage Officers
The Council	City of Playford
DIT	Department of Infrastructure and Transport
DHUD	Department for Housing and Urban Development
EPA	Environment Protection Authority
ETA	Empirical Traffic Advisory
EVs	Environmental Values
GARP	Greater Adelaide Regional Plan
GPT	Gross Pollutant Trap
GRFMA	Gawler River Flood Management Authority
KYAC	Kaurna Yerta Aboriginal Corporation RNTBC
LMA	Land Management Agreement
LSA Act	<i>Landscape South Australia Act 2019</i>
The Minister	Minister for Planning
MUSIC	Model for Urban Stormwater Improvement Conceptualisation
NAIS	Northern Adelaide Irrigation Scheme
MATS	Northern Adelaide Transport Study
ND&A	Neale Draper & Associates Pty Ltd
NVA	<i>Native Vegetation Act 1991</i>
NVC	Native Vegetation Council
NVR	<i>Native Vegetation Regulations 2017</i>
PAC	Planning Assessment Commission
PAD	Potential Archaeological Deposits
PASS	Potential Acid Sulphate Soils
PCA	Potential Contaminating Activities
Pentelic	Pentelic Advisory

<b>PDI Act</b>	<i>Planning, Development and Infrastructure Act 2016</i>
<b>SAPN</b>	SA Power Network
<b>SEDMP</b>	Soil Drainage Erosion Management Plan
<b>SMP</b>	Stormwater Management Plan
<b>TAM</b>	Tactical Adelaide Model
<b>Technical Paper</b>	Stormwater Management, Water, Wastewater and Recycled Water – Technical Paper
<b>TIA</b>	Traffic Impact Assessment
<b>Walker</b>	Walker Pastoral Pty Ltd
<b>WGA</b>	Walter Gilbert Aztec Pty Ltd
<b>WSUD</b>	Water Sensitive Urban Design

# Executive Summary

This application follows Section 114 (1)(c) of the *Planning, Development and Infrastructure Act 2016* to account for an amendment to the original (approved) Environmental Impact Assessment for the Riverlea major development at Riverlea Park (formerly the Buckland Park Country Township Proposal).

Following the delegate of the Minister for Planning's decision to approve an Amendment to the Environmental Impact Statement (AEIS) on 2 June 2025 (for Precinct 2), Walker Corporation seeks to progress the Project beyond Precincts 1 and 2 with the lodgement and assessment of additional subdivision stages within Precinct 3 of the Riverlea development.

The broader Precinct 3 project area requires extensive investigations and detailed master planning. However, a minor area within Precinct 3 forms a logical extension of Precinct 2. This smaller development area (aptly called **Precinct 3A**) has limited planning issues and forms a contiguous and expected progression of Stages 36, 37 and 38 from the approved Precinct 2 Riverlea development.

The figure below details the Precinct 3A area relative to the Precinct 2 stages and the balance of a significant portion of the Precinct 3 area that will be subject to a more detailed AEIS process.



The Precinct 3A AEIS area has existing authorisations under the *Aboriginal Heritage Act 1988* (AHA), having already been surveyed for Aboriginal Cultural Heritage and will have a limited impact on native vegetation. Nonetheless, further authorisations will be necessary following the AHA for project works outside the AHA Authorisation Area, including to support the interim and full implementation of the flooding and stormwater mitigation strategy for Riverlea. Walker has commenced the application process to facilitate further project works, including the construction of the necessary stormwater channels.

The land for Precinct 3A, like the remainder of Precinct 3, has been used for farming pursuits (primarily cattle grazing in recent years, cropping, and sheep grazing before that). Preliminary site investigations into site contamination have also been conducted, with no significant issues identified. The planned road network, extension of the existing services, and stormwater management systems will cater to the new Precinct 3A area.

Based on the current masterplan, Precinct 3A can realise an additional 736 allotments (incorporating 143 Affordable Housing properties). Accordingly, for the timely and logical expansion of Riverlea, Walker seeks to undertake a two-step AEIS process to commence a smaller Precinct 3A - AEIS immediately, and intends for a Precinct 3 – AEIS process to follow in 2026.

The future expansion of Riverlea will support the implementation of the State Government's strategic housing objectives by shortening the delivery of much-needed housing and encouraging the continued growth of northern Adelaide with a focus on the north-western spine. The continued expansion of Riverlea aligns with several State Government priorities by quickly bringing additional housing supply online to the Outer North with targeted infrastructure commitments.

The Greater Adelaide Regional Plan identifies significant planned investment over the coming years in water and wastewater infrastructure in the Outer North, particularly investment that will unlock housing growth in Riverlea (a priority scheduled for the 2024-28 infrastructure spend), as identified in the Housing Road Map. Walker will continue working with the Department for Housing and Urban Development to dedicate properties in Precinct 3A to the affordable housing agenda, ensuring that Precincts 1, 2, and 3 deliver a minimum of 15% affordable housing, in line with the State Government's Affordable Housing objectives.

Given the limited planning issues and lead time to undertake a Precinct 3A AEIS process, and considering the current demands for housing, it appears that commencing an AEIS process immediately will enable the expeditious expansion of Riverlea and assist in delivering the State Government's ambitious housing agenda.

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# 1. Background

Riverlea Park is a recent suburb in South Australia, resulting from a boundary realignment and name change of a portion of Buckland Park in February 2022. The site is within the City of Playford local government area, approximately 30 kilometres north of the Adelaide CBD.

In June 2003, the Minister for Urban Development and Planning made a major development declaration for the land development referred to as Buckland Park Township (now known as 'Riverlea'). In January 2007, the Minister amended the earlier declaration to expand the development area to include additional land parcels. Riverlea now comprises approximately 1,340 hectares of mainly cropping and grazing land. The Gawler River bounds the Riverlea development site to the north, Port Wakefield Highway to the east, horticultural land uses to the south and Buckland Dry Creek Pty Ltd salt lakes to the west. The site is approximately four kilometres east of the St Vincent Gulf coastline.

In May 2007, Walker Corporation Pty Ltd (Walker) lodged a major development application for a staged residential and commercial development. This application was subject to an Environmental Impact Statement (EIS), which was granted provisional approval in February 2010. Future Precincts within Riverlea were to be determined when detailed applications were made and considered.

In November 2014, Walker amended the EIS (AEIS) to facilitate the division of residential land in Precinct 2. In October 2017, the Minister for Planning approved the Precinct 2 AEIS. In 2023, Walker sought to amend the Precinct 2 AEIS to incorporate a revised subdivision pattern incorporating a Saltwater Lakes system within the subdivision design. In June 2025, the Minister for Planning's Delegate approved that application. **Figure 1** details the approved Overall Concept Plan for Riverlea and Precincts 1 and 2.



Figure 1 - The Approved Riverlea Precincts 1 and 2 Concept Plan

Precincts 1 and 2 comprise approximately 830 and 2749 residential allotments, respectively. Riverlea is a master-planned community that will deliver up to 12,000 residential properties, supported by open spaces,

schools, retail and commercial activity centres, and public transport, for a new community estimated to reach approximately 33,000 residents once complete.

Due to the sheer scale of the Riverlea development, it will likely take over 25 years to complete. Hence, each Precinct is subject to a gradual, detailed design process to allow for the future adoption of technology and planning evolutions. Applications for further Precincts progress as existing Precincts are approved and evolve in their progression and delivery.

## 2. Objectives and timing of the proposal

Walker seeks to progress an amended Environmental Impact Statement (AEIS) application process for the continued expansion of the Riverlea development. Precinct 3 is the third of four portions forming the Riverlea major development. The future expansion of Riverlea will support the delivery of the State Government's strategic objectives by shortening the implementation of much-needed housing supply and encouraging the continued growth of northern Adelaide with a focus on the north-western spine.

Walker seeks to undertake a two-step AEIS process to commence the smaller Precinct 3A AEIS immediately, with the intention of following a Precinct 3 AEIS process in 2026. Precinct 3A has limited planning issues and forms a contiguous and expected progression of the approved Stages 36, 37 and 38 in Precinct 2. Precinct 3A maximises the existing planned road network and stormwater management systems.

Figure 2 shows how the Precinct 3A area interconnects with Precinct 2.

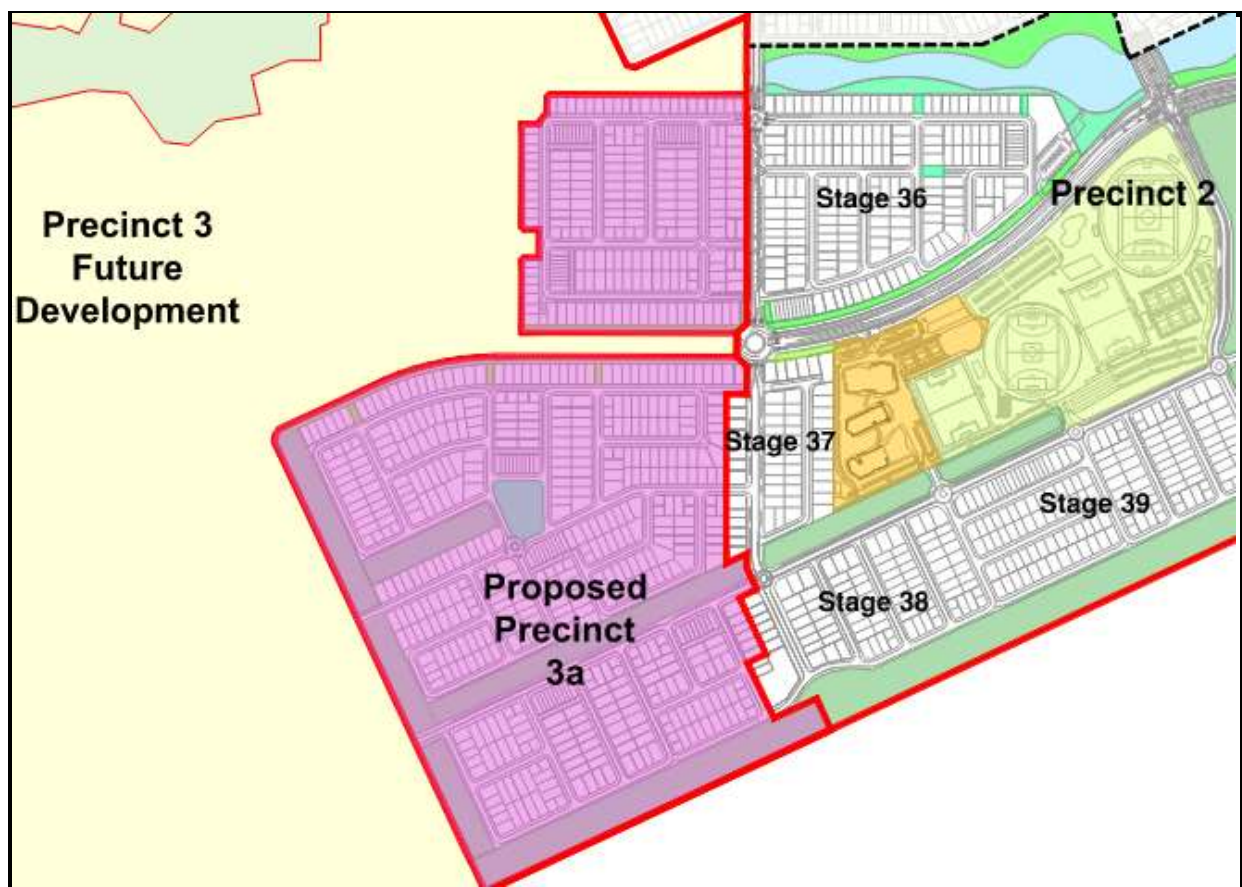


Figure 2 -The Precinct 3A area's connectivity with Precinct 2

The land for Precinct 3A, like much of the project area, has been used for farming pursuits (principally cattle grazing and, before that, cropping and sheep grazing). Preliminary site investigations into site contamination have also been conducted, with no significant issues identified.

The Precinct 3A area adjoins the previously approved Riverlea Precinct 2 subdivision to the east, horticultural activities to the south, and the remainder of the future Precinct 3 to the west and north (presently occupied for farming activities), to the Gawler River.

Given the limited planning issues and challenges, lead time to undertake an AEIS process and the current demands for housing, Walker seeks to commence the Precinct 3A immediately to enable the expeditious delivery of further housing supply.

### 3. The proponent

The proponent is Walker Pastoral Pty Ltd (Walker), the trustee of The Walker Pastoral Unit Trust, a subsidiary of Walker Corporation Pty Ltd, a Sydney-based developer of master-planned residential communities, as well as retail, commercial, and industrial projects. The company has specialist expertise in planning, project management, finance, joint venture and development structures, infrastructure construction and project marketing.

Access to Walker's urban development history and current pipeline of projects is via the following web link: [Walker Corporation – Award-Winning Creative Property Solutions](#)

The proponent's details are as follows:

Applicant:	Walker Pastoral Pty Ltd
Address:	Riverlea Sales and Discovery Centre 9 Bonnin Crescent, Riverlea Park, SA 5120
Postal Address:	PO Box 522, Virginia, SA 5120
ABN:	15 589 339 450

### 4. Legislation

This application follows Section 114 (1)(c) of the *Planning, Development and Infrastructure Act 2016* (PDI Act) to account for an amendment to the original (approved) Environmental Impact Assessment for the Riverlea major development at Riverlea Park (formerly the Buckland Park Country Township Proposal).

The Precinct 3A land comprises cleared grazing land earmarked for housing and urban development. Walker knows that legislative requirements are still relevant for the Precinct 3A proposal, most notably compliance with the *Aboriginal Heritage Act 1988* (AHA) and the *Native Vegetation Act 1991* (NVA) (akin to the previous Precinct 2 approvals).

The Precinct 3A area has authorisations under the AHA, following an Aboriginal Cultural Heritage survey and an application to the Minister for Aboriginal Affairs (as discussed in **Section 8.2**). Native Vegetation Accredited consultants have surveyed the area and submitted an application to the Native Vegetation Council (NVC) for native vegetation clearance in September 2025, in accordance with the *Native Vegetation Regulations 2017* (NVR), as discussed further in **Section 8.8**.

### 5. AEIS Process

As previously stated, in 2007, the Minister for Planning (The Minister) declared Riverlea a major development and later requested the preparation of an EIS. Following the advice from the Department for Housing and Urban Development (DHUD), the subdivision of Precinct 3A must follow a further AEIS process (per the PDI Act). The AEIS process will involve:

- referral to any prescribed authority or body and other relevant authorities or bodies for comment;
- public exhibition for at least fifteen business days;

- a public meeting may be held in the locality by the Minister's nominee (typically DHUD) to provide information on the development or project, explain the AEIS document and processes, and assist interested persons with making submissions;
- copies of submissions are given to Walker to respond to any matters raised by the Minister, prescribed agencies, the Council and members of the public (a Response Document);
- DHUD prepares an Assessment Report concerning any submissions, Walker's response, and comments from any other authority or body considered necessary.
- The Planning Assessment Commission (PAC) considers the AEIS Application, the Response Document and the Assessment Report, and provides its recommendations to the Minister.
- The Minister (or the Minister's Delegate) determines the AEIS application.

The Assessment Report will be available for inspection and purchase at a place and period determined by the Minister. The Minister notifies the availability of each document through advertisements in the local press. The purpose of the AEIS is to:

- provide a description of the proposal, the environment, and issues relevant to the proposal;
- detail the expected environmental, social and economic effects of the development;
- consider the extent to which the expected effects of the development are consistent with the provisions of the Planning and Design Code, the 30-Year Plan for Greater Adelaide and any matter prescribed by the PDI Act;
- set out the proponent's commitments to meet conditions (if any) to avoid, mitigate or manage any potential impacts of the development on the environment; and
- address any other information required by the Minister.

The aims of the AEIS and the public consultation review are to provide the following:

- a source of information from which interested individuals and groups may gain an understanding of the proposal, the need for the proposal, the consequences of not proceeding, the environment that would be affected, the effects that may occur and the measures taken to minimise those effects;
- a forum for public consultation and informed comment on the proposal;
- a framework within which decision-makers may consider the environmental aspects of the proposal in parallel with social, economic, technical and other factors.

## 6. Guidelines

The formulation of the Guidelines for preparing an Environmental Impact Statement - August 2008 (the Guidelines) considered the entire Buckland Park Township Proposal (the Riverlea major development). These guidelines outline the primary issues associated with development and the degree of significance determined by the former Development Assessment Commission (now PAC).

A review of the Guidelines recognises that those matters are still relevant to the entire Riverlea development and that the Buckland Park Environmental Impact Statement previously addressed the issues specified in those Guidelines. Precinct 3A forms a small fraction of Riverlea's development extent. Many broader topics within those guidelines do not expressly or solely target individual, smaller Stages within Riverlea's overall project area.

Additionally, the Riverlea major development – applications/AEIS for the Precinct 2 subdivision (November 2014 and May 2023) addressed the issues pertinent to those applications, which are equally relevant to the matters subject to this Amendment, given the similar nature of the proposals. Both proposals primarily focus on residential uses near open spaces, manage stormwater and flooding, and feature a comparable road hierarchy. The Precinct 3A proposal is a logical and foreseeable extension to the Riverlea development.

## 7. Description of Proposal

### 7.1 Location

Figure 3 shows the Development Status of Riverlea, including the proposed location of Precinct 3A as it fits within the overall Riverlea development. As shown, the Precinct 3A area forms a predictable and logical extension of the existing Precinct 2 subdivision that is presently underway. The eastern aspects of Precinct 3A border the approved Stages 36, 37 and 38 of the Precinct 2 subdivision area.

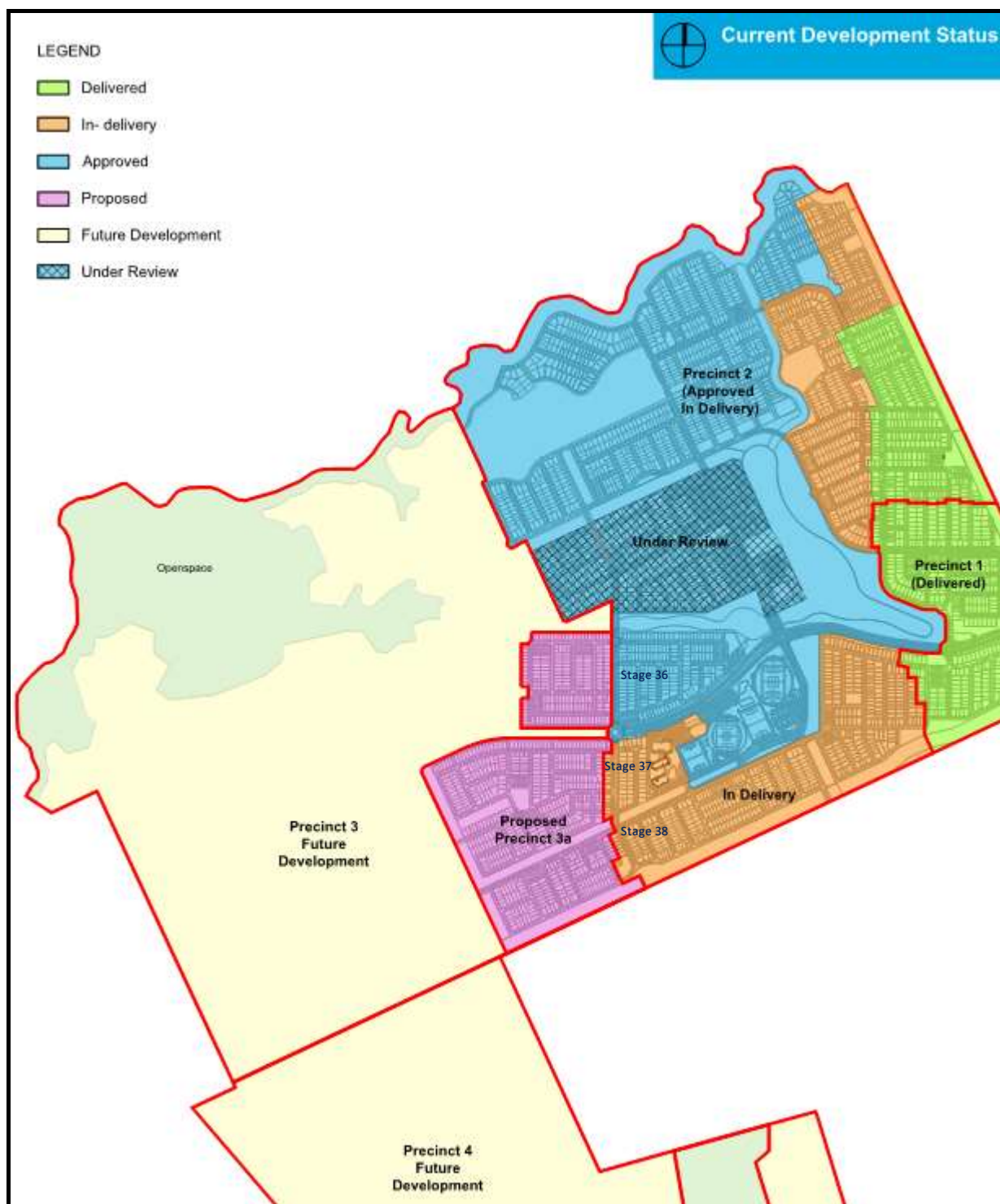


Figure 3 – Riverlea - Current Development Status (including proposed Precinct 3A)

A sizeable stormwater drainage channel constructed along the site's southern boundary (extends generally east-north-east to west-south-west adjacent to the Legoe Road reserve) physically separates the Precinct

3A land from the adjoining horticultural activities undertaken on the neighbouring land. The western and northwestern aspects of Precinct 3A abut the future Precinct 3 area, which is used for farming (cattle grazing).

The aerial image below (**Figure 4**) shows the relationship boundaries between Precinct 3A and Precincts 2 and 3, as well as adjoining rural activities to the north and south.

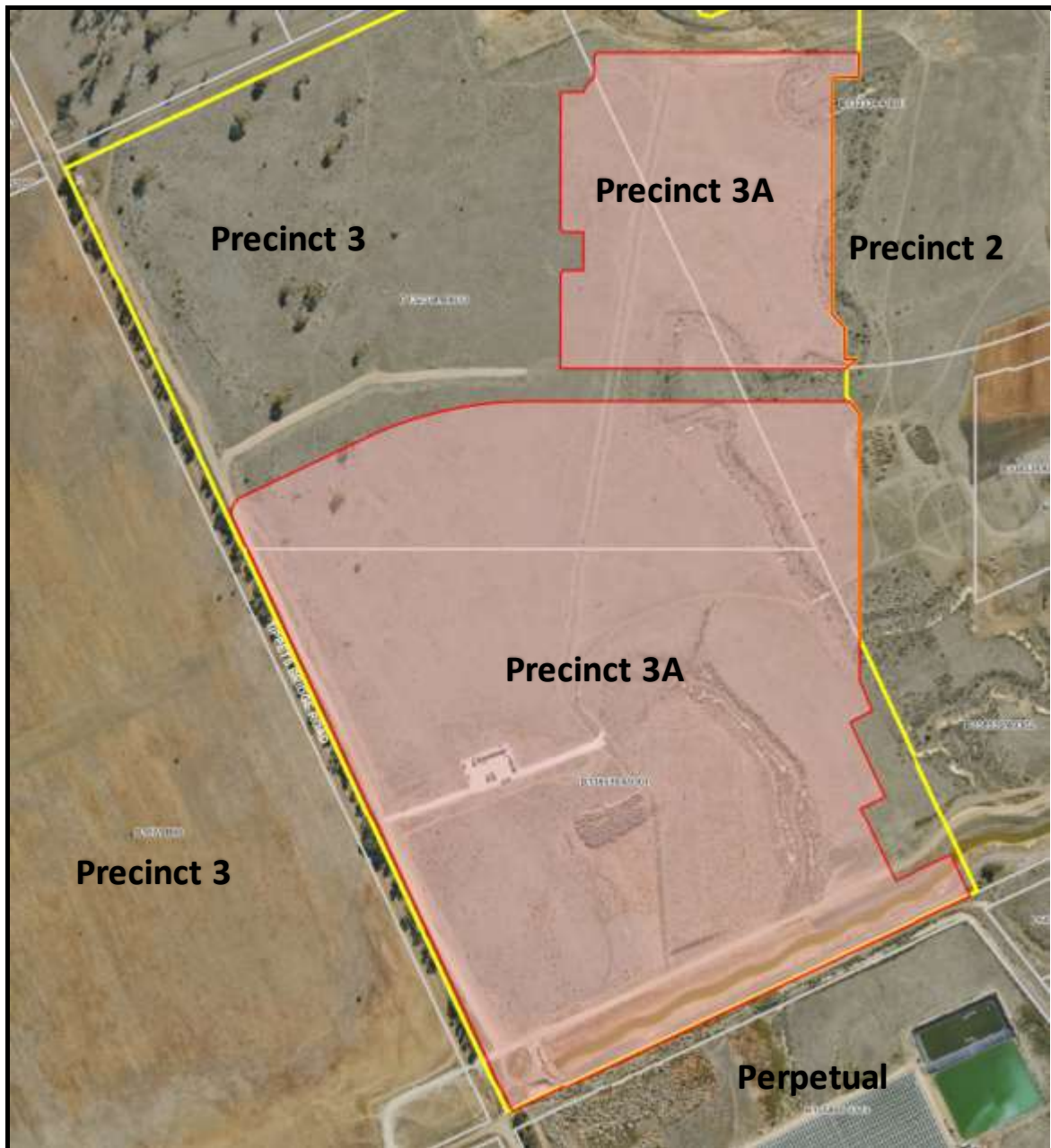


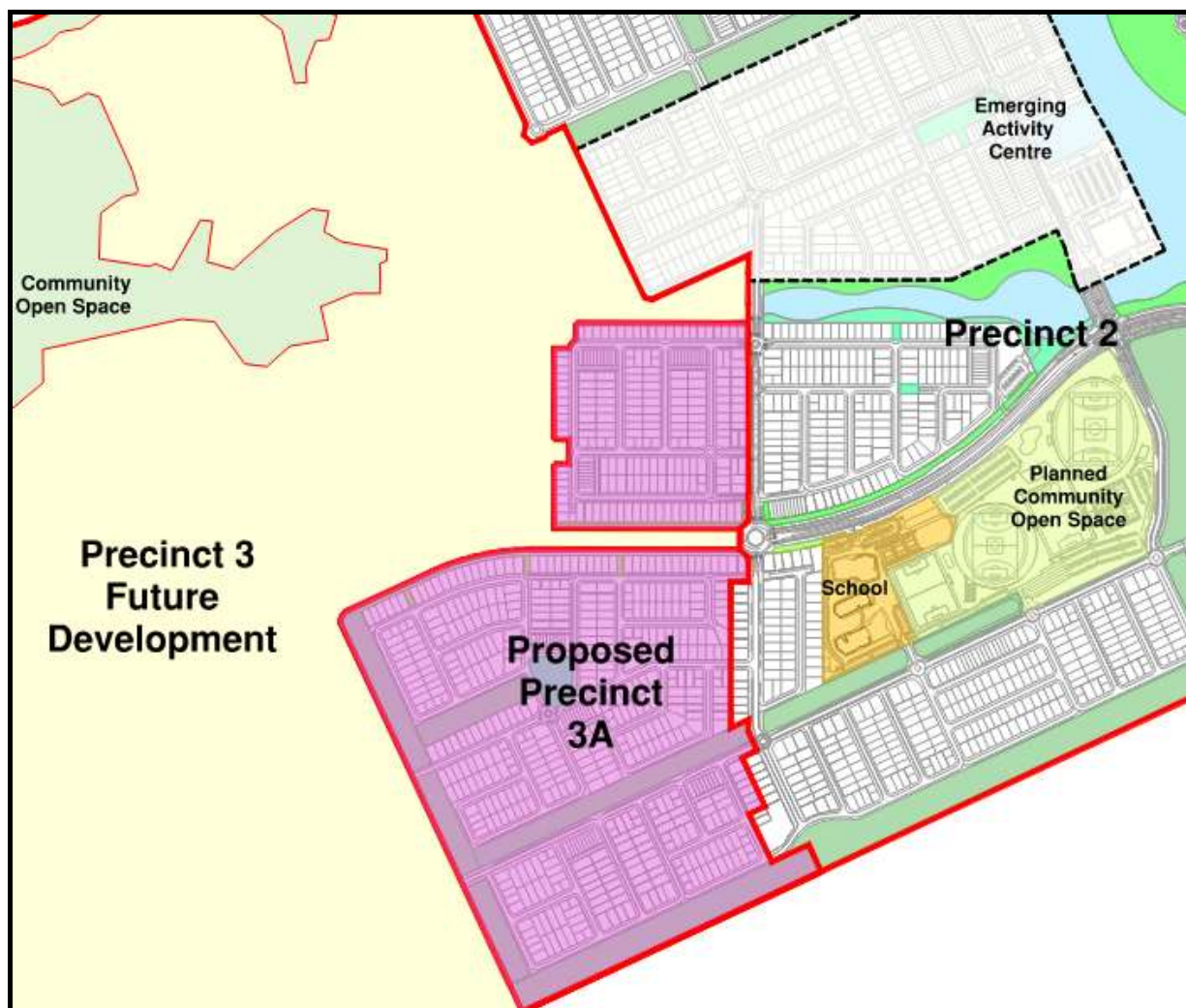
Figure 4 – Aerial Overlay of Precinct 3A and adjoining Precincts and private land

## 7.2 Nature of the Proposal

The nature of the development is the continued rollout of additional residential subdivision stages within Precinct 3A, which form a small fraction of the overall Riverlea project area. The Precinct 3A subdivision seeks to create a diverse mix of allotment types, including the delivery of Affordable Housing products, specifically targeted towards eligible affordable Housing purchasers (discussed further in **Section 7.4**).

The Precinct 3A proposal aims to create six additional subdivision stages, comprising nearly 740 residential allotments, near planned schools, open spaces, a proposed emerging activity centre, vegetated open drainage channels, various open space areas, and a comprehensive traffic network.

**Figure 5** details a Concept Plan for Precinct 3A and the surrounding uses. **Appendix A** shows the detailed subdivision plans and the proposed staging of Precinct 3A, the number of allotments, the allotment sizes and dimensions, and the road network.



**Figure 5 - Precinct 3A Concept Plan**

The Precinct 3A subdivision will also require a bulk earthworks exercise to address servicing and potential flooding issues. Hence, all future finished ground levels must ensure urban lands are higher than predicted floodwater flows to address flood risk, including the threat of floodwater breakouts from the Gawler River.

The proposed bulk earthworks to raise the land and associated infrastructure above potential flood levels will impact some native vegetation, as discussed in **Section 8.8**.

### 7.3 Lot Mix

The Precinct 3A subdivision features a diverse range of allotment types, dimensions, and sizes, accommodating a variety of housing designs and styles.

**Figure 6** (and **Appendix B**) visually details the allotment mixes, and the table titled 'Area Calculations' inserted within **Figure 6** provides a breakdown of allotment dimensions, including allotment widths, depths, and site area calculations.

## LEGEND

Allotment Type	Width	Depth	Area m <sup>2</sup>	Total	Total%
Terrace	7-9	25-30	150-250	65	8.8%
Cottage	15	15	225	78	10.6%
Small Courtyard	12.5	25	312	39	5.3%
Courtyard	14	25	350	47	6.4%
Villa	12.5	30	375	156	21.2%
Medium Courtyard	16	25	400	25	3.4%
Entry Traditional	14	30	420	178	24.2%
Large Villa	12.5	35	438	22	3.0%
Large Courtyard	18	25	450	10	1.4%
Small Traditional	16	30	480	66	9.0%
Entry Estate	14	35	490	25	3.4%
Grand Courtyard	20	25	500		
Medium Traditional	18	30	540	15	2.0%
Small Estate	16	35	560	2	0.3%
Large Traditional	20	30	600	7	0.9%
Medium Estate	18	35	630	1	0.1%
Large Estate	20	35	700		
Grand Estate			800+		
MD Site					
Other					
<b>Total</b>				<b>736</b>	<b>100%</b>



Figure 6 – Allotment Mix Plan

## 7.4 Affordable Housing

Precinct 3A will include a minimum provision and diversity of Affordable Housing (House and Land packages), alternative allotment dimensions, and housing styles throughout various locations in all stages of the Precinct 3A subdivision.

Working in collaboration with the Affordable Housing and Market Solutions branch of DHUD, Walker will upload a minimum of 15% Affordable Housing products on the Homeseeker SA website, specifically targeting eligible purchasers of Affordable Housing.

A Land Management Agreement (LMA) (between Walker and the delegate for the Minister for Planning) will be registered on the Certificates of Title for land in Precinct 3A to ensure the provision of a minimum of 15% of affordable housing across the development. The LMA will occur upon the transfer of all the Precinct 3A land into Walker's ownership. LMA title registrations will occur by amending the existing titles, noting the Registered Dealing No. AG 14140180 or applying for a new Registered Dealing No.

Walker continues to liaise with the Affordable Housing and Market Solutions branch of DHUD concerning the provision of Affordable Housing throughout many stages of the development.

In addition to Walker's commitment to provide at least 15% of affordable housing across the development, Walker will continue to review and update its Affordable Housing Plan in collaboration with the Affordable Housing and Market Solutions branch of DHUD. **Figure 7** below and **Attachment C** visually represent the proposed Affordable Housing delivery for Precinct 3A.

Allotment Type	Width	Depth	Area m <sup>2</sup>
Affordable Housing Terrace	7-9	25-30	150-250
Affordable Housing Cottage	15	15	225



**Figure 7 - Precinct 3A – Affordable Housing Visual Representation**

## 7.5 Flood and Stormwater Management

Understanding the significant land development challenges to make the land suitable for long-term urban purposes is essential. The Gawler River (a perched river system) has influenced the site and wider areas. The area is historically prone to flood waters associated with significant rainfall events within the Gawler River catchment. Accordingly, Walker must raise ground levels to address the threat of floodwater breakouts from the Gawler River and ensure residential land has finished site levels higher than predicted flood levels.

Similarly, to service the development with appropriate sewer, stormwater connections, etc., the land needs to be raised and graded to achieve the necessary falls to divert stormwater and greywater to their respective treatment systems. However, much of the Riverlea development site has high (often fluctuating) groundwater levels with elevated salinity. The Council and other service authorities desire all services (water, sewer, stormwater connections, power, etc.), including graded ground and trench levels that achieve the necessary falls for stormwater and greywater dispersion for the development, to be above groundwater levels.

Walker's engineering consultants, Walter Gilbert Aztec Pty Ltd (WGA), determine the finished ground and pavement levels to ensure roads and other necessary infrastructure are above predicted flood levels. The detailed engineering plans for each stage are provided to the Council for verification and approval before construction.

Should a breach of the Gawler River within the Riverlea property boundary extent eventuate, floodwaters will naturally divert west and discharge back into the Gawler River, given the elevated Riverlea landform will be ~750mm – 1,000mm above existing ground levels.

A system of regional channels (partially constructed) is required throughout the Riverlea development to manage and convey breakout flows from the Gawler River for long-duration flooding events and manage stormwater outflows from the development during short-duration events. The regional channel network will protect the development from regional and localised flood events. The channels were designed based on the flood modelling undertaken by Water Technology (formerly Australian Water Environments). The flood modelling scenarios have used the Gawler River Flood Management Authority (GRFMA) - validated model (which reflects recent LiDAR information).

Should flood flow breakouts from the Gawler River occur, they divert into a channel system that directly flows to the Thompson Creek Outfall, which then discharges into the ocean. Perimeter channels on the far western boundary of Riverlea will capture any internal floodwaters stemming from the Gawler River (similar to the channel east and adjacent to Stages 10, 11 and 12). The perimeter channel will minimise any negative impact on properties west of Riverlea (i.e. Windemere).

Notwithstanding the diversion of floodwaters, neither Walker nor the development will cause the taking of any water from the Gawler River, either directly or indirectly. Walker does not propose to alter the natural flows to or from the Gawler River, but to manage breakout floodwaters that would potentially affect Riverlea by directing these flows to several channels (notably the eastern perimeter and the western perimeter channels) that guide the floodwater flows out to the ocean via the Thompson Creek Outfall channel. The Flood Mitigation Strategy does not change the situation from the previously proposed and approved channel diversion system.

## 8. Environment and Heritage

### 8.1 Existing Environment

The Precinct 3A project area is in the City of Playford local government area and the Green Adelaide Landscape Management Region. The Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara is approximately 1.6 km west of the project area.

The site is generally flat, with a slight slope from northeast to southwest, and is approximately 6-7m AHD in elevation. The broader Riverlea site borders the Gawler River to the north and has historically been prone to flooding associated with significant rainfall events within the Gawler River catchment.

The area receives a mean annual rainfall of 413 mm and is at high risk of flooding before site works (i.e. raised site levels and channel construction).

Historically, farming pursuits occupied the Precinct 3A land (over much of Riverlea) with cropping and sheep grazing. Still, more recently, the land has been dedicated primarily towards cattle grazing.

Consequently, Precinct 3A is mainly open, cleared land that now encompasses open exotic grasslands with two scattered remnant trees (*Eucalyptus camaldulensis* (River Red Gums)).

**Photo 1** below details the nature of the land (as viewed from the north-west of Precinct 3), and Photos 2 & 3 show two trees proposed for removal.



Photo 1 – Open, cleared land with mainly open exotic grasslands (and two River Red Gums in the distance)



Photo 2 – Tree 1 to be removed



Photo 3 – Tree 2 to be removed

A few shallow ephemeral creeks or channels, about 1 m deep, meander across the eastern and southern sections of the Precinct 3A site. The ephemeral drainage channels, formerly connected to Thompson Creek to the south, are affected by Stages 36, 37, and 38 filling to the east, as well as stages to the north. Further, the adjoining landowner to the south effectively dammed the flow of the ephemeral drainage creeks to facilitate the development of greenhouses. Cotton bush over exotic herbs and grasses now dominates

these areas. Overstorey species are absent, with understorey species consisting of Ruby Saltbush and a range of introduced species such as Coastal Galenia and Soursob (refer to **Photo 4** below).



**Photo 4** – Ephemeral drainage channels dominated by Cotton-bush over exotic herbs and grasses

A row of planted River Red Gums (which will remain) traverses the western boundary of Precinct 3A, following the unmade Tippets Road reserve (other side of the trees shown in **Photo 5** below).



**Photo 5** – Row of River Red Gums traversing the western boundary

Introduced species, declared weeds under the LSA Act, were also observed during a native vegetation survey, including African Boxthorn, Silver-leaf Nightshade, Salvation Jane and Artichoke Thistle. Many weeds, introduced grass species, and herbs dominate the area, as illustrated in **Photos 6 & 7** below.



Photo 6 – View to the south of the northern Portion of Precinct 3A



Photo 7 View to the west (central portion) of Precinct 3A

## 8.2 Aboriginal Heritage

Walker proactively manages Aboriginal cultural heritage associated with the entire Master Planned site. In late 2012, detailed surveys of the Master Plan site were undertaken by Australian Cultural Heritage Management (ACHM), with the close involvement of the traditional Kurna owners (ACHM, 2013).

Following Sections 21 and 23 of the AHA, Walker applied to the Minister for Aboriginal Affairs to undertake archaeological investigations in locations across the master-planned site and to salvage items if encountered. The Minister for Aboriginal Affairs approved the applications on 1 August 2014, subject to conditions. Since the August 2014 approval, no site characteristic changes have occurred, but the Ministerial authorisations expired in December 2015. Walker subsequently had to pursue new approvals.

In 2020, Walker engaged Neale Draper & Associates Pty Ltd (ND&A) to develop a Cultural Heritage Management Plan (CHMP) #1 for the initial residential development stages at Riverlea. ND&A was again engaged in 2022 to prepare a Cultural Heritage Assessment Report (CHAR) and a CHMP #2 for Precinct 2 of the Riverlea development. The CHAR and CHMP#2 also included the entire Precinct 3A area.

The CHAR presents the outcomes of archaeological inspections and anthropological consultation with Kurna representatives in August and November 2022. The assessed areas encompass significant portions of the Riverlea development, including the entire Precinct 2 area (and a Portion of the Precinct 3 area, including the whole Precinct 3A area) to the north, and a portion to the south required for stormwater management. The CHAR provides risk assessments for potential archaeological deposit (PAD) areas and recommendations for mitigating heritage risks via Section 21, 23, and 29 authorisations and associated archaeological salvage work, following the AHA.

Before finalising the CHAR and CHMP, Walker, in conjunction with ND&A, undertook Kurna cultural heritage consultation via RAWsa/Kurna Yerta Aboriginal Corporation (KYAC), representing the Kurna native title holders and Traditional Owners of the Adelaide region.

In March 2023, Walker applied to the Minister of Aboriginal Affairs for authorisations following sections 21, 23 and 29(1)(b) of the AHA to manage Aboriginal cultural heritage within the authorisation areas shown in **Figure 8**. The authorisations sought to facilitate the construction of a master-planned residential housing development with retail and commercial areas, schools, sports fields, lakes, reserves, stormwater management, and related services.

The Minister granted authorisation with conditions on 9 October 2024. The Minister's authorisation (including associated conditions and maps of the overall authorisation area) will guide Walker in managing areas containing Aboriginal sites, objects and ancestral remains within the Riverlea development. A copy of the Minister's authorisation is in **Appendix D**.

The Authorisation area spans multiple land parcels, comprising approximately 566 hectares, located west of Port Wakefield Road and south of the Gawler River in Riverlea. The Authorisation areas are highlighted in yellow in **Figure 8** below (also in **Appendix D**). The Authorisation Area contains and intersects several known Aboriginal sites, objects and remains, as summarised in **Table 1**.

The CHMP#2 presents the results of the archaeological site inspections and authorisations, following Sections 21, 23, and 29 of the AHA, which provide heritage management recommendations and mitigation measures for the Precinct 2 areas (including the Precinct 3A area) as a precautionary measure.

Numerous Aboriginal heritage surveys of the surface conditions within the AEIS area identified Aboriginal cultural heritage sites. Underground areas might contain items of Aboriginal cultural heritage, but unknown underground sites are complex to avoid. Accordingly, all topsoil stripping and excavations only proceed in the presence of Kurna cultural heritage officers (CHOs) operating under the procedures and protocols of an approved CHMP.

Site Number	Name	Type/Description	Site Status
6628-7788	Buckland Park Archaeological Site 2	Archaeological	Listed
6628-7792	Buckland Park Artefact Scatter 1	Archaeological	Listed
6628-7791	WAL01-003	Culturally Modified Tree (CMT)	Listed
6628-7793	WAL01-006	CMT	Listed
N/A	CMT-01	CMT	Reported
N/A	CMT-02	CMT	Reported
N/A	CMT-03	CMT	Reported
N/A	CMT-04	CMT	Reported
N/A	CMT-05	CMT	Reported
N/A	CMT-06	CMT	Reported
N/A	CMT-07	CMT	Reported
N/A	Kadlitparri (Wild Dog River)	Cultural/anthropological	Reported
N/A	Burial Location 1	Burial	Reported
N/A	Burial Location 2	Burial	Reported
N/A	AAR ID# 174 (formerly HIMA#1)	Area of high archaeological potential	Reported
N/A	AAR ID# 175 (formerly HIMA#2)	Area of high archaeological potential	Reported
N/A	AAR ID# 176 (formerly HIMA#3)	Area of high archaeological potential	Reported

**Table 1: A summary of known Aboriginal sites, objects and remains within the Authorisation Area**

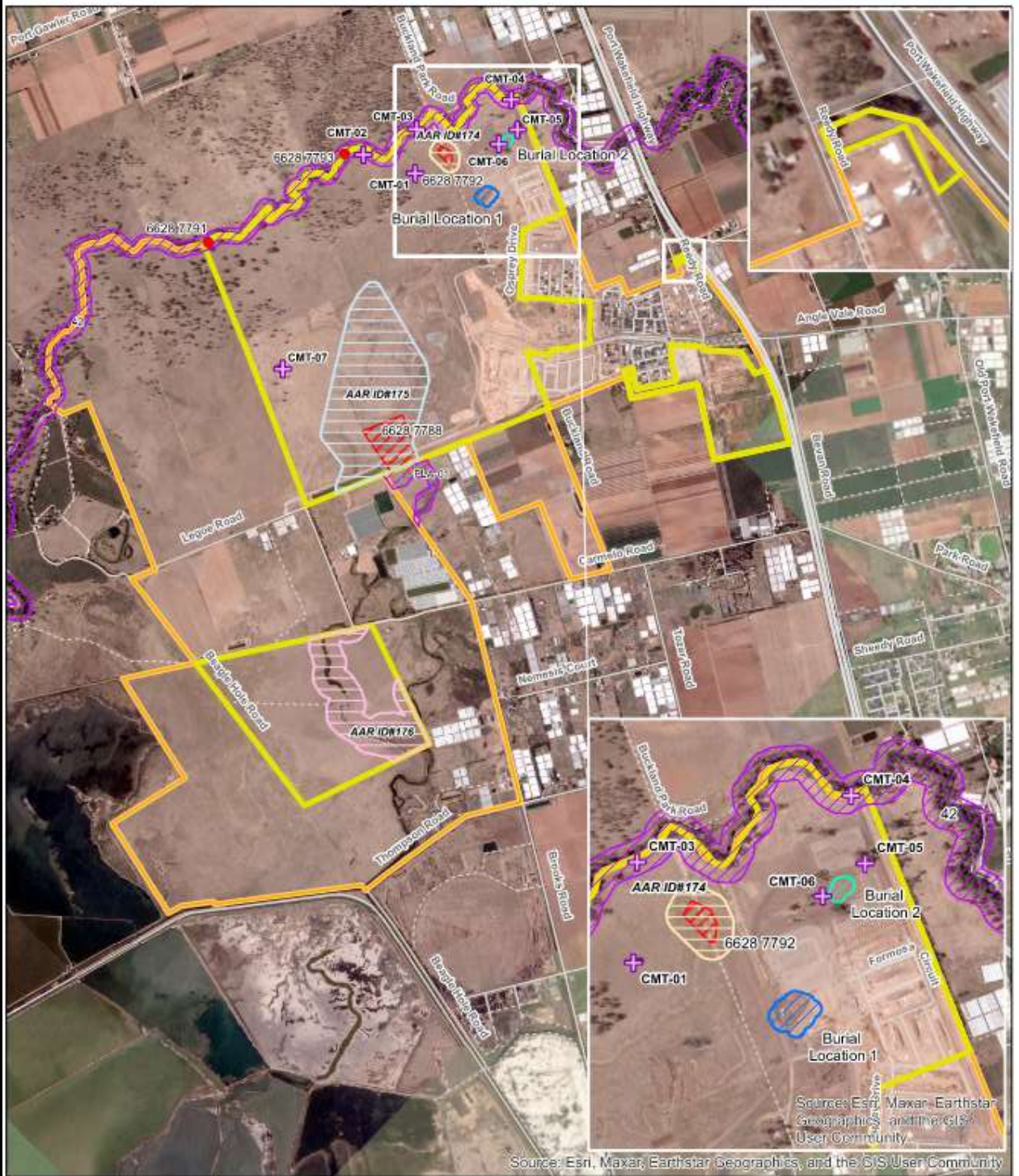
Land outside the authorised areas retains a high cultural heritage sensitivity, with no authority to damage, disturb, or interfere with Aboriginal heritage (subject to further authorisation).

As the current channel network terminates near the intersection of Tippets Bridge and Legoe Roads, further channel construction is required to implement the flooding and stormwater strategy that connects the channel system to the Thompson Creek Outfall channel.

Accordingly, further authorisations will be necessary for project works outside the AHA Authorisation Area, most notably to support the implementation of the flooding and stormwater mitigation strategy for Riverlea.

Walker has commenced the application process to facilitate further project works outside the authorisation areas, including the construction of necessary stormwater channels extending to the Thompson Creek Outfall channel.

# Attachment 1 - Authorisation Area and known Aboriginal heritage



Source: Esri, Maxar, Earthstar Geographics, and the GIS User Community

	<b>AAR Heritage Sites</b> <ul style="list-style-type: none"> <li>Listed (Red dot)</li> <li>Listed (Red hatched)</li> <li>Reported (Purple hatched)</li> <li>Reported (Culturally Modified Tree) (Purple cross)</li> </ul>	<b>Heritage Impact Mitigation Areas</b> <ul style="list-style-type: none"> <li>AAR ID #174 (HIMA #1) (Yellow hatched)</li> <li>AAR ID #175 (HIMA #2) (Light blue hatched)</li> <li>AAR ID #176 (HIMA #3) (Pink hatched)</li> </ul>	<b>Roads</b> <ul style="list-style-type: none"> <li>Highway (Thick grey line)</li> <li>Secondary Road (Thin grey line)</li> <li>Minor Road (Dashed grey line)</li> </ul>	<p>Produced by: Aboriginal Affairs and Reconciliation (AAR)                  Data source: Aboriginal Heritage - AAR                  Geographic: Laccas SA                  Date Imagery: Bentley                  Projection: UTM                  UTM No: 50S                  UTM Zone: 50S                  UTM Datum: GDA2011                  UTM Spheroid: Everest                  UTM Datum: GDA2011</p> <p>If material derived from AAR's central archives is confidential under section 40 of the Aboriginal Heritage Act 1988 (SA), AAR's central archives do not warrant the accuracy of any Aboriginal heritage and other sources of heritage information may exist. The positional accuracy of the data is variable and dependent on the accuracy of information provided to AAR at the time of recording. The full geographic system of the original heritage sites may not be displayed and sites may be larger than they appear on the map.</p> <p>This map has been produced using information supplied by third parties. Whilst all reasonable care has been taken in the preparation of this information, AAR is not liable for any errors or omissions and accepts no responsibility for the loss, injury or any other liability incurred by any person that arises as a result of the use of this information by any person or organisation.</p> <p>This map is not to be reproduced or distributed without prior approval from AAR.</p>
	<b>Burial Locations</b> <ul style="list-style-type: none"> <li>Burial Location 1 boundary (Blue hatched)</li> <li>Burial Location 2 'Discovery Zone' (Green hatched)</li> </ul>	<ul style="list-style-type: none"> <li>Authorisation Area (Yellow outline)</li> <li>Riverlea Park Development (Red outline)</li> <li>Master Plan Area (Orange outline)</li> </ul>	<p>Scale: 1:35,000                  0 250 500 750 Meters</p>	

Figure 8 – The Minister's Authorisation area (following sections 21, 23 and 29(1)(b) of the AHA)

## 8.3 European Heritage

As highlighted in the original EIS document (by SASH Consulting Services (2008) and within the Amendment to the EIS, no matters of European Heritage are within the Riverlea development area.

## 8.4 Contamination

In February 2023, Walker engaged LBWco Pty Ltd (LBW) to review and update the Preliminary Site Investigation (PSI) for Precinct 3 that Connell Wagner undertook in 2008 for the Riverlea development. LBWco summarised that most of the site comprised open grassland that had been historically cropped and grazed by livestock.

LBWco observed no evidence of contamination or environmental impact during the site inspection, but noted some potential contaminating activities (PCAs) with possible complete source-pathway receptor linkage in the broader Precinct 3 area. LBWco's Preliminary Site Investigation - Precinct 3, Riverlea Development, Riverlea Park, South Australia, is in **Appendix E**.

Precinct 3A was included in the land LBWco previously assessed in separate preliminary site investigations for Precincts 2 and 3.

In 2025, Walker engaged LBWco again to prepare an updated PSI and a summary of previous soil and groundwater investigations to support a planning application for Precinct 3A subdivision at Riverlea.

LBWco's primary objectives include:

- Summarise key findings of the Precinct 2 and Precinct 3 PSI site history reports and soil and groundwater investigations relative to the Precinct 3A site area.
- Identify potentially contaminating activities (PCA) that may have occurred on-site and on adjacent land, supplementing information previously reported by LBWco in 2022, with relevant information relating to the period from 2022 to the present.
- Advise on whether additional site assessment is required to support a site suitability statement for the proposed land use.

As discussed below, LBWco identified limited issues within the smaller Precinct 3A area.

- LBWco noted limited potential for site contamination from a diesel-operated generator within the contractor compound. The stored diesel was in a self-bunded, 990 L capacity cube tank. A supply line, observed to be in good condition, ran between the tank and the generator. There was no evidence of fuel spillage or leakage onto the surrounding ground surface.
- Areas stripped of surface vegetation and topsoil to the south and northeast of the compound were grouped into numerous small soil stockpiles, each with an individual identifier.
- Larger stockpiles of soil comprising predominantly brown, sandy silt were present to the south-east of the compound, in the central southern portion of the site.
- The stormwater detention channel had been extended along the southern boundary of Precinct 3A. The central portion of the channel had been deepened to capture low stormwater flows. Water within the channel was limited to the central low-flow section, and it appeared clear, with no sheen or odour observed.

LBWco noted that fill or soil importation is not a PCA, as per Practice Direction 14 under the PDI Act.

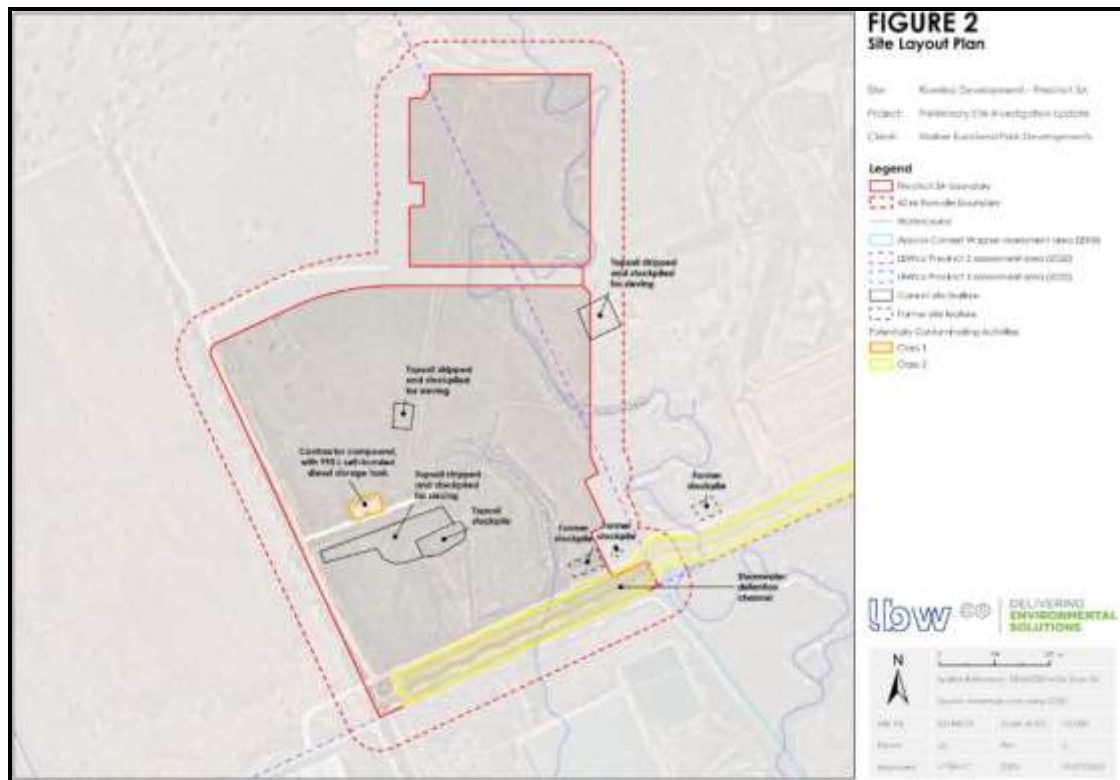


Figure 9 – LBWco – Precinct 3A Investigation Areas



Photo 9 – The 990 L self-bunded diesel storage tank and generator in the construction compound

LBWco has updated the PSI, and **Appendix F** summarises the previous soil and groundwater investigations relative to Precinct 3A of the Riverlea development. The results of those investigations did not reveal any concerns. An overview of LBWco's findings is below.

**Based on the desktop assessment, LBWco identified three PCAs occurring on-site or adjacent to the proposed Precinct 3A site.**

- *Class 1: Activities involving listed substances – unlikely complete source pathway receptor linkage*
- *Class 2: Wetlands or detention basins – unlikely complete source pathway receptor linkage*
- *Fill or soil importation (not a PCA for PD14) – unlikely complete source pathway receptor linkage*

**LBWco identified that two prescribed PCAs were to have occurred on adjacent land <60 m from the site:**

- *Class 2: Wetlands or detention basins – unlikely complete source pathway receptor linkage*
- *Fill or soil importation (not a PCA for PD14) – unlikely complete source pathway receptor linkage*

*Based on the desktop research, field observations, and analytical results presented herein, there was no evidence to indicate that the concentrations of the assessed chemicals in the soils at the site would pose an unacceptable risk to future human or ecological receptors in the context of the proposed residential and open space/recreational land uses.*

### **Site Contamination Declaration Form**

LBWco completed a Site Contamination Declaration Form (PD14, Schedule 2) for the proposed Precinct 3A area, which is in **Appendix F**.

## **8.5 Noise & Air Quality – Jeffries facility**

Noise and air quality issues related to the Jeffries facility will not apply to Precinct 3A, given that the Jeffries facility is approximately 2.5 kilometres from the boundary of Precinct 3A.

Further, the southern boundary of Precinct 3A is sufficiently setback and physically separated from adjoining horticultural uses to the south by a 50m wide drainage channel.

## **8.6 Actual or Potential Acid Sulphate Soils**

As discussed in the previous Precinct 2 application/EIS amendment, Golder and Associates (2009a & b) found no issues related to geotechnical conditions concerning actual Acid Sulphate Soils (ASS), ASS indicators or Potential ASS (PASS) within Precinct 2's boundaries. The southern part of Precinct 2 might have a medium risk of encountering ASS. Notwithstanding this, no ASS or PASS indicators were uncovered by Walker during the construction of Drainage Channel 1. Notwithstanding, detailed geotechnical investigations will inform the civil engineering and landscaping designs for Precinct 3A.

## **8.7 Native Vegetation**

The Precinct 3A area had been subject to previous native vegetation surveys (refer to Anderson 2009a, b, and EBS Ecology 2010), which acknowledged that limited overstorey or mid-storey existed. However, sparse patches of River Red Gum were present in some locations further to the north.

In 2025, Walker engaged the services of WSP Australia (WSP), as they had staff on the NVC Accredited Consultants 2025 list. The WSP Accredited Consultants surveyed Precinct 3A and a small portion of the remaining Precinct 3 area to assess the impact on vegetation against the subdivision plan.

### **8.7.1 Assessment Summary**

WSP, in their report in **Appendix G**, provide a general description of the Precinct 3A site and vegetation therein. WSP discuss the principal vegetation distributions across the Precinct 3A area, including two River Red Gums, many introduced grasses, herbs and weeds, and how the ephemeral creeks (running through the southern and eastern portions of the Precinct 3A area) are dominated by the native shrub Cotton-bush over a high number of introduced species.

The Precinct 3A development area is 52.77 hectares, located on previously cleared farmland with two scattered trees and other limited patches of remnant native vegetation. WSP have calculated that out of

50.16 ha of vegetation to be impacted, 46.32 ha is exotic vegetation (cleared farmland). Further, during the field assessment, WSP recorded no flora species listed as threatened under the *Environmental Protection and Biodiversity Conservation Act 1999* (EPBC Act) or the National Parks and *Wildlife Act 1972* (NP&W Act).

The only overstorey species in the project area are two scattered River Red Gums and a row of (planted) mature River Red Gums traversing the Precinct 3A western boundary. Understorey vegetation in the project area contained many introduced species. From a total of 31 flora species observed, 18 were introduced flora species. WSP acknowledged that the survey timing likely influenced this result, with the flowering of annual spring forbs and grasses yet to occur.

WSP notes that four introduced flora species, deemed Declared Weeds under the *Landscape South Australia Act 2019* (LSA Act), were observed and recorded in the project area, two of which are also Weeds of National Significance (WoNS):

- *Cynara cardunculus* ssp. *flavescens* (Artichoke Thistle).
- *Echium plantagineum* (Salvation Jane).
- *Lycium ferocissimum* (African Boxthorn) (also a WoNS).
- *Solanum elaeagnifolium* (Silver-leaf Nightshade) (also a WoNS).

Specific controls for particular Declared Weeds and WoNS include control options, landholders' legal obligations, and restrictions on their movement and sale.

### 8.7.2 Clearance Considerations

Understanding the significant challenges associated with suitably developing this low-lying farming land for long-term urban use and the practicality of retaining native vegetation is essential. As previously stated, site conditions dictate the raising of finished ground levels to ensure urban lands are higher than predicted floodwater flows. In addition, much of Riverlea has high (often fluctuating) groundwater levels with elevated salinity. The Council and service authorities encourage the installation of all services (water, sewer, stormwater connections, power, etc.) above groundwater levels.

However, the significant filling of land near and around trees (to protect development from flooding) will impact vegetation. Accordingly, it is challenging to retain native vegetation whilst balancing the topographical challenges and commercial realities associated with developing new urban areas. Walker must strike a balance to ensure the subdivision can achieve appropriate ground levels to minimise floodwater risk, provide services, and accommodate culturally sensitive features.

Walker specifically chose to proceed with the Precinct 3A area because much of the area is degraded and highly modified due to ploughing, recent livestock grazing, and high levels of weed infestation. Native vegetation is mainly confined along the ephemeral creeks within the Precinct 3A area, with the remainder comprising two scattered trees over WoNS and introduced grasses and herbs.

As previously stated, the ephemeral drainage channels formerly connected to the Thompson Creek to the south are impacted by the filling of stages to the east (Stages 36, 37 and 38) and the north. The adjoining landowner to the south dammed the flow of the ephemeral drainage creeks to facilitate the development of greenhouses associated with intensive horticultural activities. Accordingly, these ephemeral drainage channels are compromised. Therefore, Precinct 3A minimises the extent of native vegetation clearance, while contemplating future planning and development scenarios for the remaining, broader Precinct 3 area.

As part of Precinct 3A and the broader Riverlea development, Walker is establishing a waterway system (a channel system) to manage stormwater and flooding. Still, the channels will also provide an inland habitat for fauna, including threatened and migratory shorebird species, in areas that are cleared and devoid of suitable habitats. Previously established drainage channels within Riverlea have resulted in the natural regeneration of native flora species (as seen in **Photo 10**).



Photo 10 – (Samphire) and *Sueda australis* (Austral Seablite) regenerating in channels

Open stormwater drainage channels will incorporate native species landscaping where possible. Importantly, there is evidence that the stormwater channels and wetlands encourage biodiversity, particularly habitat for water birds (see **Photo 11**), which is important given the site's proximity to the Adelaide International Bird Sanctuary National Park – Winaityinaityi Pangkara.



Photo 11 – Water bird species - Grey Teal and Pacific Black Duck in a stormwater wetland channel

Walker will also undertake weed control within the project area to improve the quality of the remaining vegetation throughout the Riverlea site and enhance the amenity value of the development. Weed control measures include controlling Declared Weeds under the LSA Act to minimise the impacts of

existing exotic species on biological diversity and other natural resources. Walker's contractors must prepare and implement appropriate soil and erosion management control measures to prevent the spread of Declared Weeds within the project area.

The Precinct 3A provides a formal open space area centrally within the subdivision layout. Walker's landscape design for the reserve area and open channels will incorporate amenity plantings of some locally native vegetation species (where practical) to provide habitat for fauna and enhance local ecosystems that have been affected by past agricultural land use. Stormwater channels will encourage natural regeneration of native flora species (i.e. samphire and Austral Seablite), where native vegetation will reduce erosion and turbidity (sediment controls) and improve water quality. Regenerating areas will be fenced from agricultural activities to avoid livestock degradation.

### 8.7.3 SEB Off-Set

Renewing native vegetation within the proposed channels and detention basin, while also removing WoNS and other exotic vegetation, will benefit the environment. However, this may not meet the parameters under the Native Vegetation Act 1991 (NV Act) and the Native Vegetation Regulations 2017 (NV Regs) for applying as a reduction in the SEB points of loss. Accordingly, WSP has calculated the necessary SEB offset payment to be applied to the Precinct 3A application and allocated to the Native Vegetation Fund.

WSP, on behalf of Walker, made an application to the NVC in September 2025, where the necessity for filling the land is unavoidable and impacts native vegetation. The processing of that application by the Native Vegetation Council is presently underway.

### 8.7.4 Native Vegetation Summary

Preliminary advice from WSP, along with geotechnical investigations and topographical constraints, will inform the ultimate subdivision design for Precinct 3. In particular, the subdivision design needs to achieve a realistic balance, retaining native vegetation where practical, minimising clearance where unavoidable, and regenerating native vegetation where possible to restore and enhance biodiversity value, while achieving a practical development outcome. Much of the higher biodiversity value in the general area is further north and north-west in the broader Precinct 3 area. Walker proposes retaining these environmentally significant areas as intact open woodland reserves.

Based on existing topographical investigations, 3.84 ha of the total Precinct 3A area (52.77 ha of degraded farmland, comprising some native vegetation mixed with exotic grasses and weeds) will be cleared to make the site suitable for urban purposes. Nonetheless, retaining the existing row of planted River Red Gums and implementing several restoration strategies for open space areas, stormwater channels, and weed management will improve overall biodiversity and amenity.

## 9. Infrastructure

As with the previously approved proposal, infrastructure and utilities will be required to support new housing within the subdivision. The master-planned approach facilitates the orderly rollout of stages within each Precinct, allowing for coordinated and efficient infrastructure provision.

As documented in the previous Precinct 2 AEIS amendment, the relevant infrastructure authorities confirmed their respective services would be available. Given the nature of the subdivision (purely residential), the generally low number of allotments, and the State Government's housing agenda, the service infrastructure requirements are considered not excessive.

As each stage progresses, Walker and the relevant utility authorities will continue to work collaboratively to coordinate the provision of service infrastructure across the remainder of Precincts 2 and 3A.

## 9.1 Potable Water and Sewer

The Greater Adelaide Regional Plan (GARP) acknowledges significant planned investment in water and wastewater infrastructure in the Outer North over the coming years. This investment is particularly relevant for unlocking housing growth in Riverlea, a recognised priority scheduled for the 2024-28 infrastructure spend, as identified in the Housing Road Map (discussed further in **Section 11.1.3**).

Walker will work with SA Water to extend the potable water and wastewater infrastructure to serve additional dwellings within Precinct 3A subdivision, as Precinct 3A is a logical extension of the existing and planned infrastructure. SA Water has confirmed its 2024–2028 commitments under the Housing Road Map to support the servicing of potable water and wastewater to Precinct 3A of the Riverlea major development at Riverlea Park. This confirmation is in **Appendix H**.

Recycled Northern Adelaide Irrigation Scheme (NAIS) water supplies irrigation water for streetscapes and public domains, including open space reserves. Working collaboratively with SA Water creates opportunities to effectively and efficiently coordinate the provision of water infrastructure across Riverlea, benefiting existing and new residents.

## 9.2 Electricity

The Precinct 3A extension to the Riverlea development comprises 736 additional allotments, forming a logical extension of the Precinct 2 subdivision. SAPower Networks (SAPN) will service the Precinct 3A expansion of the Riverlea development at Riverlea Park from its mains and equipment, serviced by the Virginia substation.

Over the last 4 years, Walker has installed electrical infrastructure from the existing substation on Port Wakefield Highway (directly opposite the Riverlea development) to service approximately 5,000 dwellings and the first stages of retail and commercial facilities.

SAPN is in the initial planning phase to upgrade the existing substation on Port Wakefield Highway to cater to an additional 5,000 dwellings (forecast to commence in 2028). SAPN has acknowledged Walker's ongoing development of the Precinct 3A subdivision over the coming years and will consider the development as part of SAPN's network infrastructure planning (**Appendix I**).

In addition, Walker and SAPN will work collaboratively to provide a new substation likely within Precinct 4 of the Masterplan site, in conjunction with new or upgraded transmission lines. As with water infrastructure, Walker seeks to effectively and efficiently coordinate infrastructure provision across several growth areas within Riverlea.

## 9.3 Stormwater Management

Walker engaged Wallbridge Gilbert Aztec (WGA) to update the previous stormwater study, '*Stormwater Management, Water, Wastewater and Recycled Water – Technical Paper*,' (the Technical Paper), prepared by WGA dated December 2023. WGA developed the Technical Paper to manage stormwater in Precinct 2 and to provide flood protection for the entire site. The Technical Paper was reviewed by the relevant State Government agencies, including Emergency Services, at the time.

The site's topography is relatively flat, with an approximate slope of 0.2% from east to west. It lies within the Gawler River floodplain. The Gawler River (a perched river system with banks higher than the adjacent floodplain) is towards the northern section of Riverlea Park. Stormwater runoff from Riverlea does not drain to the Gawler River or the Buckland Park Lake System (as they are effectively upstream of the Riverlea development). The Riverlea site generally drains from the Gawler River in a south-westerly direction towards the Thompson Creek Outfall Channel. The development will naturally drain to the Thompson Creek Channel, located southwest of the site.

The WGA's recent report, Precinct 1, 2, and 3A Interim and Ultimate Development – Stormwater Management Plan (SMP), is included in **Appendix J**. The SMP builds upon the previous Technical Paper and outlines the interim Stormwater Management Plan (SMP) for Precincts 1, 2, and 3A before the construction of the Saltwater Lakes.

The interim SMP relies on Precincts 1, 2 and 3A discharging stormwater to several distinct locations comprising a regional channel system and some temporary open channels connecting to the Thompson Creek Outfall Channel (Figure 10).

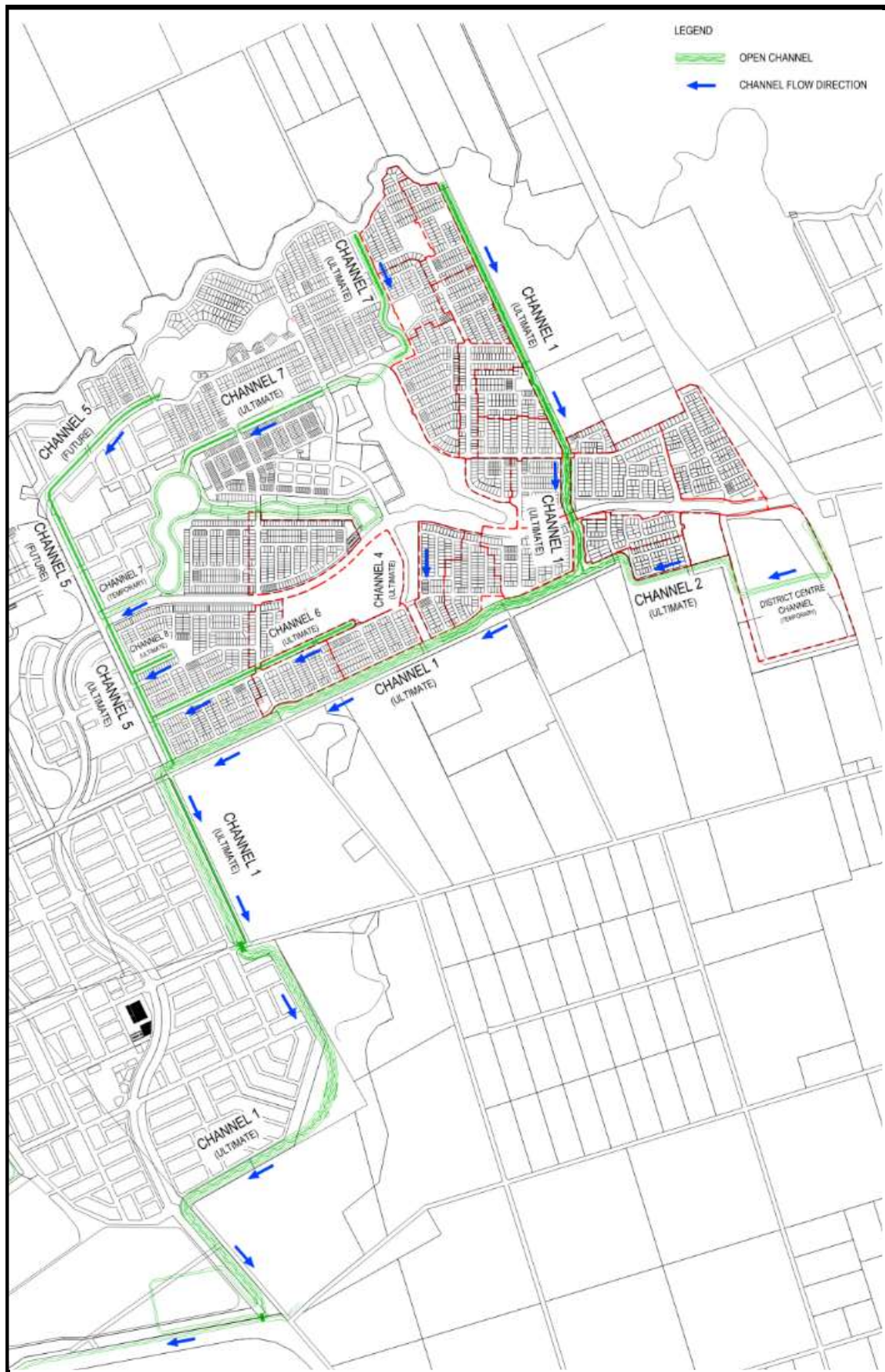


Figure 10: Extent of the Precincts 1, 2 and 3a – Interim Arrangement



- Compliance with the Environment Protection Policy (Water Quality) 2015, as amended under the Environment Protection Act 1993.

### 9.3.1 Risk Management

WGA undertook a risk management process to determine the potential nature, scale and likelihood of any impacts on water quality during the development's design, construction and operational phases. The risk management process identifies if intervention is required and determines suitable management measures to manage the impacts.

WGA's key steps for risk management were to:

- *Identify risks – as determined by the site and its characteristics*
- *Analyse risks – how likely is it to happen, what are the likely consequences*
- *Evaluate risks – against the likelihood and consequence matrix*
- *Treat risks – prioritise, address and mitigate identified risks*

The WGA report includes a risk assessment of the project's design, construction, and operational phases.

#### Consideration for Climate Risk

WGA has also undertaken a climate risk assessment for the project to consider the potential nature, scale, and likelihood of any future climate risk impacts and identify suitable treatment measures to manage the possible effects of climate change.

WGA considered the following climate change projections relevant when considering the impact on stormwater management:

- Decrease in average rainfall
- Increase in solar radiation
- Increase in potential evaporation
- Increase in rainfall intensity

WGA presents an outline of stormwater management assets, useful design life, and climate change projections scenarios to establish the useful design life of the asset in the SMP.

#### Water Sensitive Urban Design (WSUD)

To manage risks effectively, WGA adopted the principles of WSUD, utilising an environmentally sensitive approach to manage stormwater. The design of the channels would adopt a multi-objective approach to stormwater management, ensuring that the channel corridors serve not only for the conveyance of floodwaters. WGA promote the following Principles in their design framework:

- Reducing mains water usage
- Managing the volume of runoff
- Improving quality runoff
- Enhancement in amenity, environmental values, habitat and biodiversity
- Managing the rates of runoff

### 9.3.2 Stormwater Management Strategies

WGA acknowledges the following four key aspects for achieving the strategy for managing stormwater runoff from the development.

- Flooding
- Water Use
- Water Quality
- Environmental Protection and Enhancement

From these key aspects, WGA has specified broad objectives for developing strategies for managing stormwater runoff.

#### Flooding

Several strategies to achieve flood management objectives include a primary drainage infrastructure designed to manage the minor/major principles for Precinct 1, Precinct 2 and Precinct 3 A. WGA described

the standards (in Section 5 of their report) that have been applied to the detailed design of all current stages and will be applicable for the remainder of Precinct 1, Precinct 2, Precinct 3A and the entire development.

Additionally, regional flood management involves a network of channels designed to intercept overland flooding from the Gawler River.

WGA's update includes an extended length of the open channel network to connect the drainage system to Thompson Creek in the interim, allowing an outfall connection to the Thompson Creek Outfall channel. The initial SMP used stormwater retention in the open channel network to control outflows from the site. However, this did not allow for a free-draining channel, which has resulted in difficulties in undertaking the proposed channel planting, a key component of the stormwater quality treatment needs.

### Water Quality

A strategy adopted by WGA to address water quality (consistent with the EPA) is incorporating WSUD elements at key locations in the development for the management and treatment of stormwater (refer to Sections 4 & 6 of the WGA report). The construction of regional drainage channels to manage flood flows enables the incorporation of linear ephemeral wetland pools, which improves water quality, given the channel's significant length and width. Several potential sites are available (refer to Section 6 of the WGA report).

Other WSUD opportunities to be explored by WGA include the use of:

- Vegetative swales
- Ephemeral wetland pools along the regional channel network
- Ephemeral wetland ponds where pipe outfalls are in proximity to the proposed saltwater lakes to achieve nutrient reductions before discharge to the lakes

The preferred stormwater flow treatments for stages interfacing the Saltwater Lakes are to install gross pollutant traps (GPTs) and Atlan Flowfilter cartridge systems before discharging into the lakes.

A further strategy proposed by WGA to address water quality is the interception of gross pollutants. The drains within Precincts 1, 2, and 3A include several outfalls that flow into the regional channels, ultimately draining into the St Vincent Gulf. The outfalls will each accommodate a GPT using Continuous Deflection Separation (CDS) technology to intercept gross pollutants, as will any other outlets to the open channel system required for Precincts 1, 2 and 3A. Nonetheless, the detailed engineering of relevant stages will seek to optimise the landform and stormwater pit/pipe network to consolidate the number of GPTs within the development.

### Stormwater Reuse

The provision of a stormwater harvesting scheme (such as an Aquifer Storage and Recovery Scheme or similar) within Precincts 1, 2, and 3A is not viable due to the lack of runoff to generate sufficient water. Nonetheless, Walker has negotiated with SA Water to access the NAIS to supply irrigation water for streetscapes and reserves. Walker has recently begun working on a detailed design for the irrigation supply (water and distribution) scheme.

### 9.3.3 Stormwater Design Basis

#### Design Criteria

WGA also considered designing the internal stormwater network to cater to both minor and major storms, taking into account various annual exceedance probabilities (AEPs). Similarly, the Council must agree on minimum pipe sizes and grades for internal drainage systems.

Further, WGA will design the underground internal drainage system to accommodate flows from a 20% AEP storm event without surcharging. Minimum floor level for dwellings must also be 150 mm higher than the top of the kerb.

Internal stormwater runoff from catchments will discharge into the regional stormwater channel system at several locations. Each outlet must have a gross pollutant trap (GPT) to satisfy primary stormwater treatment requirements, improve stormwater runoff, and minimise pollutant transfer to receiving waters.

### 9.3.4 Modelling Approach, Parameters and Results

A comprehensive modelling and parameters approach was adopted by GWA for stormwater management of the site using a combination of different software packages, including:

- DRAINS software for the internal development stages
- HEC-RAS 1D for the internal channel network
- TUFLOW for the 2D regional floodplain mapping

WGA adopted the following catchment breakdown parameters for Precincts (assumed as fully 'developed'):

- 60% paved area
- 20% supplementary area
- 20% grassed area

Section 5 in WGA's report provides a comprehensive breakdown of the modelling and parameters adopted by WGA.

When preparing the SMP, WGA developed Model for Urban Stormwater Improvement Conceptualisation (MUSIC) models for the Ultimate scenario (when the entire Saltwater Lake scheme is complete) and the Interim stage (where the temporary channel system captures and treats flows from Precincts 1, 2 and 3A). The interim solution relies on channel construction to the Thompson Creek Outfall channel, which provides a free-draining solution that allows planting of the low-flow channel inverts to achieve the required water quality outcomes.

In the Ultimate development scenario, three saltwater lakes provide stormwater detention above the permanent lake level. Outflows from the lakes will be conveyed to Thompson Creek Outfall Channel via a gravity pipe network to prevent saltwater flows from entering the open channel network (and avoid infiltration into the shallow groundwater systems).

WGA's simulations revealed that each pollutant concentration fell within the average (mean) limits set by the EPA, in addition to complying with the best management performance targets set in the referenced codes and guidelines. Accordingly, the site treatment system's design meets the required performance limits of pollutant concentrations.

The results presented for the Interim solution also demonstrate water quality compliance per the target values specified for the Interim development stage. While the permanent channels will be fully planted, the temporary channels are to be topsoiled and grassed, and will not contribute to water quality improvements. Accordingly, the MUSIC model does not include any contribution to water quality improvements from the temporary channels.

The results suggest that the reductions in suspended solids, total phosphorus (TP), and total nitrogen (TN) will meet the required performance criteria for the interim development scenario (where there is a combination of temporary and permanent open channels). The software assumes that other pollutants are removed and treated, given that very fine pollutants such as TP and total suspended solids (TSS) attach to particulate pollutants. It is reasonable to expect the removal, trapping and/or treatment of many more pollutants while targeting TP and TSS.

In the initial development scenario, the pollutant concentrations attained from the simulations revealed that each falls within the average (mean) limits set by the EPA and complies with the best management performance targets set in the referenced codes and guidelines. Therefore, the site treatment system's design meets the required performance limits of pollutant concentrations.

### 9.3.5 Strategies to manage risk

GWA advises that a Construction Environment Management Plan (CEMP) is to be prepared by the construction contractors (for each stage of development), following the principles outlined in the WGA

report, and submitted to the Council for approval before construction. The CEMP will mitigate construction risks to avoid impacts on downstream waterways and, therefore, must incorporate a Soil Erosion and Drainage Management Plan (SEDMP). The SEDMP forms a central part of site management during the construction phase, adopting a risk-based approach that considers all contributing site physical factors that contribute to soil erosion.

Implementing an SEDMP, as per the *Environment Protection Act 1993*, will occur during the development's construction phase. Additionally, SEDMPs for all stages will adhere to the requirements outlined in the *Code of Practice for the Construction and Building Industry (1999)*.

Submitting SEDMPs for all stages will be part of separate engineering design reports following a detailed design process. The reports will follow the principles outlined in the WGA report, encompassing the contractors' implementation of surface stormwater management practices during the construction phase. The SEDMP guides the contractor in planning site management practices that prevent the export of sediment and pollutants during construction. The SEDMP should include several techniques, including (but not limited to) sediment traps/basins, silt fences, diversion swales to control site flow, a single site access point with shaker pads, and other relevant measures.

GWA advises that the SEDMP will form a key component of the contractor's CEMP, which the contractor will develop and submit to the Council for approval before construction. The SEDMP will also highlight the practices that the contractor must implement to manage dust nuisance issues resulting from construction activities.

### Channel Sediment and Erosion Management

WGA recommend that a channel SEDMP address issues associated with erosion and sediment deposition within the channels by:

- Undertaking earthworks with stabilisation measures to control surface runoff and erosion on exposed subgrades in the open channels; and
- Managing overland runoff from sites undergoing the first phase of earthworks and the primary earthworks phase.

### Post Land Division Construction

Post-land division construction (i.e., private dwelling construction) can quickly convey sediment loads and debris from individual building sites to the stormwater network and is often highly dependent on compliance with the IECA guidelines (International Erosion Control Association (Australasia) 2008, Best Practice Erosion and Sediment Control).

GPTs will trap debris and coarse sediment in all major stormwater outlets in the regional channel, which should minimise downstream effects on the stormwater network.

Furthermore, implementing sedimentation traps at each stormwater outlet into the regional channels will capture medium- to fine-sized sediment. Unless otherwise advised by the Council, the sedimentation traps should remain functional for 70% completion of houses for a particular stage.

### 9.3.6 Management Strategy

WGA's management strategy emphasises a broad area-wide approach focusing on:

- Surface runoff control measures to prevent/reduce soil erosion caused by undeveloped areas and exposed surfaces
- Channel embankment erosion control and stabilisation measures to reduce soil erosion caused by raindrop impact, sheet flow and rill erosion over exposed batters.
- Sediment control measures that trap and retain sediment that is conveyed along the channel, causing siltation.

This management strategy seeks to implement practices along the perimeters of the undeveloped and exposed sites adjacent to the channels. Still, it allows flexibility to construct those areas when required.

WGA proposes various longer-term land surface management measures, including soil stockpile management, diversion drains, sediment traps, organic mulch buffer strips, grassed buffer strips, channel bank stabilisation, channel check dams and Site inspection and monitoring, as part of the maintenance regime.

WGA's report, in **Appendix J**, also presents the Ultimate Development condition, which represents the operation of all three Saltwater lakes and the large proposed detention basin developed at the site's southwestern corner, to achieve the Council's requirements and gain approval of the SMP.

## 9.4 Traffic Impact Assessment

Walker engaged the services of Empirical Traffic Advisory (ETA) to undertake a Traffic Impact Assessment (TIA) and report on the anticipated traffic implications of developing Precinct 3A. The TIA, titled Riverlea – Precinct 3A – Land Division Masterplan – Traffic Impact Assessment, is in **Appendix K**, and considers:

- existing and estimated traffic conditions surrounding the site;
- traffic generation characteristics of the proposed development;
- proposed access arrangements for the site;
- an overview of the layout based on integration with Precinct 2, inclusive of the latest urban design layout for the island;
- impact on the surrounding road network.

Precinct 3A is located directly adjacent to the south-western corner of Precinct 2. Precinct 3A will comprise 736 allotments of low and medium densities. In the interim, access will be via Intersection 6 (refer to **Figure 11**), with connections to the northern and southern roads into the respective stages. The configurations of the street network will be conducive to a low-speed environment of 40km/h on minor streets and 50km/h on collector streets that link to Riverlea Boulevard.

### 9.4.1 Traffic Generation

The Precinct 3A road network will comprise collector and local access roads, as well as some laneways. Precinct 3A will include a modified grid network, key access routes to Riverlea Boulevard, and a connection to local streets in Precinct 2. Precinct 3A proposes 736 allotments, resulting in roughly 5904 trips/day and approximately 627 trips during peak hour.

ETA considers a traffic generation rate of 8 trips/dwelling/day across all dwellings as a robust method of estimating traffic demand. This method was previously used and accepted for the previous traffic assessments for Precinct 2.

### 9.4.2 Distribution and Assignment

ETA identifies several factors that will influence the directional distribution and assignment of traffic generated by Precinct 3A. These broadly include:

- The distributor road network adjoining the site
- The operation of intersections providing access between the local, collector and distributor road networks
- The configuration of access points and nearby schools, employment centres, and retail centres

ETA's report includes several figures that indicate the predicted traffic volumes (and directional splits) for daily and peak periods on the road network around Riverlea Boulevard, which assist with assessing demands for appropriate intersection layouts.

### 9.4.3 Future Traffic Demands – Ultimate Scenario

ETA considers the progression of the Riverlea development to the west, which will result in additional traffic demands on Riverlea Boulevard. The ultimate demand will depend on the future land uses to the west, such as additional centres, schools, and employment areas, which can define an area's self-sufficiency (i.e., the ability to meet daily needs within that area) and reduce external trips.

ETA anticipates that as Riverlea develops further west, the level of self-sufficiency will increase, thereby reducing the growth rate of traffic on Riverlea Boulevard. ETA's modelling assumes all traffic from Precinct 3A will use Intersection 6 northern and southern roads as a worst-case scenario.

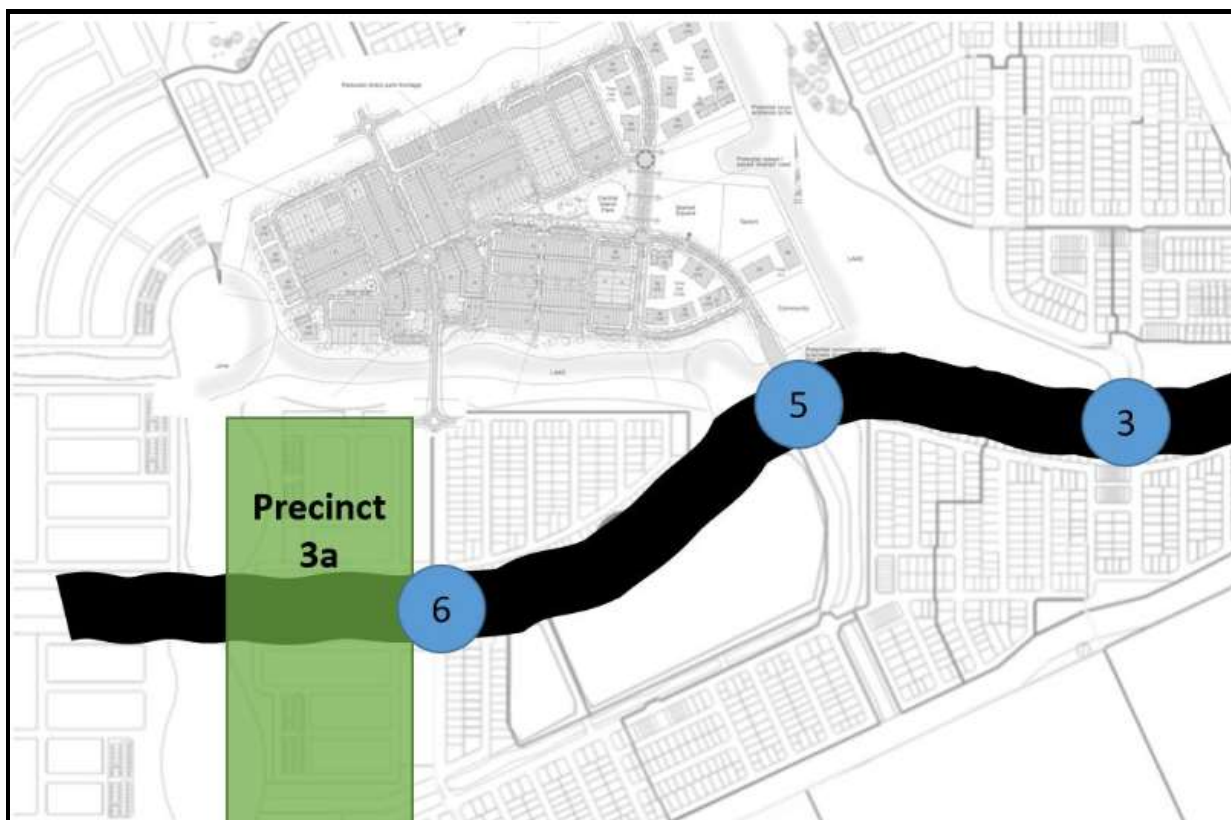


Figure 12 – Key Intersections

#### 9.4.4 Intersections Analysis

ETA's intersections review on Riverlea Boulevard identified that the initial intersection layouts will cater to the traffic demands of Precinct 3A, and the ultimate intersection layouts will cater to Riverlea's future traffic demands as it progresses west. Further, the analysis of the intersections in Precinct 2 indicates that the as-built/construction plans can generally accommodate the Initial and Ultimate traffic volumes.

Nonetheless, future traffic assessments and traffic volume monitoring for intersections on Riverlea Boulevard will need to be reviewed at key intervals to ascertain actual operating conditions as the development progresses westward.

ETA assessed each intersection (3, 5 & 6) individually for its performance based on anticipated traffic demands and as-built/construction plans or schematics for each intersection to understand lane arrangements, pedestrian crossings, vehicle turn paths and traffic signal post locations. Riverlea Boulevard and assessed intersections will perform satisfactorily for Precincts 2 and 3a, with further capacity to accommodate an additional ~650 dwellings from the future Precinct 3 to the west. The extra capacity accounts for the increase in Precinct 2 Island yield.

The assessment suggests the need to upgrade the intersections from interim arrangements to the ultimate solution, based on the development of Precincts 3 & 4. Those upgrades are likely before the complete occupation of Precinct 3 (assuming Precinct 3 would be similar to Precinct 2). ETA considered this likelihood because a secondary access would not be available until Precinct 4 (assuming the planning for this access would occur during the development of Precinct 3).

#### 9.4.5 Sight Distance Summary

ETA's assessment of horizontal sight distances of intersections within the proposed development indicates that they achieve the minimum requirements. During the detailed design, further sight distance assessments will ensure the achievement of horizontal and vertical sight distances.

#### 9.4.6 Traffic Impact

In conjunction with the Council, Walker will explore urban design techniques in the street context to help manage vehicle speeds. These design techniques can include street tree planting schemes, house designs, and driveway locations (in conjunction with carriageway design).

A modified grid provides advantages to minimise traffic volumes, limiting the ability for 'rat runs' and managing speed environment, thereby enhancing the environment for passive modes of transport (i.e. walking and cycling).

#### 9.4.7 Parking

The subdivision will provide a high on-street parking rate, catering to at least 1 on-street space per 3 dwellings or more. The cross sections in ETA's report include a variety of on-street parking on the carriageway and indented parking bays. The frontages of open space reserves and channels will also deliver a high level of on-street parking where available. ETA's assessment (provided in Appendix A of the TIS report) has considered the need for parking adjacent to reserves.

#### 9.4.8 Bicycle and Pedestrian Access

Precincts 1 and 2 include an extensive hierarchy of pedestrian and cycle paths along the main arterial roads to local roads, landscaped open space channels, connections to local parks and reserves, including connections to community infrastructure (centres, schools, sporting fields, etc.). The envisaged bicycle access routes are on key collector roads in Precinct 2 (directly adjoining Precinct 3A). The low-speed road design and low vehicle volumes on local roads will provide key bicycle access throughout Precinct 3A.

#### 9.4.9 Heavy Vehicles

Heavy vehicles occasionally use the road network for waste collection within the Precinct 3A residential area. The proposed road network will be capable of providing appropriate access, subject to the detailed design of intersections and junctions to ensure safe and proper turning movements are available. The cul-de-sac streets will enable trucks to turn and enter/exit in a forward direction. The detailed design will confirm that adequate space is available within the cul-de-sacs.

#### 9.4.10 Bus Network

Bus routes for Precinct 3 are being implemented into the road network as anticipated in the Precinct 2 Concept Plan, connecting Precincts 1, 2 and 3 to the broader region. Riverlea is implementing public transport in consultation with the SA Public Transport Authority. Presently, the site is serviced via an Adelaide Metro bus service that operates between Riverlea Park and the Salisbury and Elizabeth Interchanges via Virginia, Monday to Friday (refer to the 402 and 450 service routes, respectively). Adelaide Metro will monitor these services and consider network alterations as demand evolves.

**Figure 13** shows the proposed bus routes within the Riverlea road network. The extension of these routes will be required as demand evolves in collaboration with the SA Public Transport Authority. The bus routes utilise the distributor and collector roads to provide public transport access within roughly 400 metres of all Riverlea residential properties.

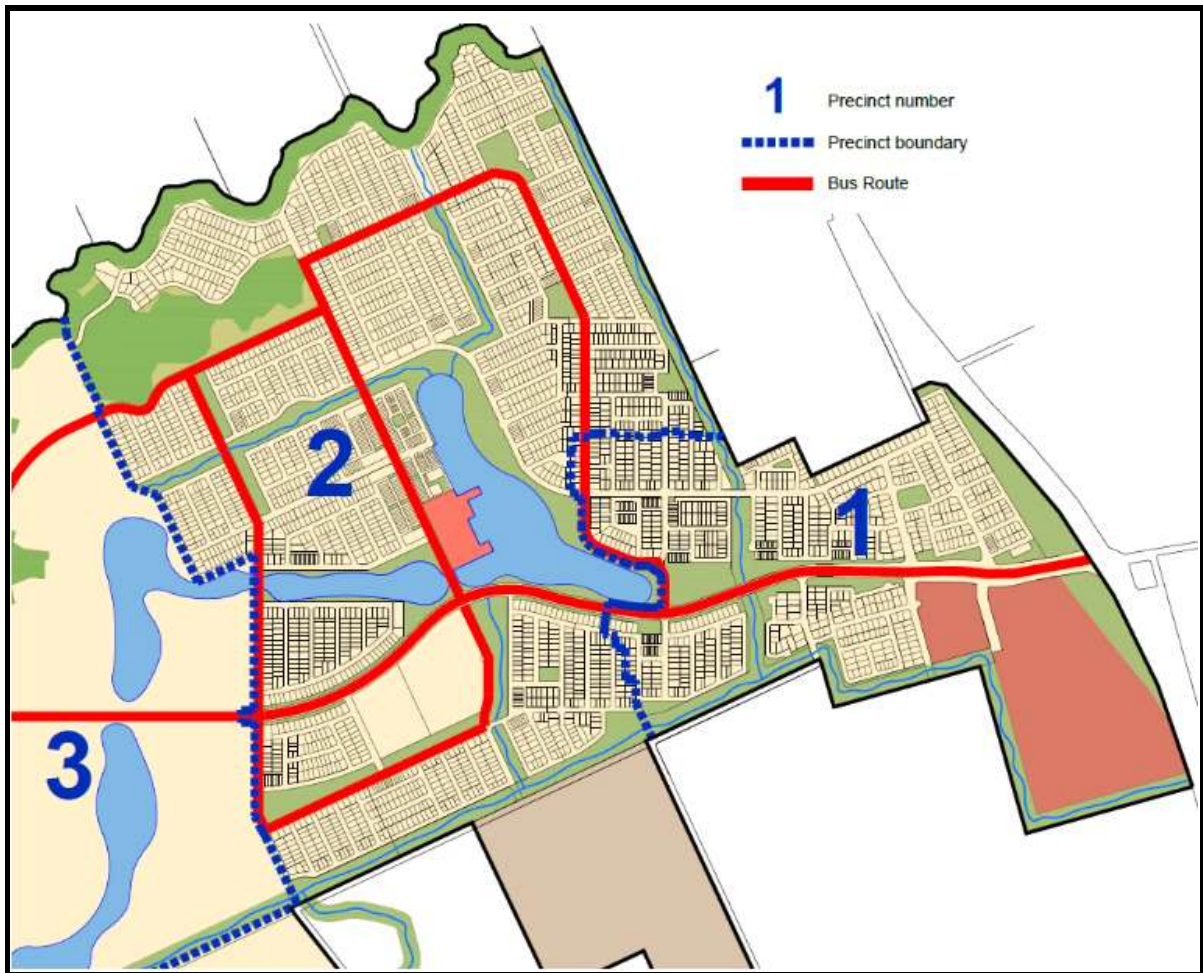


Figure 13 - Proposed Bus Routes

## 10. Riverlea Precinct Access Strategy

Walker has led the development of the Riverlea Precinct Access Strategy, which involved collaboration with DIT traffic specialists and private consultants, including Pentelic Advisory (Integrated Transport Planning Services), WGA (Civil and Transport), and URPS (Town Planners).

Walker commissioned Pentelic Advisory (Pentelic) to lead updated traffic modelling that informs a high-level strategic Access Strategy for the Riverlea Precinct. WGA – Civil and Transport will undertake a corridor constraints analysis and explore corridor design requirements, as well as access options. In early 2025, URPS – Town Planners formulated scenario concepts and presented the findings to all stakeholders in a Structure Plan format.

The Riverlea Precinct Access Strategy assessed the Riverlea Precinct's interface with the surrounding network, considering changes to the Riverlea Master Plan, future urban land releases in Buckland Park to the south, and the critical need for efficient and safe access to the Port Wakefield Highway. The Riverlea Precinct Study Area from the Traffic Model Scoping Document (endorsed by DIT) is in **Figure 14**.



**Figure 14 - Riverlea Precinct Study Area from the Traffic Model Scoping Document**

Pentelic developed a microsimulation sub-area model using the Tactical Adelaide Model (TAM) to evaluate access options and guide the strategic development of connections to Port Wakefield Highway within and around the Riverlea Precinct. The microsimulation models, as calibrated by Pentelic (for base and future years, investigating 2031, 2036, and 2041 horizons for AM and PM peak periods), were used to inform DIT's TAM guidelines and future scenario options, which were issued to DIT for final consideration and comment.

The optimised second entry/exit point trigger will likely be determined, given the progress of the microsimulation model and the Signalised Intersection Design and Research software (SIDRA) work. Walker hopes to identify further efficiencies, resulting in optimised SIDRA outputs for the ultimate scenarios.

Concerning the Riverlea Boulevard augmentation from 4 lanes to 6 lanes, this work is part of the microsimulation model development to identify further efficiencies and optimisation. As part of the microsimulation model process, Walker seeks to avoid augmentation of Riverlea Boulevard mid-block lanes and to limit future works to local widening at the intersections only.

Walker formally submitted the Riverlea and Buckland Parks Access Strategy Framework to DIT and the Council in May 2025. The framework, underpinned by a 'draft' structure plan aligned with the Greater Adelaide Regional Plan growth area for Riverlea Park, was used to determine land uses that informed the traffic demand/assignment, ultimately identifying plausible access options for the Port Wakefield Highway corridor.

Walker has not received formal comments from DIT or the Council. Nonetheless, Walker has commenced 6-weekly working group meetings with DIT as of Thursday, 25 September 2025. The meetings will agree on when stage 2 of the AIMSUN modelling will occur and who will undertake these works. Before Stage 2

occurs, DIT will update its Strategic Adelaide Model (SAM) with revised land use, growth rates, and public transport strategies to align with the State Government's Strategic Initiatives. Ultimately, this will inform Walker's future Precinct 3 Development Application (including identifying the preferred secondary access location to Port Wakefield Highway), which should be known by mid-2026.

## 11. Planning Analysis

### 11.1 Alignment with State and Other Strategic Documents

#### 11.1.1 Greater Adelaide Regional Plan

Riverlea is notable in the Greater Adelaide Regional Plan (GARP), particularly for its housing and employment opportunities in the north-western growth areas and outer-north areas of Adelaide.

#### 11.1.2 North-western growth areas

The GARP has identified new growth areas near Riverlea that connect with the Port Wakefield Highway north-western spine. These growth areas can capitalise on major transport infrastructure and leverage existing and planned infrastructure to accommodate the significant urban growth already scheduled for the area.

The area is also well-connected to strategic employment lands, particularly the Greater Edinburgh Parks, which could accommodate significant job growth associated with manufacturing and defence. While future investigations are required, particularly concerning Aboriginal cultural values and heritage, as well as long-term public transport options, before any rezoning or expansion of Riverlea for future housing or employment, Walker has already commenced these investigations related to servicing new housing growth in and adjoining Riverlea.

#### 11.1.3 The Outer North

The Outer North land supply region includes Gawler, Elizabeth, Angle Vale, Riverlea Park, Roseworthy, Concordia, and a portion of Two Wells. There is a significant opportunity to leverage existing greenfield growth fronts and infrastructure within the region, particularly at Riverlea, to support future housing and employment needs. While there is a sufficient supply of zoned land to accommodate projected growth in the short and medium term, at key locations, including Riverlea, there is a limited housing-ready supply because of a lack of available connections to essential infrastructure, particularly water and wastewater (which Walker is actively addressing).

The Outer North contains a significant proportion of the additional greenfield land supply to support Greater Adelaide's long-term housing needs. New growth fronts proposed for the region in the future will need greater consideration for the appropriate coordination and planning to improve alignment between development and infrastructure provision.

The GARP has identified an area of approximately 916 hectares, located west of the Port Wakefield Highway, immediately south of the currently identified extent of the Riverlea development. The area will support significant parcels of future employment land to the south, identified west of Port Wakefield Highway at Waterloo Corner.

The Outer North region is connected to employment and activity centres by road and rail networks. Over recent decades, population growth has placed significant demand along major transport corridors. Accordingly, the GARP identifies numerous transport planning priorities, including network improvements, integrating growth areas with existing investments, investigating opportunities to improve east-west connectivity within the region, enhancing the integration of public transport, particularly west of the Port Wakefield Highway, and developing walking and cycling networks to support additional mobility options.

Walker has been undertaking investigations culminating in a mass transit rail corridor from the south, traversing through Waterloo Corner's future employment lands and Buckland Park's GARP investigational

area, and terminating at a transport hub within the Riverlea Suburban Activity Centre Zoned area. These investigations are consistent with the GARP considerations for future mass transit options to support the region's growth areas in Riverlea Park.

The GARP acknowledges significant planned investment over the coming years in water and wastewater infrastructure in the Outer North, largely investment that will unlock housing growth in Riverlea, a priority planned for the 2024-28 infrastructure spend, as identified in the Housing Road Map and **Figure 15** below.



**Figure 15 - The Housing Road Map - 2024-28 infrastructure spend**

The GARP also raises the question of how the electricity network within the southern portions of the Outer North region comprises moderate existing capacity to accommodate small-scale infill growth over time, supported by ongoing upgrades to the network. Other growth areas around Riverlea will likely require additional upgrades to the network, including additional substation capacity and transmission infrastructure.

Infrastructure companies must consider future regional transmission asset planning, including provision for infrastructure corridors and reserves to accommodate and enable higher transfers of renewable energy through a diverse transmission path.

Notwithstanding this, it appears that the current transmission and distribution network, specifically the substation on Port Wakefield Highway, has sufficient capacity to accommodate the peak demands forecast for the residential land uses proposed with Precinct 3A of the Riverlea development.

#### **11.1.4 Northern Adelaide Transport Study**

The State Government is undertaking a transport study of Northern Adelaide's inner and outer suburbs to inform future regional transport planning and investment. The State and Australian governments are investing in improving the transport network, now and in the future. They are committed to improving accessibility, connectivity, and safety as the population grows and demand rises.

A transport study will look at the northern area holistically (in addition to already funded projects) to identify and inform potential transport improvements in the region. The study will consider key issues and opportunities to support population growth, economic growth, liveability, public transport, active transport, and the safety, reliability, and resilience of our strategic road corridors.

Numerous regional residential developments, most notably Riverlea, will support population growth and employment growth in the northern region of Metropolitan Adelaide. Riverlea can accommodate over 12,000 dwellings on its own.

**Figure 16** is a hierarchy snippet from DIT's Transport Strategy (March 2025), which the Northern Adelaide Transport Study (NATS) has been committed to for some time.



**Figure 8: South Australia's transport hierarchy**  
Source: SA's Transport Strategy (March 2025)

**Figure 16 – DIT's Hierarchy from Transport Strategy (March 2025)**

DIT is now in the corridor planning studies phase of the transport hierarchy and has engaged consultants to undertake a detailed business case for multiple options/locations for a 'multi-modal' mass transit corridor for future preservation.

While the mode of transport is yet to be determined and could be in the form of passenger rail or O-Bahn service (RBT –Rapid Bus Transit), Riverlea's 'draft' structure plan (incorporating Buckland Park) identifies a mass transit rail corridor from the south, traversing through Waterloo Corner future employment lands and Buckland Park GARP investigation area, terminating at a transport hub located within the Riverlea Suburban Activity Centre Zone.

### 11.1.5 Housing Road Map

The creation of the State Government's Housing Roadmap, combined with DHUD seeking to better align housing and urban development with SA Water's critical services, enables the construction of new homes as quickly as possible. The State Government also aims to expedite the planning process, directly delivering new housing, tackling infrastructure challenges that currently limit development, and bolstering skills in the construction and planning sectors.

With greater investment in housing than ever, the State Government will work with the private sector – including developers, builders, planners, and tradespeople – to make housing and home ownership more accessible, flexible, and readily available for more South Australians.

The State Government's new investment and commitment to prioritise water and wastewater infrastructure must maximise the number of new homes across Adelaide's north and south. This investment will unlock housing growth in suburbs, including Riverlea, which is a planned priority for the 2024-28 infrastructure spend.

### 11.1.6 Affordable Housing

The SA planning system encourages developers and builders to provide affordable housing in their projects through the Planning and Design Code (the Code). The Code includes an Affordable Housing Overlay that provides a consistent approach to delivering affordable housing across the State.

Walker continues to liaise with DHUD on behalf of the South Australian Housing Authority (SAHA) regarding the provision of affordable housing throughout the Riverlea development.

Walker has submitted an Affordable Housing Plan (AHP) covering Precincts 1, 2 & 3A to the Affordable Housing and Market Solutions branch within DHUD (previously SAHA) for review. While DHUD recently approved the AHP, it will be reviewed and updated every six months as needed.

Walker's documentation (dated 23/9/2025) indicates that the project will deliver a minimum of 15 per cent of the total number of dwellings as affordable housing, satisfying the State's minimum requirements.

## 11.2 Planning and Design Code

### 11.2.1 Master Planned Neighbourhood Zone

The following is a breakdown of the relevant Master Planned Neighbourhood Zone provisions and commentary on how the proposal generally aligns with those provisions.

Master Planned Neighbourhood Zone		
<b>Desired Outcome</b> DO1	A new or expanding community with diverse housing that supports various needs and lifestyles within easy reach of diverse services, facilities, and open spaces.	<b>Comment:</b> The proposal promotes a diverse range of housing and supports various lifestyle needs within reach of various proposed services, school facilities and open space.
	<b>Land Use and Intensity</b>	<b>Comment</b>
PO 1.1	Diverse housing choices and a wide range of complementary recreational, community services and other activities to support a growing community and create a pleasant place to live.	The proposal supports diverse low-to-medium housing choices offering a range of allotment sizes (including Affordable Housing). There are various complementary recreational, community services, and other activities to support an expanding community and create a nice place to live.
PO 1.2	Land division results in a low-to-medium density neighbourhood with diverse housing types and lot sizes.	
PO 1.3	Residential development at increased densities close to open space, public transport, activity centres and community facilities to enhance community access to community services.	
	<b>Coordinated and Orderly Development</b>	<b>Comment</b>
PO 2.1	Land division and infrastructure occur in a coordinated manner and orderly sequence.	The proposal is a logical extension of the Precinct 2 planned urban areas. Therefore, infrastructure provision will be coordinated and ordered to ensure economic efficiency in service and facility efficiency.
PO 2.2	Development and infrastructure are staged and provided to support the orderly expansion of urban areas and the economic provision of infrastructure and services.	

	<b>Community facilities</b>	<b>Comment</b>
PO 3.2	Community facilities are located and designed to maximise accessibility through public transport, walking, and cycling.	Community facilities are to be located to maximise accessibility by public transport, walking and cycling.
	<b>Open Space</b>	<b>Comment</b>
PO 4.1	The size and distribution of open space encourage recreation and healthy lifestyles.	The proposal incorporates open space areas that encourage recreation and healthy lifestyles. The size, distribution, and quality of open spaces will promote recreation and healthy lifestyles, incorporating various attractive features such as walking and cycling trails, play spaces, and water features.
PO 4.2	The quality of open space encourages recreation and promotes healthy lifestyles by incorporating various attractive features, such as walking and cycling trails, play spaces, water features, irrigated recreation areas, sporting infrastructure, and public art.	
	<b>Site Dimensions and Land Division</b>	<b>Comment</b>
PO 11.1	Allotments created for residential purposes are suitable in size and dimension and accommodate various housing choices.	Residential allotment sizes and dimensions are suitable to accommodate a diverse range of functional housing choices and provide a high standard of residential amenity for occupants. Sites for residential purposes will be consistent with the authorised plan of division, which accompanies the application.
PO 11.2	Residential allotments are suitably sized and dimensioned to accommodate functional dwellings and provide occupants with a high standard of residential amenities.	
PO 11.3	Sites for residential purposes are consistent with an authorised plan of division, Concept Plan or master plan.	
	<b>Land Division Pattern</b>	<b>Comment</b>
PO 12.1	Designed street patterns and pedestrian and cycle connections to reduce travel distances to open space, public transport, activity centres and community facilities and assist in creating low-speed environments in local streets.	Street patterns and pedestrian and cycle connections are designed to encourage low-speed environments in local streets.
	<b>Tree Canopy</b>	<b>Comment</b>
PO 13.1	Tree planting is provided on public streets and open spaces to create a comfortable microclimate and enhance the amenity of the neighbourhood.	Walker will provide street tree planting and public open space in accordance with Council requirements to enhance urban amenity and create comfortable microclimate conditions.

### 11.2.2 Planning and Design Code – Relevant Overlays

The following are the relevant Code Overlays applicable to the Precinct 3A site.

**Affordable Housing Overlay**

**Hazards (Bushfire - General Risk) Overlay**

**Hazards (Bushfire – Urban Interface) Overlay**

**Hazards (Flooding) Overlay**

**Hazards (Flooding - General) Overlay**

**Native Vegetation Overlay**

**Regulated and Significant trees Overlay**

**Water Resources Overlay**

## Built Form and Character Overlays

### Affordable Housing



The site is in an Affordable Housing Overlay area.

Accordingly, development comprising 20 or more dwellings or residential allotments should provide affordable housing suited to various incomes, including households with low to moderate incomes.

**Comment:**

Walker will continue to enter into a legally binding agreement with the Minister for Planning (or the Minister's delegate) to demonstrate Walker's commitment to deliver not less than 15% of affordable housing throughout Precinct 3A and the life of the development. Proposal Plans detail a minimum of 15% AH for the Precinct 3A site.

## Hazard Overlays

### Hazard Acid Sulfate Soils



The development site is just outside an area identified as potentially comprising Acid Sulfate Soils.

**Comment:**

Walker will monitor excavations and geological conditions to ensure that any effects of excavation or infrastructure works will address the potential consequences of disturbance of Acid Sulfate Soils.

## Hazard Overlays

### Hazard (Bushfire – General Risk & Urban Interface)



The site is outside the identified area as a Bushfire – General Risk (Green) area. Most of the sites are within the Bushfire – Urban Interface (Grey) or are in an excluded area.

Development, including land division, responds to the general level of bushfire risk by siting and designing land divisions to incorporate measures to minimise the danger of fire hazard to residents and occupants of buildings, and to protect buildings and property from physical damage in the event of a bushfire.

**Comment:**

The land division design and access from allotments will respond to the bushfire risk level, incorporate measures to minimise the danger of fire hazard to residents and occupants, and provide emergency vehicle access.

### Hazard (Flooding & Flooding – General)



The development site is within an identified Flood risk (Grey) and General Flood (Blue) risk areas.

The appropriate siting and development design minimises impacts on people, property, infrastructure, and the environment from general flood risk. Minimum finished ground level is 4m AHD; Minimum finished floor level is 4.25m AHD.

**Comment:**

As part of the development, all ground levels will be raised to a minimum of 4.0m AHD, and all finished floor levels of dwellings will be a minimum of 4.25m AHD.

## Infrastructure and Transport Overlays

### Aviation – Defence Aviation Area



The site is within the Defence Aviation Overlay Area.

The policy seeks the appropriate management of potential impacts of buildings on the operational and safety requirements of Defence Aviation Areas and aims to manage all structures over 90m.

**Comment:**

Given that the proposal is for standard low-medium rise development, the development or ancillary structures are unlikely to exceed 90m AHD in height.

## Natural Resources and Environmental Overlays

### Landscapes and Vegetation

#### Native Vegetation



The site is within the Native Vegetation Overlay Area.

Native vegetation should be protected, retained and restored to sustain biodiversity, threatened species and vegetation communities, fauna habitat, ecosystem services, carbon storage and amenity values.

A native vegetation survey has been undertaken and submitted to the Native Vegetation Council for consideration. While much of the site lacks native vegetation, the payment of a Significant Environmental Benefit (SEB) is intended where the removal of native vegetation is unavoidable.

### Significant and Regulated Trees



The site is within the Significant and Regulated Trees Overlay Area.

The policy seeks to conserve regulated and significant trees to provide aesthetic and environmental benefits and mitigate tree loss.

**Comment:**

As can be seen in the photo, much of the site is devoid of established trees, and the only trees proposed to be removed are those that unavoidably conflict with the proposed development of land (through substantial fill to raise the site to protect roads, buildings or other infrastructure from flooding).

Application to and approval from the NVC are proposed. Walker intends to pay a Significant Environmental Benefit (SEB) to remove two trees.

## Water

### Prescribed Wells Area



The development site is within a Prescribed Wells area.

The policy aims to ensure sustainable water use in designated wells, particularly those involved in highly dependent water activities.

These activities must have a lawful, sustainable and reliable water supply that does not strain water resources in the prescribed well areas.

**Comment:**

The proposal does not involve taking water for which a licence would be required under the *Landscape South Australia Act 2019*.

### Water Resources



The development site is located within an area that has been identified as having surface Water Resources.

Protection of the quality of surface waters considering adverse water quality impacts associated with projected reductions in rainfall and warmer air temperatures due to climate change.

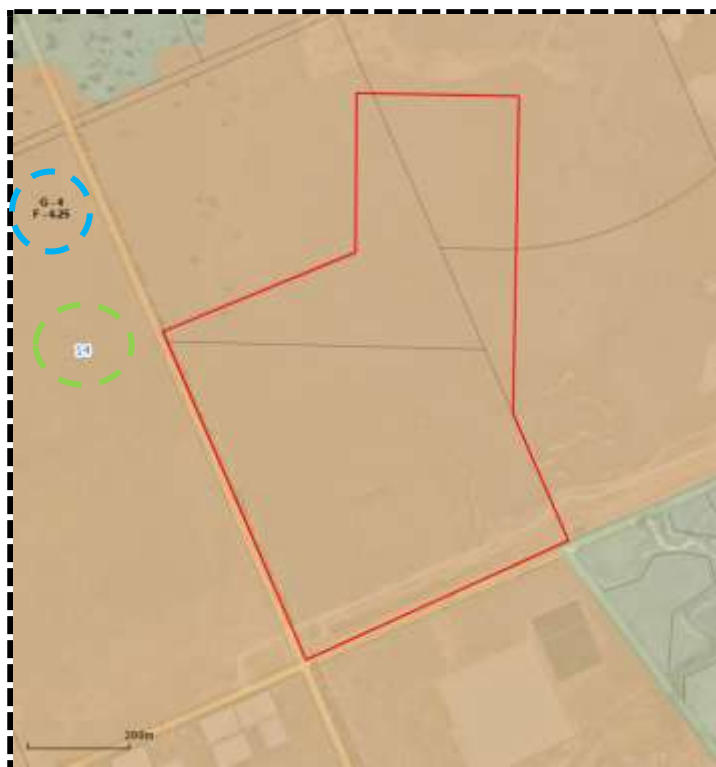
**Comment:**

The water resources identified in the screen shot were intermittent; some have been dammed to prevent flows from extending through the Perpetual site to the south.

### Technical and Numerical Variations

**Finished Ground Levels – 4m AHD**

**Finished Floor Levels – 4.25m AHD**

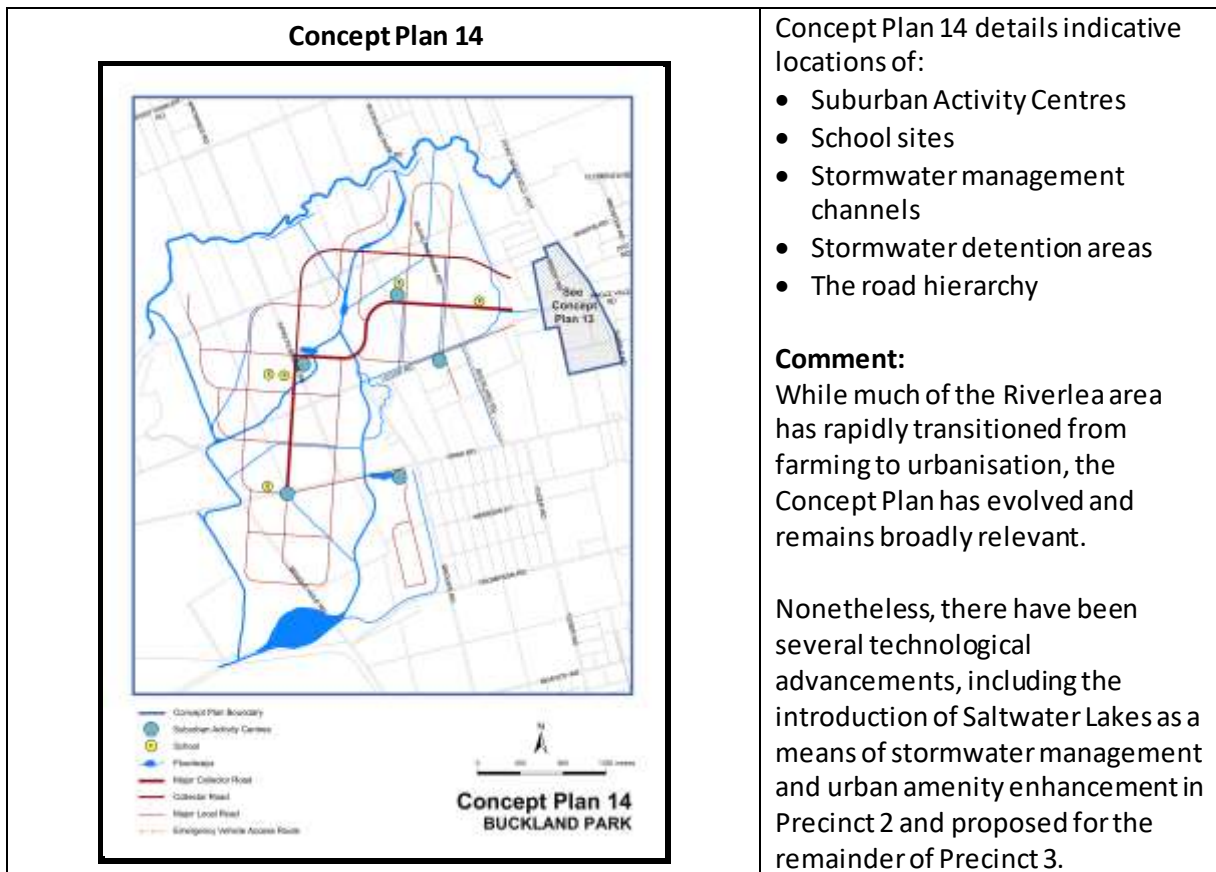


Technical and Numerical Variations applied to the broader area, including those related to minimum prescribed finished ground and floor levels.

The minimum prescribed finished ground and floor levels are 4.0m AHD and 4.25m AHD, respectively.

**Comment:**

As part of the development, all ground levels will achieve a minimum of 4.0m AHD, and all finished floor levels of dwellings will be a minimum of 4.25m AHD. Site and finished floor levels will be on relevant engineering documentation to ensure all areas will be safe from flooding (also regarding long-term sea level rise).



### 11.3 Planning Analysis Summary

As illustrated in the above Planning and Design Code, relevant Master Planned Neighbourhood Zone provisions, and the applicable Planning and Design Code Overlays, the proposed Precinct 3A subdivision generally aligns with the relevant Zone provisions and Overlays.

## 12. Conclusion

Precinct 3A will realise an additional 736 allotments and will form a timely and logical expansion of the Riverlea development. The planned road network, the extension of existing services, and stormwater management systems will easily integrate into the subdivision area. The development of Precinct 3A will contribute to the affordable housing agenda (incorporating an additional 147 Affordable Housing properties), furthering the State Government's Affordable Housing objectives.

Further, the continued expansion of Riverlea aligns with several State Government priorities and strategic housing objectives by shortening the delivery of much-needed housing and encouraging the continued growth of northern Adelaide with a focus on the Outer North, specifically the north-western spine.

In this regard, the State Government's strategic documents foresee significant planned investment over the coming years in water and wastewater infrastructure in the Outer North, particularly investment that will quickly bring additional housing supply online in Riverlea (a priority scheduled for the 2024-28 infrastructure spend), as identified in the Housing Roadmap.

Given the limited planning issues and lead time to undertake a Precinct 3A AEIS process, the current demands for housing, and the proposals' alignment with the relevant Code provisions and Overlays, it appears that enabling the expeditious expansion of Riverlea will assist in delivering the State Government's ambitious housing agenda.