

State Planning Commission

AMENDMENT to the ASSESSMENT REPORT

For the Buckland Park Township (now Riverlea) Major Development:
Second Amendment to the Environmental Impact Statement (EIS) to
revise the layout of Precinct 2 and introduce a saltwater lake system.

Walker Corporation



March 2025

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2. Milestones and Key Dates

Milestone	Date
Request to vary Development Authorisation	4 May 2022
Amendment to EIS Received	17 April 2023
Release of AEIS for public exhibition	14 June 2023
Public Comment Closes on Amendment to EIS	26 July 2023
Final Response Document received	13 December 2024
Assessment Report finalised	20 March 2025

3. Executive Summary

The Riverlea (formerly Buckland Park) project is a \$5bn greenfield development in Adelaide's northern suburbs, comprising a range of residential, commercial, community, recreational, sporting and retail development, with 12,000 lots to be created and a resident population of 35,000 over 25 years. In addition, 450ha will be set aside for open space, with 42km of recreational paths.

The project was originally declared as the major development by the State Government in 2007, with subsequent approvals authorising Precincts 1 and 2. The project is well underway, with 1400 allotments sold and 560 homes completed and 300 under construction. A new grade level, signalised intersection has been constructed at the corner of Riverlea Boulevard and Port Wakefield Highway. Riverlea's current population is around 1300 persons, with an average of 3.1 persons per household. Within five years, the resident population is forecast to be 12,000 persons.

The project benefits from a direct connection to Port Wakefield Highway and the Northern Connector, being 25 minutes from Adelaide's CBD and the Port Adelaide Centre, and 37 minutes from Adelaide Airport. These connections are reinforced by recent investments, firstly with the commencement of the Palms Shopping Village (including a Coles Supermarket), Tavern and the approval of a new school (Catholic Education) in November 2024. An Adelaide Metro Bus Service also provides connecting services to the Salisbury and Elizabeth City Centres, but only on weekdays.

Infrastructure investments totaling \$35m in new electrical, water and wastewater services have been delivered, with new potable water and sewer mains being constructed to augment existing service levels and enable additional sales. Each residence will benefit from fibre to the premises connectivity. The Riverlea township – in terms of new developable lots and home construction – will play a critical role in meeting the State Government's Housing Road Map goals for the next decade.

Walker Corporation (the developer) is seeking an amendment to the layout of Precinct 2, primarily to introduce a salt water lakes system with consequential changes to the residential layout, public open space, stormwater management and to address cultural heritage considerations with the recent discovery of Aboriginal remains and artefacts in 2023.

The proponent has advised that the changes are being made to improve township amenity (through the introduction of a lakes system) and provide additional recreational options to form a natural centre piece of the Riverlea development, reduce reliance on large areas of channelized stormwater infrastructure, and provide a natural cooling effect to surrounding open space.

The current amendment is being considered at the same time the Riverlea development is under construction (i.e. new lots created, roads built, homes constructed, and open spaces created etc). This has created challenges for the developer and regulatory authorities, with both interim and permanent solutions adopted in respect to both wastewater and stormwater management.

The key planning issues for the current changes relate to the design, construction, operation and maintenance of a saltwater lakes system, and consequential changes to the township layout.

This element has required careful consideration (and the provision of additional information) that considers, amongst other matters, the taking, storage, exchange and discharge of seawater from the lakes system, the dewatering process for construction (and potential changes to local groundwater levels and quality), the management of stormwater and floodwaters entering the lakes system, the maintenance and monitoring of lake water quality, and how the lakes will be integrated into the overall development, including the nature and quality of the surrounding public realm.

In contrast, the layout of the township components, comprising the roads, allotments and open spaces, remain relatively consistent with previous approvals. Following a recent decision by the Minister for Aboriginal Affairs, the requirements of the authorisation sought under the *Aboriginal Heritage Act 1988* to disturb and relocate Aboriginal remains have now been confirmed, with a natural burial ground to be established near the Gawler River (within portions of current Stage 12 and 15).

The focus of the environmental assessment (noting the social and economic aspects of the Riverlea project are largely unchanged, in terms of lots created etc), has involved the Playford Council, the Environment Protection Authority (EPA) and the Department for Environment and Water (DEW). Following the provision of updated technical advice, and on the understanding that the construction, operation and management of Salt Water Lake 1, this would inform the design of the other lakes.

The proponent has not been able to *fully* resolve the final design of the Salt Water Lakes system, in that the liner specification, monitoring and treatment regime, and future management arrangements remain to be tested and finalised. If approved, these matters will need to be the subject of reserved matters and licensing arrangements to enable Salt Water Lake 1 to be developed under an adaptive framework, whereupon groundwater impacts are monitored, and where a variety of exchange and treatment options could be deployed to manage water quality to a secondary contact standard.

The EPA and DEW are supportive of this approach.

The Playford Council has not agreed (at this time) to manage the saltwater lakes system, due to the uncertainties that remain as to long-term operational costs, particularly from the lifespan of related infrastructure (i.e. lifecycle and maintenance of the liner), the scope of water quality monitoring and where treatment is required, the methods, expertise and cost to manage these actions.

It is also noted that no firm commitment has been provided by the proponent on whether or not a water treatment plant will be built for Stage 1, such that a formal requirement will be recommended for this to occur (whether as a permanent or temporary measure), until such time it were to be proven that such a facility was no longer needed or other management options were sufficient.

The amendment was also publicly exhibited, with four submissions received.

The submissions related to public transport, flood hazard and vegetation clearance. These matters were satisfactorily addressed by the proponent, with potential flood hazard risks reviewed by both DEW and the Gawler River Flood Plain Management Authority in the assessment process. Given the design of the integrated stormwater and flood mitigation measures, the capacity of the lakes system alongside improved building levels, future flood risks have been adequately addressed.

The taking and transfer of seawater from Chapman Creek to the lakes system is being considered under a separate Crown sponsored development application (being outside the declared area). Both applications are being jointly assessed to ensure duplication is minimised and decision-making consistency is achieved. Where necessary to inform this assessment, consideration has been given to this aspect of the development.

No significant issues were raised in respect to the size, orientation or accessibility of the revised Precinct 2 layout, however the Council has sought to have the final layout of the proposed Neighbourhood Centre to be the subject of a reserved matter. This is supported, with similar requirements in place from the previous development authorisations for a design approach that has not been fully resolved, noting its critical importance in the delivery of Precinct 2.

A minimum level of 15% affordable housing continues to be provided for Precinct 2 (under a Land Management Agreement with Housing SA, last updated in 2022). In the interim, the Department for Housing and Urban Development has been considering a series of variations to the approved land division stages for Precinct 2, with several approved, consistent with the current amendment, and deliver upon previous affordable housing commitments.

The proposed amendments have been considered with the assistance of the local Council, who are the relevant authority for new built form, and the future custodian/manager of public roads, reserves and common infrastructure. Where possible, this has also allowed developable allotments to be brought to market before the conclusion of the current amendment process, but only where such changes do not impact on the future consideration of the salt water lakes system (being stages located to the east and south of Salt Water Lake 1 or SWL1).

The Council has requested a number of matters be reserved or conditioned in relation to SWL1, land division and layout of a New Neighbourhood Centre. The Council have also confirmed that there is no current agreement in place to take over the management of SWL1 but would consider managing the area around the lake as a formal reserve under their care and control. It is acknowledged, however, that the long-term management and sustainment of the lakes system (including repair and replacement of infrastructure), will need to be appropriately administered and resourced. This will ultimately be a matter for the developer to implement if no agreement is reached with Council.

A range of reserved matters and conditions have recommended to allow the further investigation and consideration of outstanding issues. This amendment process has also allowed a complete review – and where appropriate deletion - of previous conditions of approval which are no longer necessary or duplicate other requirements, resulting in thirty-seven (37) conditions being deleted from the previous authorisation. Both state agencies and Council have been consulted on these changes.

In summary, this Second Amendment to the Assessment Report (AAR) considered the potential environmental, social and economic impacts of the proposed variation to the previous development authorisation. It has been concluded, that subject to appropriate reserved matters and conditions, layout changes to Precinct 2 and the introduction of a saltwater lakes system can be supported, on the basis of meeting performance-based requirements that should not result in undue environmental harm or impact to the wider natural or marine environment.

4. Introduction

On 4 May 2022, Walker Corporation sought to vary to their development authorisation for the Buckland Park Township (now Riverlea Park) development. The varied proposal seeks to introduce a system of saltwater lakes, with consequential changes to the layout of Precinct 2 and the management of both stormwater and floodwater events from the development.

The proposed changes are to be considered within the context of a development well underway, with site and construction works within Precinct 1 largely completed, and preliminary earth and site works underway in Precinct 2. As of 6 March 2025, the following development summary was provided by Walker Corporation for the Riverlea development:

- Current project expenditure: \$390m
- Estimated project expenditure: \$3.6bn
- 1450 lots have been released to date.
 - 99.5% (1442) of them have been sold
 - 76% (1100) of the lots sold are now settled
- Approximately 560 homes completed, with a further 300 under construction.
- 60 Affordable housing sites have been settled (with a further 17 marketed as of 9/2/25 for a period of 60 days on the SA Homeseeker website).
- Construction workforce on-site: approximately 350 persons are employed on infrastructure works, subdivision civil works, landscaping and maintenance, bulk earthworks, landscaping, retail centre, maintenance etc.

The social and economic importance of this development, both to northern Adelaide and the city as a whole in terms of future housing growth and construction activity, cannot be under-estimated.

A formal amendment process is being undertaken to consider the changes, in accordance with s.114 of the *Planning, Development and Infrastructure Act 2016*.

The report outlines the assessment process, project scope, submissions on the AEIS, consideration of the key planning issues, and then makes a recommendation on the merits of the variation proposal for the further consideration and decision by the Minister for Planning.

5. Assessment Process

Buckland Park Residential Development (now known as Riverlea Park) was the subject of an Environmental Impact Statement (EIS) released in May 2009 pursuant to the Major Development provisions (Section 46) of the *Development Act 1993* (the Act). A Provisional Development Authorisation (with conditions) was provided by the Governor on 3 February 2010.

On 23 December 2010 the whole site was rezoned for residential (and other related purposes) by an amendment to the City of Playford Development Plan. The current zoning under the Planning and Development Code for Precincts 1 and 2 (and later precincts) of the Riverlea development is Master Planned Neighbourhood (MPN). This zoning supports the assessment of new development by the local Council that “supports a new or expanding community with a diverse range of housing located within

easy reach of a diversity of services, facilities and open space to support a growing community and create a pleasant place to live” (MPNZ: P&D Code).

The development authorisation has been varied on multiple occasions, generally to account for both layout and staging changes to the approved plan of division. A copy of the current development authorisation (dated 6 November 2024) is provided at **Appendix 1**.

Pursuant to Section 114 of the *Planning, Development and Infrastructure Act 2016*, a Development Report and EIS (now an EIS under the Act) previously determined under the repealed Act, can be amended by a proponent at any time to take account of an alteration to the original proposal.

If the Minister considers that a proposed amendment would significantly affect the substance of the original EIS, an amendment must not be made before interested persons had been invited, by public advertisement, to make written submissions on the amendment. No public meeting is required, and regard to the Community Engagement Charter is not required for an amendment to an EIS.

The Act also requires the amendment to be referred to the local Council and, as the proposal involves a prescribed activity of environmental significance as defined by the *Environment Protection Act 1993*, to the Environment Protection Authority (EPA) for review and any comment.

Additionally, if more than five years have elapsed since the public consultation of the original proposal, the documentation must be formally reviewed as part of this process.

5.1 Original Declaration and Guidelines

The original proposal for the Buckland Park Township development was initially declared a ‘Major Development on 4 January 2007 (with the original declared area increased by subsequent gazette notice on 12 June 2008), with the Guidelines for the preparation of an Environmental Impact Statement released on 19 September 2007, then further revised on 17 September 2008.

In addition to various changes to the approved land division layout, a formal Amendment to the Environment Impact Statement (AEIS) was lodged with the Minister for Planning in November 2014, seeking approval for super lot staging, the Precinct 2 land division and a partial road closure of the Buckland Road unmade road. This amendment was approved by the Governor on 16 February 2017.

In considering the second AEIS, which involves a change to the approved land division layout, the introduction of a saltwater lake system, and associated changes to the internal road network and civil infrastructure, the original Guidelines remain applicable for this assessment. These are available [here](#).

5.2 The Relevant Authority

The original Buckland Park township proposal was considered and approved under the major development provisions of the *Development Act 1993*.

With the full implementation of the *Planning, Development and Infrastructure Act 2016*, Regulation 11(3) of the *Planning, Development and Infrastructure (Transitional Provisions) Variation Regulations 2017* has the effect of recognising previous documentation and decisions as if they were made and/or approved under the ‘Impact Assessed (not restricted)’ pathway.

The Minister for Planning is now the decision maker under the new Act, rather than the Governor under the repealed *Development Act 1993*.

In considering the current proposal, the Commission must have regard to the Amendment to the EIS, State Agency, Council and public submissions, the Response Document, relevant planning policies of the Planning and Design Code, the applicable 30-Year Plan for Greater Adelaide, State Planning Policies, the *Environment Protection Act 1993* and any other matters that the Minister as the decision maker considers relevant to the assessment and determination of the variation.

5.3 Consultation on the Amendment to the EIS

Public consultation on the AEIS occurred for a period of 30 business days between 14 June 2023 and 26 July 2023. Copies of the AEIS were made available at the offices of Planning and Land Use Services (83 Pirie Street, Adelaide), the Playford Council offices and on the SA Planning Portal. A public notice was published in the *Adelaide Advertiser* newspaper advising of the release of the AEIS and where to obtain or view a copy of the AEIS. Four submissions were received.

6. Amendment to the Assessment Report

The State Planning Commission is responsible for the preparation and endorsement of an Assessment Report (or an Amendment to the Assessment Report), a new responsibility under the PDI Act that was previously undertaken by the Minister for Planning under the *Development Act 1993*.

The original and amended Assessment Reports for the Buckland Park Township development were prepared by the Minister for Planning in February 2010 and February 2017 (respectively).

These documents provide the full background to the development, and under which the initial stages of the project have been developed, new lots created, infrastructure established, and homes built.

The Second Amendment to the Assessment Report (AAR) assesses the environmental, social and economic impacts of the proposal by Walker Corporation to vary its development authorisation.

The AAR takes into consideration the requirements established under the new Impact Assessed (not restricted) pathway, including an assessment of the proposal as presented in the AEIS, Council and agency comments, and the Response Document.

The Response Document, along with the EIS, forms the finalised proposal.

Previous and current project documentation is available at:

https://plan.sa.gov.au/development_applications/state_development/impact-assessed-development/majors/major_projects/majors/buckland_park_township

The AAR does not include an assessment of any elements of the proposal against the provisions of the Building Rules under the *Planning, Development and Infrastructure Act 2016*, noting that the City of Playford (being their Council Assessment Panel and Assessment Manager under the PDI Act) is responsible for the assessment of all built form development at Riverlea.

7. Current Development Authorisation

The current development authorisation provides for the establishment of the Buckland Park Township, a multi-component residential, commercial and recreational development on land located west of Virginia. The development is proposed to include 15,300 dwellings, a town centre and associated community and recreation facilities, together with public infrastructure.

An overall masterplan has been approved, alongside the detailed layout of Precinct 1 and Precinct 2, with construction almost completed across Precinct 1 and commenced on Precinct 2.

A signalized intersection has also been constructed, providing safe and efficient access to Port Wakefield Highway. A retail/commercial complex has also been approved and is under construction.

The approved stormwater and floodwater strategy currently includes over 80 hectares of linear drainage channels to address regional stormwater and flooding from the Gawler River.

These linear drainage channels average approximately 50 metres in width and equate to over 13.5 km of open drains that flow into the Thompson Creek and outfall (to the southwestern side of the site).

The overall development framework (outlined by an approved Masterplan) has changed over time, from the original concept (2006) (Figure 1) to the first approval (2009) (Figure 2), then second approval (2015) (Figure 3) and the latest update (2023) (Figure 4).

These changes reflect township, precinct and stage changes between 2009 and 2024, both prior to and during construction. Concurrent with these updates, have been variations to individual stages—reflective of periodic updates to the masterplan, which have been assessed and approved.

Since lodgement of the current variation (requiring an amendment to the project), stage updates have continued to be approved, up to SWL1, consistent with the layout changes now sought under the proposed variation, but not including those stages reliant on the approval of SWL1.

9. Scope of Variation

The proposed variation seeks to implement a new road network and subdivision pattern for Precinct 2, reflected in updated staging plans, affordable housing plans, allotment mix plans, pedestrian and cycling network, and fencing control plans for the development.

A similar land area and lot yield is proposed, based around a changed stormwater and flood mitigation strategy. In addition, public open space reserves are consolidated and more centralised, providing more extensive open space areas rather than a dispersion of pocket parks.

The proposed changes comprise:

- An altered land division plan for Precinct 2 (superseding the previously approved layout).
- Introduction of a saltwater lakes system to enhance the urban amenity and form part of the revised stormwater and floodwater strategy.
- An altered Precinct staging / Concept Plan.

Since 2010, the total allotment numbers proposed across Precincts 1 and 2 have varied, dependent on the scope of works, allotment pattern, precinct boundaries and staging requirements (when approvals have been sought). In broad terms, Precinct 1 is generally taken to involve the creation of 830 lots, and Precinct 2 is currently proposed to provide a total of 2749 lots.

The overall project is to deliver around 12,000 lots at the completion of all four precincts.

The current project figures remain consistent with previous approvals, such that there is not a significant change in overall lot yield within the project area for Precincts 1-2.

However, it is acknowledged that the layout changes (as part of the current amendment) for Precinct 2 are more substantive, involving a change to lot configuration, local road patterns, reserve distribution and deletion and/or relocation of community/centre elements (refer Figures 5 & 6 for comparison), but largely replicate the nature, form and pattern of development already under construction.



Figure 1: Original Concept Masterplan c.2006

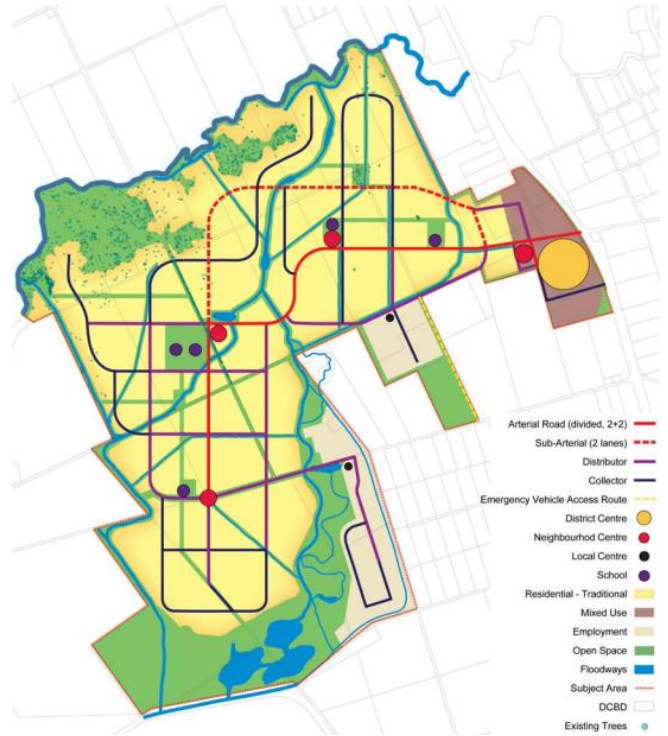


Figure 2: Original EIS Decision Masterplan c.2009

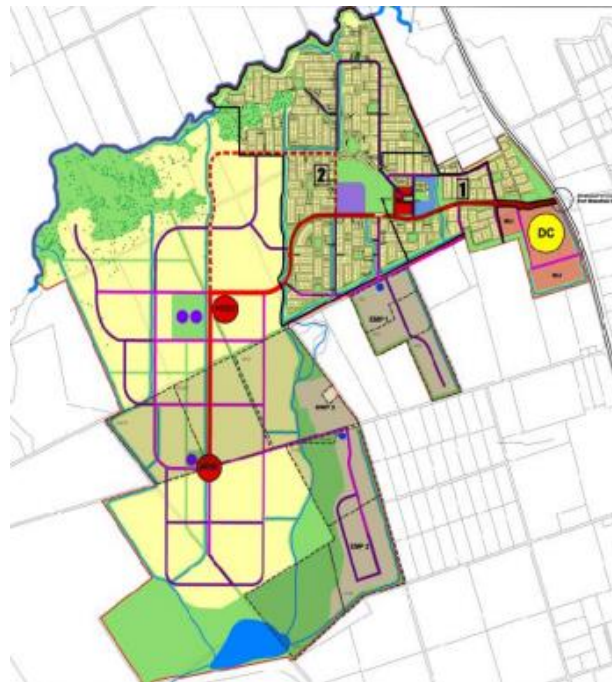


Figure 3: Pre-EIS Amendment 2 Masterplan (c.2021)

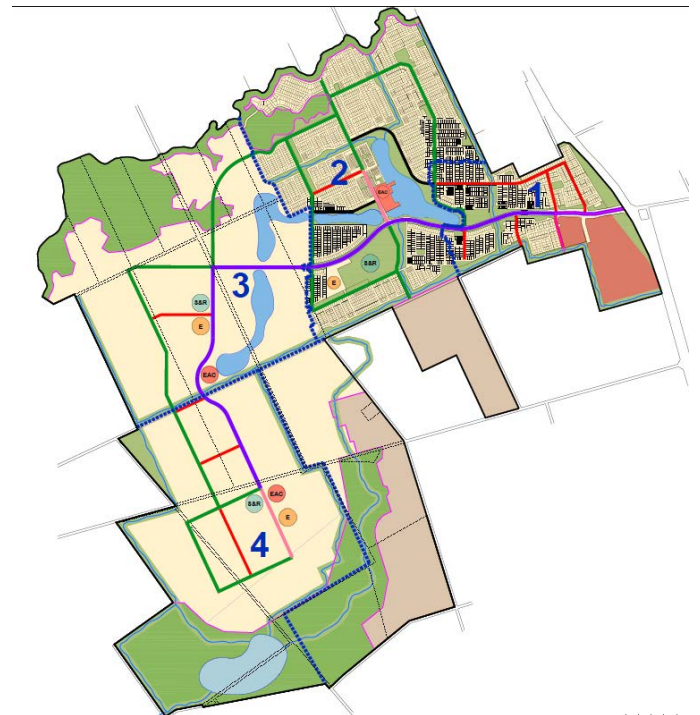


Figure 4: Proposed Concept Masterplan (with lakes)

Source: Walker Corporation

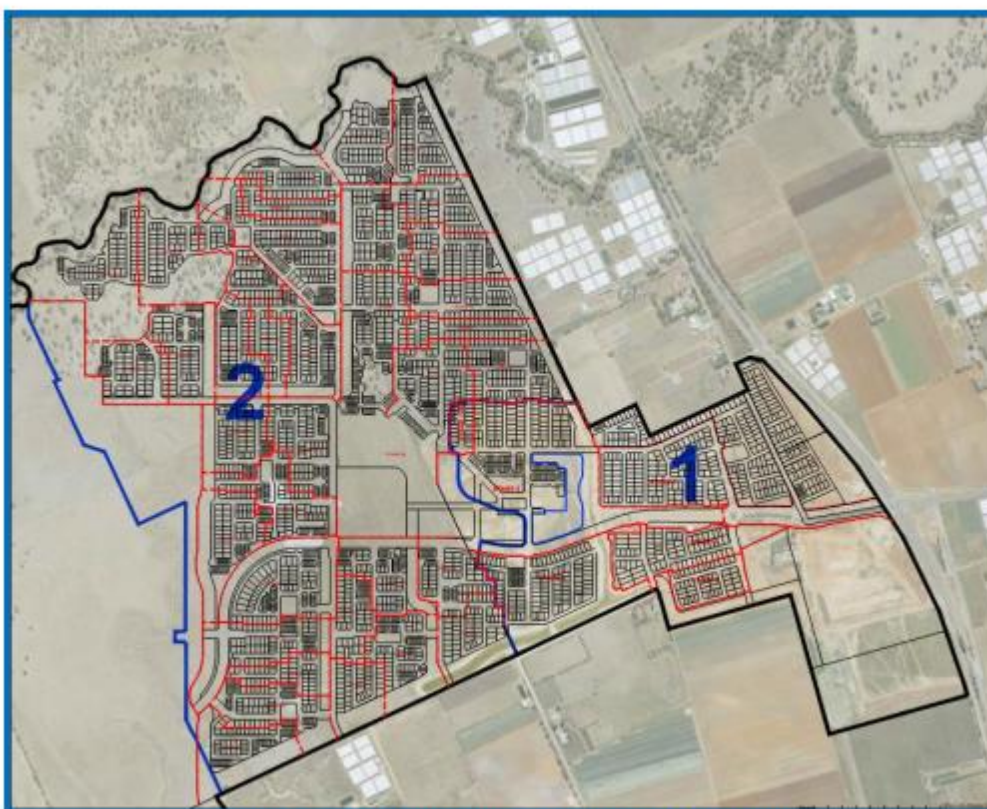


Figure 5 – Precinct 2 (Approved Subdivision Layout Plan)

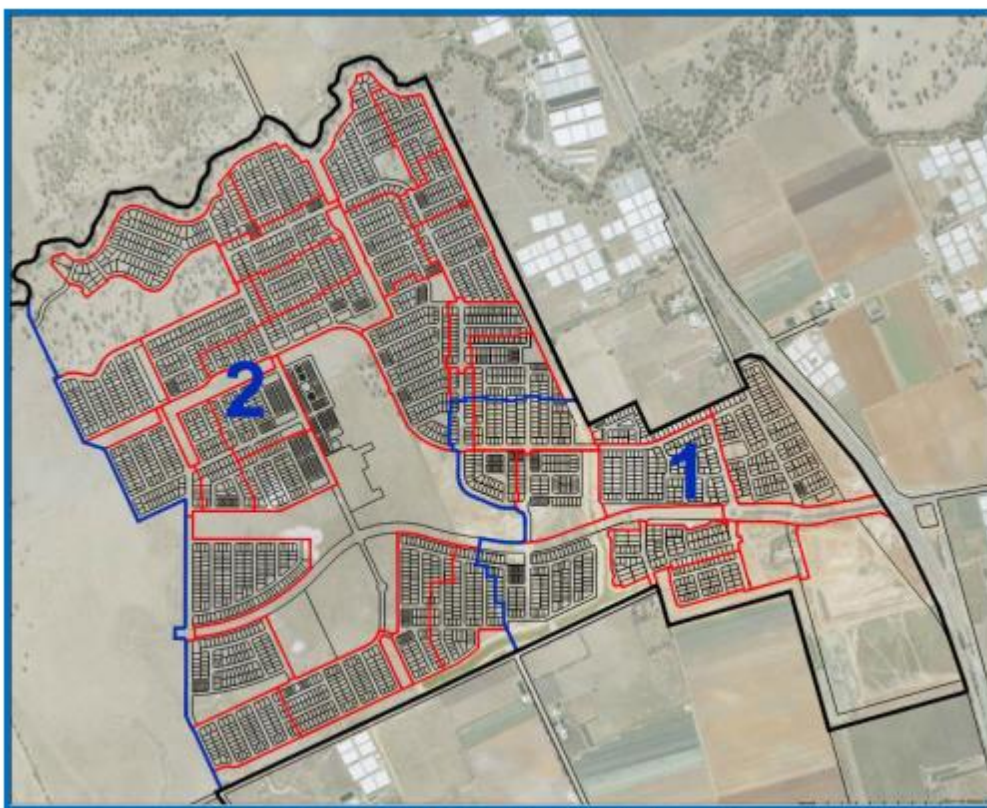


Figure 6 – Precinct 2 (Altered Subdivision Layout Plan)

Figure 5: Previously Approved Layout, Figure 6: Proposed Layout (Source EIS)

As the proposed changes largely affect Precinct 2, these are the key development characteristics for what has been re-applied for in the amendment and are outlined below and related tables:

No. of proposed allotments	2749
Total area	377.03ha
Developable area (less school & community)	274.64ha
Reserves (including lake)	72.00ha
Drainage Reserves	14.03ha
Total Reserve area	86.03ha
Contributed Reserve (28.8%)	79.02ha
(total reserve less 50% of Drainage Reserves)	
Length of new roads	41.89km

The types of allotments sought are detailed in **Table 1**, with typical “traditional”, “small traditional”, “villa” and “terrace” allotments of between 150m² and 420m², comprising 46% of the total allocation. Lot sizes over 500m² being less than 18% of the total allocation.

Table 1: Allotment Mix

Allotment Type	Width	Depth	Area m ²	Total	Total%
Terrace	7-9	25-30	150-250	345	12.6%
Cottage	15	15	225	105	3.8%
Small Courtyard	12.5	25	312	100	3.6%
Courtyard	14	25	350	58	2.1%
Villa	12.5	30	375	430	15.7%
Medium Courtyard	16	25	400	99	3.6%
Entry Traditional	14	30	420	494	18.1%
Large Villa	12.5	35	438	21	0.8%
Large Courtyard	18	25	450	31	1.1%
Small Traditional	16	30	480	528	19.2%
Entry Estate	14	35	490	30	1.1%
Grand Courtyard	20	25	500	23	0.8%
Medium Traditional	18	30	540	241	8.8%
Small Estate	16	35	560	34	1.2%
Large Traditional	20	30	600	132	4.8%
Medium Estate	18	35	630	25	0.9%
Large Estate	20	35	700	23	0.8%
Grand Estate			800+	17	0.6%
MD Site				12	0.4%
Total				2748	100%

The development must provide a total of 15% affordable housing as required under a Land Management Agreement with Housing SA. The affordable housing component is detailed in **Table 2**.

The initial development of Riverlea remains consistent with this requirement, with both a mix of housing types and development sites dispersed across both precincts, a significant proportion of lots located within or adjacent to the proposed Neighbourhood Centre, situated on the western edge of SWL1. A total of 60 allotments have already been sold for this purpose.

Table 2: Affordable Housing Allotment Type

Allotment Type	Width	Depth	Area m ²
Affordable Housing Terrace	7-9	25-30	150-250
Affordable Housing Cottage	15	15	225
Affordable Housing Land Sales	12.5	25	312
Affordable Housing Apartment / Development Site *			

(Source: Walker Corporation – both tables)

Both the division layout, housing mix and affordable housing lots are detailed in the plans provided by Alexander Symonds accompanying the amendment documentation.

10. Crown Development Application

A related crown sponsored development application (endorsed for the purposes of essential infrastructure by the Department for Infrastructure and Transport) was concurrently assessed with the Amendment to the EIS (DA 292/V046/22).

This infrastructure is located outside of the declared area for the Riverlea township development.

The application relates to works used to capture and convey seawater from Chapman's Creek via a pump and pipe system to Riverlea. Chapman Creek is located south-west of the development site.

The saltwater intake pipe is proposed to travel from the intake facility along an unformed road, then Legoe Road reserve into the development site. The infrastructure at the intake location will include a pumping facility and associated pipework.

The appropriateness of the source location and the quality of the seawater obtained were considered under this application and was separately reviewed by state agencies and the local Council. Native Vegetation clearance was also obtained to enable works to commence (if approval were granted).

The amendment to the EIS considers the design, construction, operation and environmental performance of the saltwater lakes system, whilst the exchange and discharge of this system via Thompson Creek is also considered.

The Minister for Planning (or their delegate) is the decision maker for both applications.

11. Description of the Existing Environment

11.1 Locality and Site Characteristics

The Riverlea development covers an approximate area of 1,308 hectares.

The project area is situated approximately 32km north of the Adelaide CBD, bounded by the Gawler River to the north, horticulture uses to the south, the existing Cheetham salt fields to the south-west, and Port Wakefield Highway to the east. The project area is 2.7km from the coast.

The non-developed areas of the project site and surrounding area comprise relatively flat arable land, primarily used for low intensity grazing or more intensive forms of horticulture under greenhouse cover.

The Gawler River is a perched river system, such that once floodwaters spill from its banks, the water spreads outwards onto its adjacent flood plains, with overland flows making their way to Thompson Creek and its outfall channel to the sea.

The current development area for 'Riverlea' comprises Precinct 1 and Precinct 2, noting that the majority of Precinct 1 has been subdivided into allotments (and almost complete) with the eastern side of Precinct 2 under active development.

The depth to groundwater within Riverlea ranges from 0.2 metres to 7 metres below the natural surface level. The majority of the development area has a depth to groundwater of approximately 3

metres below natural surface level. Previous studies have found groundwater salinity ranges from 1000 ppm to 5000 ppm (1mg/L=1ppm). For comparison purposes, rainwater is usually <100 mg/L, metropolitan tap water is up to 400 mg/L and salinity levels above 1200 mg/L is considered undrinkable. Livestock can generally tolerate up to 4000 mg/l (whereupon production declines), and for sheep up to 14,000 mg/l (at a maximum level for a short period).

Prior to European settlement, Riverlea (and Buckland Park more generally) comprised an area of heavily wooded country which gave way to the west an open grassland dominated by species such as *Enneapogon nigricans* (Black Heads), *Aristida behriana* (Wire Grass) and *Austrostipa* spp. (Spear Grass). The area adjacent to the Gawler River consisted primarily of *Eucalyptus camaldulensis* (River Red Gum) and *E. largiflorens* (Black Box). With the clearance of the land for primary production purposes, much of the native vegetation continues to be impacted by cattle grazing (and now development activities), with standalone (scattered) trees and river-fronted Red Gums remaining.

Both the initial flora assessments and earliest masterplans, seek to retain the majority of trees adjacent to the Gawler River (both to retain biodiversity and establish a river-fronted reserve), and for flood management purposes.

Access to Riverlea Park is available from Port Wakefield Highway (with a dedicated, signalised intersection operational), with land to the south and west accessible from Carmelo and Thompson Roads. There is no direct access from the north, with the Gawler River being a natural barrier.

12. Public Consultation

Four (4) public submissions were received on the AEIS during the 30-business day consultation period. One submission was supportive of the Riverlea proposal. Three submissions raised concerns/opposed the proposed amendments. A summary of these matters is outlined below –

- Absence of dedicated public transport options (such as a railway line) to reduce car dependency and economic inequality (and a lost opportunity to integrate with mixed use development).
- AEIS overlooks potential impacts to adjoining land, specifically on flora and fauna, as a result of the flood mitigation and stormwater strategy (and restricting overland flows for environmental purposes).
- The sea water pipeline may disturb ground water which may threaten immediately adjacent valuable environmental assets on our property and the National Park.

The applicant provided a response to issues raised in its Response Document.

- A new Adelaide Metro bus service commenced at Riverlea in July 2023, being the 402 service from Riverlea Park to Salisbury and 450 service from Riverlea Park to Elizabeth Interchange. The proponent has advised that Adelaide Metro will monitor these services and consider any network alterations as demand around the Riverlea services evolves
- The establishment of a new passenger rail service to Riverlea would be complex and expensive, noting the closest railway line is designated for freight purposes and is owned by the Australian Rail Track Corporation Ltd. The identification of further infill areas to the south of Riverlea and longer-term investments in transport infrastructure are a matter for State and Federal Governments to consider (against other priorities).
- The location of the underground saltwater pipeline should not have any effect on local groundwater, whilst any native vegetation clearance requirements have been met (or are in the process of being determined).

- Detailed flora and fauna assessments have been undertaken to support the development of Precinct 1 and 2, noting that developable land (part of the major development declared area) outside of these precincts, will be subject to a future assessment process.

13. Agency Advice

13.1 Environment Protection Authority (EPA)

Conditional Support. The EPA have advised that a Dewatering Management Plan (DWMP) can be prepared as a condition of approval. In terms of water quality within SWL1 and the proponent's preference for a low flow option (being a continuous but slower rate of exchange), an environmentally sustainable flow will need to be determined through modelling and validation, including nutrient removal through various mechanisms outlined in the Response Document.

A low flow option for SWL1 would mean longer resident times and allow for more nutrient loading from external sources (stormwater, animals etc.), whilst the increased level of evaporation would make SWL more saline. An environmentally sustainable flow will need to be determined through modelling and validation. An EPA licence will be required, whereupon Licence criteria can be set during the licensing phase prior to the SWL system discharging. Any modelled discharge will require validation.

In respect to stormwater management, a Lake Operational Management Plan can be developed in consultation with the EPA prior to construction. The EPA does remain concerned about the reliance on a large number of gross pollutant traps (GPTs) to manage stormwater and whether they can be appropriately maintained by Council over the long term.

If the GPTs are not appropriately maintained, they will not achieve the level of treatment required to achieve the modelled performance and result in poorer stormwater quality entering the SWLs. To account for this issue, it is recommended that the water quality modelling proposed for the SWLs take into account a range of scenarios: dry periods, wetter periods and no or little treatment. Algaecide dosing of the SWLs will only occur once approval has been sought from and given by Australian Pesticides and Veterinary Medicines Authority and EPA.

13.2. Department for Infrastructure and Transport (DIT)

No objection. The Department noted that the original traffic assessment identified that the interim at-grade signalised intersection would cope with the traffic generated by up to 3,400 allotments at which point upgrading of the intersection would be required. This assessment also indicated that the operation of the signals would need to be reviewed at the creation of 2,000 allotments.

Whilst DIT is satisfied with the additional advice provided by the applicant's traffic consultant, the operation of the existing at grade intersection (constructed in accordance with the initial approval), its performance should be reviewed at the 2,000-allotment threshold, to ensure that intersection continues to operate acceptably. This will need to be reinforced by a condition of approval.

The question of a second access to the Port Wakefield Highway is being considered as part of a broad area traffic study to consider the potential for additional access that services the Riverlea area, including consideration of potential further future development land to the south (as identified in the Draft GARP) as well as the potential future major centre on land adjacent to Port Wakefield Highway.

Whilst this work is being undertaken by the proponent's traffic consultant in consultation with DIT (and remains outside of and beyond the scope of the current application), the work will assist in discussions regarding traffic management associated with the future development of Precincts 3 and 4, as well as the future major centre. Overall, DIT supports the proposed variation subject to the

interim intersection upgrades identified in Figure 4.3.2 (of the applicant's previous traffic assessment) being upgraded prior to the final land releases being undertaken in Precinct 2.

13.3. Aboriginal Affairs and Reconciliation (AAR-AGD)

No objection. An authorisation under the *Aboriginal Heritage Act 1988* was granted by the Minister for Aboriginal Affairs on 9 October 2024. AAR-AGD has noted that EIS conditions should make explicit that the approval is subject to the conditions of Walker's authorisation.

AAR-SGD also noted that any maps that are prepared for the assessment of the EIS "should indicate the extent of areas that are subject to AHA authorisations and those that are not".

Any mapping should also depict the fixed boundary of the memorial Resting Place for Aboriginal remains, where no project development can occur." An advisory note relating to master-planned areas outside of authorised areas remain of high sensitivity and are likely to contain undiscovered Aboriginal heritage protected from impacts by the AHA Act.

13.4 Department for Environment and Water (DEW)

Qualified Support for the construction of SWL1 only.

Noting that flood mitigation and stormwater management issues have largely been addressed (for the Precinct 2 amendment), the focus of the agency's assessment shifted to the impact of dewatering and the associated investigations and studies provided to support assessment of this component of the proposal and the impact of SWL1 on the local groundwater table.

This proponent's assessment was underpinned by a groundwater model (the model) that was developed to assess the various construction options. The model was reviewed by DEW through the impact assessment process and – subject to further monitoring and review - would be important for understanding the dewatering process for SWL2-3 in the future.

DEW noted that the proponent's model has not been developed in accordance with appropriate modelling standards (Australian Groundwater Modelling Guidelines 2012), and verification could not be completed (based on the limited availability of real time monitoring data to corroborate the model). DEW considers the model boundary and discharge conditions used in the model to achieve calibration do not reflect real time data, particularly the understanding of discharge rates to the Gawler River and Thompson Creek.

Whilst there remains some concern with regards to the data and information presented by Walker Corporation, DEW considers these risks are manageable through appropriate conditioning of the amended proposal and through iterative data gathering and presentation by the proponent, with a particular focus on real time monitoring and reporting. This can be achieved through a comprehensive Dewatering Management and Monitoring Plan (DWMMP), whereupon any future consideration of SWL2-3 is contingent on the *successful* performance of SWL1.

A comprehensive monitoring program will be required to allow a form of progressive certainty with a flexibility of approach; however, both the risk and responsibility would rest with the proponent. No concerns were raised in respect to flora and/or fauna impacts more generally. A range of reserved matters, conditions and advisory notes have been recommended.

13.5 SA Housing Authority (SAHA)

No objection. The proposed development seeks to amend the subdivision plan resulting in 2867 allotments in Precinct 2 with 430 allotments designated as affordable houses. The applicant has

agreed to provide at least 15% affordable housing in the land division application. A Land Management Agreement (LMA) will be registered on the Certificate of Title(s). A condition of approval is recommended.

13.6 Gawler River Floodplain Management Authority

No objection. The GRFMA sought clarification on infrastructure requirements in relation to the precinct management of stormwater management. The authority was satisfied with strategy and actions contained in the recommendations of the WGA Stormwater Management – Water, Wastewater and Recycled Report dated December 2023, and as outlined in Section 3.2 of the Response Document: Environmental Matters: Northern Wetlands and Gawler River.

13.7 Native Vegetation Council

No comment. Clearance permits already in place (and/or extended) for Precinct 2. A copy of the Precinct 2 clearance decision from the Native Vegetation Council is contained in Appendix R of the AEIS.

14. Council Comments

The Playford Council do not raise any fundamental objection to the proposal but do consider that several matters must be the subject of further consideration, either as reserved matters or as conditions of approval, which is principally the design, operation and management of SWL1. The re-arrangement of Precinct 2 land division is broadly supported, subject to further design detail.

As outlined in their final referral response to the Commission, DHUD-PLUS *“has provided the Council the opportunity to undertake adequacy reviews of the four (4) preliminary versions of the Response Report (between June & November 2024) as well as the opportunity to assess the Final Response Report (December 2024) including the amendments and changes to the original AEIS.”*

Council’s advice notes the challenges involved in considering a saltwater lakes system and have spent considerable time *“understanding the operation and impacts arising from the three (3) saltwater lakes, including undertaking a study tour of saltwater lake developments in South-East Queensland in March 2023”*.

In Council’s assessment of the proposal – and noting its role as the custodian and operator of public reserves and common infrastructure in new land divisions – is that gaps remain in the proponent’s documentation and understanding of the SWL system, and these *“uncertainties include the operation and performance of the SWL, the achievable water quality standard and construction methodology”*.

In summary, there comments are focused on SWL1 and future management, being:

- Confirmation of the final design and open space edge/public realm treatments.
- The length of trial period to evaluate and confirm the acceptability of the *Progressive Adaptive Hybrid Lake Water Management & Treatment Strategy* (Hybrid Strategy).
- The operational management, monitoring systems, specialist expertise and infrastructure needed to achieve and maintain a minimum Secondary Human Contact standard.
- Council does not accept (at this time) future ownership of SWL1, and that given the reliance on the use and transfer of seawater to and from the lakes system (across Crown Land), the governance arrangements should rest with the State Government.

Additional comments were provided in respect to the Crown Development Application, however these relate to matters that are being considered in another assessment process, where both the EPA and CPB, have been referred to and responded to matters within their technical expertise and jurisdiction. The tenure questions are matters between Walker Corporation and other landowners.

Several reserved matters and conditions have been recommended by Council, which have been incorporated into draft requirements at the conclusion of this assessment report. Council have also provided their earlier comments from July 2023 for the Commission's information.

16. Assessment of Key Issues

The original Assessment Guidelines that were prepared to inform the preparation of the EIS (and used to consider the previous amendment in 2015-17) adequately address the key issues that relate to the proposed variation. The purpose of this AAR is not to revisit the consideration of the previously approved and varied proposal, but rather to assess the current variation against any applicable 'key issues' that require further investigation and decision.

The use of the land for township purposes is not the subject of this assessment.

16.1 Need for the Proposal

The variation proposal seeks to alter the previously approved layout (from the time of the first amendment to the EIS and later decisions) over Precinct 2, with a similar land area and lot yield.

The main change is the introduction of a saltwater lakes system, which seeks to provide a higher level of amenity for local residents (which would become a key project feature) and assist with the management of stormwater (not directed to perimeter channels) and flood events.



Figure 7: Riverlea Project SWL1 (Source: Walker Corporation).

The original stormwater and drainage system relied upon a network of linear drainage channels through the development, which the proponent has advised were to be approximately 50 metres in width and resulted in 13.5 km of open drains throughout the development.

From an urban design and engineering perspective, the saltwater lakes system would perform a dual function, *“firstly, to mitigate stormwater and flooding issues and secondly to create enhanced urban amenities and a salient focal point for the Riverlea community”* (AEIS, p2).

Consequential changes to the pattern of development (as defined by the road, allotment and open space layout), are not considered significant in the context of the overall Riverlea development and approvals previously granted, as the number and typology of allotments are similar.

The proponent has further advised that the removal of the drainage channels (as the primary drainage system) has allowed for the consolidation of open space / recreational reserves. The second Amendment to the EIS is supported by a range of survey plans prepared by Alexander Symonds (subdivision and staging plans, affordable housing plans, allotment mix plans, pedestrian and cycling network, and fencing control plans), consistent with the delivery of a master planned development.

16.2 Flood Risk

The Buckland Park locality in general and Riverlea development in particular is susceptible to breakout flood events from the Gawler River (based on a 5% AEP event). Previous flood plain mapping for the Gawler River has generally indicated that overall hazard risk to be “low”.

The Gawler River is considered to be a “perched” river, in that its banks are higher than the surrounding floodplain. During flood events, floodwaters flow away and out from the river.

It is noted that the capacity of the Gawler River diminishes markedly from east to west, from around 400 m³/s near Gawler, to less than 10 m³/s near Buckland Park Lake, adjacent to the coast. This diminishing capacity leads to flooding of the lower Gawler River and its associated floodplain.

A catchment wide solution – proposed in the form of the Gawler River *Northern Floodway* proposal – aimed at addressing flood risk within the lower Gawler River – has been considered. This project would have encompassed a range of measures, from levee improvements, river channel works and a new levee and floodway system downstream of Old Port Wakefield Road.

If constructed, this project would increase the flood capacity of the lower Gawler River, by constructing a new levee system to the north of the river, containing breakout flood waters within a dedicated “floodway” (and reducing the number of properties and higher value horticultural lands that have been directly affected by floodwaters up to a 1:50 year event).

However, the Northern Floodway project has not been funded (est. 2018 cost was \$27m), with DEW advising the proponent that the works are not proceeding at this time, such that the proponent has developed their own standalone flood mitigation solution.

Localised flood events have the potential to impact upon residential streets, public roadways and Council infrastructure. In order to address potential risks to life and property, the proponent has relied upon site / building / pavement levels raised above predicted flood levels and dedicated channels.

Breakouts from the Gawler River (which will continue to occur from time to time), will either be diverted around the project area via a perimeter channel and/or returned to the Gawler River (due to raised surface levels, being 700mm-1m higher than existing), or where flood flows enter Riverlea, diverting these floodwaters through the development site to a Thompson Creek tributary and then discharge via the outfall channel.

Drainage channels have been kept relatively shallow (up to a maximum of 2.0m), to keep the invert as high as possible to minimise the risk of groundwater intrusion. The proponent has modelled a 1% AEP event, including partial blockages of the river itself, which demonstrates the open channel system can be effectively implemented for the residential areas of the project area.

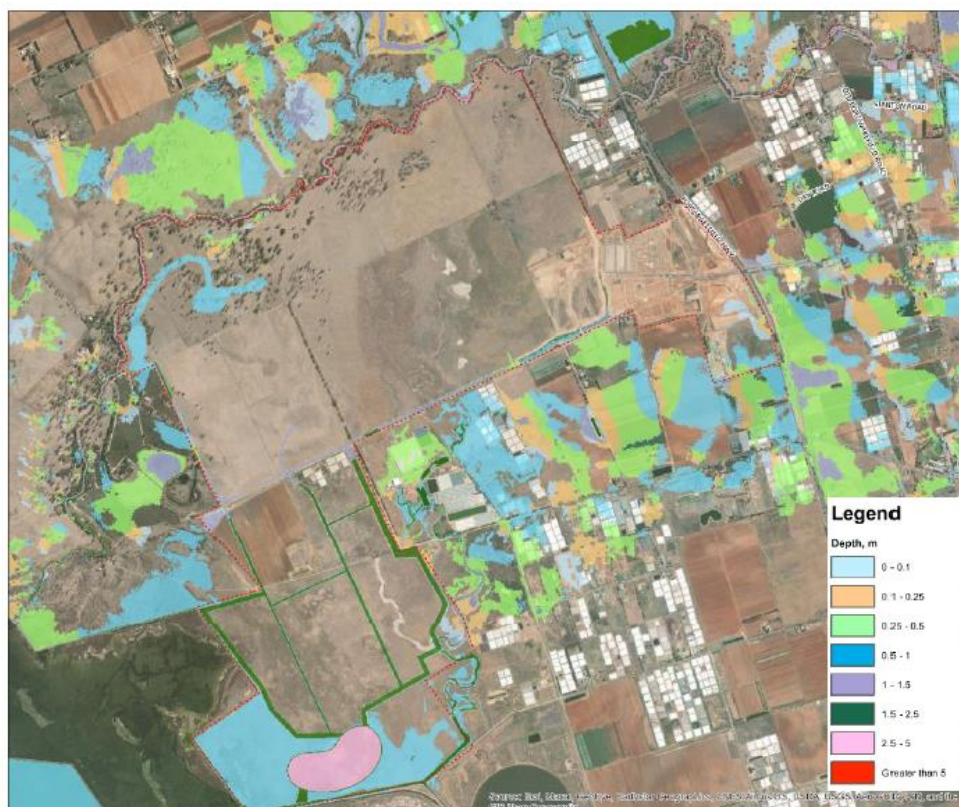


Figure 8: 100 Year ARI event in the Gawler River with Riverlea Flood protections in place (Source EIS).

No water is to be 'taken' from the Gawler River, but rather floodwaters managed through a process of channelised diversions, consistent with pre-development flow paths, and remains consistent with the previously proposed and approved channel diversion system.

Floodwaters would *generally* be prevented from entering SWL1, with a bund system to be constructed that redirects floodwaters to the west, being the most cost-effective solution and limiting impacts on SWL1. However, SWL1 has been designed to accommodate infrequent flood breakouts where needed.

DEW is supportive of this approach, along with the Gawler River Flood Plains Authority.

16.3 Stormwater Management

Precincts 1 and 2 comprise a combination of developed/under construction and greenfield sites with a total area of approximately 346ha. The wider Riverlea Park area generally drains away from the Gawler River in a south westerly direction towards Thompson Creek and its outfall channel.

The original EIS (and first amendment to the EIS) developed a precinct wide stormwater management solution prepared by Wallbridge and Gilbert, noting that once developed, a significantly larger volume of stormwater runoff will result from the project and needs to be managed. The environmental impacts of such flows must also be carefully considered, such as discharge rates (which must remain below the outfalls capacity) and water quality (to the marine environment).

From its inception, the project has relied on a series of linear stormwater channels and concrete pipes to convey stormwater through Riverlea to Thompson Creek and its outfall. Floodwaters could also be diverted to the stormwater network. A detention basin remains a feature of the overall system (to be

located at the southern end of Precinct 4 with a capacity of 250,000 m³ which will reduce the rate of discharge from the site to 10 m³ /s, with interim measures used in the meantime.

The current method of stormwater management at Riverlea relies on a system of natural open channel lines and roadside open drains and culverts, reflecting both an interim and permanent stormwater management solution (being implemented concurrently).

In order to effectively convey and capture the stormwater runoff created by the proposal a number of different techniques will be used. These include the following:

- A network of concrete pipes to collect local drainage from rooves and roadways
- A network of linear drainage reserves to convey larger flows that will provide a dual use for water quality treatment
- Detention basins and lakes to reduce the peak outflow from the proposal.

These methods are outlined in some detail in the WGA report from December 2023.

Over the course of the current project, and in particular the construction phase, the stormwater management approach has evolved, both in terms of interim and permanent solutions to manage stormwater flows generated by and through the development area. This approach has been informed by comprehensive documentation, reviewed by Council's engineers and state agencies.

The stormwater strategy is based on addressing flood management, water quality, water use and environmental protection. Flood management has already been considered. In terms of stormwater quality, this is based on the integration of green infrastructure (WSUD – i.e. ephemeral wetland pools, swales etc), the interception of gross pollutants (use of GPTs), and consideration of an aquifer storage and recovery scheme for stormwater re-use (though not part of the current application).

As the Riverlea development is under construction, an interim stormwater management plan has been implemented for both Precincts (although permanent infrastructure is still being progressively installed at street level), with the construction of an open channel network to eventually connect to Thompson's Creek and outfall (works to be progressed). This includes temporary storage arrangements before the full system – including the lakes – can be constructed.

The ultimate stormwater solution has been modelled and developed on the basis of all saltwater lakes being constructed, and a large detention basin developed at the southwestern corner of the site.

Both the interim and permanent solutions are outlined in a series of WGA reports: WGA – *Stormwater Management – Water, Wastewater and Recycled Water (December 2023)* report and the WGA - *Precinct 1 and 2 Interim and Ultimate Development - Stormwater Management Plan (October 2024)*. This plan has been updated to reflect previously provided Council feedback.

These changes essentially update the catchment planning and supporting modelling parameters, with additional climate change analysis and risk assessment.

The WGA - *Precinct 1 and 2 Interim and Ultimate Development - Stormwater Management Plan (October 2024)* outlines the current internal network drainage design (interim for Precinct 1 & 2 and then to ultimate), the design of regional flood conveyance channels, the management of stormwater quality and its integrated approach within the overall project, the management of stormwater within an overall risk management framework and the staged implementation of the stormwater strategy.

The water quality standards of the EPA and engineering standards of the Council were also acknowledged, with the latter providing suitable provision to accommodate maintenance requirements and the necessary hydraulic performance, taking into account site levels (**Figure 9**).

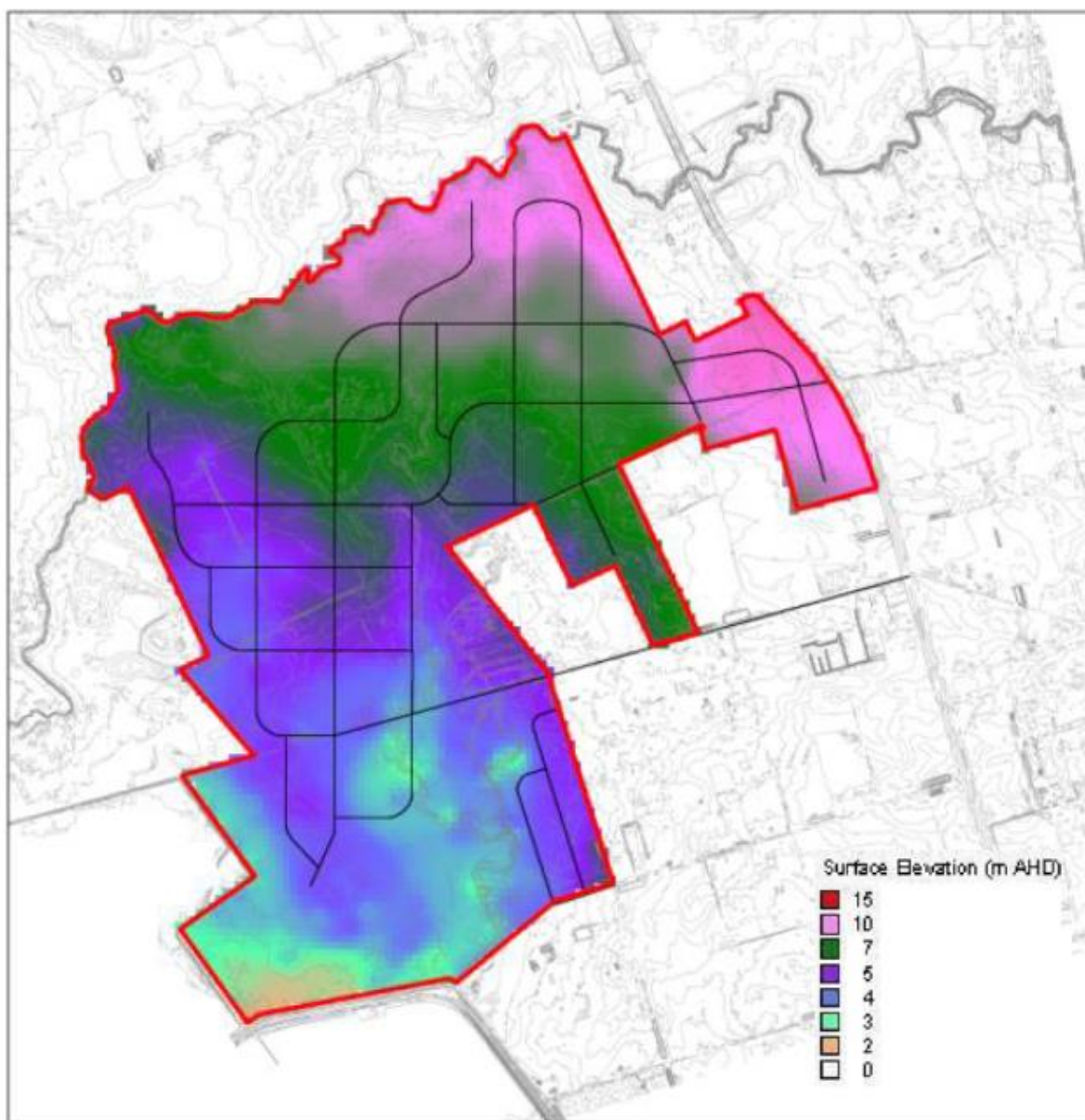


Figure 9: Riverlea (existing) Site Levels (Source EIS)

These reports provide detailed design and modelling for each land release stage, and how water-sensitive urban design (WSUD) and pollutant reduction targets are to be met. The interim arrangement, interim arrangement with SWL 1, and ultimate arrangement with all precincts and lakes constructed are contained in **Figures 11-13**. The saltwater lakes system (when constructed) will then provide for additional detention above the permanent lake(s) level, approximately 0.5m.

Interim Solution

A system of regional channels is being constructed throughout Riverlea to manage stormwater outflows for shorter duration rainfall events. However, as the development proceeds an interim stormwater solution is being adopted, which provides sufficient detention capacity than would be

required to service the overall development (being a progressive implementation of the full strategy with some temporary elements in lieu). Without the lakes in place, however, the interim solution has to operate without any additional buffer capacity afforded by the SWL (refer Section 5 of the WGA report). Council supports this approach on a temporary basis and provided it is closely monitored.

Ultimate Solution

The permanent arrangement relies on a completed channel network and the construction of the three SWL. The calculations that inform this design outcome are contained in the WGA report and do not require repetition but need to be considered as an integrated system for stormwater treatment (Refer **Figure 10**) and performance – including its contribution to lake water quality.

However, the incorporation of a large detention basin at the lower end of the site (just north of the Thompson Creek channel) is worth noting, as will have an overall capacity of 250,000m³, which along with the regional drainage channels, are integral elements of the proposed system.

The positioning and function of the detention basin being situated in the lowest point of the project area, with sufficient material availability for filling and shaping, and low risk of coastal acid soils, makes this a critical component.

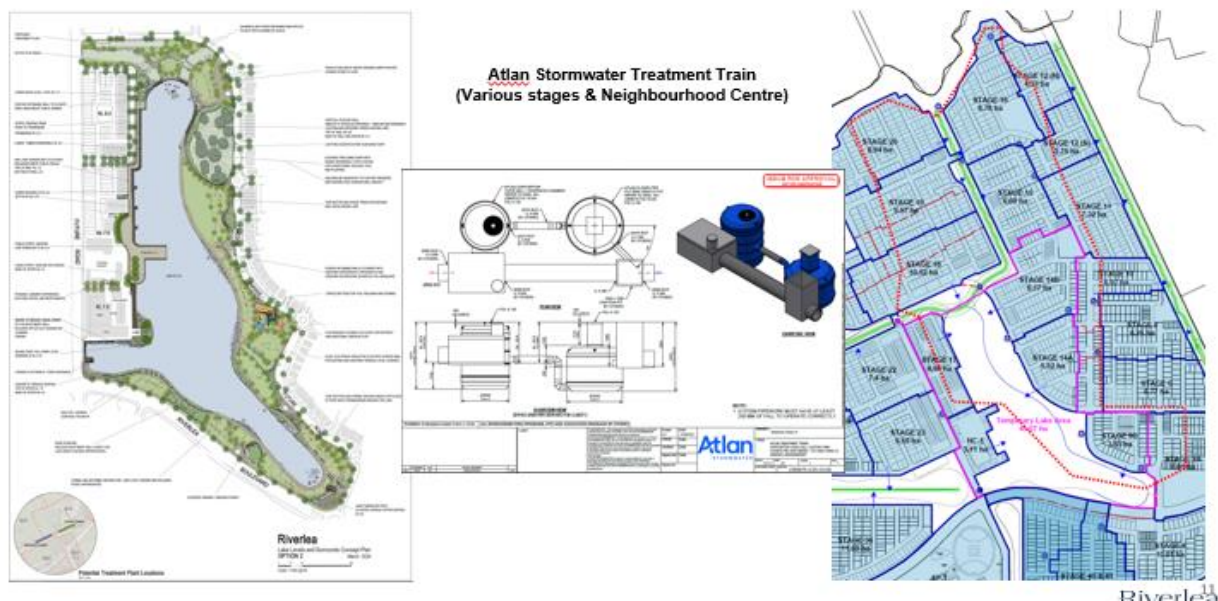


Figure 10: Stormwater treatment systems and internal catchment for SWL1 (Source EIS).

Thompson Creek Channel and Outfall

All stormwater (and from the SWL) will be discharged via Thompson Creek and outfall channel to the sea. According to the WGA report p13:

Thompson Outfall Channel receives stormwater runoff from a large catchment of approximately 85km² known as the Western Virginia Catchment. This catchment lies within the bounds of Gawler River to the north, Andrews Road, Munno Para Downs in the east, St Kilda Road to the south and the Salt crystallization pans to the west. The outfall channel discharges directly to Gulf St Vincent and the capacity of the channel will be affected by tide levels.



Figure 11: Extent of Precinct 1 and 2 Interim Stormwater arrangements (Source EIS)

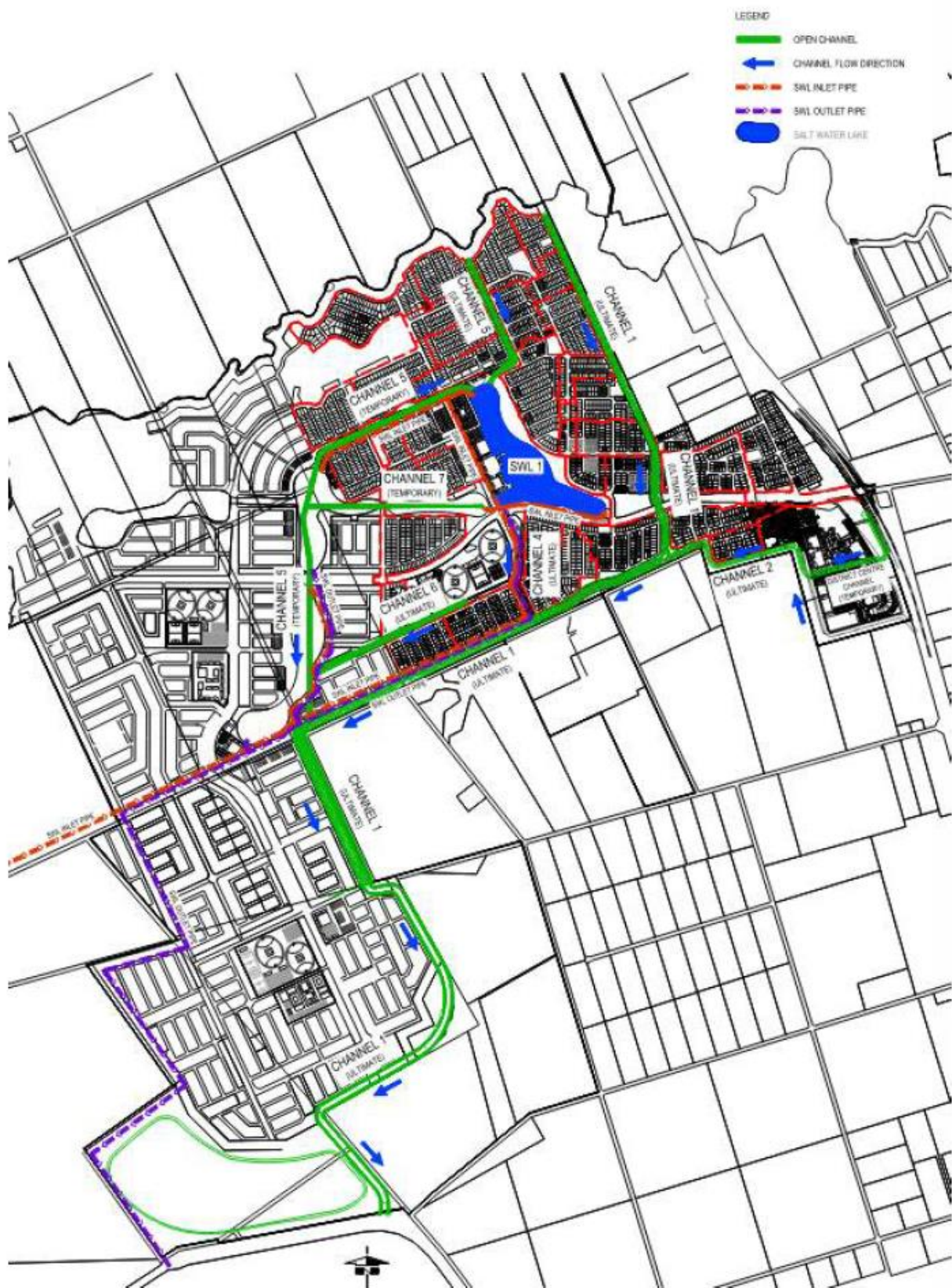


Figure 12: Extent of the Precinct 1 and 2 Interim Arrangements with SWL1 constructed (Source EIS)

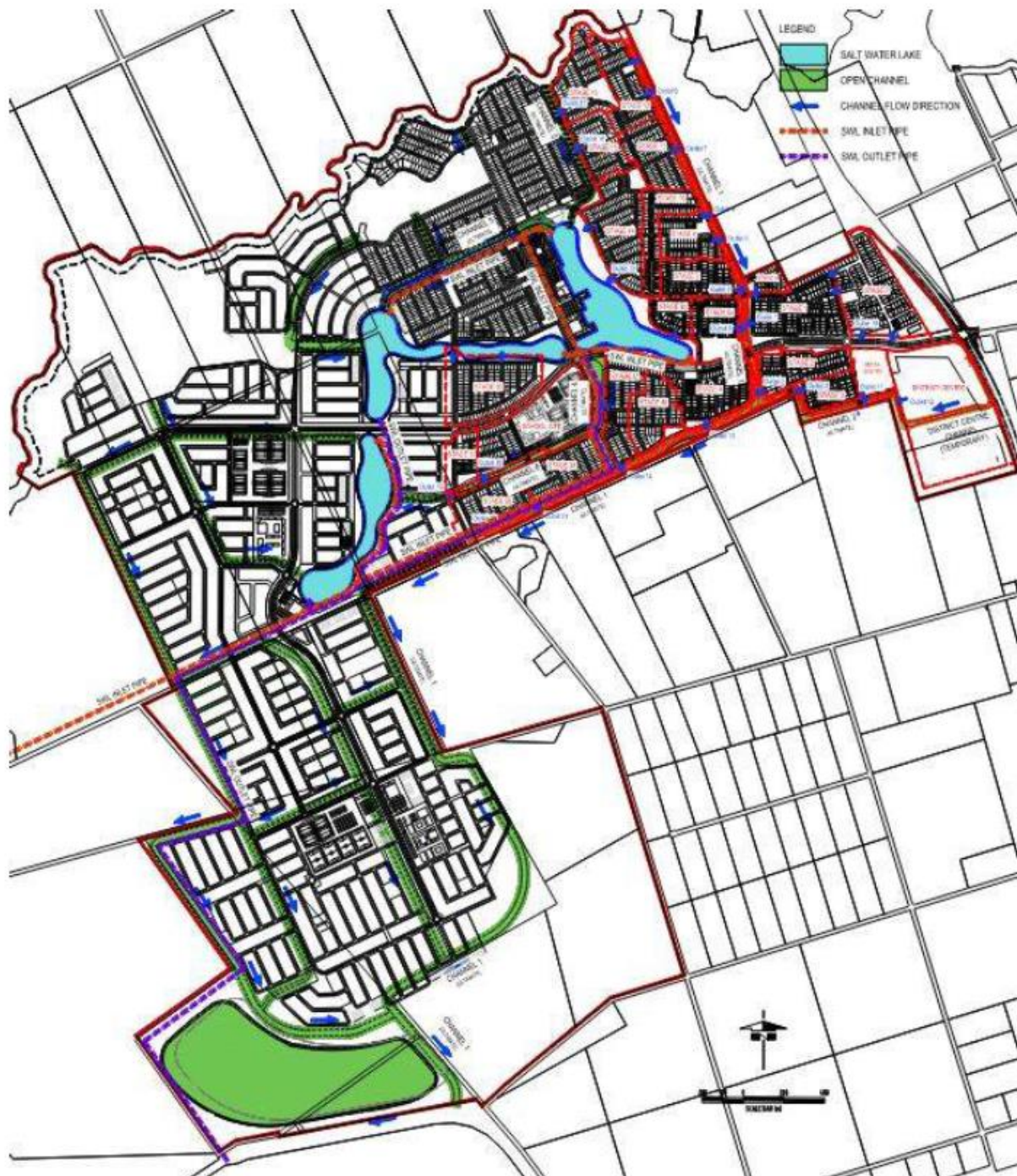


Figure 13: Ultimate Arrangement – Saltwater Lakes and Open Channel network (Source EIS)

The WGA report has considered the capacity of the channel and potential impacts of sea level rise, storm-surge and tidal effects over the longer-term. As the outfall channel has an invert level of approximately 1.0 AHD, there is a risk in certain modelled scenarios – such as rainfall events coinciding with storm-surges – that stormwater discharge would be affected. Climate change related sea level rises are more gradual and would affect a significant part of the Australian coastline, and as such, no single point of future failure can be readily adapted in advance of more detailed analysis.

The WGA report also notes that stormwater / floodwaters, either arising from or flowing across Riverlea, before making their way to the sea, are not the only water sources entering the channel, but across the wider catchment (which the developer cannot individually address). To ensure potential impacts are not exacerbated, the stormwater management system has been designed to ensure post-development outflows (from all four precincts being developed) do not exceed pre-development flows prior to the land being developed. This technical work is outlined in the WGA – *Stormwater Management – Water, Wastewater and Recycled Water (December 2023)* report.

This analysis sets detention thresholds for each phase of the development, and that sufficient detention volume is in place to meet modelled scenario / weather events, up until the 250,000m³ detention basin is constructed to contain outflows to below 10m³/s to the channel. A staged program of works is proposed from 2025 to 2035, culminating in the completed detention basin.

Climate Risk

The stormwater management analysis was reviewed to include a climate risk assessment to consider the potential nature, scale and likelihood of climate impacts in the future, and consideration of treatment options to manage these impacts.

The factors which were taken into account in this analysis (and changed projections) were in relation to a decrease in average rainfall, increase in potential evaporation, increase in solar radiation and increase in rainfall intensity (Refer Section 3.2 of the WGA Report).

It was found that the majority of “climate change impacts can be managed with regular monitoring and maintenance of assets”, alongside targeted adaption actions (such as materials selection, flood / stormwater design and maintenance planning). A climate change multiplier of 1.2 was applied to rainfall intensities in the modelling, being above the interim calculations.

Water Sensitive Urban Design (WSUD)

The Riverlea Park development adopts a Water Sensitive Urban Design (WSUD) approach at both the Masterplan and detailed design level (WGA, 2023: 21).

These are widely accepted approaches for new development to manage stormwater in an environmentally sensitive manner, both for future re-use, or to maintain a water quality standard (through various design elements and treatment strategies).

The proposed treatment systems are being implemented to meet relevant water quality criteria, as defined by the Environment Protection Authority guidance (WGA: 2023: 22). The current aim is for the same standards to apply to any stormwater discharge into the saltwater lakes system, being a preliminary treatment strategy based on gross pollutant traps, swales and lineal wetlands.

Whilst some consideration has been given to the development of an Aquifer Storage and Recovery scheme at Riverlea, this has limitations with an annual acceptance of up to 50ML within the T2 aquifer (without pressurisation), whereas up to 2000ML per annum could be captured through more conventional means from annual run-off. An aquifer recharge scheme is not being considered as part of the current amendment.

Given the limited volumes involved, and the costs of more permanent storages, both the uncertainty of a larger scale aquifer recharge and reuse scheme and the expense of covered vis-à-vis above ground storages, the more logical option is for the development of a precinct-wide network connection to a

recycled water supply from Bolivar and its Northern Adelaide Irrigation Scheme (NAIS). Whilst provision is being made for this, the ability to connect to recycled water from external sources remains to be determined.

Construction Impacts, Sediment Management and Revegetation

WSUD design features are proposed in the design of the regional drainage channels to create new habitat opportunities through restoration and revegetation using local indigenous species. These design features are outlined in the main WGA report (refer pp 42-44), and the incorporation of ephemeral wetland pools, whose treatment function provides for enhanced sedimentation, fine filtration, adhesion and biological uptake, and chemical processes to remove pollutants from urban stormwater.

16.3 Saltwater Lakes System

Salt Water Lake 1

The revised Riverlea Masterplan includes a saltwater lakes system (SWL) with a total surface area of over 40 hectares, and a phased delivery over 15 years. Each of the three SWL will operate independently of one another, with a combined capacity of 1110ML: Lake1 (408ML), Lake 2 (386ML) and Lake 3 (318 ML). Only the establishment of SWL1 forms part of the current application.

Construction

SWL1 will be excavated in stages (up to 6.3m m³) with surplus soil stockpiled or re-used on site, such as to raise site levels for flood protection purposes or to create a series of coffer dams.

The excavated sections of each lake will be lined – either with a clay or synthetic liner – to provide a sufficient barrier to separate the lakes from the underlying groundwater table.

A dewatering process will be required to capture and re-use an estimated 436,000m³ (or 436 million litres) for general construction purposes or re-use in the establishment of SWL1. *Note – a portion of this calculation includes water within the removed/excavated soils.*

Dewatering

The SWL system will be *partially* constructed below the existing ground water table, such that construction of each SWL will require a dewatering program. The proponent's initial investigations have determined that the dewatering process from SWL1 would take 147 days and produce up to the equivalent of around 174 Olympic sized swimming pools of captured groundwater.

For the purposes of the assessment, the underlying aquifer is where the dewatering activity is to occur, reflective of a low permeability, discontinuous aquifer setting, where short duration dewatering activities should not result in a drawdown that propagates over large distances. The proponent has undertaken a detailed analysis of local bore locations, and there are no registered users of shallow groundwater (<15m mBGL/Q1 aquifer) within 2 km of SWL1.

In its report LBWCo (for the proponent) advised that geotechnical engineering fieldwork assessments have been undertaken to ascertain flow rates, water volume, and groundwater quality within the local area. This work has taken into account the likely volumes to be managed, the quality and composition of this water, and how the water will be captured and/or discharged to the environment.

Based on their initial investigations, the rate and volume of localised drawdown indicate a low risk of unacceptable impact to nearby registered users of shallow groundwater from the dewatering activity. Indeed, at the three nearest registered bores the simulated drawdown was estimated to be less 1mm (or 0.1m at the Legoe Road boundary, refer LBWCo report and correspondence).

The proponent intends to retain and manage captured groundwater on-site, discharging this water from the construction of SWL 1, to a partially excavated section of SW2 and/or coffer dams within SWL1 and other channels within Precinct 2 (which do not directly discharge to *surface waters, including stormwater systems and inland or marine waters*).

If higher than expected groundwater flows are encountered, contingency measures for alternate dewatering wastewater management may be considered, including discharge to the surface water environment, subject to EPA requirements.

Subject to further detailed design work, it is the intention of the proponent to *‘demonstrate compliance with the EPA’s Environmental management of dewatering during construction activities and the Environment Protection (Water Quality) Policy 2015 upon completing the detailed design phase’* (Response Document p49).

A Dewatering Management and Monitoring Plan would need to be developed to support this work, which both DEW and the EPA are supportive of being a condition of approval.

The DMMP would also need to address potential contingencies – i.e. greater volumes than expected over a longer time period, and whether or not off-site discharge was required via Thompson Creek.

In its advice to the Commission, DEW noted that the proponent’s model had not been developed in accordance with appropriate modelling standards (Australian Groundwater Modelling Guidelines 2012), with insufficient monitoring data to corroborate the model’s findings.

This does not mean the model is incorrect, only that data to inform its conclusions (in the Department’s view) have not been sufficiently verified to the extent required, particularly as it relates to how the modelled groundwater domain functions.

The proponent’s consultants – based on the information available to them (and other publicly sourced data) – remain confident that any impacts to groundwater levels would be more localized, such that dewatering activities will not test the model’s boundaries (given their nature and duration) and should not unduly affect existing groundwater users, and have none to minimal effects on simulated boundary flows or on flows associated with nearby creek systems.

Whilst there remains some doubt with the quality, uniformity and availability of historic time series data from the information presented, DEW considers these risks are manageable through appropriate conditioning of the proposal and real time monitoring and reporting. This can be achieved through a comprehensive Dewatering Management and Monitoring Plan, noting that SWL1 will be developed in a series of stages, where potential effects can be more closely monitored.

Before commencement, the proponent will be required to provide a minimum of two (2) years of data from all nearby monitoring bores prior to any groundwater extraction for dewatering operations.

All monitoring bores must be fitted with appropriate equipment to ensure appropriate and consistent data collection – noting that some of this data has already been collected. The taking of water for temporary dewatering purposes requires authorisation under the *Landscape South Australia Act 2019*.

A comprehensive monitoring program will also be required to ensure the required performance standards are met, with a successful outcome allowing the consideration of SW2-3. A range of conditions have been recommended by DEW and adopted in draft conditions.

Lake Liner

A SWL liner is required to provide an artificial barrier between the SWL system and the underlying soil profile below, both to restrict system leakage of *more* saline water to local ground water, and to place downward pressure on local ground water levels to prevent ingress from below into the SWL.

The original proposal sought to introduce a 0.5m compacted clay liner into the SWL (with suitable material available on-site). When queried as to the liner's longer-term performance by state agencies, the proponent sought further advice on potential liner solutions and advised that a clay liner cannot be 100% impermeable, with a conservative porosity rate estimated at $2 \times 10^{-9} \text{m}^3/\text{s}/\text{m}^3$, such that some seawater from the SWL would penetrate the liner.

Construction methods can limit future losses; however, the specialist advice to the proponent was that once completed with a clay liner, SWL 1 would have a flow rate of 0.4 l/s from year 5. This would be the equivalent of 78,624,000L (78.62ML) per annum from SW 1 entering the ground water table (based on a total lake area of 12.3ha).

In response, a geomembrane liner was also considered as a containment system, in the form of a High-Density Polyethylene (HDPE), Linear Low-Density Polyethylene (LLDPE), or Polyvinyl Chloride (PVC) liner. If installed correctly, this form of liner *"should ensure no permeability between the proposed SWL and the groundwater"*. The estimated design life is 100 years.

Whilst the proponent has considered the geomembrane cost from an initial pricing and performance perspective, including likely benefits, limitations, and estimated costs for both supply and installation, Mockinya Consulting (peer review work undertaken for the proponent) noted that there are also *"challenges concerning geomembrane solutions, because in many scenarios synthetic liners could be ineffective containment barriers"*.

Geomembrane liners are often used in more passive environments, such as ponds and dams, landfills, and mine tailing applications etc, where human interaction is minimal, so are more protected. At Riverlea, the SWL are being established for an amenity purpose (and stormwater function) and would also require the installation of an anchoring system along the lake's edge.

In these locations, the provision of public infrastructure, such as *"jetties, landings and other penetrations (piers, piling, etc.) are not always compatible with synthetic lining solutions as they create a potential leakage point and are typically discouraged"*. If the synthetic liner was to become compromised, then a similar issue of leakage would be encountered, and require a risk mitigation process, whereupon its initial benefits start to diminish over time.

At this time, both the geomembrane and clay liner systems are being considered on this basis (i.e. some leakage), and the longer-term effects of similar leakage rates through the liner (such that elevated groundwater salinity levels are likely to occur below and adjacent to the SWL).

Performance monitoring is proposed in local groundwater and monitoring wells outside the lake areas. Plume modelling of the groundwater system has indicated that any affected zone would be confirmed to a small area adjacent to SWL1, progressing in a south-easterly direction, but would not extend beyond the project area.

DEW are supportive of a comprehensive monitoring approach, with real time reporting.

No final decision has been made on the liner system. If this amendment is approved, liner selection will need to be a reserved matter, pending the assessment of modelling results, and the input of regulatory agencies to ensure that containment system selected adequately manages and mitigates risks on the environment, adjoining land use practices, users of shallow groundwater, and established deep-rooted trees.

As the reserved matter must determine the feasibility and/or appropriateness of the type of liner selected, the Department may need to engage an appropriately qualified, independent water engineering consultant to consider the nominated specification and provide advice to the Minister, as this expertise may not be available within Government.

Water Source

The lake's water will be piped from a constructed intake at Chapman Creek. This creek also provides water to the nearby salt fields; however, these pumps are working below their permitted capacity, 2.2GL of the allocated 65GL per annum. For all three lakes, up to 5GL pa is required, but dependent on timeframe, either a more or less frequent turnover of lake volumes (i.e. 40 vs 80 days).

For SWL1 (under an extended 80-day timeframe), the pumping rate proposed is 0.14 m³/s, pumping for 10 hours per day and would require a daily exchange of 5,100 m³.

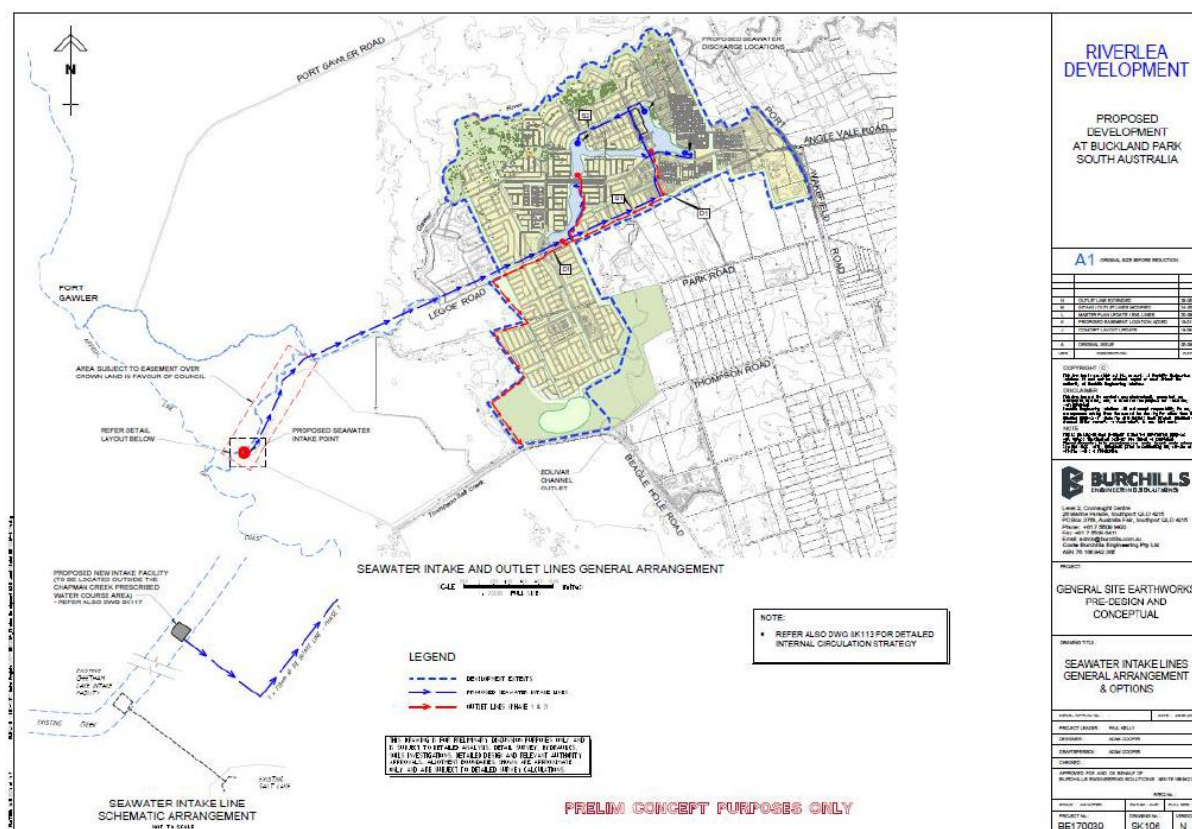


Figure 14: Water intake lines (blue arrow) and discharge lines (blue dashed) from Riverlea (Source EIS).

The selected location and operation of the pumping and transfer infrastructure are being considered under a separate Crown sponsored application. However, the quality of the seawater has been considered in this assessment, with investigations undertaken by the proponent.

The availability and drawdown of seawater (and rate of exchange/tidal movement in Chapman Creek under various scenarios – including maximum salt field extraction) has also been considered, and these are discussed in the technical memo from WEP to Walker Corporation dated 4 July 2024 (refer *Updated Assessment -Riverlea and Buckland Dry Creek (BDC) Salt Water Extraction Pumping - Appendix M* from the Response Document).

The WEP memorandum makes the following conclusion:

The Riverlea salt water extraction from Chapman Creek will not significantly impact the current BDC [salt field] operations or adversely impact Chapman Creek tidal flows and flushing, based on tidal modelling to date, with improved inflow flushing for the creek predicted due to increased daily tidal inflow volumes. (p8)

No adverse environmental issues were identified based on likely operational limits, as whilst issues would arise if both the salt fields licensed extraction rate and Riverlea's additional volumes were to happen concurrently (~70GL), this would require a 14-fold increase in BDC's current pumping capacity and dredging works to open up the Chapman Creek channel, all of which would require a significant re-assessment (Riverlea being a minor contributor).

Water Quality

The SWLs are not tidally connected, so are dependent on the artificial introduction and exchange of seawater, and how other water sources, such as direct rainfall, urban runoff/stormwater and infrequent flood events, enter the system and mix with more saline water.

Pumped seawater from Chapman Creek will vary in its salinity levels due to natural phenomena, such as tidal action and storm events, reinforcing the need to maintain a stable range, requiring continuous monitoring to ensure temperature changes are minimised (less than 2C in summer).

The proponent has undertaken water quality monitoring within Chapman Creek over an extended 24-month period (refer to the WEP study *Water Engineering Partners Pty Ltd Water Quality Monitoring Program Results to 2 July 2024* contained in Appendix M of the Response Document).

Discrete sampling was undertaken on a fortnightly (2022 and early 2023) and monthly (early 2023 onwards) basis, with continuous sampling of a number of parameters in Chapman Creek in the vicinity of the likely intake point for the lake.

The results of monitoring revealed: consistent and acceptable pH values; highly saline water except for short periods following local rainfall events, very low suspended solids and turbidity levels (with good recovery times after rainfall events), relatively high total Nitrogen concentrations (mostly organic Nitrogen) and total Phosphorus concentrations (which increased over the most recent sampling period); very low chlorophyll 'a' values; variable but typically high dissolved oxygen levels; and low heavy metal concentrations (being well below guideline limits for recreational waters).

There is no current plan to treat seawater before it enters the lakes system, so the quality of the seawater at Chapman Creek will be the same as Riverlea (noting variable lakes conditions and the introduction of water inflows from other sources – i.e. stormwater etc). Such that to achieve a required level of lake performance, nutrient levels will need to be closely monitored and include *potential* measures to improve dissolved oxygen levels and prevent algal blooms (i.e. aerators).

This will have an impact on whether or not a secondary contact standard can be maintained, and also what happens to marine species that will be established within the lake over time, particularly if sudden changes to lake water quality were to occur.

Lake Infrastructure

The circulation system for the SWL will rely upon a system of pipework, pumps and treatment facilities to move and exchange water volumes, with an associated inspection and maintenance regime, consistent with agreed water quality outcomes. Both the WEP and S&B reports outline two alternate water quality management measures.

The underground saltwater pipework from the Chapman Creek pump station will enter Riverlea from the west, and then head around the lakes (in a semi-circle), with multiple discharge points into each of the lakes (refer to the Burchills design drawings in Appendix Q1-2 in the Response Document).

The WEP modelling relies on either, (a) a high lake water volumetric turnover rate, with inflow waters pumped from Chapman Creek, in-lake mixing, and supplemental lake water quality treatment if needed; or (b) lower flow conditions, a water treatment plant would more actively manage water quality within SWL1 has been proposed to address negative conditions. In lake mixers will also be incorporated in the initial design to ensure a well-mixed lake.

The proponent has not committed to the establishment of a treatment plant upon the initial operation of SWL1. Instead, the construction of any treatment plant would be dependent on future, detailed hydrodynamic and water quality modelling and its findings, to provide greater insight into whether the treatment plant option is needed. However, under the proponent's approach this will not be known before SWL1 is in operation and the trial period has run its course.

The threshold or trigger point would be whether there are recorded circumstances when more significant intervention (other than flushing) would be required, based on either the modelling or the trial period. Given the range of factors that could influence the water quality of SWL1, it is recommended that the treatment plant be established in parallel to the construction and operation of SWL1, or very soon after the conclusion of the initial trial period, to better regulate water quality and where needed, actively treat the water body to maintain a secondary contact standard.

The nature of the plant (i.e. layout, equipment, nutrient removal trains etc) is detailed in the S&B Lake Water Treatment Concept attached to the WEP updated Lake Concept Design (October 2024) – refer to Figure 14 below. The final design, establishment and timing of the water treatment plant should be a reserved matter.

Lake Operation

The design intent is to operate a well-mixed lake, through circulation, diffuse inflows and, as a contingency, with the use of mechanical mixers and aerators. A lakes operational management plan will be informed by both modelling and performance to deliver the desired water quality outcomes.

The proponent's modelling approach to test SWL suitability has been developed in two stages.

Firstly, to demonstrate that the proposed Lake Concept Design is capable of delivering an appropriate water quality outcome for the lakes and receiving waters downstream of the lakes. And secondly, a finer scale model to consider pumping rates over a full tidal cycle and hours each day, and across summer and winter months, to ensure system performance can provide a consistent level of water quality that meets its amenity goals.

SWL Discharge

SWL turnover (and discharge from potential overflow events) will be via a system of pipes and open drains to Thompson Creek and the outfall channel. This outfall runs parallel to the Bolivar outfall channel which contains treated effluent from the Bolivar Wastewater Treatment Plant, both discharging to similar areas within the marine environment.

Any water discharged to the marine environment must comply with the *Environment Protection (Water Quality) Policy 2015*. In addition, the discharge to marine or inland waters containing any chemical treatments and a total volume of 50KL per day must be licenced under the *Environment Protection Act 1993*.

The latest WEP study considered the current quality of the water found at the outfall. In contrast to the sampling results from Chapman Creek (where water comes into Riverlea), the current discharge points in Thompson Creek and the outfall channel (without SWL discharge) indicates very high total Nitrogen, total Phosphorus and chlorophyll 'a' concentrations.

As noted in the WEP study, "these concentrations were found to typically (but not always) fall progressively to the Inshore Bolivar Outlet and Offshore monitoring points due to ocean mixing" (p.30). In practice, it is expected that water quality exiting from Thompson Creek to the outfall (with the SWLs in place) would be of a higher quality than exists now, due in large part to the relatively higher quality of water that will be drawn from Chapman Creek into the lakes.

Marine Flora and Fauna

A healthy salt water lake system will promote *various macrofauna and propagules from marine plants and animals will be introduced, including seeds from seagrass, spores from seaweed, larvae or juvenile crustaceans, and fish eggs, larvae, or fry* (COEE report).

Whilst screening on intake and pumping will limit their size, larvae will still enter the lake system, and establish themselves, and therefore become susceptible to changing lake conditions. To ensure their survival, low oxygen levels, high sediment loads, algal blooms, excessive freshwater and hyper-salinity must be avoided, as even short-lived changes can be deleterious.

The proponent has identified potential ecological impacts, including stressors, affecting plant and animal receptors in the SWL, where the management of water quality is crucial to safeguard the overall sustainability of the lake's emergent ecology.

An adaptive management regime is proposed, *"through initial monitoring, responsible construction protocols, gradual salinity adaptation, habitat enhancement, regular monitoring, and contingency plans for mass die-off events"* (COEE Report p1).

The use of the SWL to 'double-up' as part of the development's stormwater management, from either stormwater or floodwaters, introduces the added variability of water quality and salinity range to the tolerance of flora and fauna species to changed lake conditions, even on a temporary basis.

During the initial construction phase, the absence of *'physical features conducive to settlement, such as designed aggregation structures or marine substrates,'* establishment rates will initially be 'opportunistic' until a rudimentary habitat forms and *'the diurnal and seasonal patterns of water temperature, salinity, pH, and nutrient levels'* achieve equilibrium.

Additionally, the *'colonisation of marine organisms in [the SWL] is contingent on several factors, including the source, quantity, and frequency of seawater input, the size, shape, depth, and substrate of the lake, the presence and type of vegetation, exposure to sunlight and wind, and the disturbance and management of the lake'* (COOE p11).

Water salinity levels are critical in considering in how saltwater-tolerant flora and fauna is established and maintained within the lakes system, given a wide range of variables which can affect their growth and health. The sudden injection of freshwater into the lakes system can have negative consequences.

The same level of consideration needs to be given to Dissolved Oxygen (DO) levels, whereupon *'most marine and estuarine organisms require levels between 4 and 6 mg/L for survival'*. DO levels can also be influenced by temperature changes, and organic matter decomposition.

Low DO levels can result in reduced growth, reproduction and survival of fish and invertebrate species, or alternatively favour more tolerant or opportunistic species or bacteria. In addition, other indicators, such as Biochemical Oxygen Demand (BOD) and Chemical Oxygen Demand (COD), measure the amounts of oxygen required by microorganisms to break down organic matter in water. Elevated BOD/COD levels generally point to reduced DO and a growth in oxygen consuming bacteria, algae and other micro-organisms, placing increasing stress on aquatic flora and fauna (i.e. algal blooms).

COOE undertook baseline water monitoring sampling at Chapman Creek, to provide a clearer understanding of seasonal and diurnal fluctuations on natural marine water quality. Sudden changes in certain indicators can cause stress or harm to ecosystem health. The monitoring reports were mixed, which was – in part – attributed to both faulty equipment and testing buoy positioning, which returned several fluctuating or elevated readings for both pH, DO, Phosphorous (P) and Nitrogen (N).

Turbidity levels (being the clarity or cloudiness of water) were considered to be *'relatively low'*, whilst total suspended solid readings are influenced by local runoff events. Heavy metal concentrations were below ANZECC guidelines for recreational uses.

Additional monitoring was recommended to inform future management protocols.

No significant impacts are anticipated to marine fauna or migratory birds in the area, nor from the *'extraction of seawater from Chapman Creek reducing populations of fish and crustaceans, specifically the threatened species of Syngnathidae (pipefish and seahorse)'* (COOE Report p27).

Thompson Creek and outfall

The saltwater lakes will discharge to a 7km network of drainage lines, comprising both underground pipes and then a clay-lined channel, before entering the existing outfall channel and then to the marine environment. At the point of discharge, the environmental impact from the SWLs is expected to be minimal, noting that at this point, the land comprises low-lying coastal flats, poorly drained soils, salt tolerant species and shallow saline water tables (and other untreated flows).

Management Strategies

The COOE Report recommends a number of management strategies that are responsive to changed circumstances (such as flood events), to ensure an adaptive water quality framework can be readily and efficiently implemented to maintain SWL health, noting that sharp or prolonged changes can have a significant negative effect on the abundance and diversity of species, impacting on the overall biodiversity of the salt water lake. An effective water treatment regime will also need to manage nutrient inputs and promote sustainable water management strategies.

The most critical response – requiring intervention – will be in a post flood scenario, where significant inflows of freshwater may kill flora and fauna if there is a prolonged exposure (est. 48 hours of lower salinity levels). Similarly, seawater from Chapman Creek may also be impacted by lower salinity due to stormwater outflows, such that *a more sophisticated modelling, monitoring and management approach to evaluate the length of time that a 1 in 100-year flood event will take to flush the SWL* (Cooe Report p 28).

Other adaptive measures may also be required – either as system design features (i.e. aeration, anti-fouling elements), and/or further calibration of systems by water quality specialists - to ensure appropriate DO levels are maintained, whilst nutrient loads (over time) will also need to be carefully monitored to prevent build-ups that undermines water quality.

Monitoring and management requirements are outlined in Section 4.1 of the COOE Report, but essentially will need to be addressed under the proposed Salt Water Lake Maintenance and Management Plan and Salt Water Lake Operational Environmental Management Plans.

Lake Edge Treatments

The introduction of a SWL will also introduce a formalised lake edge to a publicly accessible reserve area. The Council has sought clarification on the future lake edge treatments, which would need to be modified on the basis of an artificial liner being installed (i.e. anchoring mechanisms). Both the clay and artificial liner solutions would also need the establishment of various monitoring wells (to consider longer-term impacts from water infiltration/exfiltration and groundwater quality).

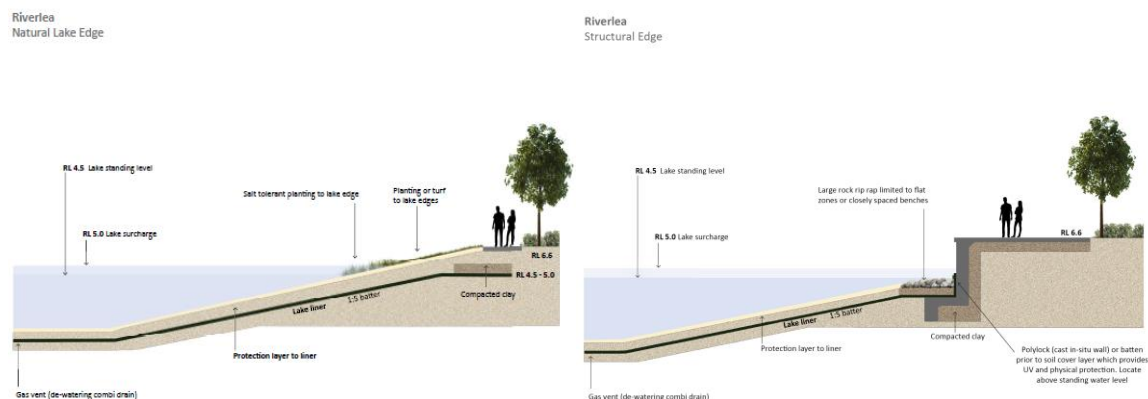


Figure 16-17: Natural Lake Edge vs Structural Edge treatments (Source: Response Document).

The proponent has provided a range of potential options, which can only be confirmed with the final design solution for SWL, such that both the lake specification and landscape response are recommended to be reserved matters.

The proposed design solutions provide an indicative starting point for the delineation and treatment of the transitional space from the water body to public reserve. Careful consideration will need to be given in the landscape masterplan to this area, and how more natural edge treatments – such as salt tolerant plantings – can be introduced to reduce long-term maintenance costs.

It is noted that a Landscape Masterplan has been developed for Riverlea (refer Appendix E in the AEIS), with the latest update incorporating “The Lakes”, which focuses on the three water bodies, with individual themes for each constituent pocket park. Consideration could also be given to a dedicated natural swimming area (that provides a dedicated zone of higher water quality, maintained independently of the wider lakes system but allows for direct contact).

A condition of approval requires this plan to be further developed, which in conjunction with local traffic management and carparking plans, will need to cater for both residents and regional visitors to Riverlea's centrepiece feature.

16.4 Amended Masterplan

The saltwater lakes system alters the layout of the currently approved precinct 2 land division. This results in consequential changes to the layout, including the road network, reserve areas and neighbourhood centre. The current and proposed masterplan layouts are in Figures 17 and 18.

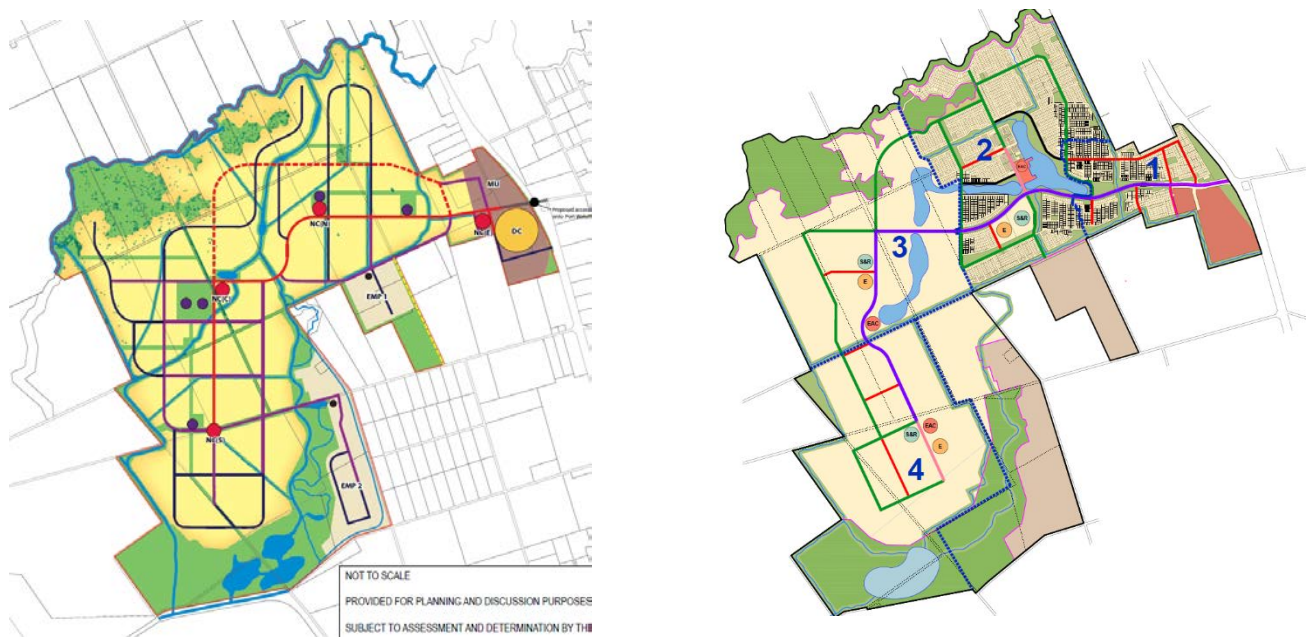


Figure 17 & 18: Current (left) and Proposed Masterplan (right) (Source EIS)

Neighbourhood Centre

A Neighbourhood Centre would be re-positioned to the west of SWL1.

An indicative layout has been provided, with the majority of affordable housing selections located within or close proximity to the Neighbourhood Centre (which accords with both the aspirations and intent of current planning policy, and closer proximity to services, facilities and public transport).

Given the importance of the centre to anchor new development within the later stages of Precinct 2, to appropriately consider increased densities inclusive of road widths and urban design outcomes, and being situated adjacent to the lake edge (and the level of integration required with the landscape masterplan), a reserved matter has been recommended.

The Council has also sought a reconsideration of the proposed narrow, constrained laneways shown in stages 23 and 24, just to the west of the neighbourhood centre. Any rear-loaded laneways should access the general road network via a full width residential or collector through road (i.e. of 16 metres or 22 metres width, and not 9 metres).

Further, these laneway connector roads should be through roads and not at 90 degrees only – particularly where the land use or form of development on adjacent superlots 2626, 2611, 2531 and 2727 remains unknown. Proposed Condition 7 seeks a reconsideration of the proposed layout.

Housing Type and Mix

Current code policies require that the division of land within the Masterplanned Neighbourhood Zone to provide for a diverse range of housing choices, that supports complementary recreation and community services. The Land Division General Development Policy module requires new allotments maximise the amenity of public open space and that street patterns are appropriately designed.

The following comments are made in relation to how the layout and design accords with the policies contained within the Code:

- The amended land division maintains a road hierarchy with a main entry road (Riverlea Boulevard). None of the changes are anticipated to result in additional travel distances for pedestrians and vehicles. The proposal accords with PO 3.2 of the Land Division – General Development Policy and PO 12.1 of the zone.
- The draft plan of land division shows that allotments in proximity to the neighbourhood centre are of a size and orientation to facilitate development closer to medium density development while allotments further from the centre facilitate lower density development. The land division pattern facilitates diverse housing choices and is consistent with PO 1.1 and 1.2 of the zone. The proposal accords with PO 1.3 as increased densities are located close to the activity centre.
- The lakes system and open space areas are distributed throughout the land division to improve residential amenity by facilitating access to the spaces and assist in providing urban heat amelioration. The proposal accords with PO 9.1 of the Land Division – General Development Policy.

In summary, the amended masterplan provides a framework for development that appears adequate having regard to the performance outcomes contained within the Planning and Design Code. The amended allotment layouts incorporate a range of allotment sizes ranging from 88 square metres to 1701 square metres plus. Higher densities are proposed around the Neighborhood centre.

16.5 Affordable Housing

Planning Policy calls for the provision of a minimum 15% affordable housing (either dwellings or allotments) within new residential areas to support ‘affordable housing’ in accordance with the assessment criteria described by Notice in the Government Gazette (under regulation 4 of the South Australian Housing Trust Regulations 2010).

These criteria are broadly defined as affordable housing as land or dwellings:

- (a) offered for sale to an Eligible Home Buyer at or below a nominated affordable price point (currently \$495,000 for dwellings including house and land, and apartments, with the potential for an increase up to \$569,250; and \$222,750 for land only in Greater Adelaide); or
- (b) provided for affordable lease or rent by an Eligible Rental Provider, or a person approved under the ‘National Rental Affordability Scheme’, or a person subject to an affordable housing

facilitation agreement, or any class of persons, declared by the Minister responsible for administering the *South Australian Housing Trust Regulations 2010*; or

- (c) determined as affordable housing by the Minister responsible for administering the *South Australian Housing Trust Regulations 2010*; or
- (d) developer / owner of the land or dwelling has a legally enforceable obligation in place to ensure the above requirements are met

Negotiations between Walker Corporation and the SA Housing Authority have led to the affordable housing delivery to be treated holistically over Precinct 1 and Precinct 2 (with agreements endorsed for each Precinct). In respect to option (d) above, there is a legally enforceable obligation in place, in the form of a Land Management Agreement (LMA) registered on the Certificates of Titles.

An Affordable Housing Plan by Walker Corporation covers both Precincts, dated October 2023, states that these two precincts of the project will deliver 15.1% per cent of the total number of dwellings as affordable housing (554 of 3668 total allotments).

Affordable housing units have been located throughout the development, with greater numbers located near the planned neighbourhood centre and future public transport routes. As of November 2024, a total of 60 affordable housing allotments had been sold.

The provision of a minimum 15% affordable housing within the Riverlea master-planned development, remains consistent with the original EIS and subsequent updates, and is supported by Housing SA (with a condition reinforcing this agreement).

16.6 Infrastructure

Construction of the proposal will be staged over a 25-year period. The provision of infrastructure (such as the stormwater, potable water and wastewater) will also be staged and constructed as demand requires, with interim measures in place for the initial development.

Water Supply

The Riverlea development (at completion) will comprise around 12,000 allotments. A development of this size will require significant supplies of both potable and recycled water, particularly where options exist to replace potable supplies for uses and activities that do not require this standard (i.e. irrigation, toilet flushing etc). Potential sources of recycled water include captured and treated stormwater/urban runoff and treated wastewater from Bolivar.

Precinct 1 is using the Virginia Pipeline Scheme (VPS) for irrigation of reserve and verge areas. For Precinct 2 particularly, west of the former Buckland Road, the Northern Adelaide Irrigation Scheme (NAIS) is proposed to be adopted to irrigate reserves and verge areas.

From September 2024, approximately 3,000 metres of new water pipe mains are being installed along Angle Vale (from Robert Road to Port Wakefield Highway, Virginia) and Supple Road's to upgrade services to both existing customers as well as new and future customers located in Riverlea. A new pressure reducing valve will also be constructed on Supple Road, which will connect to the mains network to regulate the incoming water pressure for Riverlea.

Wastewater

Prior to the development of Riverlea, there was no existing system for the collection and disposal of wastewater. A number of wastewater collection systems were considered, with a vacuum system preferred and installed (due to a number of site and project constraints).

As the WGA Report notes, *“constructing a gravity system within the ground water table could potentially result in water infiltration at manholes, pump stations and any breaks or cracks in the pipe work. STED systems also have potential for ground water ingress at septic tanks”*. The drains for a vacuum system are installed at a much higher depth (1.2 to 1.5m).

Whilst currently reliant on a storage and collection system, the preferred method for disposal of the effluent generated by the completed Riverlea Park proposal is pumping the effluent via a rising main to the Bolivar WWTP, which would be supported by a number of vacuum pumping stations and booster pumping stations to take wastewater the 14km distance to the Bolivar WWTP.

Additional funding has been allocated by the State Government under the Housing Road Map to augment existing water and sewer services, with the construction of a new wastewater pumping station at Riverlea and a new wastewater main to Bolivar WWTP funded for the 2024-2028 period. Related SA Water infrastructure has already been approved at Riverlea.

Other Infrastructure

The provision of roads, reserves and various public realm improvements will be progressively delivered as each stage is developed to council and utility provider requirements, either as conditional requirements for the land division, or separate deeds of agreement between the proponent and Council.

16.6 Traffic and Parking

Both Council and DIT were consulted on the traffic and access aspects of the amended development. Whilst concerns have been raised in respect to a second access point to Port Wakefield Highway, the existing access and road capacity arrangements are adequate for Precincts 1 and 2.

When a further amendment is sought for Precincts 3 and/or 4, the guidelines will need to be revisited to consider the adequacy of existing arrangements, and to take account of wider strategic land use changes as a result of the implementation of the Greater Adelaide Regional Plan.

Council has sought further design development for the Neighbourhood Centre, and the provision of an updated parking plan (all being reserved or conditional matters).

The P&D Code has policies for traffic, parking and access under the Transport, Access and Parking General Development Policy and Land Division – General Development Policy.

The Transport, Access and Parking General Development Policy requires that development is integrated with the existing transport system and minimises the functional performance impacts on the transport system, and sightlines at intersections are appropriate.

The Land Division General Development Policy requires that street patterns and road reserves enable safe and efficient movement, meet the anticipated parking and traffic volumes and maintain the safe and convenient linkages to the surrounding open space and transport network.

The existing and proposed masterplans retain a logical road hierarchy, and makes provision for public transport services, as well as dedicated provision of pedestrian and cyclists. The amended layout changes the design of roads throughout the land division, including the realignment of Riverlea Boulevard to align with the southern part of Riverlea Lakes.

Overall, the traffic assessments considered in the initial assessment report include the following:

- Buckland Park Traffic Impact Assessment prepared by Parsons Brinckerhoff (2009);
- Riverlea Precinct 2 Traffic Assessment prepared by GTA Consultants (2015).

The 2009 report recommended a road hierarchy and access strategy. The road layout and hierarchy sought to balance the distribution of traffic through the land division. The 2009 study utilised the DTEI strategic transport model MASTEM to forecast future traffic generation from Buckland Park. It concluded that an at grade connection to Port Wakefield Highway will perform adequately.

Traffic performance should continue to be monitored and when performance is found to fall short of acceptable service levels, options for providing alternative safe and efficient access and egress will need to be considered. Previous options included an upgrade to the existing at-grade intersection, the construction of a second at grade intersection, possibly to Park Road, and a grade separated interchange connection to Port Wakefield Highway.

The 2009 report recommended a bus route from the onset of development.

The current amendment has been accompanied by a revised Traffic Impact Assessment prepared by Empirical Traffic Advisory (ETA) dated 30 September 2024. For the purposes of the assessment, the report anticipates similar traffic demands from the west of the development as the 2015 assessment report. The lot yield within the amended Precinct 2 is anticipated to be similar to the existing approval. Precinct 2 is anticipated to generate up to 25,000 vehicle trips per day.

Under the proposed amendment, Riverlea Boulevard has five intersections within Precinct 2 and one pedestrian actuated crossing, including intersections 3, 4, 5, 5b, 5a and 6. The report recommends outcomes for the initial, interim and ultimate state of intersections depending on the stage of development.

As the development is established further west it is recommended traffic for each intersection be monitored to ascertain the operating conditions occurring, then where necessary, modifying the intersections at appropriate stages. A number of upgrades are likely to be required to certain intersections, internal to Riverlea, subject to developer and Council design considerations.

Council is generally satisfied with these arrangements, noting they will be subject to detailed design considerations when engineering approval is sought. DIT have also raised no objection but have indicated that a review of the interim at-grade signalised intersection to Port Wakefield Highway will still be required upon the creation of 2000 lots. The current intersection arrangement is still considered suitable for all allotments (and likely demand) for Precinct 2.

Furthermore, DIT noted that applicant is undertaking a broad area traffic study to consider the potential for additional access into the Riverlea area, including consideration of potential further

future development land to the south (as identified in the Draft GARP) as well as a potential future major centre on land adjacent to Port Wakefield Highway.

This work is being undertaken in consultation with DIT and is outside of and beyond the scope of the current application. Notwithstanding this, this work will assist in informing potential future access options for the area and the development.

This work is progressing with modelling being undertaken by the applicant's consultant and will assist in discussions regarding traffic management associated with future development of Precincts 3 and 4, as well as the future major centre.

Public Transport

For the original EIS assessment, the Parsons Brinkerhoff traffic report traffic report set out a plan for public transport provisions within each stage of the Master Plan.

Prior to formal public transport services being introduced at Riverlea, the current development authorisation required the establishment of a Community Bus Service by the proponent under Condition 59 and Condition 63(b) [as per a previously agreed infrastructure schedule between the Council and the proponent in November 2009 (updated 2015)].

In the initial stages it was proposed an increase in public transport services would come from making the 900-bus service from Riverlea to Virginia more frequent, supplemented by a community bus service. As the development progressed it was anticipated the public bus service would increase in viability, with the Walker Corporation to provide a local community (shuttle) service.



Figure 20: Adelaide Metro Bus Services to/from Riverlea (Source: DIT).

These requirements should now be struck out. In July 2023, a new Adelaide Metro bus service commenced at Riverlea, being the 402 service from Riverlea Park to Salisbury and 450 service from Riverlea Park to Elizabeth Interchange. Partly subsidized by the proponent, and only available from Monday to Friday (with generally hourly services and 30-minute arrival windows to each interchange), the intent of the early condition has been met, and with resident numbers increasing, these services can be reviewed and increased over time.

16.7 Aboriginal Cultural Heritage

The consideration of Aboriginal Cultural Heritage matters was a focus of the original EIS, site and cultural investigations undertaken by the proponent. The Kurna People's native title rights and interests are represented by the Kurna Yerta Aboriginal Corporation RNTBC (KYAC).

The project area – given its close proximity to the Kadliparri (Gawler River) – “intersects with an area of high Aboriginal heritage sensitivity.”

There is known Aboriginal heritage recorded in the Central Archives managed by Aboriginal Affairs and Reconciliation as follows: 2 ancestral burial areas, 9 culturally modified (scar) trees, two archaeological sites, and the culturally important Kurna anthropological site associated with the Kadliparri.

In addition to the recorded Aboriginal heritage there are three identified Heritage Impact Mitigation Areas (HIMAs), identified due to their high likelihood of containing sub-surface archaeological material.

In December 2012, and following approval of Precinct 1 in 2010, section 21 and 23 authorisations under the *Aboriginal Heritage Act 1988* (AHA) were granted by the then Minister for Aboriginal Affairs and Reconciliation. This permitted Walker Corporation Pty Ltd to undertake archaeological investigations, and salvage works within the southern portion of one archaeological site.

A second authorisation for archaeological excavations was granted in 2014; however, no works took place under this authorisation, which expired on 31 December 2015.

On 14 March 2023, an application was lodged by Walker Buckland Park Developments Pty Ltd with the Minister for Aboriginal Affairs seeking authorisations under section 21, 23 and 29 of the AHA that covers the Precinct 2 area, as well as portions of Precincts 1, 3 and 4.

The authorisations were sought to cover extensive earthworks to facilitate the further development of land within a defined area of the Riverlea Project area for township purposes, including the installation of infrastructure and utilities, whereupon both existing and future discoveries would be managed under a Cultural Heritage Management Plan (CHMP), consistent with any conditions imposed by the authorisation if granted.

Project works commenced within Precinct 2 in June 2022, which adopted a risk management approach which included a cultural heritage survey, adherence to the CHMP, the engagement of Aboriginal heritage monitors and the creation of protective zones around known Aboriginal sites.

In April 2023, construction activities encountered a shallow Aboriginal burial site (known as Burial Location #1) during the removal of topsoil and vegetation. AAR-AGD was notified of the discovery, with an exclusion zone immediately established.

On 6 June 2023, the Minister for Aboriginal Affairs issued a direction under section 20(3) of the AHA in accordance with the wishes of KYAC to allow KYAC to excavate the remains to ensure the protection and preservation of the remains considered under threat. Further approvals were granted under the *Burial and Cremation Act 2013* to allow for the excavation of the remains.

As of 23 August 2023, 25 individual burials sites had been identified within Burial Location #1 (with 23 separate burials being excavated and exhumed under the direction of KYAC).

The Minister's previous direction was revoked on 23 August 2023, given the high likelihood of further discoveries, such that no further burial excavation works were allowed. Separately, from May 2023, four additional burials were located to the north-east of Burial Location #1 (and subsequently identified as Burial Location #2). No excavations were permitted to occur there pending the Minister's decision on Walker Corporation's application for AHA authorisations.

Figure 21 shows the location of cultural heritage sites within Riverlea.

Figure 22 shows the location of the Burial Location 1 Resting Place in the context of the existing development, precinct boundaries and authorisation area.

Excavated remains are currently held on-site and are now secured in a dedicated remains storage facility, under the care and control of KYAC. Further isolated bone fragments have also been discovered (most likely a result of previous disturbance/construction works). A map of the key discovery locations is at Figure 17.

Section 13 of the AHA requires the Minister for Aboriginal Affairs to consult with the State Aboriginal Heritage Committee, relevant Traditional Owners and any other Aboriginal people or Aboriginal organisations that the Minister considers may have an interest in the application before making his decision. This consultation process concluded on 25 January 2024.

On 9 October 2024, the Minister for Aboriginal Affairs, the Hon Kyiam Maher MLC, granted authorisations under sections 21, 23 and 29(1)(b) of the *Aboriginal Heritage Act 1988* (SA). The authorisation area is identified in Figure 16, which includes all of Precinct 2 (and the land covered by this application). In summary, the authorisations allow project activities to continue (excavations to construction), subject to conditions.

The main provisions being that works are undertaken in accordance with 25 conditions. These include compliance with AGD-AAR's Aboriginal Heritage Discovery Protocols, a requirement to amend the (CHMP), to align with the conditions and in the case of Burial Location 1, that all known or discovered in-situ Aboriginal remains are retained in Burial Location 1 and are not subject to any further excavation or any destructive scientific analysis.

Furthermore, all Aboriginal remains previously removed from this location are returned and reburied as close to their discovery locations as possible (and a dedicated memorial resting place created). Any further discoveries of ancestral remains that cannot be retained in their original locations will be reburied within the memorial resting place at Burial Location 1.

To satisfy these requirements in the Minister's authorisation, the proponent will need to update their Construction Environmental Management Plan (CEMP), which includes the CHMP, and to alter the current layout of the development to exclude those areas referenced in the authorisation from future development activities (i.e. Burial Location 1). These works are generally within or close by Stage 15.

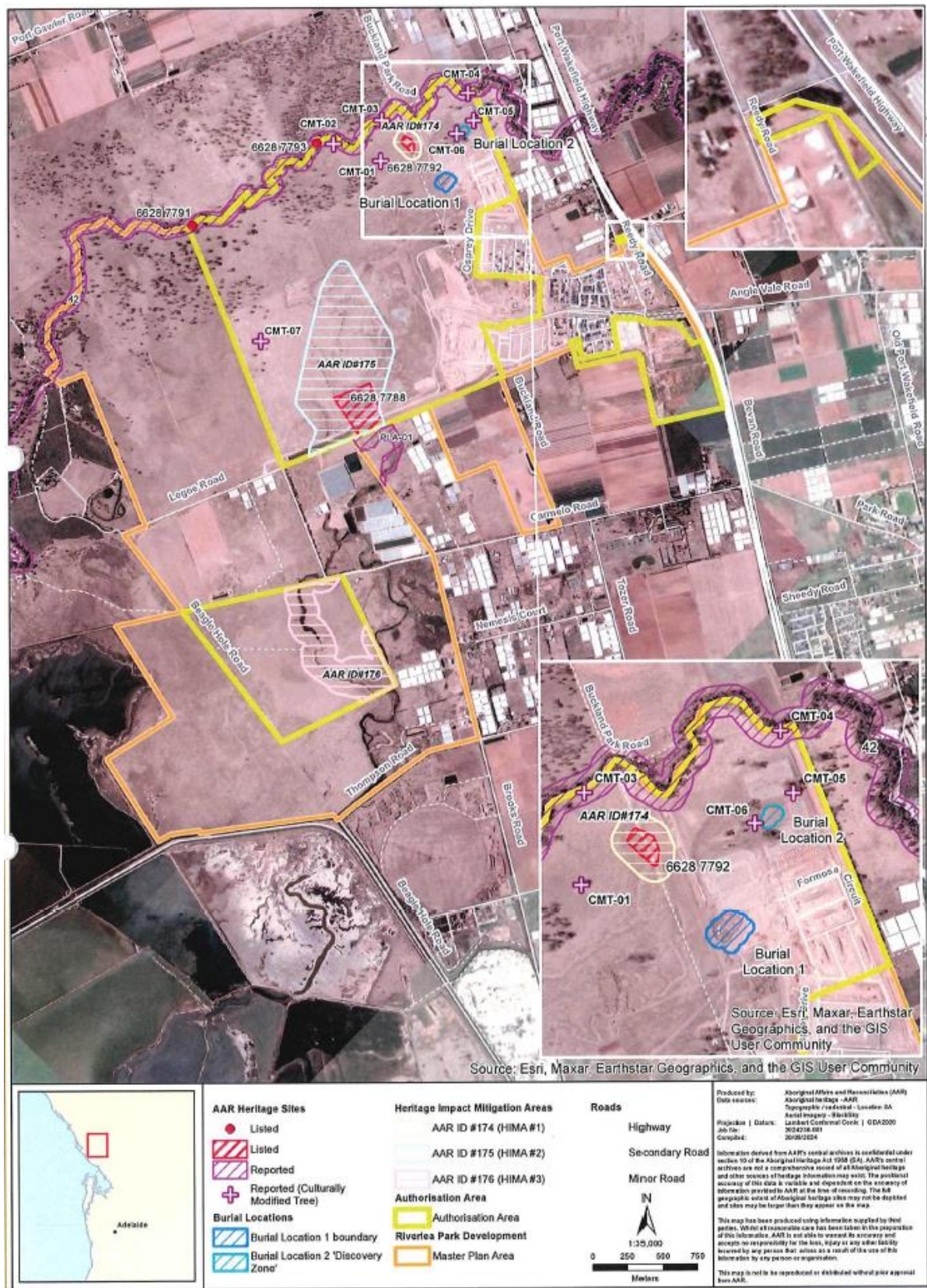


Figure 21: Aboriginal Cultural Heritage Locations and application areas (Source AAR).

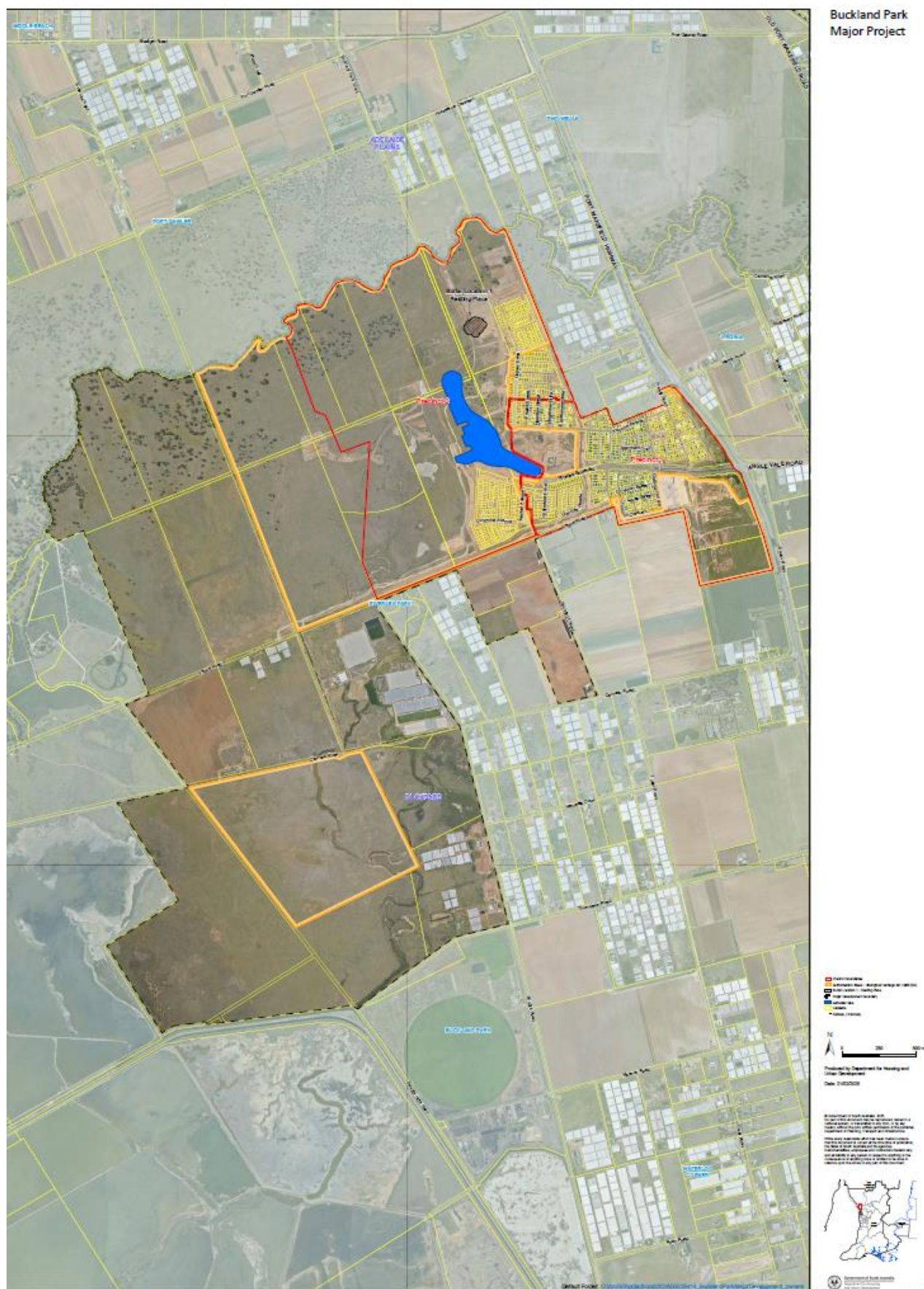


Figure 22: Burial Location 1 Resting Place in Riverlea development context (Source: DHUD-PLUS)

Areas outside of the authorised areas remain at high risk of discovering and impacting Aboriginal heritage. Further authorisations will need to be sought for any impacts proposed to Aboriginal heritage in these areas.

16.8 Flora and Fauna

The pre-development condition of the land – specifically Precinct 2 – was considered in the previous amendment to the EIS, which approved a residential sub-division layout for the entire precinct. It is not necessary to revisit this work, as any updated clearance requirements (in the terms of modified or extended permits) under the Native Vegetation Act, can be dealt with via that process.

The proponent has considered these impacts in separate reports, an updated *Flora and Fauna Management Plan: Precinct 2* Report by EBS Ecology and the *Riverlea Salt Water Lakes: Assessment of the Impact on Flora and Fauna* Report by COOE. The focus of this section is on terrestrial impacts.

Terrestrial Flora and Fauna

The EBS Report focussed on current habitat (i.e. what exists now and proposed changes within Precinct 2), such as native vegetation, native fauna, weed and plant pathogens and feral animals. Reference is also made to a number of previous flora and fauna reports considered in the original EIS and amendments. The developable area of Precinct 2 (excluding land adjacent to the Gawler River to be retained as a linear reserve) has largely been cleared, with some scattered mature trees but a general absence of understorey due to previous clearance and grazing activities.

Precinct 2 is located within the Eyre Yorke Block IBRA Bioregion, the St Vincent IBRA Subregion and the Mallala Environmental Association. Native species include saltbush, river red gums, river box, peppermint box, bluebush, buckbush and bindyi, predominately located in the northern section. However, given a highly modified environment, there has been an extensive invasion of declared environmental weed species (thistles, boxthorn, cottonbush, phalaris, rice millet etc). Seventeen (17) fauna species (all birds) were observed during the field survey within Precinct 2 in 2022, but habitat value was considered to be of limited value due to its degraded nature.

Nineteen scattered trees have already been approved for removal by the Native Vegetation Council (Application No 2022/3217/292), with remaining trees retained within designated reserve and open space areas. The protection of retained vegetation will be guided by the Construction Environmental Management Plan, which must include buffer zones and protection measures. These measures are identified in Section 4 of the EBS Report, and follow industry best practices. Control measures are also proposed for removing and/or managing both feral fauna and pest species, with special reference made to hygiene procedures to control the spread of *Phytophthora cinnamomi* (Phytophthora).

The proposed changes to Precinct 2 should not result in any additional terrestrial vegetation impacts of a substantive nature, noting that the land has already been approved for urban development, and that the clearance approval of the Native Vegetation Council has already been obtained. The initial stages of the development have been undertaken in accordance with an existing CEMP (as part of its current approval), and will be further updated to reflect revisions in the scope of works.

It is also noted that no threatened flora species either at a national or state level were observed during the field survey in July 2022 (EBS Report p 17), although there is the possibility that some listed species may be present. Two threatened ecological communities protected under the EPBC Act are known to

occur within 5km of the project area, coastal saltmarsh and peppermint box, but no vegetation that qualifies was found to be located within Precinct 2.

16.9 Site Contamination

The first amendment to the EIS considered the potential for previously contaminating activities and site contamination issues within Precinct 2 (ERM, 2012) and the suitability of land for residential purposes. Preliminary earthworks and construction have commenced within its early stages, with any identified issues capable of being handled under the CEMP.

LBWCo also undertook a further preliminary site investigation (PSI) to consider the presence of toxicants and pollutants, whether from urban runoff or previous primary production use, with particular reference to the development of the SWL system (as a new feature).

Potential negative effects are reproduced below from the COEE report (pp 24-25):

- *Runoff from urban areas can carry pollutants into water bodies, causing water quality degradation, impacting aquatic ecosystems, and potentially harming aquatic plants and animals.*
- *Urban development activities may introduce contaminants into the soil, affecting soil quality and potentially harming plant life and soil-dwelling organisms.*
- *Urban development can facilitate the introduction and spread of invasive species, further threatening native flora and fauna by outcompeting or preying upon indigenous species.*
- *Pollution and toxicants can disrupt essential ecological processes such as nutrient cycling, pollination, and seed dispersal, leading to cascading effects on ecosystem health.*
- *Increased pollution levels may contribute to the proliferation of diseases among plants and animals, impacting their overall health and population dynamics.*
- *Flora and fauna may face challenges in adapting to rapidly changing environmental conditions, including increased pollutant levels, leading to potential population declines and ecosystem imbalances.*

Management systems that are proposed to be implemented for the SWLs are intended to manage and control the *potential* release of toxicants and pollutants. Existing groundwater sources which contain elevated fluoride, nitrate, molybdenum and selenium concentrations, are not expected to impact on SWL health, as the lakes themselves will be lined, however on-going monitoring of these toxicants could be a barometer of liner integrity over time.

16.9 Economic Effects

The Riverlea Park development is a \$3.6bn project which seeks to create a new township to the north of Adelaide, comprising 12,000 allotments with an estimated 33,000 residents at completion. Precinct 1 is almost completed, and Precinct 2 is underway. Over 750 homes have been completed or are under construction. A new retail complex is being developed, with a Coles Supermarket as an anchor tenant. Specialty retail shops and a tavern are also to be established. The economic multiplier effects from the development of new housing, infrastructure provision, new facilities, retail and hospitality offerings, service rollouts and new residents remains substantial, consistent with the initial concept plans for Riverlea, and the direct and indirect employment benefits that will result. An updated

economic assessment – primarily for the introduction of a SWL system over and above the initial ‘base case’ – was prepared by Hudson Howells and included in the AEIS documentation.

16.10 Social Effects

The development of new housing estates can often be accompanied by a lack of services and community facilities, as their provision is often tied to population numbers and service thresholds. Public transport may be limited or non-existent, shops and services may be absent or located further away, and schools and health facilities years away from being developed. The original development authorisation for Riverlea sought to address early deficiencies in service coordination and delivery, through a developer funded community bus service and community worker.

Whilst the community bus service has not been delivered (refer to Public Transport section), a Community Engagement Worker (employed by Walker Corporation) commenced their role in mid-2023. The full-time position has focussed on “building trust, fostering open communication, and creating long-term value for Riverlea residents”. Alongside corporate sponsorships and other strategic partnerships with local businesses, the role has also supported and/or spearheaded over 50 level events and programs. These include school holiday programs, food truck events, adult and child fitness classes, community BBQs and family fun days.

In 2025, the focus will be on tree planting events, indigenous educational workshops, local school partnerships and builder workshops, to support new and future residents. Further work will also be undertaken on the Riverlea Lifestyle App, that keeps the local community informed about upcoming events and community projects. In addition, the developer has identified and continues to support 15 local champions, who have transitioned into active roles within the community. Riverlea’s community engagement officer will also work with Council on future infrastructure and social planning initiatives.

The main announcement in 2024, was the decision by Catholic Education to open a new reception to year 12 school at Riverlea. The new educational facility is to open for the 2027 school year for students from Reception to Year 6, with other stages/year levels to follow. The new campus will feature an innovative multi-storey design, contemporary classrooms and facilities to support a wide range of curriculum. The development application for Stage 1 was considered and granted planning consent by the Playford Council’s Development Assessment Panel at its meeting held on 21 November 2024.

A separate online survey was also undertaken by BDO EconSearch (for the proponent) to test support for the introduction of a salt water lakes system at Riverlea, with 692 responses received. A SWL system was strongly supported over a channelised stormwater solution.

16.11 Construction Effects

The project will be subject to existing and on-going conditions of approval which require the preparation and implementation of a comprehensive CEMP. This will be updated for the revised layout, whilst SWL1 will have its own construction and operational management plans.

To the Department’s knowledge, there have been no complaints received from local residents or nearby landowners about extensive site and/or construction works within the Riverlea development.

The development of the SWL1 will pose challenges during the construction period, in terms of the extent of earthworks required, the stockpiling of material for re-use and the dewatering process, such that a number of reserved matters will need to be satisfied.

16.11 Land Tenure and Ownership

Precinct 2 land holdings are under the control of Walker Corporation, along with the land required to transfer stormwater and/or convey lake water to their respective discharge points. Ordinarily, public reserves are vested in the local Council, which when established to agreed requirements, are then transferred to public ownership, maintained and improved thereafter.

Walker Corporation, in conjunction with the Council have been negotiating an overarching deed for the future ownership and operation of the lakes system, being the *Riverlea Development Lakes and Lakes infrastructure – Vesting Principles and Framework Deed*". The details are outlined in Section 3.6.4 of the Response Document (pp43-45), and do not need to be repeated.

As noted by the Council, there is no current acceptance of the ownership of SWL1 (the water body) at this time but remain open to the custodianship of the reserve areas around the lake. This will require the creation of a separate allotment and related easements (e.g. for pumping infrastructure) to be created for SWL1, which would remain under the ownership of Walker Corporation.

If approval were to be granted, an amended plan will need to be provided to meet this requirement. Whilst Council has indicated that its preference is for the State Government to assume a formal role in the post-construction operation and management of SWL1, this is not a planning matter, as this can only occur with the agreement of others, outside of the Commission's ability to influence or direct.

If upon completion of the salt water lakes system, the lakes remain in the ownership and control of the proponent, an alternative administrative mechanism and funding source to support the future operation, maintenance and replacement and/or upgrade of associated infrastructure (e.g. lake liner, pipework, pumps etc.) would need to be developed to ensure long-term costs are appropriately dealt with (i.e. sinking fund or similar) along with a suitable administrative structure.

Ultimately, and as a privately funded township development, these are matters the proponent would need to consider, particularly as the later precincts are developed within the next 15-20 years, and the developer seeks to complete the project.

16.12 Operational Effects

The future operation of the saltwater lakes system has been raised as an issue by the Council, DEW and EPA, with Council seeking additional information on the long-term running costs of maintaining the system (which in a South Australian context is unique). The EPA has also queried where the responsibility for providing the expertise and operating costs will be met.

The proponent has provided a summary of costs for the operation of the saltwater lakes system, including the construction of a Water Treatment Plant (WTP), and the implementation of an adaptive lake water quality management scheme. Refined CAPEX/OPEX costing details were provided by the proponent, including further details on infrastructure locations and reticulation systems.

Overall, these systems have been designed to accommodate an 80-day volumetric turnover of the lakes system (with SWL1 circulation being able to be maintained on a 40-day turnover if a circulation only treatment regime was used to maintain lake water quality standards). The initial design relies on an adaptive water quality management regime – with a range of options able to be deployed to meet a range of scenarios (circulation vs treatment vs combination).

Each option will have a variable cost component, which each option reliant on a primary circulation system (which is expected to lower both short-term and long-term costs but retain sufficient capacity but allow for future augmentation if required). The WTP operational profile and contingency planning is outlined in the Symonds & Bristow report and the Response Document (refer pp 39-42).

These are ultimately matters of the infrastructure provider / operator to seek agreement upon, with the focus of the Assessment Report being on the environmental performance of the SWL system.

Council staff have visited four SWL developments in Queensland, and work was commenced on a "Riverlea Development Lakes and Lakes Infrastructure – Vesting Principles/Framework Deed" was then developed by Council's solicitors and the proponent. However, no agreement has been reached, consistent with Council's latest advice to the Commission.

It is also acknowledged that Council has approached the State Government seeking additional support in the future operation of the lakes system. As the Commission understands the outcome of this request, the Government has indicated that this is a matter for the private sector developer.

17. Consistency with Current Planning Policies

The assessment of an 'Impact Assessed' proposal must have regard to current planning policies, including State Planning Policies, Regional Plans and the Planning and Design Code. These are considered in Appendix 3, noting that from an SPP, GARP, and P&D perspective, the current and future development of Riverlea for a township development is envisaged at the wider strategic, policy and assessment level, underpinned by the Masterplanned Neighbourhood Zone.

18. Conclusion

The Amendment to the Assessment Report (AAR) has assessed the modified layout of Precinct 2.

In broad terms, the changes to the layout are both logical and deliverable within the policy framework of the Planning and Design Code for new development (i.e. allotment size, residential mix, affordable housing, provision of open space, new centres etc.). A series of varied stages have already been approved, consistent with the proposed land division layout, and have allowed the Riverlea development to progress from Precinct 1 to the north, east and south of SWL1.

The authorization decision of the Minister for Aboriginal Affairs to allow for the disturbance, relocation and re-burial of Aboriginal remains (previously found within Riverlea) within designated areas has provided clear guidance to the developer in how to comply with these provisions, and the creation of a burial ground close to the Gawler River. This will require amendments to approved stages within Precinct 2, which are currently being considered by Walker Corporation. Any planning decision will take its direction from such requirements but must also be separately implemented by Walker Corporation and verified by AAR-AGD under the *Aboriginal Heritage Act 1988*.

The main focus of this assessment has been SWL1: the construction of the lake (including dewatering), the use of seawater (including its source location and rate of exchange), the maintenance of water quality over time, the design and integration of reserve areas to the lake edge, and the future management and operation of the water body. It is also acknowledged that information to conclude the assessment of the proposal has not been *fully* provided by the proponent, and that a number of outstanding issues will need to be reserved for further assessment and/or conditioned.

This approach has not been opposed by either the Playford Council or state agencies, on the basis that there is sufficient information and technical confidence to support the finalization of the design and operational parameters for SWL1, subject to a range of management plans. A successful and extended trial period would then enable SWL2 and SWL3 to be considered in later stages (without requiring significant re-assessment). In the alternative, a contingency plan will need to be developed if SWL1 cannot achieve the environmental standards and modelled performance for its operation.

Based on this approach, concerns raised in respect to potential impacts to local groundwater levels and water quality from the construction of the lake, and the effectiveness of water treatment measures during operation, can be suitably addressed via the progressive validation of performance criteria, which will also be subject to permit and licensing requirements. However, the Council has indicated it will not consent to the future vesting/ownership or maintenance of SWL1, such that this will remain the responsibility of Walker Corporation or other authority.

This will require an amendment to the land division plan to not include the lake area as a reserve.

Walker Corporation has also outlined a Statement of Commitments (refer Response Document p65), whereupon a commitment is given to undertake these actions alongside other secondary approvals.

In conclusion, the varied proposal merits approval, subject to appropriate reserved matters and conditions, noting the importance of the Riverlea development and the significant resource commitment made to the augmentation of water and sewer services in the northern growth areas. The Commission is also mindful that the development has already commenced, and significant progress and agreement has been reached on other critical matters, such as on a precinct wide approach to stormwater management and the mitigation of potential flood impacts.

19. Recommendations

Having undertaken an assessment of the proposal, the following reserved matters, conditions and advisory notes are recommended for the implementation of the proposed amendments to Precinct 2 and the introduction of a salt-water lakes system.

Part 1: Reserved Matters

The following detailed information shall be submitted for further assessment and approval by the Minister for Planning as reserved matters pursuant to 115(6) of the *Planning, Development and Infrastructure Act 2016*:

1 Reserved Matter – Salt Water Lake Liner and Salt Water Lake Edge Designs

- (a) Prior to the commencement of construction of Salt Water Lake 1, detailed reports and plans shall be prepared and submitted for approval comprising the final lake liner and lake edge designs. The reports and plans must outline the design, operation, testing, leakage monitoring locations and maintenance of the lake liner along with the associated integrated lake edges (if more than one design), and including but not limited to, the design, management and constructability of the lake edges and interface treatments with the adjacent open space curtilage and designs. The lake edges and interface treatments must demonstrate an appropriate and consistent interface with finished and fluctuating lake water levels and ensure that a high-quality lake edge amenity is maintained at all times.

2. Reserved Matter - Dewatering Management, Mitigation and Monitoring Plan

- (a) Prior to the commencement of construction of Salt Water Lake 1, a Dewatering Management and Monitoring Plan (the plan) shall be prepared in consultation with the Department of Environment and Water and the Environment Protection Authority and submitted for approval.
- (b) A mitigation plan shall also be prepared in consultation with the Department for Environment and Water (DEW) and submitted for approval. This plan must outline how groundwater drawdown (within bore locations required under the DMMP), will be mitigated should monitoring bores show a decrease of 1.0m.

3. Reserved Matter - Saltwater Lake Water Quality Modelling

Prior to commencement of construction of Salt Water Lake 1, a water quality modelling plan must be prepared and undertaken to the reasonable satisfaction of the Environment Protection Authority. The water quality modelling must consider the range of pumping rates and times over an entire tidal cycle and for the proposed hours of pumping each day, and include winter and summer months. Modelled scenarios must include extended dry periods and significant rainfall-runoff events, and consideration of the impacts of failure of the gross pollutant traps.

4. Reserved Matter – Salt Water Lake Maintenance and Management Plan

- (a) Prior to the commencement of construction of Salt Water Lake 1, a Salt Water Lake Maintenance & Management Plan shall be prepared and submitted for approval. The plan must outline and finalise the detailed design and construction of the lake, including, but not

limited to, the surrounding open space areas and related infrastructure provisions and connections, public access controls and protocols, lake and lake edge management / maintenance programs including for the salt water lake waterbody, edges and water surface. This plan shall further outline the proposed mitigation strategy in the event of the trial period not being successful.

- (b) This Plan will confirm that the lakes and associated stormwater system shall be designed and constructed to comply with the National Health and Medical Research Council *'Guidelines for Managing Risks in Recreational Water'* (2008) and the *Environment Protection (Water Quality) Policy 2015* adopted under the *Environment Protection Act 1993* (SA) and shall achieve a Secondary Contact Standard of water quality in accordance with, and as determined by those guidelines and policies. [Note: Secondary Standard Water Quality means a water quality standard suitable for indirect human contact including recreational activities such as boating, paddling, canoeing and the like].
- (c) The Secondary Contact Standard of water quality as defined above must be demonstrated to be achievable for a minimum of 350 days in a calendar year to ensure that the owner/operator of the lake is required to limit potential non-access periods for the public and recreation users of the lake following adverse weather or lake events.
- (d) The Salt Water Lake Maintenance and Management Plan shall include, but not be limited to, the following considerations:
 - (1) Lake Owners Responsibilities
 - Lake Ownership Summary
 - Permitted Lake Uses consistent with Secondary Contact standards
 - Prohibited Lake Uses
 - Land Adjacent to Lake
 - (2) Infrastructure Operational Requirements
 - Saltwater Exchange Pump Station
 - Revetment Walls
 - Sandstone Block Edge
 - Lake Safety Bench
 - Inlet Weir Structures
 - Outlet Weir and Culvert Crossing Structures
 - Lake Outflow Channels
 - Lake Access Ramps
 - Lake flushing parameters following a major storm or flooding inclusive of impact on downstream infrastructure
 - (3) Operational Requirements
 - Water Quality Monitoring & performance parameters consistent with Secondary Contact standards
 - Lake Water Quality consistent with Secondary Contact standards
 - Discharge Water Quality
 - Lake Edge Design and Substrate
 - Aquatic ecology of the proposed lake
 - Impacts to Matters of State Environment Significance

- Saltwater Exchange Operational Requirements

(4) Monitoring and Maintenance

- Maintenance of Lake structures including clay liner
- Management of Poor Lake Water Quality
- Management of Phytoplankton and Cyanobacteria Blooms
- Management of Aquatic Weed Growth
- Management of Shoreline Vegetation
- Management of Exotic Fish
- Maintenance Following an Extreme Stormwater Event/Flood Inundation Event (5 year Allowance)
- Long-term Sediment Buildup (20 Year Allowance)
- Mosquito Management
- Public Safety
- Litter Management
- Wild Birds

- (e) The Salt Water Lake Maintenance and Management Plan shall provide details relating to public access requirements and controls in terms of the prescribed and limited public use consistent with Secondary Contact Water Quality standards as referred above; General public safety provisions; and performance elements of the lake and its functionality including maintaining water quality objectives.

5. Reserved Matter – Salt Water Lake Operational Environmental Management Plan

- (a) Prior to the operation of Salt Water Lake 1, a Salt Water Lake Operational Environmental Management Plan shall be prepared and submitted for approval. The plan must outline and finalise the detailed monitoring (including liner leakage monitoring), water quality, secondary human contact quality parameters and reporting. The plans must also consider the long-term management of the lake (including future maintenance and replacement works of critical elements, such as the lake liner and pipework), and including, but not limited to, the surrounding open space areas and related infrastructure provisions, and stormwater discharge points and infrastructure.
- (b) The Plan will confirm that the lakes and associated stormwater system shall be designed and constructed to comply with the National Health and Medical Research Council *'Guidelines for Managing Risks in Recreational Water'* (2008) and the *Environment Protection (Water Quality) Policy 2015* adopted under the *Environment Protection Act 1993* (SA) and shall achieve a Secondary Contact Standard of water quality in accordance with, and as determined by those guidelines and policies. [Secondary Standard Water Quality means a water quality standard suitable for indirect human contact including recreational activities such as boating, paddling, canoeing and the like]. The Secondary Contact Standard of water quality must be demonstrated to be achievable a minimum of 350 days in a calendar year.
- (c) The Salt Water Lake Operational Environmental Management Plan should include the following considerations:
- Lake Water Quality Monitoring and Pump Station Control Systems Monitoring and infrastructure consistent with Secondary Contact standards

- Pump Station Monitoring Provisions and Infrastructure
- Salt Water Lake Quality, Salinity, Nutrient & Pollutant Loads Monitoring Provisions prescribed as “Performance Indicators” inclusive of minimum / maximum measures / parameters consistent with Secondary Contact standards and will include;
 - i. Dissolved Oxygen
 - ii. Temperature
 - iii. Salinity
 - iv. pH
 - v. Turbidity
 - vi. Total nitrogen
 - vii. Total phosphorus
 - viii. Suspended solids
 - ix. Chlorophyll_A
- Upstream Catchment Management
- Lake Water Quality Performance - Operating Range Criteria
- Lake Maintenance - Desilting and Dredging
- Public Relationship Management
- Public Safety - Lake Safety Signage & Lighting
- Maintenance Period Provisions - Lake, Pump Station and Ancillary Equipment
- Applicants Continued Monitoring of the Lakes Performance
- Containment bund removal processes and clay liner overlap to prevent leak

(d) The Salt Water Lake Operational Environmental Management Plan shall be implemented for an initial minimum trial period of **36 months** to demonstrate compliance with the requirements of the Operational Environmental Management Plan or as directed by the Minister pursuant to the provisions of s.117 of the PDI Act. At least 6 months prior to the end of the trial period, the Proponent shall make a written request to the Minister to continue the operation of Salt Water Lake 1 subject to the operation of Salt Water Lake 1 meeting the Operational Environmental Management Plan.

6. Reserved Matter – Water Treatment Plant

Prior to commencement of Salt Water Lake 1 construction, an implementation and staging plan for the establishment of the Water Treatment Plant (WTP) under the Progressive Adaptive Water Quality Management Strategy (Hybrid Strategy) must be developed and approved to ensure the timely construction and operational commencement of the WTP. The approved documentation must identify the specific location of the WTP, easement details, integration with later precincts, including infrastructure and operational functions to ensure appropriate operation of Salt Water Lake 1 (and provide sufficient capacity for future lakes).

7. Reserved Matters – Delineation and tenure of Salt Water Lake 1

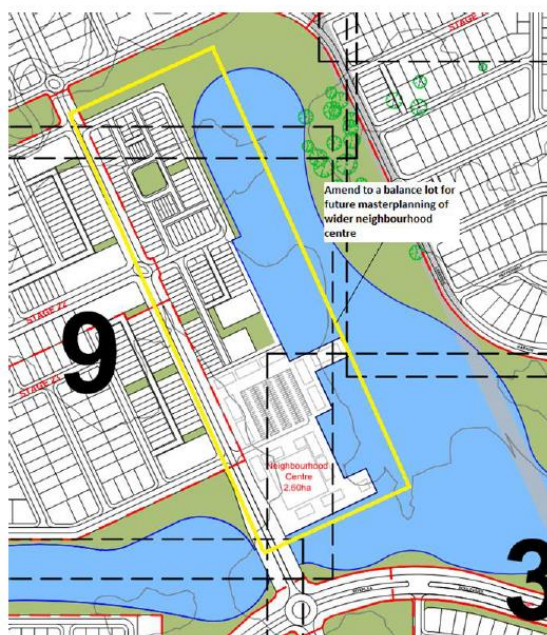
The Plans of Division shall be amended and resubmitted detailing that the proposed salt water lake to be a “super lot” (being the water body itself and lake edge) for separate ownership and not a “reserve”. The previously identified area beyond the lake edge can remain as “reserve”.

8. Reserved Matters – Final Layout of Neighbourhood Centre

Prior to development approval of the layout identified within the yellow rectangle below as detailed on Sheet 8 of 14 (reproduced below), and Sheet 9 of 14, of the plans of divisions prepared by Alexander Symonds Surveying Consultants, Dwg No. 21A3182PROP(R), revision R

dated 24 September 2024, this area of Precinct 2 shall be the subject to the finalisation of a master plan review process with Council.

Specifically, this process shall address residential medium density built-form, road typologies, traffic network and vehicular/ pedestrian access, open space and car parking provision and allocation, together with non-residential land uses, built-form and ground level activation/ public realm outcomes to ensure the envisaged land division layout is consistent with the intent of code policy for the development of a Neighbourhood Centre.



Pursuant to Section 115(6) of the *Planning, Development and Infrastructure Act 2016*, the Minister for Planning reserves a decision on the form and substance of any further conditions that are considered appropriate to impose in respect of the reserved matters set out at 1 to 8 above. Upon receipt of the information relating to a reserved matter, it will be assessed and if satisfactory, approved by the Minister for Planning or delegate.

Part 2: Development Conditions

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the approved development shall be undertaken in strict accordance with the following documents, except to the extent that they are varied by a subsequent document listed below:

Amendment to the EIS

- Riverlea Major Development Application - Amendment to the Environmental Impact Statement - dated April 2023 (including Appendices)
- Response Document to the Riverlea Major Development Application amendment to the Environmental Impact Statement – Final v4 – dated December 2024 (including Appendices A to W).
- Supplemental responses provided to Council and state agencies:
 - Walker Corporation to Playford Council dated 11 November 2024
 - Walker Corporation to EPA dated 11 December 2024

- LBW Co Pty Ltd to Walker Corporation (in response to DEW feedback) dated 13 December 2024 (25 pages)
2. Previous conditions of approval contained in the Decision Notice dated 6 November 2024 approved by the delegate of the Minister for Planning, unless previously satisfied or superseded by the aforementioned plans or specifications, or requirements listed below, remain in effect.
 3. Construction activities must be undertaken in accordance with the endorsed Dewatering Management and Monitoring Plan (the plan). Monitoring, in accordance with the plan, shall be undertake for a minimum of 2 years post completion of the groundwater dewatering activities.
 4. All groundwater dewatering activities shall cease immediately should monitoring bores show a decrease of 1.5m (or greater) and the Department for Environment and Water shall be notified immediately.
 5. All the data derived from these groundwater monitoring bores, any other groundwater monitoring bores owned and/or operated by the proponent shall be provided to the Department of Environment and Water no more than a week after acquisition. These data as well as the Department for Environment and Water monitoring bores shall be used to re-calibrate and redevelop the groundwater model for the site.
 6. The development of additional Salt Water Lakes (being Salt Water Lake 2 and Salt Water Lake 3) shall not commence dewatering or construction, until the performance and operation of Salt Water 1 has been demonstrated to operate in accordance with the approved Salt Water Lake Operational Environmental Management Plan and to the reasonable satisfaction of the Minister for Planning.
 7. Prior to s.138 clearance under the *Planning, Development and Infrastructure Act 2016*, the laneway-to-laneway road layout for stages 23 and 24 (as identified in the plan of division prepared by Alexander Symonds Surveying Consultants, Dwg No. 21A3182PROP(R), revision R dated 24 September 2024) shall be revised to take into consideration the traffic impact of the proposed road design, such that any rear-loaded laneways must only access the general road network via a full width residential or collector through road (i.e. 16 metres or 22 metres in width). The laneway-to-laneway road layout identified in Stage 23 shall be serviced by an additional mid-block residential or collector road cross street. Any revised plan must also demonstrate how the development of these stages, including the final road network and any reserve areas, integrates with the future development of adjacent superlots 2626, 2611, 2531 and 2727.
 8. The Precinct 2 land division shall be undertaken, completed and maintained in accordance with the approved plans of division Sheets 1 to 14 of 14 prepared by Alexander Symonds Surveying Consultants, Dwg No. 21A3182PROP(R), revision R, dated 24 September 2024 except where varied by any condition(s), or where superseded by a further approved plan.
 9. The Developer is to provide an updated Social Infrastructure Statement and associated Social Infrastructure Strategy to the reasonable satisfaction of Council within six months of this provisional development authorization being issued.
 10. The applicant must provide a minimum of 15% as 'affordable housing' of all dwellings in accordance with the criteria determined by the Government Gazette 8 September 2022 under

regulation 4 of the *South Australian Housing Trust Regulations 2010* (or any updates) as per a land management agreement between Walker Corporation and South Australian Housing Authority, to be registered on the Certificates of Titles.

11. The development of Precinct 2 shall be undertaken in accordance with the approved Riverlea Landscape Master Plan (RLAMP) dated 10.12.2024, Revision S, referenced 1519038 and prepared by Place Design Group, and including any subsequent amendments. The subject Riverlea Landscape Master Plan is to form a part of this AEIS DA consent.
12. Prior to the planting and vesting of open space swales that have been utilised on an interim basis for the conveyance of Salt Water Lake discharges, those swales must undergo soil testing and undergo appropriate salt decontamination and remediation BEFORE any final landscaping and planting occurs. Details of the results of any testing shall be provided to Council prior to any final planting commencing.
13. Soil testing shall be undertaken in areas identified with potential for Acid Sulphate Soils, prior to any construction occurring in these areas. The resultant reports and recommendations shall be complied within the civil design at these locations, to the reasonable satisfaction of DEW and Council. In the event that Acid Sulphate Soils are encountered, appropriate management strategies including, but not limited to, may be required: (a) lime neutralisation treatment and verification of excavated materials at various formulated rates; (b) remediation of previously disturbed ASS; (c) monitoring of groundwater drawdown and quality through a network of groundwater monitoring wells during excavations.
14. The management of stormwater for Precincts 1 and 2 shall be in accordance with the *WGA - Walker Buckland Park Developments Pty Ltd - Precinct 1 and 2 Interim and Ultimate Development - Stormwater Management Plan 2024 – Reference - WGA080163, WGA080163-RP-CV-0034 Rev C, October 2024*, unless otherwise agreed with the with the City of Playford, the Environment Protection Authority (EPA), and the Minister for Planning.
15. Water-sensitive urban design measures and practices shall be adopted for the management of run-off, including stormwater capture and reuse.
16. Prior to stormwater discharging to Salt Water Lake 1 from any associated land division stage, the stormwater is to be treated and water quality is sufficient to meet environmental health standards removing any gross pollutants. The quality of stormwater inflows to Salt Water Lake 1 shall be monitored and appropriate pre-treatment strategies and infrastructure provided to ensure that water quality meets relevant EPA standards and does not have an adverse impact on overall Salt Water Lake water quality and which has been demonstrated to adequately accommodate all stormwater inflow volumes and at all inflow locations adjacent to and in the upstream vicinity of Salt Water Lake 1.
17. Mechanisms shall be included in the overall lake and stormwater design to minimise the potential for gross pollutants to enter the lake from the surrounding development and upstream catchments. The capture mechanism shall be non-return, to ensure gross pollutants captured by the trap cannot re-mobilise into the lake during higher tidal events. A trash rack at the lake discharge is not sufficient capture mechanism.

18. Easements for the proposed outfall drains for the discharge of stormwater and the discharge of Salt Water Lake piped and open swale discharges into Thompson's Creek must be finalised and executed by the Proponent with SA Water and Playford Council to the satisfaction of the benefitting parties, prior to the completion of the filling of Salt Water Lake 1.
19. Other easements for the conveyance of stormwater through Precinct 2, and via the SWL water body, SWL discharge swales and pipes, must be finalised and executed by the Proponent with Playford Council to the satisfaction of the benefitting parties, prior to the collection and discharge of stormwater from each land division stage.
20. Prior to approval of a master plan for the development of any part or component of Precinct 3, an amended Traffic Impact Assessment (TIA) shall be prepared and submitted to provide the following information and achieve identified outcomes as follows:
 - Analysis of secondary access to the development and associated traffic volumes supported by updated AIM_SUM network and SIDRA modelling.
 - Capacity of Riverlea Boulevard and the traffic volumes servicing future Precincts and 4.
 - Works associated with intersection upgrades required to accommodate a minimum of 50% of occupied residential dwellings in Precinct 3 (or a minimum of 1,500 dwellings in addition to total Precinct 2 dwellings).
 - Analysis of ultimate intersection scenario supported by SIDRA re-modelling to understand final intersection footprints and consequential impacts on intersection land curtilage and acquisition requirements.
21. An updated Parking Plan shall be provided to the reasonable satisfaction of Council to address matters raised as a result of the AEIS review and provided to the Proponent. This report shall be provided and endorsed by Council prior to the submission of construction documentation for any stage which forms a frontage to and/or abuts the lakes or lake curtilage open space. **Note:** *Layout of parking areas within the development shall conform to AS2890.6:2022 (off-street parking for people with disabilities), AS 2890.5:2020 Parking facilities: Part 5: On-Street Parking, AS2890.2:2018 Parking facilities, Part 2: Off-street commercial vehicle facilities and AS 2890.3:2015, Parking facilities, Part 3: Bicycle parking.*
22. Prior to s.138 clearance under the *Planning, Development and Infrastructure Act 2016*, for any stage which has the benefit of a frontage to the Gawler River and/or the Gawler River riparian zone, a Gawler River Restoration Management Plan shall be provided in the most recently specified SA Government format for the consideration and approval of Council.
23. All works and activities associated with the development undertaken in the authorised areas depicted on the map at Figure 22 within the Assessment Report must comply at all times with the conditions of the authorisations granted by the Minister for Aboriginal Affairs on 9 October 2024 under sections 21, 23 and 29(1)(b) of the *Aboriginal Heritage Act 1988* (SA). Further authorisations must be obtained from the Minister for Aboriginal Affairs before Aboriginal heritage is impacted outside of these areas.
24. Prior to the issuing of a land division certificate for each stage under s.138 of the *Planning, Development and Infrastructure Act 2016*, the conditions of the Minister for Aboriginal Affairs' 9

October 2024 authorisation, and any other requirements of the Act, shall be complied with in respect to the Aboriginal Cultural Heritage.

25. Prior to construction commencing for any stage or Saltwater Lake 1, a Soil Erosion and Drainage Management Plan (SEDMP) must be prepared in accordance with the 'Best Practice Erosion and Sediment Control, International Erosion Control Association (Australasia) 2008' and submitted to the reasonable satisfaction of the Council. The SEDMP must be implemented during construction to prevent soil sediment and pollutants leaving the site or entering waters (including the stormwater system) during development of the site. The SEDMP must include elements such as:
 - The installation of a shaker pad at the entrance/exit to the development site
 - Avoiding unnecessary cut and fill and unnecessary clearing of vegetation
 - Protecting exposed soil through temporary vegetation or jute matting, hay bales or silt fences, and fencing and containing of stockpiles
26. The temporary erosion and sediment control measures shall be maintained and be functional until the end of the Maintenance Period for the works or earlier if Council's delegated officer considers they are no longer required. *Note: Council's delegated officer may order additional measures to control silt on site at no cost to Council.*
27. After the commencement of interim stormwater management for Precinct 2, groundwater salinity and level monitoring works shall be undertaken by the developer in accordance with the Dewatering Investigation and Risk Assessment Report prepared by LBWco, revision 0, dated 15 October 2024 and the Saltwater Seepage Risk Assessment Report prepared by LBWco, revision 0 dated 23 October 2024. The results and accompanying report of these works shall be provided to Council together with any recommendations on the finding, to determine any potential impacts to road pavement and stormwater infrastructure due to groundwater levels.
28. A Construction Environment Monitoring and Management Plan (CEMMP) shall be prepared to the satisfaction of the Environment Protection Authority, submitted for approval to the Minister for Planning, and then implemented by the proponent. The CEMMP must be operative from each stage approval.
29. All works shall be undertaken in accordance with the approved Salt-Water Lakes 1 management plans.
30. Normal operating hours for construction activities and construction truck movements to and from the site shall be from 7am to 7pm. Monday to Saturday inclusive.
31. Stockpiled soils shall be suitably managed to control dust emissions, erosion and weed infestation.
32. Undeveloped allotments shall be maintained in a neat and tidy condition, with soil surfaces stabilized to minimise erosion.
33. Landscaping and streetscaping of the common areas shall commence prior to the issuing of the Certificates of Title for each stage, and when established shall be maintained in good health and condition at all times. A plant shall be replaced if and when it dies or becomes seriously diseased. A weed control plan shall also be implemented.

34. The proponent shall provide accurate projections of resident populations to allow Department of Health to plan for local and regional health services prior to the registration of each stage of residential development, and thereafter at 12-month intervals.
35. Residential Guidelines and an Encumbrance document incorporating all details as determined by the developer (and modified from time to time) shall be provided for any Community Titled and Torrens Titled allotments.
36. Proponent to provide and implement an agreed Recreation Facilities Strategy in agreement with the Council as required.
37. The development is to comply at all times with the recommendations and conditions of the EBS Ecology – Flora and Fauna Management Plan: Precinct 2 Revision 2.1 dated 5 October 2023 prepared in support of the development.
38. To ensure that the internal intersections operate in conjunction with the Port Wakefield Highway / Riverlea Boulevard / Angle Vale Road intersection, the applicant shall consult with DIT to ensure that all internal signalised intersections are linked to and coordinated with nearby DIT managed signalised intersections.

Land Division Requirements

39. Any Council infrastructure which is damaged or removed as part of the approved division shall be reinstated in full, at a standard, to the satisfaction of Council.
40. All roads and drainage infrastructure associated with the approved development shall be constructed in accordance with the Council's Land Division Requirements, the approved documentation, to the satisfaction of Council.
41. Detailed design of local roads to be constructed and commissioned in accordance with Playford Council specifications and to the Council's approval.
42. Road Typologies for Precinct 2 shall be reviewed and collated within a separate road typology document for the approval of the City of Playford.
43. Engineering construction plans for roads, drainage and footpaths and intersections to the satisfaction of the Playford Council.
44. Any Traffic control devices for the residential, commercial and industrial areas shall be designed and constructed in accordance with the main standard of the Manual of Uniform Traffic Control Devices—AS 1742.
45. Cut and fill batters required for road works shall be in accordance with the requirements of the Engineering Design Guidelines of the City of Playford.
46. Proponent to enter into an agreement with an electricity provider for the provision of required upgrades.

47. All public roads within the development will be local roads under the care and control of the Council.
48. Engineering construction plans for roads, drainage and footpaths and intersections to the satisfaction of the Council.
49. Proponent to enter into an agreement with a licensed water entity for all water and wastewater requirements for Precinct 2.
50. Detailed design for the open space areas is subject to agreement by the Council.

Advisory Notes

- Any Council infrastructure which is damaged or removed as part of the approved division shall be reinstated in full, at a standard, to the satisfaction of Council.
- All roads and drainage infrastructure associated with the approved development shall be constructed in accordance with the Council's Land Division Requirements, the approved documentation, to the satisfaction of Council ([CS-DS 1810 LandDivisionGuidelines-FactSheet.pdf](#)).
- The proponent must obtain a Building Rules certification for any building work to be undertaken from either the Accredited Professional (at the proponent's option) or the local Council as required by the *Planning, Development and Infrastructure Act 2016*.
- The proponent is advised of the General Environmental Duty under Section 25 of the *Environment Protection Act 1993*, which provides that a person must not undertake any activity, which pollutes, or may pollute, without taking all reasonable and practical measures to prevent or minimise harm to the environment.
- The proponent is advised of the requirement to comply with the 'Best Practice Erosion and Sediment Control, International Erosion Control Association (Australasia) 2008' during demolition and construction of the development.
- In addition to the Building Code of Australia, the proponent must comply with the *Commonwealth Disability Discrimination Act 1992*, in planning access for the disabled.
- The main standard for traffic control devices is the Manual of Uniform Traffic Control Devices—AS 1742. There are many standards under AS 1742 covering the various traffic control devices that may need to be referred to.
- The proponent should note that they and their contractors must comply with the requirements of the *Aboriginal Heritage Act 1988*.
- The Minister has a specific power to require testing, monitoring and auditing under s.117 of the *Planning, Development and Infrastructure Act 2016*.
- In relation to Condition 21, the Gawler River Restoration Management Plan shall demonstrate an appropriate conservation, revegetation, and restoration design strategy of the conservation zones to allow for future use of the land. This Masterplan shall be provided and endorsed by Council. The Proponent shall undertake works in general accordance with the endorsed

Masterplan, except where varied through the agreement with Council as other elements of land development detailed design progress.

- In relation to Reserved Matter 2, the Dewatering Management, Mitigation and Monitoring Plan shall address (but not be limited to) the following:
 - A process for how the level of interaction between surface and groundwater in the Gawler River and Thompson's Creek shall be qualified.
 - Purpose designed groundwater monitoring system that may include the installation of additional bores at agreed locations to enable comprehensive water levels and quality monitoring to occur.
 - All bores to be fitted with approved data loggers to measure groundwater level and salinity and telemetry capable of transmitting groundwater levels at fifteen (15) minute intervals.
 - Data loggers shall be checked on a monthly basis by undertaking manual reading to confirm calibration and comparison purposes.
 - A minimum of two (2) years of data is required from all monitoring bores prior to any groundwater extraction for dewatering operations. All monitoring bores must be drilled, completed and fitted with appropriate equipment to ensure appropriate and consistent data collection.
 - At least six months prior to the commencement of groundwater dewatering the data from the monitoring bores network shall be made available to the public via a live dashboard.
 - The results of these studies shall be reported to, and be produced to the satisfaction of Department for Environment and Water prior to the start of any construction activities.
 - The Dewatering Management, Mitigation and Monitoring plan must comply with the EPA's Environmental management of dewatering during construction activities guideline (2021).
- The Department for Environment and Water strongly recommends that the proponent construct a new groundwater model, utilising the additional data and information prescribed in the approval conditions to assess the potential impacts from this development.

Appendix 1: Current Development Authorisation

DECISION NOTIFICATION FORM

Section 126(1) of the *Planning, Development and Infrastructure Act 2016*

TO THE APPLICANT:

Name:	Walker Corporation
Postal address:	Level 2, 2 King William Street, Adelaide SA 5000
Email:	patrick.mitchell@walkercorp.com.au

IN REGARD TO:

Development application no.: 292/D027/15	Lodged on 25 September 2024
Nature of proposed development: Variation to a previous development authorisation – land division layout changes to Stages 14 only	

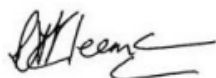
LOCATION OF PROPOSED DEVELOPMENT:

Street address: Port Wakefield Road, Buckland Park			
Lot no. A134 FP162483	Hundred Port Adelaide	Volume CT5755	Folio 199
Lot no. A133 FP 162482	Hundred Port Adelaide	Volume CT5763	Folio 970
Lot no. A4 FP40170	Hundred Port Adelaide	Volume CT5228	Folio 167
Lot no. A5 FP40170	Hundred Port Adelaide	Volume CT5424	Folio 348
Lot no. A91 FP163644	Hundred Port Adelaide	Volume CT5868	Folio 769

DECISION:

Decision type	Decision	Decision date	No. of conditions	Entity responsible for decision
Development authorisation	GRANTED	6 November 2024	89	Minister for Planning
Building Certification	N/A	N/A	N/A	N/A-

FROM THE RELEVANT AUTHORITY: Minister for Planning



Robert Kleeman
MANAGER – CROWN AND IMPACT ASSESSMENT
as delegate of the
MINISTER FOR PLANNING

PREAMBLE:

1. On 5 June 2003, a major development declaration was made for the subdivision and development of land at Buckland Park near Virginia north of Adelaide ('the declaration'). The Minister for Urban Development and Planning ('the Minister') gave notice in the *Government Gazette* that he was of the opinion that it was appropriate for the proper assessment of the development of major environmental, social or economic importance that Section 46 of the *Development Act 1993* ('the Act') applied to any development of a kind listed in Schedule 1 of that notice in parts of the State listed in Schedule 2 of that notice.
2. The declaration was varied by notice in the *Government Gazette* on 4 January 2007 to, amongst other things, expand the major development declaration.
3. A proposal from Walker Corporation Pty Ltd ('the proponent') to develop a substantial staged residential and commercial development at Buckland Park was the subject of a development application lodged in May 2007 ('the major development').
4. The declaration was varied again by notice in the *Government Gazette* on 12 June 2008 to include additional land parcels within the major development declaration.
5. The major development was the subject of an Environmental Impact Statement ('EIS'), which was completed and put on public display on 19 September 2007, and an Assessment Report was produced, and was assessed in accordance with Section 46 and Section 46B of the Act. By notice in the *Government Gazette* on 4 February 2010, the Governor:
 - (a) granted provisional development authorisation subject to conditions (in Part B of the notice), with specified reserved matters (in Part A of the notice), for the following components:
 - (i) land division, creating 8 superlots which include the 5 residential land division stages, employment lands, recreation/water management and transport infrastructure areas shown in plans 19000p01-r3, r5 and r6, 5 November 2009 (Fyfe Engineers Surveyors);
 - (ii) Precinct 1 land division (Superlot 1 under the land division application) which comprised 614 residential allotments, a school site, display centre and shopping /community centre over 62.23 hectares;
 - (iii) proposed partial closure of Legoe Road under Part 7A (Section 34C (2) (a) (ii)) of the *Roads (Opening and Closing) Act 1991* (to take effect on a day to be fixed by subsequent order of the Governor or Minister published in the Gazette);
 - (iv) construction of a Neighbourhood Centre as set out in the detailed drawings; and
 - (v) construction of a display village as detailed by the proponent (The display village is now to be under the authority of the council for decision making).
 - (b) specified the period up until 1 February 2012 (subsequently amended) as the time within which substantial work must be commenced on site, failing which the Governor may cancel the authorisation.

Future Precincts (Beyond 1 and 2) of the major development (3-5) will be determined when detailed land division applications are lodged. The object of this decision notice is a decision on:

 - i) new Superlot plan
 - ii) Precinct 2 Land Division
 - iii) Precinct 2C Land division
 - iv) Road Closure of part of Buckland Park Road (on 18 December 2017).
6. The proponent requested in the past (and was granted) modifications to the provisional development authorisation to allow more practicality in implementing the proposal and satisfying the reserved matters and conditions of the authorisation. In summary, the matters related to:
 - (a) the requirement for a scheme description;
 - (b) affordable housing requirements
 - (c) the requirement for a construction environment management and monitoring plan (CEMMP);
 - (d) signage associated with the proposed neighbourhood centre; and
 - (e) various elements of the Schedule of Commitments.
7. In response to the request, by notice in the *Government Gazette* on 21 October 2010, the Minister (under delegation) varied the provisional development authorisation by:
 - (a) removing specified reserved matters entirely from the authorisation;
 - (b) revoking and varying specified conditions;
 - (c) attaching new conditions;
 - (d) reserving remaining specific matters for further assessment;
 - (e) specifying that the reserved matters must be completed by 31 October 2011 (which was achieved); and

- (f) specifying the period up until 31 October 2013 (subsequently extended) as the time within which substantial work must be commenced on site, failing which the Governor may cancel the authorisation.
8. On 23 December 2010 a Development Plan Amendment ('DPA') was authorised by the Minister which provided policy guidance for the residential, commercial and other uses of Buckland Park as expressed in the provisional development authorisation for the major development.
9. The proponent requested further modifications to satisfy the reserved matters related to employment of a Community Worker (d)(4) (letter dated 8 November 2010), provision of power through an electricity provider (d)(9) (letter dated 8 November 2010), negotiation with DECS/Virginia Primary School on the need for demountable class rooms (d)(11) (letter dated 10 November 2010) and liaison with the City of Playford in relation to provisions of library services (d)(6) (letter dated 2 December 2010). By notice in the Government Gazette on 10 March 2011, the Presiding Member of the Development Assessment Commission (DAC) (under delegation) varied the provisional development authorisation by:
- (a) moving reserved matters (d)(4) and (d)(9) to conditions; and
 - (b) removing reserved matters (d)(6) and (d)(11) entirely from the provisional development authorisation as they were assessed as having been satisfied.
10. The proponent requested further modifications on 28 February 2011 (as altered by a letter dated 11 July 2011) for an amended land division plan for Stage 1 (including a further 5 sub stages). The number of allotments was reduced from 614 to 609 (for the entire Precinct 1), with an increase in open space of 7.4 hectares. The road hierarchy and lot layout was also amended following discussions with the City of Playford and other agencies. A request to increase the number of display homes from 32 to 45 was also dated 11 March 2011 (approval for display homes was subsequently removed and is now under the authority of the council). By notice in the *Government Gazette* on 15 September 2011, the Presiding Member of the Development Assessment Commission (under delegation) varied the provisional development authorisation by:
- (a) moving the following from reserved matters to conditions:
 - i) draft Residential Guidelines and Encumbrance [reserved matter (a) from Schedule 1] (letter dated 11 April 2011);
 - ii) provision of an Affordable Housing Plan, in relation to the land division for Stage 1 [reserved matter (b) from Schedule 1] (letter dated 15 April 2011);
 - iii) Community Bus timetabling and staffing (Playford Council) [reserved matter D3] (letter dated 1 June 2011);
 - iv) agreement for water services (SA Water) [reserved matter D6] (letter dated 8 November 2010);
 - v) agreement for gas services (APA) [reserved matter D7] (letter dated 21 June 2011);
 - vi) proponent to prepare a Recreation Facilities Strategy for Stage 1 in collaboration with the City of Playford's Buckland Park Project Control Group [reserved matter D4] (letter dated 6 July 2011); and
 - vii) final design drawings for the signalised intersection of Legoe Road with Port Wakefield Road to the satisfaction of Department for Transport, Energy and Infrastructure ('DTEI') [reserved matter D1] (letter from DTEI to proponent dated 29 June 2011).
 - (b) removing the following reserved matter entirely from the provisional development authorisation as it was assessed as having been satisfied:
 - i) a reconfigured land division plan to create a 40m buffer between the SA Potato grower's horticultural activity (on the southern side of Precinct 1 land division) and the outer boundary of the subdivision area [reserved matter (c)] (Amended Precinct 1 plan was submitted by proponent on 28 February 2011);
 - ii) attaching a new reserved matter requiring the proponent to prepare a concept design of the ultimate grade separated intersection with Legoe Road and Port Wakefield Road (D9); and
 - iii) granting an extension of time until 31 December 2011 (later satisfied) to satisfy the remaining reserved matters (D2, D5 and D8) (in response to a request by letter dated 5 August 2011).
11. By notice in the *Government Gazette* on 22 December 2011, the Presiding Member of the DAC (under delegation) varied the development authorisation (no longer a provisional development authorisation as all reserved matters were deemed to be satisfied or moved to conditions) by moving the following reserved matters to conditions:
- (a) reserved matter D(2) regarding emergency access and D(8) regarding the flood access plan for Port Wakefield Road (letter from proponent dated 15 November 2011 approved by the relevant authorities) were deemed to be satisfied and made conditions;
 - (b) reserved matter D(5) regarding maintenance schedules and handover and defects liability periods was deemed to be satisfied (letters received from the proponent and the City of Playford dated 16 August 2011) and made a condition (included in the landscape and engineering designs information);
 - (c) reserved matter D(9) (letter from proponent dated 7 December 2011) regarding the grade separated intersection of Legoe Road and Port Wakefield Road was approved by DTEI (minute of 8 December 2011

from Director, Road Transport Policy and Planning of DTEI to Director, Planning and Assessment at DPLG) was deemed to be satisfied and made a condition; and

- (d) reserved matters (e), (f) and (g) regarding building rules assessment and display village design were removed as reserved matters and made conditions to provide consistency with other recent prior decisions under Section 48 of the Act.
12. In response to a request by the proponent (letters dated 15 December 2011 and 3 July 2012), by notice in the Government Gazette on 24 January 2013, I (under delegation) varied the development authorisation by:
- (a) removing the obligation to provide recycled water (purple pipes) to individual homes (letter dated 13 July 2012 Section 4 only), with attached letters from SA Water dated 14 May 2012 and email dated 7 November 2012 (specifying that the removal of the obligation shall be limited to individual homes only), a letter from the City of Playford dated 21 November 2012 and an email dated 26 November 2012); and
 - (b) delaying the obligation to handover the substation site to ETSA Utilities (now known as SA Power Networks) from prior to electrification of Precinct 1 to December 2017 (letter dated 30 September 2015 from Walker Corporation).
13. In response to a request by the proponent, by notice in the Government Gazette on 23 December 2013, the Governor varied the development authorisation to:
- (a) provide a permanent pump station, temporary tanks for the storage of waste water for up to 350 allotments (in Precinct 1) and associated infrastructure to be located within the proposed 'Precinct 2C 5' of the Superlot area (letter and report dated 2 May 2013); and
 - (b) provide an allotment for the proposed pump station and holding tanks within the proposed 'Precinct 2C 5' (application for land division (292/D079/12) dated 17 October 2012)—('the proposed amended major development').
14. In response to a request by the proponent by notice in the *Government Gazette* on 5 March 2015 for Precinct 1 Report dated August 2013 Revision B by Walker Corporation was varied amending
- (a) Land Division and residential mix;
 - (b) Neighbourhood centre location/design and timing (temporary to permanent);
 - (c) Display village location; (subsequently removed from the decision notice), and
 - (d) Primary School location.
15. The proponent also requested (and was granted) the removal of the need for separate (DAC) approval of the display village as the City of Playford has authority to make decisions on dwellings at Buckland Park and is able to make decisions about the display homes. The following would be removed from the existing decision notice:
- (a) Paragraph 1(a) delete the wording "Display Village";
 - (b) Remove listed drawing titled 'Precinct 1 Display Plan';
 - (c) Removal of conditions 47 and 48; and
 - (d) Amendment of Part B, note 1(a) to remove the reference to display village.
- This was approved in the decision notice of 3 July 2014.
16. The proponent also requested (letter of 17 December 2014) further minor amendment of Precinct 1. The proposed changes were to its sequencing of stages. Some lots increased in size and some medium density lots were removed, resulting in a reduction of total lots from 556 to 525.
- There have also been 2 minor road alignment changes.
- Modified plans were also provided and have replaced 5 existing approved plans and were approved by the Presiding Member of DAC on 5 March 2015.
17. The proponent submitted an Amendment to the EIS in November 2014 with an associated report which was advertised for public comment on 11 March 2015 until 27 March 2015 for a period of three weeks. No public comments were received. The Amendment to the EIS was also circulated to the City of Playford and to relevant Government agencies. An amendment to the Assessment Report has also been prepared for the Governor. A revised approval which provided for Stages 2 and 2C was approved by the Governor on 16 February 2017.
18. The Development Application and associated Land Division applications (which have been submitted via EDALA) are for:
- (a) An amended Superlot Plan
 - (b) Land Division plan for Precinct 2 (including stages within it) (DA 292/D027/15)
 - (c) Land Division for Precinct 2C (DA 292/D018/15)
 - (d) Notification of Road Closure for the northern (unmade) part of Buckland Road (18 December 2017)
 - (e) Extension of time for 'substantial commencement' of the intersection with Port Wakefield Road for two years from 31 October 2015 to 31 October 2017.

19. In response to a request by the proponent on 13 September 2017, the Minister (under delegation) granted a one year extension of time to 31 October 2018 to substantially commence the development.
20. On 10 October 2017 the proponent requested a further variation of the development authorisation to further extend the time by which the development must be substantially commenced and the Minister has agreed to vary the development authorisation in response to that request in the following respects:
 - (a) extend the time within which substantial work must be commenced on the site by a further three years until 31 October 2021;
 - (b) removing from the authorisation the definition of "substantial commencement"; and
 - (c) expressly requiring completion to the satisfaction of the Commissioner for Highways of the signalised intersection at the junction of Port Wakefield Road and Legoe Road prior to lodgement with the Lands Titles Office of a Plan of Division creating new residential allotments for Precinct 1, 2 or 2C, other than a Plan of Division creating allotments for the sole purpose of the Display Village as approved in Precinct 1.
21. On 14 May 2020 the proponent requested a further variation of the development authorisation to provide for minor amendments to the land division for Precinct 1 and 2C. The proposed amendments comprise adjustment to lot boundaries to incorporate more lots of approximately 300m². The reduction in some allotment sizes result in an increase in the total number of lots in Precinct 1 (from 525 to 552). In Precinct 2C, the reduced allotment sizes result in a larger area of open space and reduced allotment number (from 45 to 44). The staging labels have also been amended in that Precinct 2C is now Stage 6 of Precinct 1. The State Commission Assessment Panel (as the delegate of the Governor of South Australia) agreed to vary the development authorisation.
22. On 4 March 2021, the proponent requested a variation of the development authorisation to provide for minor amendments to the land division for Precinct 1. The proposed amendments comprise provisions of a new local road within Stage 3, and adjustment of boundaries in Stages 2 and 3 to vary the allotment mix and incorporate an additional lot into Stage 2. The request also sought to increase the total number of allotments within the Display Village from 32 to 33. The State Commission Assessment Panel (as the delegate of the Governor of South Australia) agreed to vary the development authorisation.
23. On 28 September 2021, the proponent requested a variation of the development authorisation to provide for additional residential allotments within Stage 7 of Precinct 1. The State Planning Commission advised that it was satisfied that the previously endorsed EIS and Assessment Report do not require revision, such that the proposed amendments can be considered on their merits. The Minister for Planning and Local Government agreed to vary the development authorisation on 11 January 2022.
24. On 30 August 2021 (and again on 10 December 2021), the proponent requested a variation of the development authorisation to amend the layout of Stage 8, Precinct 2 (reducing the number of lots and modifying a portion of the road layout and a public reserve), and to also modify the overall staging plan in respect to Stages 8, 9 and 11. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15. The delegate of the Minister for Planning and Local Government agreed to vary the development authorisation on 18 February 2022.
25. On 18 November 2021, the proponent requested a variation of the development authorisation to amend the layout of Stage 4, Precinct 1 (modifying and rationalising the road layout and increasing the allotment yield by 10 additional allotments). The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D019/12. The delegate of the Minister for Planning and Local Government agreed to vary the development authorisation on 21 March 2022.
26. On 20 May 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 10, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
27. On 20 May 2022, the proponent requested a variation of the development authorisation to create an allotment and road reserve to facilitate stage 1 of the retail development within Precinct 1. The proposed amendments are of a minor nature and reflect the layout of the approved land use application (Construction of a shopping, community and retail centre) and do not change the substantive nature of the previous land division scheme approved under DA 292/D019/12.
28. On 14 June 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 10a, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
29. On 14 June 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 10b, Precinct 1. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D019/12.

30. On 16 June 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 11, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
31. On 3 August 2022, the delegate of the Minister for Planning granted a varied development authorisation to the amendments indicated at no's 26, 28 and 30 within the preamble, pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1).
32. On 4 August 2022, the delegate of the Minister for Planning granted a varied development authorisation to the amendments indicated at no's 27 and 29 within the preamble, pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1).
33. On 3 August 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 12B, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
34. On 15 August 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 12A, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
35. On 16 August 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 9A, Precinct 1 (formerly portion of Stage 5, Precinct 1). The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D019/12.
36. On 17 August 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 40, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
37. On 15 October 2022, the proponent requested a variation of the development authorisation to amend the layout of Stage 41, Precinct 2. The proposed amendments are of a minor nature, reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
38. The variations requested under no's 33-37 outlined above were considered at the same time.
39. On 28 April 2023, the delegate of the Minister for Planning granted a varied development authorisation to the amendments indicated at no 33, 34, 36 and 37 above - pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1). New Condition 88 references the approved Stormwater Management Plan.
40. On 1 March 2024 and 5 March 2024, the proponent requested a variation of the development authorisation to amend the layout of Stages 15, 16, 37, 38 and 39 (respectively) in Precinct 2. The proposed amendments are reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under 292/D027/15. All other stage changes within Precinct 2 are to be considered as part of the Second Amendment to the Environmental Impact Statement process to be determined.
41. On 11 April 2024, the proponent requested a variation of the development authorisation to amend the layout of Stages 9A and 9B in Precinct 1. The proposed amendments are reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D019/12.
42. As the delegate of the Minister for Planning, I have decided to grant a varied development authorisation to the proposed amendments – indicated at no.40 within the preamble - pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1). New Condition 89 references the authorisation of the Minister for Aboriginal Affairs in respect to Stage 15.
43. On 6 June 2024, the delegate of the Minister for Planning granted a varied development authorisation to the amendments indicated at no. 41 within the preamble, pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1).
44. On 25 September 2024, the proponent requested a variation of the development authorisation to amend the layout of Stage 14 in Precinct 2. The proposed amendments are reflective of detailed design considerations, and do not change the substantive nature of the previous land division scheme approved under DA 292/D027/15.
45. As the delegate of the Minister for Planning, I have decided to grant a varied development authorisation to the proposed amendments – indicated at no.46 within the preamble - pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1 and a minor change to wording in Condition 89).

46. On 6 November 2024, the delegate of the Minister for Planning granted a varied development authorisation to the amendments indicated at no. 44 within the preamble, pursuant to s.115(8) of the *Planning, Development and Infrastructure Act 2016* without change to conditions (excepting plan references under Condition 1 and 89).

47. For ease of reference I have reproduced the development authorisation in its entirety herein.

RESERVED MATTERS:

NIL

CONDITIONS OF PLANNING CONSENT:

1. Except where minor amendments may be required by other legislation or by conditions imposed herein, the approved development shall be undertaken in strict accordance with the following documents:

Current Authorisation

- o Development Application from the proponent dated May 2007 (except to the extent that it may be varied by a subsequent document in this paragraph);
- o Buckland Park Environmental Impact Statement and Appendices dated March 2009 the proponent (except to the extent that it may be varied by a subsequent document in this paragraph);
- o Buckland Park Response Document and Appendices dated October 2009 the proponent (except to the extent that it may be varied by a subsequent document in this paragraph);
- o Letter dated 10 November 2009 from the proponent—Additional information on Sea Level Rise;
- o Letter dated 10 November 2009 from the proponent—Additional information on Access during a Flood Event;
- o Letter dated 12 November 2009 from the proponent—Redesigned illustrations of the Superlot Proposal for the Master Plan;
- o Letter dated 17 November 2009 from the proponent—Additional Information on Mosquitoes;
- o Letter dated 18 November 2009 from the proponent—Schedule of Infrastructure; (updated on 13 July 2015)
- o Letter dated 24 November 2009 from the proponent—Additional Information on Flood and Stormwater;
- o Drawing Numbers specified below provided in consolidated maps dated 9 November 2009 Cover sheet Revision 3;
- o Letter dated 17 December 2009 setting out the details of the 'Display Homes' in the display village;
- o Assessment Report prepared by the Minister for Urban Development and Planning dated January 2010;
- o Letter dated 1 March 2010 Re Provisional Approval February 2010.
- o Letter dated 19 July 2010 from the proponent Reserved Matter (d) (6) re Water provision/SA Water;
- o Letter dated 8 November 2010 from the proponent Reserved Matter d (6) re Water and wastewater provision;
- o Letter dated 8 November 2010 from the proponent—Reserved Matter (d) (9) Electricity provision;
- o Letter dated 8 November 2010 from the proponent Reserved Matter (d) (4) Community Worker;
- o Letter dated 22 November 2010 from the proponent—wording of OEMMP condition;
- o Letter dated 2 December 2010 from the proponent—Reserved Matter (d) (6) Library Services;
- o Letter dated 10 November 2010 from the proponent—Reserved Matter (d) (11) DECS/Virginia Primary;
- o Letter dated 28 February from the proponent description of proposed modifications including Stage 1 (later amended in letter from 11 July 2011);
- o Letter dated 11 March 2011 from the proponent proposed modifications to Display home numbers to 45;
- o Letter dated 11 April 2011 from the proponent Reserved Matter (a) Draft Residential guidelines and draft encumbrance document;
- o Letter dated 15 April 2011 from the proponent—Reserved Matter (b) Affordable Housing;
- o Letter dated 1 June 2011 from the proponent—Reserved Matter (d) (3) Community Bus;
- o Letter dated 21 June 2011 from the proponent Reserved Matter (d) (7) provision of gas;
- o Letter dated 29 June 2011 from DTEI—Reserved matter (d) (1);
- o Letter dated 6 July 2011 from the proponent—Reserved Matter (d) (4) Recreational Strategy;
- o Letter dated 1 July 2011 from the proponent—Amended Superlot plan with grade separation intersection land allowance;
- o Letter dated 11 July 2011 from the proponent with final Land Division plans;
- o Letter dated 5 August 2011 from the proponent for time extension on completion of reserve matters to 21 December 2011;
- o Letter dated 16 August 2011 from the proponent re (d) (5) landscaping maintenance schedules and handover and defects liability periods (including Report from Swanbury and Penglase August 2011, Ref 10127, Rev E);
- o Letter dated 6 September 2011 from City of Playford re (d) (5);
- o Letter dated 15 November 2011 from the proponent re reserved matter (d) (2) (second emergency access);

- o Letter dated 15 November 2011 from the proponent re reserved matter (d) (8) (Flood access plan);
- o Minute from Director Transport Policy and Planning DTEI to Director Planning and Assessment DPLG dated 10 November 2011, re (d) (8) (Flood access plan);
- o Letter dated 7 December 2011 from the proponent re reserved matter (d) (9) (ultimate grade separated intersection);
- o Minute from Director Transport Policy and Planning DTEI to Director Planning and Assessment dated 8 December 2011 Re (d) (9) ultimate grade separated intersection;
- o Letter from the proponent of 5 December 2011 for extension of time for completion of the Port Wakefield Road intersection from 31 October 2013 to 31 October 2014;
- o Letter from the proponent of 13 July 2012, sections 4 and 5 only with attached letters from SA Water (14 May 2012) and ETSA;
- o Email from the proponent on 7 November 2012 relating to the use of recycled water to individual homes;
- o Letter from City of Playford re removal of Purple Pipes obligation dated 21 November 2012;
- o Email from City of Playford 'clarification of Council correspondence re Recycled Water Infrastructure for Buckland Park' dated 26 November 2012;
- o Letter from EPA dated 24 July 2012 commenting on separation distances for proposed WWMF;
- o Letter from the proponent of 3 May 2013 and the attached 'Development Application for a Waste Water Management Facility';
- o Email from Department of Health and Ageing (Tony Farror) dated 31 March 2013;
- o Letter from the City of Playford dated 21 June 2013;
- o Land Division application 292/D079/12 dated 17 October 2012.
- o Application to amend Buckland Park Authorisation, Precinct 1 dated August 2013(Revision B);
- o Letter from the City of Playford dated 25 October 2013;
- o Letter from the proponent regarding Precinct 1 amendment dated 4 November 2013;
- o Email from the proponent to DPTI 12 May 2014; and
- o Letter from the proponent regarding Precinct 2 and 2C dated 17 December 2014.
- o Letter from the proponent dated 25 March 2015 for an extension of time for the intersection with Port Wakefield Road
- o Letter from the proponent dated 30 September 2015 defer need for SAPN sub-station land until December 2017
- o Buckland Park (Riverlea) Development Application/Amendment to the EIS for Superlot (staging) amendment. Precinct 2 Land Division and Road closure, from the proponent dated November 2014;
- o Buckland Park (Riverlea) Development Application, Stage 2C Land Division dated February 2015;
- o Land Division Application 292/D027/15 dated February 2015 with amended plans, Precinct 2;
- o Land Division Application 292/D018/15 dated 2 February 2015, Stage 2C;
- o Letter to DPTI from the proponent, requesting time extension for 'substantial commencement' from 31/10/15 to 31/10/17, dated 25 March 2015.
- o Letter to DPTI dated 14 September 2015 from the City of Playford concerning the closure of Buckland Road on 18 December 2015 (amended via email to 18 December 2017)
- o Email from the proponent dated 29 September 2015 and endorsement by the City of Playford on wording for provision of commercial/community service for Precinct 2.
- o Letter from the proponent dated 13 September 2017 for an extension of time for 'substantial commencement' from 31 October 2017 to 31 October 2017.
- o Letter dated 10 October 2017 requesting extension of time to substantially commence the development.
- o Letter from the proponent dated 14 May 2020 requesting minor amendments to the land division for Precinct 1, Stages 1-5 and Stage 6 (previously Precinct 2C).
- o Letter from the proponent dated 3 March 2021 requesting minor amendments to the land division for Stages 2 and 3 of Precinct 1, and an increase in the number of Display Village allotments to 33.
- o Letter from the proponent dated 28 September 2021 requesting minor amendments to the land division for Stage 7, Precinct 1, including Riverlea – Precinct 1, Stage 7, Drawing reference 20A2439PROP7(J) Rev J prepared by Alexander Symonds dated 27.9.2021
- o Letter from Walker Corporation dated 30 August 2021 and 10 December 2021, relating to changes to Precinct 2 and overall staging, as outlined by Revision F of Drawing 21A3182PROP(F) prepared by Alexander Symonds dated 10.2.2021
- o Correspondence from Walker Corporation dated 18 November 2021 requesting minor amendments to the land division relating to Stage 4 within Precinct 1, as outlined by Proposed Plan of Division marked Revision Z of Drawing 20A2439PROP1(Z) prepared by Alexander Symonds dated 17.11.2021
- o Correspondence from Walker Corporation dated 20 May 2022 requesting minor amendments to the land division DA292/D027/15 relating to Stage 10, Precinct 2, as outlined in Proposed Plan of Division – Project reference 21A3182, Dwg no. 21A3182PROP(G1) Revision F prepared by Alexander Symonds dated 16 May 2022.
- o Correspondence from Walker Corporation dated 14 June 2022 requesting minor amendments to the land division DA292/D027/15 relating to Stage 10A, Precinct 2, as outlined in Proposed Plan of Division - Project reference 21A3182, Dwg no. 21A3182PROP(G2) stage 10A, Revision G2 prepared by Alexander Symonds dated 26 May 2022.

- Correspondence from Walker Corporation dated 16 June 2022 and email correspondence from Patrick Mitchell (Walker Corporation) received 28 June 2022 requesting minor amendments to the land division DA292/D027/15 relating to Stage 11, Precinct 2 as outlined in Proposed Plan of Division - Project reference 21A3182, Dwg no. 21A3182PROP(G4) stage 11, Revision G4 prepared by Alexander Symonds dated 28 June 2022.
- Correspondence from Walker Corporation dated 14 June 2022 requesting minor amendments to the land division DA292/D019/12 relating to Stage 10B, Precinct 1 as outlined in Proposed Plan of Division – Project reference 20A2439.01-5, Dwg no. 20A2439PROP1(AA), Revision AA prepared by Alexander Symonds dated 8 June 2022.
- Email correspondence from Patrick Mitchell (Walker Corporation) received 20 May 2022 advising lodgement of a Plan of Division for The Palms Village, Stage 1 Retail, Precinct 1 as outlined in Proposed Plan of Division - Project reference 20A2439.PALMS, Dwg no. 20A2439PROP-P(B) prepared by Alexander Symonds, Revision B dated 15 May 2022.
- Correspondence from Patrick Mitchell (Walker Corporation) dated 3 August 2022, requesting minor amendments to the land division DA292/D027/15 relating to Stage 12B in Precinct 2.
- Correspondence from Patrick Mitchell (Walker Corporation) dated 15 August 2022, requesting minor amendments to the land division DA292/D027/15 relating to Stage 12A in Precinct 2.
- Correspondence from Patrick Mitchell (Walker Corporation) dated 17 August 2022, requesting minor amendments to the land division DA292/D027/15 relating to Stage 40 in Precinct 2.
- Correspondence from Patrick Mitchell (Walker Corporation) dated 15 October 2022, requesting minor amendments to the land division DA292/D027/15 relating to Stage 41 in Precinct 2.
- Correspondence from Patrick Mitchell (Walker Corporation) dated 20 April 2023 including a marked-up plan confirming the variations are limited to stages 11, 12, 12A, 12B, 40, and 41 of the Plan of Division for Precinct 2, DA 292/D027 /15, prepared by Alexander Symonds, (Project reference 21A3182, Dwg no. 21A3182PROP(G14) dated 24/3/2023.
- Stormwater Management Plan for Riverlea Development – Precinct 1 & 2, Project No. WGA080163, Doc No. WGA080163-RP-CV-0015, Rev C, prepared by WGA and dated 17.02.2023
- Plan of Division for Precinct 1, DA 292/D019/12, prepared by Alexander Symonds (Project reference 21A3182, Dwg no. 20A2439PROP1(AE) dated 21 April 2024. The stages being varied are outlined in the reference plan: Consolidated Site Plan Precincts 1 & 2 -Drawing 21A3182CSP(G) dated 23 May 2024
- Plan of Division for Precinct 2, DA 292/D027/15, prepared by Alexander Symonds (Project reference 21A3182, Dwg no. 21A3182PROP(P) dated 22 May 2024. The stages being varied are outlined in the reference plan: Consolidated Site Plan Precincts 1 & 2 -Drawing 21A3182CSP(G) dated 23 May 2024.
- Plan of Division for Precinct 2, DA 292/D027/15 (14 Sheets) Drawing 21A3182PROP(R) Rev R dated 24.9.24, Precinct 2 Affordable Housing Modification (435 allotments) 2 sheets) Drawing 21A3182AH Rev M dated 24/09/24, Consolidated Site Plan Precincts 1 & 2 Drawing 21A3182CSP(J) dated 30 October 2024 (all plans prepared by Alexander Symonds) and Cover letter dated 25 September 2024 from Walker Corporation.

DRAWINGS

REF	REV	AUTHOR	TITLE	DATE
2108183A-SK-019	F	Parsons Brinckerhoff	Buckland Park proposed interchange	With letter of 7 December 2011
A056410	Issue C	Alexander Symonds	Superlot concept Plan Division Sheets 1-3	10 August 2015

PRECINCT 1*

ARO1.01 Precinct 1	Rev B	Walker Corp	Residential Land Use	4 November 2013
20A2439.00007	Rev J	Walker Corporation & Alexander Symonds	Proposed Plan of Division - Riverlea Precinct 1, Stage 7	27 September 2021
20A2439PROP1(AA)	Rev AA	Walker Corporation & Alexander Symonds	Proposed Plan of Division - Riverlea Precinct 1, Stages 1 to 5 - Sheets 1-6	8 June 2022
20A2439PROP-P(B)	Rev B	Walker Corporation & Alexander Symonds	Proposed Plan of Division - Riverlea – The Palms Village	16 May 2022
20A2439LM	Rev U	Walker Corporation & Alexander Symonds	Precinct 1 Residential Allotment Mix Modification	10 June 2022

20A2439PC1	Rev Q	Walker Corporation & Alexander Symonds	Precinct 1 Residential Pedestrian and cycling network	10 June 2022
20A2439FC1	Rev Q	Walker Corp & Alexander Symonds	Precinct 1 Residential Special Fencing Control	10 June 2022
20A2439AH1	Rev Q	Walker Corp & Alexander Symonds	Precinct 1 Affordable housing Modification (65 Allotments)	10 June 2022
21A3182CSP(G)	G	Walker Corp & Alexander Symonds	Consolidated Site Plan Precincts 1 & 2 -	23 May 2024
20A2439PROP1(AE)	AE	Walker Corp & Alexander Symonds	Riverlea – Precinct 1 – Stages 1 to 5 & 9 (7 Sheets)	11 April 2024

PRECINCT 2

21A3182PC	E4	Walker Corp & Alexander Symonds	Precinct 2 Pedestrian and cycling Network Sheets 1 to 2	26 June 2022
21A318FC	E4	Walker Corp & Alexander Symonds	Precinct 2 Special Fencing Control Sheets 1 to 2	26 June 2022
21A3182AH	E4	Walker Corp & Alexander Symonds	Precinct 2 Affordable Housing Modification (421 allotments) 1 Sheets 1 to 2	26 June 2022
21A3182LM	E4	Walker Corp & Alexander Symonds	Residential Allotment Mix sheets 1 to 2	26 June 2022
21A3182PROP(G4)	G4	Walker Corp & Alexander Symonds	Sheets 1 to 13	28 June 2022
21A3182PROP(G14)	G14	Walker Corp & Alexander Symonds	Sheets 1 to 13	24 March 2023
21A3182CSP(G)	G	Walker Corp & Alexander Symonds	Consolidated Site Plan Precincts 1 & 2 -	23 May 2024
21A3182PROP(P)	P	Walker Corp & Alexander Symonds	Sheet Index and Staging Plans (14 sheets)	22 May 2024
21A3182PROP(R)	R	Walker Corp & Alexander Symonds	Sheet Index and Staging Plans (14 sheets)	24 September 2024

**Note - Latest approved plans supersede previous plans (where relevant).*

PRECINCT 1, STAGE 6**

A56410PROP6(E)	Rev D	Walker Corp & Alexander Symonds	Residential allotment plan	14 April 2020
A056410LM6	Rev E	Walker Corp & Alexander Symonds	Residential allotment mix	15 May 2020
A056410FC6	Rev E	Walker Corp & Alexander Symonds	Special Fencing Control	15 May 2020
A056410PC6	Rev B	Walker Corp & Alexander Symonds	Pedestrian and Cycling Network	15 May 2020
A056410AH6	Rev E	Walker Corp & Alexander Symonds	Affordable Housing Modification (7 allotments)	15 May 2020

***Note - Latest approved plans supersede previous plans (where relevant).*

PRECINCT 1**NEIGHBOURHOOD CENTRE**

2. A Traffic Management Plan for the Neighbourhood Centre and Display Village shall be submitted to the City of Playford for approval prior to the issue of a Building Rules certification for its construction. The Plan should include:

- designs for vehicle circulation, manoeuvring and loading areas.
 - loading and unloading facilities for commercial vehicles which mitigate potential conflicts with other traffic and pedestrians, and which are located to mitigate visual impacts.
 - connections between the Neighbourhood Centres and associated facilities, considering the Playford Development Plan, the potential to share parking between various facilities, pedestrians and bike access, and availability of bus services.
3. The layout of parking areas for the Neighbourhood centre shall meet the Australian/New Zealand Standard 2890.1:2004, Parking Facilities—Off-street car parking and line markings and Australian Standard 2890.2-2002 Parking Facilities- off-street commercial vehicle facilities (including service areas).
 4. Access and egress from the car parking areas of the Neighbourhood centre shall be designed in accordance with the Australian/New Zealand Standard 2890.1 2004, Parking Facilities, Part 1 off street car parking.
 5. All car parking areas, driveways and vehicle manoeuvring areas for the neighbourhood centre shall be properly maintained at all times.
 6. Any traffic control devices shall be designed and constructed in accordance with the main standard of the Manual of Uniform Traffic Control Devices—AS 1742.
 7. Lighting shall be provided within the car parking area of the Neighbourhood Centre including the open space/park/playground and land division in accordance with: street lighting and lighting for outdoor car parks AS/NZS; lighting for roads and public spaces, in particular, lighting for outdoor car parks AS/NZS.
 8. Access and egress from the car parking areas of the Neighbourhood centre shall be designed in accordance with the Australian/New Zealand Standards for Commercial vehicles 2890.2.
 9. Detailed architectural and landscape plans for the Neighbourhood Centre and associated buildings shall be submitted to the City of Playford for approval prior to issue of a Building Rules certification for its construction. The plans shall include:
 - o an articulated and high quality architectural statement to Riverlea Boulevard.
 - o community space.
 - o the incorporation of building plant located on the roof into contained area that is not openly visible.
 - o water play and playground details.
 - o landscaped areas and pedestrian routes.
 10. Proponent to commit to employment of a community worker after discussions with the City of Playford on the role and employment conditions of the worker.

ENGINEERING DESIGN

11. Stormwater Management Plan for stage 1 (Precinct 1) be negotiated with City of Playford, the Environment Protection Agency (EPA) and the Department of Environment, Water and Natural Resources and to the satisfaction of the State Commission Assessment Panel (SCAP) (as delegate of the Minister).
12. Water-sensitive urban design measures and practices shall be adopted for the management of run-off, including stormwater capture and reuse.
13. Proponent to prepare water storage treatment and re-use system within Precinct 1 for Council approval.
14. Final detailed design of the lake shall be submitted to Council for approval.
15. A Management Agreement shall be entered into with the Council regarding the lake's construction, operation, maintenance and handover to Council. It shall include the following provisions:
 - o establishment of an on-going lake management working party comprising Council and proponent representatives;
 - o dual connections to the lake to allow interaction between each water supply;
 - o discharge of all stormwater runoff from the Neighbourhood Centre into the lake;
 - o establishment of a water quality testing regime;
 - o annual reporting of maintenance and management costs to the working party;
 - o Walker will manage and maintain the lake for a period of 10 years;
 - o at the commencement of management of Year 9, Proponent and Council will conduct a practical completion walk-over and Walker will provide Council with a dilapidation report which describes the asset wear of the lake. The parameters of the dilapidation report will be agreed by Council prior to its preparation;

- o at the completion of management Year 10, Walker and Council will conduct a final Completion walk over; and
 - o at the time of handover to Council the lake must be supplied with water from a renewable source (WRSV or ASR system).
- 16. The proponent will prepare a revised landscape strategy for Precinct 1, which will:
 - o set desired character;
 - o set urban design objectives;
 - o set design themes and principles;
 - o nominate street tree themes;
 - o design pedestrian paths and cycle ways (including provision for bicycle parking);
 - o include Management plans for landscape items; and
 - o include the already agreed maintenance schedules, handover and defects liability periods provided in the Swanbury and Penglase Report of August 2011, Ref 10127, Rev E.
- 17. The Precinct 1 landscape strategy will be reviewed in conjunction with the City of Playford to ensure consistency with the amended Precinct 1 plans (subsequently completed).
- 18. A signalised intersection at the junction of Port Wakefield Road/Legoe Road must be provided by the proponent to the satisfaction of Department of Planning, Transport and Infrastructure (DPTI) and approved by the SCAP on behalf of the Minister.
- 19. Detailed design of local roads to be constructed and commissioned in accordance with City of Playford specifications and to the City of Playford's approval.
- 20. Road Typologies for Precinct 1 shall be reviewed and collated within a separate road typology document for the approval of the City of Playford.
- 21. Any traffic control devices for residential areas shall be designed and constructed in accordance with the main standard of the Manual of Uniform Traffic Control Devices—AS 1742.
- 22. Engineering construction plans for roads, drainage and footpaths and intersections to the satisfaction of the City of Playford.
- 23. Any Traffic control devices for the commercial and industrial areas shall be designed and constructed in accordance with the main standard of the Manual of Uniform Traffic Control Devices—AS 1742.
- 24. Cut and fill batters required for road works shall be in accordance with the requirements of the Engineering Design Guidelines of the City of Playford.
- 25. Proponent to enter into an agreement with an electricity provider for the provision of required upgrades.
- 26. Final Design drawings for the signalised intersection of Legoe Road with Port Wakefield Road to the satisfaction of the Department of Planning, Transport and Infrastructure.
- 27. Proponent to enter into an agreement with a licensed water entity for all water and wastewater requirements for Stage 1 (Precinct 1) (where appropriate).
- 28. Detailed design of the lake feature in Precinct 1 is subject to agreement by the City of Playford.
- 29. The detailed design for the Neighbourhood Centre (including architectural elements, community space, open space areas, traffic movement and car parking) is subject to agreement by the City of Playford and the SCAP.

WASTE WATER MANAGEMENT FACILITY FOR STAGE 1 (WWMF)

Noise

- 30. The plant building to be constructed of:
 - (a) 200 mm block walls or 100 mm precast concrete walls.
 - (b) Metal deck roof (e.g. colour bond or equivalent).
- 31. No natural ventilation or un-attenuated louvers in the building enclosure Double Solid Core door with compression acoustic seals (a metal roller door is not recommended).
- 32. Ventilation system (air inlet and air outlet) with sound power level not exceeding 77dBA re 10-12W.

33. The generator to be located on the western side of the plant building (shielded from the eastern and south eastern residences) and housed in an acoustic attenuator so its total sound power is less than 85dBA. The location of the generator is critical and must be on the western side of the building.
34. Sewer pumps to be located within the plant building.

Road access

35. The temporary roadway is proposed to follow the Right of Way outlined in Land Division 292/D079/12 which aligns with the creation of a public road as identified within approved Stage 1 subdivision plans referenced in the this Gazette Notice.
36. Prior to construction, indicative design detail for the temporary roadway must be submitted to the Council for review. The design of the roadway should include:
 - o appropriate capture and disposal of stormwater runoff;
 - o appropriate signage is considered for the junction of the temporary roadway to Riverlea Boulevard;
 - o proposed maintenance requirements are outlined to ensure the integrity of the temporary roadway is monitored and replaced when necessary; and
 - o a management plan for decommissioning the temporary roadway is prepared, so as to ensure that temporary road material is removed from site prior to construction of the final roadway.
37. Final design detail for the construction of the road way as a public road will be required to be submitted to Council prior to construction.

Management Plans

38. A Facility Management Plan must be prepared in conjunction with SA Water, the system operator and Walker Corporation prior to the Facility's commissioning.

Bunding of Storage Tanks

39. The wastewater storage tanks to be installed with a banded compound. This must be designed to meet the requirements of the EPA guideline *Bunding and Spill Management (2007)*.

Odour Management

40. Prior to the operation of the WWMF, an odour monitoring plan for the operation of the pump station and storage tanks must be prepared to the reasonable satisfaction of the EPA and must be implemented as per the plan details.
41. Prior to the operation of the WWMF, a management plan for the operation of the bi-filtration bed fitted to the vacuum pump station must be prepared to the reasonable satisfaction of the EPA and must be implemented at all times during the operation of the pump station.

Future Uses

42. It is noted that the temporary storage tanks for the WWMF will be sited within a future residential area (both roadways and allotments). As such, upon decommissioning of the storage tanks a site contamination audit should be undertaken to ensure that this area is suitable for future residential development.
43. If development is delayed, adequate measures should be in place to ensure management and maintenance of the facility by the proponent.

LAND DIVISION FOR WWMF

44. While this allotment may be required to be created as part of the initial construction works for the site, if the required infrastructure is not installed, the proposed allotment should not be utilised for any future residential purposes.
45. SA Water Corporation advise that all internal piping that crosses the allotment boundaries must be severed or redirected at the developers/owners cost to ensure that the pipework relating to each allotment is contained within its boundaries.

RESIDENTIAL DEVELOPMENT

- 46. Residential Guidelines and an Encumbrance document incorporating all details as per the Response Document shall be provided for any Community titled and Torrens Titled allotments.
- 47. Proponent to review and implement the agreed (with Council) Recreation Facilities Strategy (May 2010) for Stage 1 (Precinct 1) as required.

PRIOR TO COMMENCEMENT OF CONSTRUCTION WORK

- 48. A Construction Environment Monitoring and Management Plan for Stage 1 is completed to the satisfaction of the EPA and the SCAP on behalf of the Minister.
- 49. Operational Environment Monitoring and Management Plans for the Neighbourhood Centre are completed to the satisfaction of the EPA and the SCAP on behalf of the Minister.
- 50. Compliance with the Building Rules in relation to the Neighbourhood Centre of the Major Development for Stage 1 (Precinct 1) prior to construction.

DURING CONSTRUCTION

- 51. Normal operating hours for construction activities and construction truck movements to and from the site shall be from 7am to 7pm. Monday to Saturday inclusive.
- 52. Stockpiled soils shall be suitably managed to control dust emissions, erosion and weed infestation.
- 53. Undeveloped allotments shall be maintained in a neat and tidy condition, with soil surfaces stabilised to minimise erosion.

PRIOR TO REGISTRATION OF NEW ALLOTMENTS

- 54. The Proponent must not lodge with the Lands Titles Office a Plan of Division for the creation of new residential allotments under this development authorisation until the following requirements have been fully satisfied:
 - (a) enter into a legally binding agreement with the Minister for Human Services or his delegate dedicating a portion of the total Stage 1 residential allotments to the provision of affordable housing such that 15 per cent of the total residential development will meet the 'affordable housing criteria' as determined by the Minister by notice in the *South Australian Government Gazette* on October 2009 as amended by further notice from time to time;
 - (b) provide a Plan, developed to the satisfaction of the Director, Affordable Housing and Asset Renewal SA, for Stage 1 of the development showing the proposed location of the 15 per cent of dwellings that will meet the affordable housing criteria; and
 - (c) subject to sub-paragraphs (d) and (e) below, complete construction of a signalised intersection at the junction of Port Wakefield Road/Legoe Road to the satisfaction of Department of Planning, Transport and Infrastructure and approved by the State Commission Assessment Panel on behalf of the Minister.
 - (d) Sub-paragraph (c) above does not apply to a Plan of Division for the creation of allotments for the sole purpose of a Display Village comprising a total of no more than 33 single dwelling residential allotments as approved under this authorisation as part of Precinct 1 of the development. The proponent shall submit to the Minister prior to obtaining development authorisation for the Display Village Plan of Division, a copy of the proposed Plan of Division.
 - (e) Sub-paragraph (c) does not apply to a further Plan of Division for the first 145 residential allotments as approved under this authorisation as part of Precinct 1 of the development if construction of a signalised intersection at the junction of Port Wakefield Road/Legoe Road has reached at least the 'Port Wakefield Road northbound carriageways and junction – Install Asphalt to underside wearing course' project milestone as per the approved construction program, to the satisfaction of Department of Infrastructure and Transport. In the event that delay to construction completion occurs, temporary traffic management arrangements will be provided by the proponent to ensure all necessary movements are managed safely to the satisfaction of the Department of Infrastructure and Transport.
- 55. The proponent shall provide 2 copies of certified surveyed plans for Stage 1, which satisfy compliance with Section 138 and the subsequent issue of Certificates of Title.
- 56. Landscaping and streetscaping of the common areas of the site shall commence prior to the issuing of the Certificates of Title for Stage 1 of the land division, and when established shall be maintained in good health and condition at all times. A plant shall be replaced if and when it dies or becomes seriously diseased. A weed control plan shall also be implemented.

57. That the acoustic barriers and fencing surrounding the open space and along any boulevards shall be treated with a suitable anti-graffiti coating to facilitate easy removal of graffiti.
58. The proponent to provide accurate projections of resident populations to allow Department of Health to plan for local and regional health services prior to the registration of the first residential allotment, and thereafter at 12 month intervals.
59. Final agreement between the City of Playford and the proponent for the provision, timetabling and staffing of the community bus to be provided by the proponent as per the Infrastructure Schedule in the supporting information provided by the proponent in November 2009 (updated in 2015).

DURING THE NEIGHBOURHOOD CENTRE'S OPERATION

60. All car parking areas, driveways and vehicle manoeuvring areas for the neighbourhood centre shall be properly maintained at all times.
61. Waste disposal vehicles and general delivery vehicles shall only service the Neighbourhood Centre development between the hours of 7am and 7pm Monday to Saturday inclusive, and shall only load or unload within the confines of the subject land.
62. The waste and any general storage areas of the Neighbourhood Centre buildings and car parking areas shall be kept in a neat, tidy safe, healthy condition, contained and hidden from view at all times.

PRECINCT 2 AND PRECINCT 1, STAGE 6 (previously Precinct 2C)

63. No allotments within Precinct 2 shall have section 138 clearance granted until such time as:
 - (a) 50% of Precinct 1 (including Stage 6) have been completed with section 138 approval; and
 - (b) commitments for a community space and worker, bus service and convenience shopping are fulfilled.

ENGINEERING DESIGN

64. A Stormwater Management Plan for Precinct 2 be negotiated with the Council, the EPA and DEWNR, to the satisfaction of the SCAP as delegate of the Minister prior to commencement of work on Precinct 2.
65. Water sensitive urban design measures and practices shall be adopted for the management of run-off, including stormwater capture and reuse.
66. The proponent to prepare water storage treatment and re-use system within Precinct 2 (public reserves and areas) for Council approval
67. The Precinct 2 and Precinct 1, Stage 6 landscape strategy will follow the guidelines set out in the 'Riverlea Landscape Master Plan Report'. This report guides the establishment and ongoing management of the public realm landscapes and includes the following aspects:
 - o set desired character;
 - o set urban design objectives;
 - o set design themes and principles;
 - o nominate street tree themes;
 - o design pedestrian paths and cycle ways (including provision for bicycle parking);
 - o include management plans for landscape items; and
 - o include agreed maintenance schedules, handover and defects liability periods with the Council
68. All public roads within the development will be local roads under the care and control of the Council.
69. Road typologies for Precinct 2 and Precinct 1, Stage 6 will be consolidated into the (by then) existing road typologies for Precinct 1, to the satisfaction of the Council.
70. Any traffic control devices for residential areas shall be designed and constructed in accordance with the main standard of the Manual of Uniform traffic Control devices _ AS 1742.
71. Engineering construction plans for roads, drainage and footpaths and intersections to the satisfaction of the Council.
72. Cut and fill batters required for road works shall be in accordance with the requirements of the Engineering and Design Guidelines for the Council.

73. Proponent to enter into an agreement with a licensed water entity for all water and wastewater requirements for Precinct 2 (Precinct 1, Stage 6 will initially be serviced via the approved WWMF for the first 350 allotments).
74. Detailed design for the open space areas is subject to agreement by the Council.
75. Subject to Section 34B of the *Roads (Opening and Closing) Act 1991*, Buckland Road between Legoe Road and the Gawler River will be closed on 19 December 2016 (as agreed with the Council) and the relevant plans will be lodged with the Surveyor General within 3 months of this closure.

RESIDENTIAL DEVELOPMENT

76. Residential Guidelines and an Encumbrance document incorporating all details as per the (original) Response Document shall be provided for any Community Titled and Torrens Titled allotments.
77. Proponent to provide and implement an agreed Recreation Facilities Strategy in agreement with the Council as required.

PRIOR TO CONSTRUCTION WORK

78. A Construction Environment Monitoring and Management Plan (CEMMP) for Precinct 2 and Precinct 1, Stage 6 must be completed to the satisfaction of the EPA and SCAP on behalf of the Minister before construction commences (see notes for content of CEMMP)
79. An Operational Environment and Monitoring Management Plan (OEMMP) including the following and considering the suggested inclusions in the 'Notes' section attached:
 - A Mosquito Management Plan (in consultation with the Department of Health)
 - An approved significant Environmental Benefit SEB plan are to be completed for Precincts 2 and Precinct 1, Stage 6 and to the satisfaction of the EPA and SCAP.

DURING CONSTRUCTION

80. Normal operating hours for the construction activities and construction work movements to and from the site shall be from 7am to 7pm Monday to Saturday inclusive.
81. Stockpiled soils shall be suitably managed to control dust emissions, erosion and weed infestation.
82. Undeveloped allotments shall be left in a neat and tidy condition, with soil surfaces stabilised to minimise erosion.

PRIOR TO REGISTRATION OF NEW ALLOTMENTS

83. The Proponent must:
 - (a) Enter into a legally binding agreement with the Minister for Planning and Local Government or their delegate dedicating a portion of the total Precinct 2 and Precinct 1, Stage 6 residential allotments to the provision of affordable housing such that 15% of the total residential development will meet the 'affordable housing criteria' as determined by the Minister by notice in the South Australian Government Gazette on October 2009 as amended by notice from time to time;
 - (b) Provide a Plan developed to the satisfaction of the Director Affordable Housing and Asset Strategy within Renewal SA, for Precinct 2 and Precinct 1, Stage 6 showing the proposed location of the 15% of dwellings that will meet the affordable housing criteria; and
 - (c) subject to sub-paragraph (d) below, complete construction of a signalised intersection at the junction of Port Wakefield Road/Legoe Road to the satisfaction of Department of Planning, Transport and Infrastructure and approved by the State Commission Assessment Panel on behalf of the Minister.
 - (d) Sub-paragraph (c) above does not apply to a Plan of Division for the creation of allotments for the sole purpose of a Display Village comprising a total of no more than 33 single dwelling residential allotments as approved under this authorisation as part of Precinct 1 of the development. The proponent shall submit to the Minister prior to obtaining development authorisation for the Display Village Plan of Division, a copy of the proposed Plan of Division.
84. Proponent must provide 2 copies of certified survey plans for Precinct 2 and Precinct 1, Stage 6, which satisfy compliance with section 138 and the subsequent issue of Certificates of Title.
85. Landscaping and streetscaping of the common areas of the site shall commence prior to issuing of the Certificates of Title for Precinct 2 and Precinct 1, Stage 6 and when established shall be maintained in good

health and condition at all times. A plant shall be replaced if and when it dies or becomes seriously diseased. A weed control plan shall also be implemented.

86. That any fencing surrounding the open space and along any boulevards shall be treated with a suitable anti-graffiti coating to facilitate easy removal of graffiti.
87. Proponent to provide accurate projections of resident populations to the Department of Health to plan for local and regional health services at 12 month intervals.

STORMWATER MANAGEMENT PLAN

88. The development shall be undertaken in accordance with the approved Stormwater Management Plan, being the Stormwater Management Plan for Riverlea Development – Precinct 1 & 2, Project No. WGA080163, Doc No. WGA080163-RP-CV-0015, Rev C, prepared by WGA and dated 17.02.2023 (excluding any reference to stage 14).

ABORIGINAL CULTURAL HERITAGE

89. Prior to the issuing of a land division certificate for each stage under s.138 of the *Planning, Development and Infrastructure Act 2016*, the requirements of the Minister for Aboriginal Affairs shall be implemented in respect to Aboriginal Cultural heritage.

PART B: NOTES TO PROPONENT

CONDITIONS OF BUILDING CERTIFICATION:

To be determined.

ADVISORY NOTES:

The proponent must obtain a Building Rules certification for any building work to be undertaken from either the Accredited Professional (at the proponent's option) and forward to the Minister for Planning all relevant certification documents for final approval within the Neighbourhood Centre.

- Pursuant to Development Regulation 64, the proponent is especially advised that the Council or private certifier conducting a Building Rules assessment must:
 - provide to the Minister for Planning a certification in the form set out in Schedule 12A of the Development Regulations 2008 in relation to the building works in question; and
 - to the extent that may be relevant and appropriate:
 - issue a Schedule of Essential Safety Provisions under Division 4 of Part 12;
 - assign a classification of the buildings under these regulations; and
 - ensure that the appropriate levy has been paid under the Construction Industry Training Fund 1993.
 - Regulation 64 of the *Development Regulations 2008* provides further information about the type and quantity of all Building Rules certification documentation for major developments required for referral to the Minister for Planning. The City of Playford or private certifier undertaking Building Rules assessments must ensure that the assessment and certification are consistent with the provisional development authorisation (including its Conditions and Notes).
- A Construction, Environmental Management and Monitoring Plan covering preconstruction and construction phases.

A Construction Environmental Management and Monitoring Plan (CEMMP) covering both pre-construction and construction phases shall be prepared in consultation with the EPA, before its submission to the State Commission Assessment Panel on behalf of the Minister. The CEMMP shall include the following:

 - reference to, and methods of adherence to, all relevant EPA policies and codes of practice for construction sites, including the inclusion of a copy of Schedule 1 of the Environment Protection Act 1993 as an Appendix to the Construction Environmental Management and Monitoring Plan to ensure contractors are aware of EPA requirements;
 - address management issues during construction and including a site audit (or as required by EPA);
 - timing, staging and methodology of the construction process and working hours (refer also to conditions outlining working hours);
 - a risk assessment relating to the potential impacts of construction activities;

- traffic management strategies during construction, including transport beyond the development site;
- management of infrastructure services during construction;
- control and management of construction noise, vibration, dust and mud;
- stormwater and groundwater management during construction;
- control and management of any floodwater risk across the site;
- identification and management of contaminated soils and groundwater, should these be encountered;
- site security, fencing and safety and management of impacts on local amenity for residents, traffic and pedestrians;
- disposal of construction waste, any hazardous waste and refuse in an appropriate manner according to the nature of the waste; and
- protection and cleaning of roads and pathways as appropriate; and
- overall site cleanup.

The CEMMP should be prepared taking into consideration, and with explicit reference to, relevant EPA policies and guideline documents, including the *Environment Protection (Noise) Policy 2007*.

(c) Operational Environment Management Plan

The Operational Environment Management Plan would need to be prepared the commercial components, to the reasonable satisfaction of the EPA, the Department of Environment, Water and Natural Resources and the Council, prior to construction commencing, for approval by the SCAP on behalf of the Minister.

- The proponent is advised that noise emissions from the Neighbourhood centre and residential (display village) development will be subject to the *Environment Protection (Noise) Policy 2007* and the *Environment Protection Act 1993*.
- If the development is not substantially commenced by 31 October 2021, the Governor may cancel this development authorisation.
- The proponent is advised of the General Environmental Duty under Section 25 of the Environment Protection Act 1993, which provides that a person must not undertake any activity, which pollutes, or may pollute, without taking all reasonable and practical measures to prevent or minimise harm to the environment.
- The proponent is advised of the requirement to comply with the EPA's 'Stormwater Pollution Prevention Code of Practice for the Building and Construction Industry' during demolition and construction of the development.
- The proponent is advised that the Development Act 1993 outlines the roles and responsibilities of the applicant and the Council for matters relating to building works during and after construction of the neighbourhood centre and associated works.
- Partial closure of Legoe Road under Part 7A (Section 34C (2) (a) (ii)) of the Roads (Opening and Closing) Act 1991 as described in drawing number 19000PO2—r5 Issue 5—Sheets 1-4 to take effect on a day to be fixed by subsequent order of the Governor or Minister published in the Gazette, once surveyed Land Division plans have been submitted and alternate physical access is provided to all affected allotments.
- Section 51 of the Development Act 1993 will apply to the land division in that the proponent will need to satisfy the requirements of this Section in order to implement this land division, including completion of the signalised intersection at the junction of Port Wakefield Road/Legoe Road.
- This approval does not include any approval for dwellings as it is not part of this application.
- This approval does not include any approval for signs (as defined as 'Development' under the *Planning, Development and Infrastructure Act 2016*) as it is not part of this application.
- The provisions of the Food Act 2001, and associated food regulations apply.
- Any Sanitation units installed in the Neighbourhood Centre will be installed as per the requirements of the Public and Environmental Health Act (1987).
- That provision shall be made for secure storage of shopping trolleys within the neighbourhood complex at night to the reasonable satisfaction of the City of Playford.
- In addition to the Building Code of Australia, the proponent must comply with the Commonwealth Disability Discrimination Act 1992, in planning access for the disabled.

- The main standard for traffic control devices is the Manual of Uniform Traffic Control Devices—AS 1742. There are many standards under AS 1742 covering the various traffic control devices that may need to be referred to.
- As per Schedule 8, Item 23, Development Regulations 2008 (of the repealed regulations), and the Affordable Housing Act 2007 for the proposal to include 15 per cent affordable housing.
- The proponent should note that they and their contractors must comply with the requirements of the *Aboriginal Heritage Act 1988*.
- The proponent should note that they and their contractors must comply with the *Adelaide Dolphin Sanctuary Act 2005* and the general duty of care under that Act.
- Proponent to undertake vegetation surveys and to complete a Significant Environmental Benefit (SEB) with attached Vegetation Management Plans to the satisfaction of the Department of Environment, Water and Natural Resources for Stages 2-5 where native vegetation exists on the site (there is no native vegetation in Stage 1).
- Approval for further Road closures under the Roads (Opening and Closing Act) 1991, will be required in future stages of the development and will proceed through the normal (Council) process in relation to this matter.
- The proponent must take all reasonable and practicable measures to prevent odour impacts at sensitive receivers (in the form of environmental nuisance) from all odour sources including the pump stations, storage tanks and the effluent transfer and transport.
- The management plan for the biofiltration bed associated with the WWMF should include how aspects of the biofiltration such as moisture control, microbial efficiency, condition and maintenance will be monitored and managed.
- The Minister has a specific power to require testing, monitoring and auditing under s.117 of the new Act.

CONTACT DETAILS OF CONSENT AUTHORITIES:

Name: Minister for Planning	Type of consent: Development authorisation
Postal Address: c/- DTI, GPO 1815, ADELAIDE SA 5001	
Telephone: 1800 752 664	Email: spcapplications@sa.gov.au

Appendix 2: Guidelines

A copy of the amended Assessment Guidelines is contained here:

https://plan.sa.gov.au/data/assets/pdf_file/0010/574039/BPT_Amended_Environmental_Impact_Statement_Guidelines.pdf

Appendix 3: First Amendment to the EIS (c.2015)



Figure 23: Layout c.2015 (**Source:** Development Application - Amendment to the EIS (November 2014)).

Appendix 4: Second Amendment to the EIS (c.2024)



Figure 24: Layout c.2024 (Source: Development Application - Second Amendment to the EIS (September 2024)).

Appendix 5: Overview of Current Planning Policies

17.1 State Planning Policies

State Planning Policies represent the highest level of policy in our new planning system, and address the economic, environmental and social planning priorities for South Australia.

The following SPPs are relevant to the assessment of the proposal:

- SPP1: Integrated Planning
- SPP2: Design Quality
- SPP5: Climate Change
- SPP6: Housing Supply and Diversity
- SPP7: Cultural Heritage
- SPP14: Water Security and Quality
- SPP15: Natural Hazards

Whilst the Buckland Park Township major development was approved before the introduction of the above SPPs under the PDI Act, they are required to be considered in the preparation of Environmental Impact Statements, with the current process being an amendment to an EIS.

The ‘Riverlea’ project seeks to develop a master planned community development that combines a long-term vision with coordinated delivery of social, community and economic infrastructure to support a population of 30,000 persons. New housing and other built development is assessed under the Planning and Design Code, where issues of design quality and sustainability remain foundational principles of the planning system, including building efficiency standards.

A mix of housing types (single storey detached, townhouse etc.) and tenure mix is proposed, with not less than 15% of new homes designated as “affordable” and required under a Land Management Agreement (LMA) for both Precinct 1 and 2.

The management of Aboriginal Cultural Heritage sites, artifacts and remains continues to be a key consideration in the development of Precinct 2, now reflected in the requirements of a new authorisation recently received under the AHA.

The development seeks to use seawater to sustainably manage an internal lakes system to provide an additional level of amenity and recreational use for local residents, whilst maintaining suitable flood mitigation measures (for the capture and discharge of overland flows) and building site levels to minimise periodic flood risks from the Gawler River.

Note: None of the Special Legislative Scheme SPPs apply to this assessment.

Summary: The proposal remains consistent with relevant SPP’s for the development of Riverlea.

17.2 Greater Adelaide Regional Plan

The PDI Act provides for South Australia to be divided into Planning Regions. Each region in South Australia has a plan to both guide development and reflect the vision of the State Planning Policies. On 23 September 2024, the Draft GARP Plan was released for public consultation.

The GARP sets out a long-term vision for Greater Adelaide, detailing where people will live and work, how they will move around and where they will access services. The plan makes recommendations for managing growth and adapting to changes in our community and urban environment.

The policy recommendations of most relevance:

- Facilitate the delivery of sufficient, well timed land supply aligned with needed infrastructure and flexibility in zoning and policies to allow for housing diversity.
- Support housing affordability by ensuring necessary land supply across Greater Adelaide and timely delivery of infrastructure.
- Deliver a greater choice of housing diversity.
- Greenfield and township development:
 - *Priorities the release of zoned land based on orderly growth and transparency of costs to the community.*
 - *Performance outcomes established for greenfield communities to promote connected, convenient, cohesive, and climate-smart communities.*
 - *New growth areas incorporate employment land and activity centers to ensure new communities have locally accessible employment opportunities.*
 - *Build on existing infrastructure capacity in townships where growth opportunities exist that does not detrimentally impact the Character Preservation Areas or areas of high environmental or agricultural value.*

Riverlea has already been zoned for urban development, such that the GARP does not specifically consider its future growth (as already forms part of the 15-year land supply).

The GARP does envisage the further provision of residential development areas to the south of Riverlea, and the development of a new regional entre to support the growth of key areas such as Riverlea Park, Roseworthy and Two Wells.

There remains a significant opportunity to leverage existing greenfield growth fronts within the region, including Riverlea Park, Angle Vale, Gawler East, Roseworthy, Two Wells, Munno Para and Blakeview, to support future growth in the region.

The key growth issues relate to infrastructure and service provision to support these opportunities (and provide for orderly and economic development). Walker Corporation and SA Water are working collaboratively to roll out both potable water and wastewater mains to enable the release of new allotments (with new sales suspended since May 2024).

Summary: The proposal remains consistent with GARP's long term growth objectives in the north. Consideration of a second access to Riverlea and potential infill areas to the south, will be a matter for future consideration as these medium-term planning requirements are developed.

17.3 Planning and Design Code

Buckland Park (Riverlea Township) comprises land within a Masterplanned Neighbourhood Zone identified by the Planning and Design Code (Version 2025.3, 13 February 2025) under the *Planning, Development and Infrastructure Act 2016*. A copy of the P&D code can be found [here](#).

Master Planned Neighbourhood Zone policies can broadly be summarised as:

- Development that supports a new or expanding community with a diverse range of housing located within easy reach of a diversity of services, facilities and open space to support a growing community and create a pleasant place to live.
- Land division results in a low-to-medium density neighbourhood that contains a diverse range of housing types and allotment sizes, staged and provided in a manner that supports the orderly expansion of urban areas and the economic provision of infrastructure and services.
- Street patterns and pedestrian and cycle connections designed to reduce travel distances to open space, public transport, activity centres and community facilities and assist to create low speed environments in local streets.
- Community facilities such as schools, community centres, recreation centres and public open space are co-located within activity centres or co-located with complementary uses to reinforce their role as a focal point for community.
- The size and distribution of open space encourages recreation and healthy lifestyles, by including a variety of attractive features such as walking and cycling trails, play spaces, water features, irrigated recreation spaces, sporting infrastructure or public art.
- Development is compatible with the outcomes sought by *Concept Plan 14 – Buckland Park* of the Planning and Design Code to support the orderly development of land through staging of development, provision of infrastructure and the location of new activity centres.

General Development modules of relevance would include design in urban areas, infrastructure and renewable energy facilities, interface between land uses, land division, open space and recreation, site contamination, transport-access and parking and waste management.

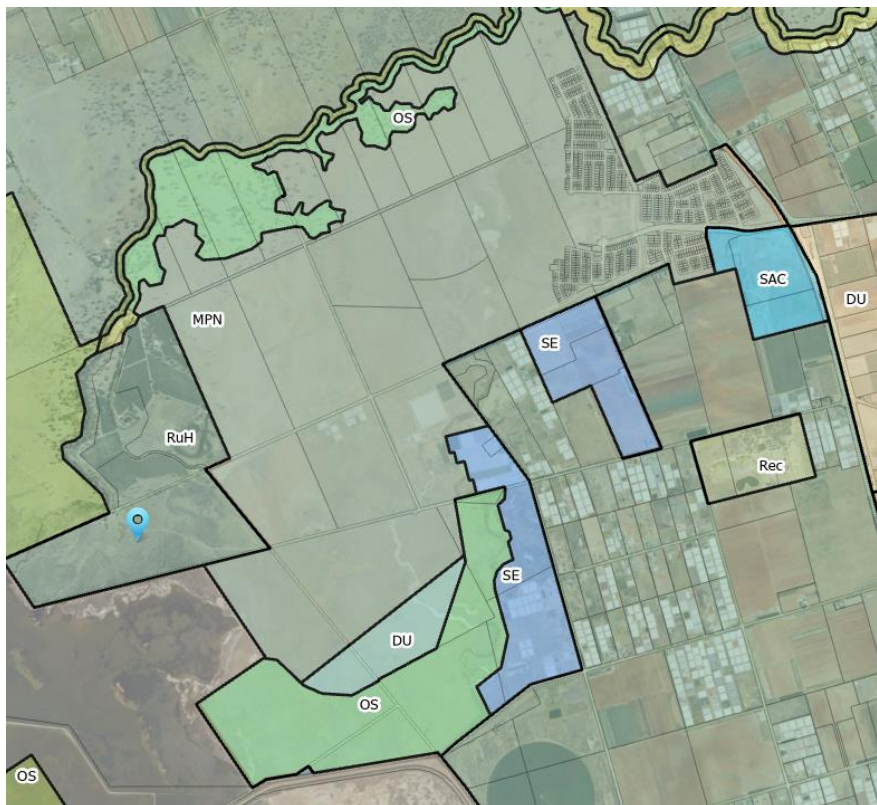


Figure 16: Planning and Design Code Zoning for the site.

Appendix 6: Definitions and Acronyms

ACRONYM	DEFINITION
AAR-AGD	Aboriginal Affairs and Reconciliation, Attorney Generals Department
AHA	Aboriginal Heritage Act 1988
AAR	Amendment to the Assessment Report
AEIS	Amendment to the Environmental Impact Statement
ANZECC	Australian and New Zealand Environment and Conservation Council
BOD	Biochemical Oxygen Demand
COEE	Care of Our Environment – Environmental Consultants
COD	Chemical Oxygen Demand
CEMP	Construction Environmental Management Plan
CHMP	Cultural Heritage Management Plan
DEW	Department for Environment and Water
DHUD PLUS	Department for Housing and Urban Development - Planning and Land Use Services
DIT	Department for Infrastructure and Transport
DWMP	Dewatering Management Plan
DO	Dissolved Oxygen
EP Act	<i>Environment Protection Act 1993</i>
EPA	Environment Protection Authority
EIS	Environmental Impact Assessment
EMP	Environmental Management Plan
GPT	Gross Pollutant Trap
HDPE	High-Density Polyethylene
KYAC	Kaurna Yerta Aboriginal Corporation RNTBC
LLDPE	Linear Low-Density Polyethylene
MNZ	Masterplanned Neighbourhood Zone
The Minister	Minister for Planning
NVC	Native Vegetation Council
OEMP	Operational Environmental Management Plan
P&D Code	Planning and Design Code
PVC	Polyvinyl Chloride
PSI	Preliminary Site Investigation
Hybrid Strategy	Progressive Adaptive Hybrid Lake Water Management & Treatment Strategy
RD	Response Document
SAHA	SA Housing Authority
SWL1	Salt Water Lake 1
SPC	State Planning Commission
SPP	State Planning Policy
WSUD	Water Sensitive Urban Design
WTP	Water Treatment Plant

saplanningcommission.sa.gov.au

State Planning Commission

Level 10, 83 Pirie Street
GPO Box 1815
Adelaide South Australia 5001