SA Water

Housing Roadmap Oversight Committee

Delivery 2024 – 2028

All timeframes reported in this pack are subject to required approvals and agreement with developers.

Government of South Australia

Context

SA Water has a plan to unlock growth

- New infrastructure will deliver water and wastewater services for new houses for the immediate future and expand capacity for long term future growth
- Where practicably possible our construction program is aligned to developer growth forecasts
- Interim solutions are being considered with developers to support continued housing construction
- We are preparing for complex construction involving large scale infrastructure, railway crossings, deep excavations, interface with major roads and through built up areas, night works, traffic management and stakeholder engagement

Criteria used to prioritise investment

A set of infrastructure investment prioritisation criteria was defined together with DTI (HIPDU), DTF, DPC and ISA (during working group meetings in late 2023-early 2024) and shared with Cabinet:

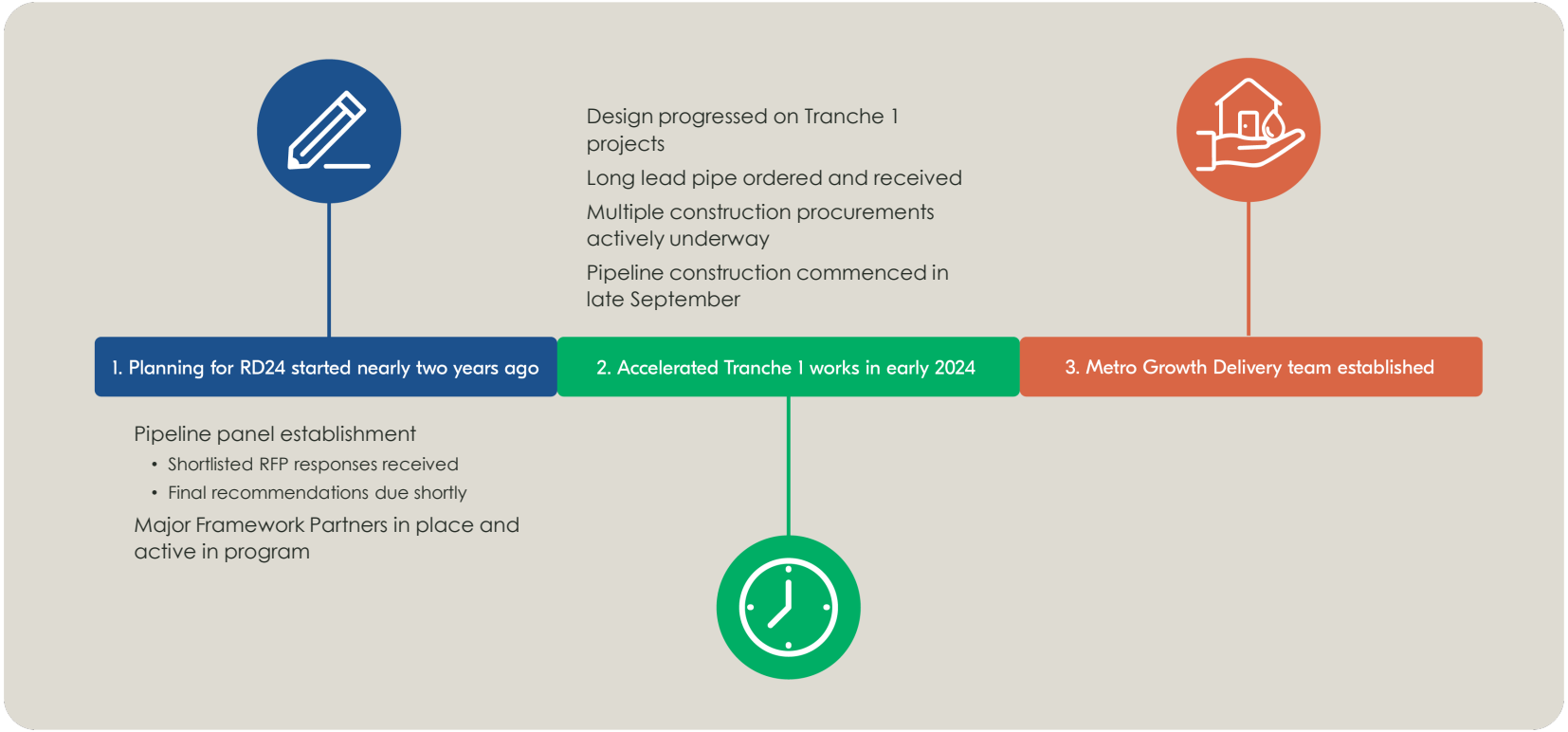
1. Unlock housing, most number of houses for investment proposed
2. Water and wastewater systems and facilities need to operate with sufficient capacity
3. Services to customers need to be maintained, or minimal impact
4. Existing commitments need to be met
5. No long-term sewer tankering

This criteria informed the proposed prioritised investment that informed Cabinet decision making.

The **application of this criteria has meant that SA Water will tolerate a greater level of risk in order to ensure the most number of houses can be unlocked**. For example:

- A portion of Bolivar WWTP capacity works has been deferred to the next regulatory period
- Wastewater capacity upgrades to the Salisbury wastewater trunk main are using innovative solutions (not previously used within SA Water) to optimise peak flow storage solutions to reduce time and cost.
- Seeking wherever possible to utilise interim operating solutions to maximise the number of customers that can be supplied from our existing water network

Delivery of Metro Growth



Supply model for Regulatory Period 2024-28

Program leadership
(SA Water, Client Partner, Front End Engineering and Major Framework Partners)

Major frameworks	Major projects	Pipeline Framework (new)	Minor frameworks	Panels	Workshops
Major Framework Partners x 3 Design and construction of approx. 50% of program relating to complex multi-disciplinary scope	Separate delivery pathway for complex projects > $50m	**Procurement process in progress** Design and construction of large diameter pipelines and ancillaries	**Wastewater network rehabilitation, water main relays, security** Design and construction of specialist delivery programs	**Engineering Minor Works Automation** Efficient access to pre-qualified specialist capabilities	Self-perform capability supporting regional delivery program

Project and program management will be delivered by a combination of SAW resources, Client Partner and specialist panel resources.

Some design will be delivered through Front End Engineering Partners.

A number of projects will be delivered through MFPs

A portion of trunk pipeline work is anticipated to be delivered through the Pipeline Framework

The majority of design work is anticipated to be delivered through the Engineering Panel

Specialist delivery support services (approvals etc) will be delivered through a combination of panels and individual arrangements.

Metro Growth Delivery

Third-party provision of services

- The *Water Industry Act 2012* allows for other parties to deliver water and wastewater services
- The Housing Roadmap is very clear about the role that third-party services can play in enabling growth
- The Roadmap and today's presentation assumes that investments proceed consistent with the Housing Roadmap announcement
- Where a development wishes to move to an alternate provider this will affect what can be delivered in a location and the allotments that can be serviced in that location.
- We are seeking to maximise the number of allotments that can be supported through this capital investment in the interests of enabling growth. Early notice will assist in this.

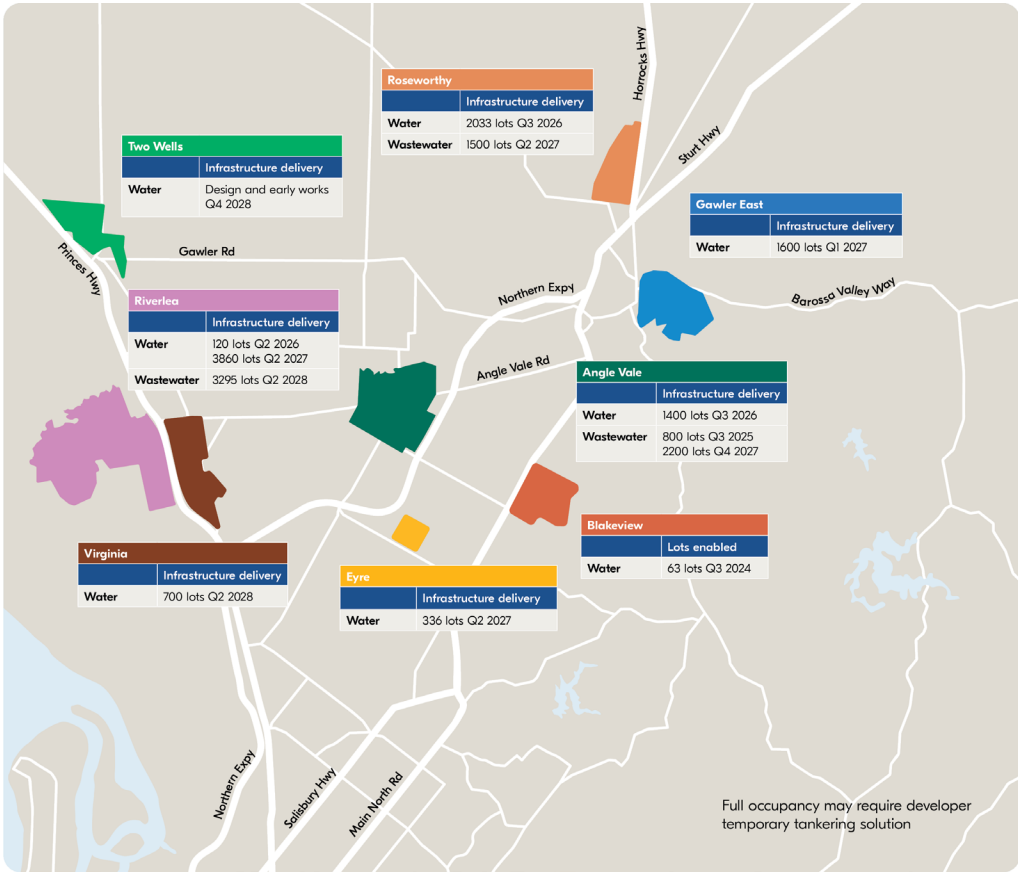
Key considerations for government

- **Transparency.** Allocated allotments are being set out by location
- **These are in-principle 'use it or lose it' allocations.** The $1.2 billion investment is designed to enable growth. Where houses are not being constructed, allocations may be withdrawn and applied elsewhere
- **Limiting duration of temporary tankering.** Government is considering mechanisms to provide certainly of the duration of any requirements

Delivery program of water and wastewater infrastructure

SA Water will deliver 11,213 water lots* and 8,295 wastewater lots across metropolitan Adelaide

* plus additional beneficiaries

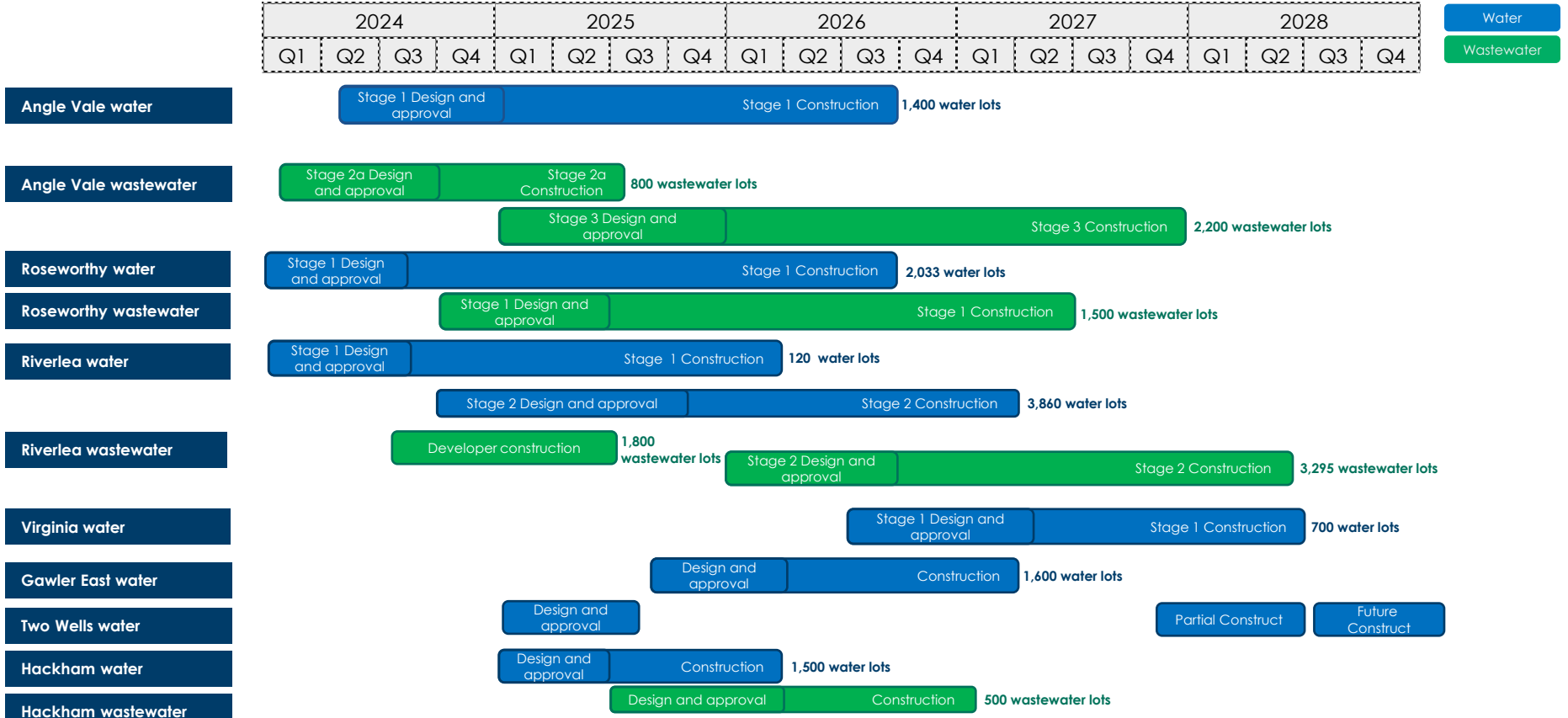


Government of South Australia

SA Water

Calendar Years

Delivery timelines subject to Public Works Commission approval

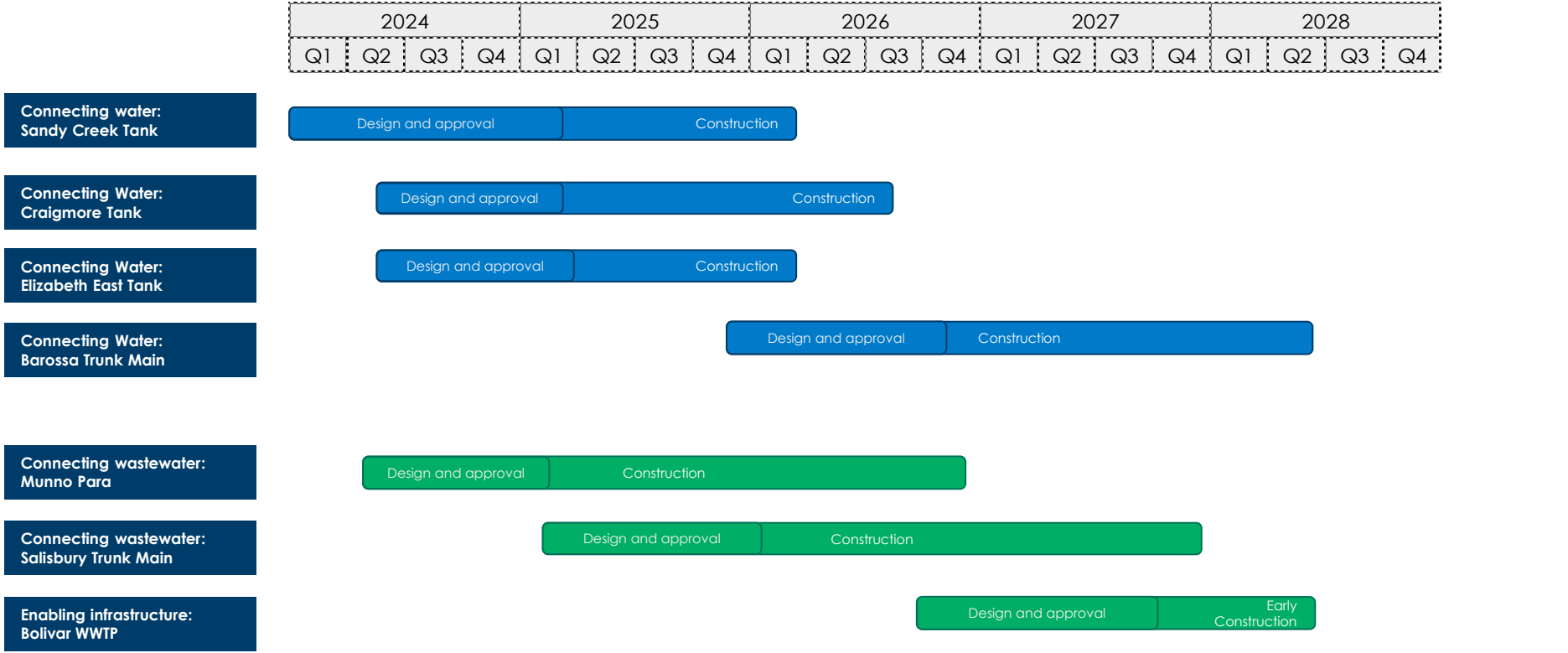


Delivery timelines subject to Public Works Commission approval

Water

Wastewater

Calendar Years



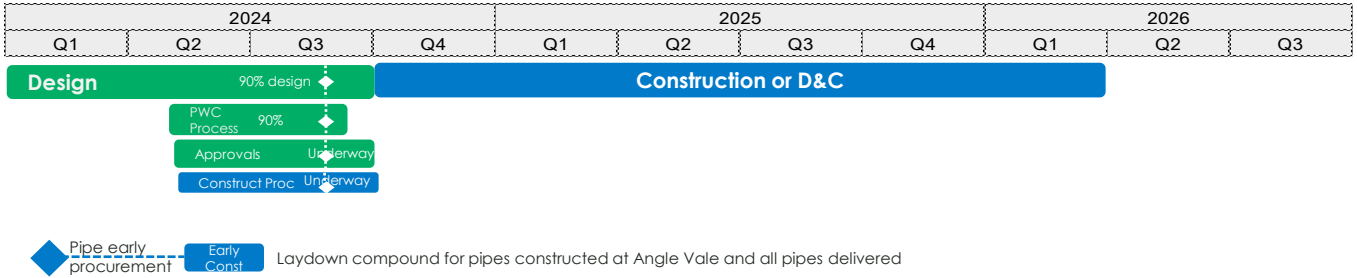
Tranche #1of the delivery program

Summary of Tranche 1 Water Projects

Delivery timelines subject to Public Works Committee approval

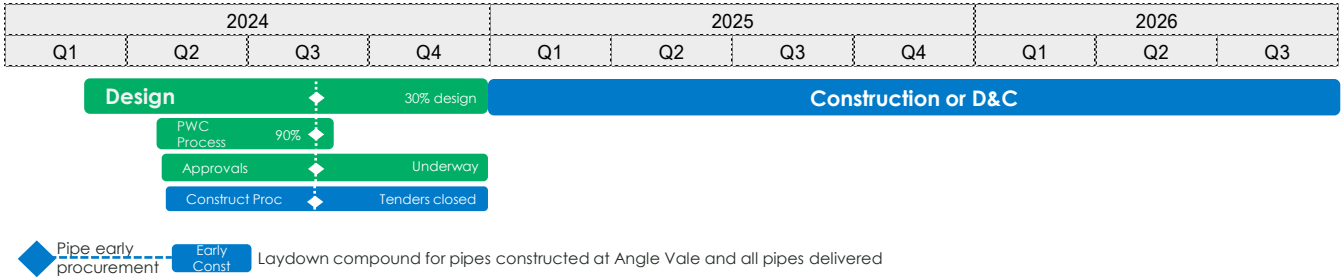
Riverlea Stage 1 & enabling Works (Water)

1.3km DN1200 trunk main duplication including Main Nth Rd works, Gawler rail line crossing. 3.4km DN750 trunk main duplication including ARTC rail line crossing



Angle Vale Stage 1 (Water)

DN1200 trunk main from the Craigmore tank
DN1000 trunk main in Curtis Rd
DN750 main in Curtis Rd

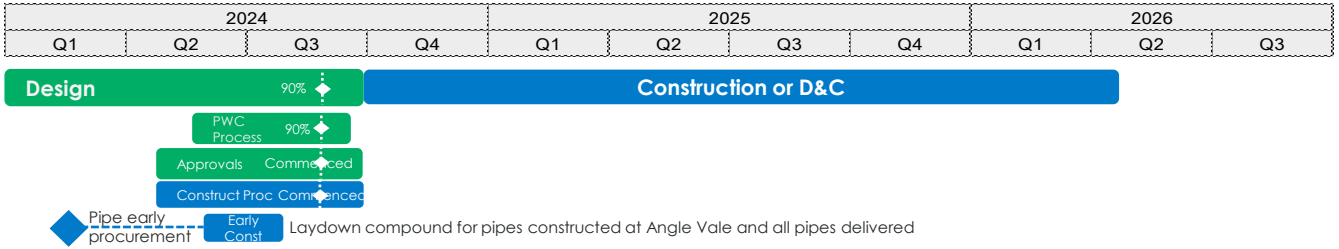


Summary of Tranche 1 Water Projects

Delivery timelines subject to Public Works Committee approval

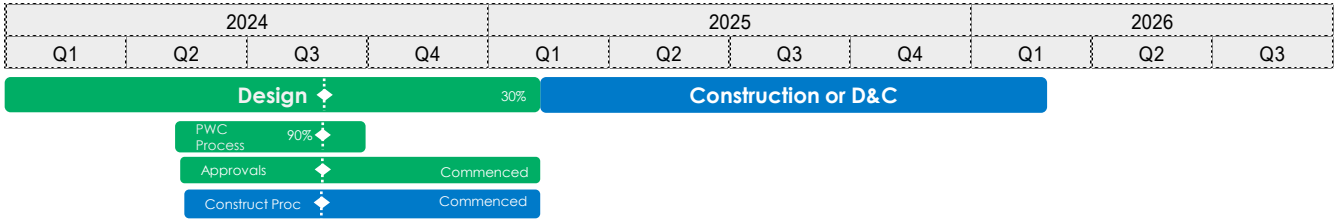
Roseworthy – Stage 1 (Water)

4km DN750 trunk main duplication, Gawler East Pump Station and Roseworthy Booster Pump Station upsize, Sandy Creek DN1000 trunk main and new water storage tank



Water network and storage infrastructure - Sandy Creek Tank (Water)

Inlet valve works Sandy Creek Tank. Includes new control valves and upgrades to facilities providing additional flow and greater control to storage tanks.

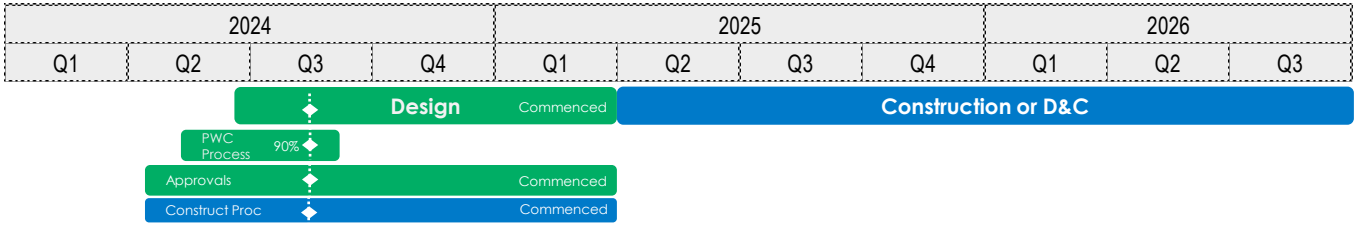


Summary of Tranche 1 Water Projects

Delivery timelines subject to Public Works Committee approval

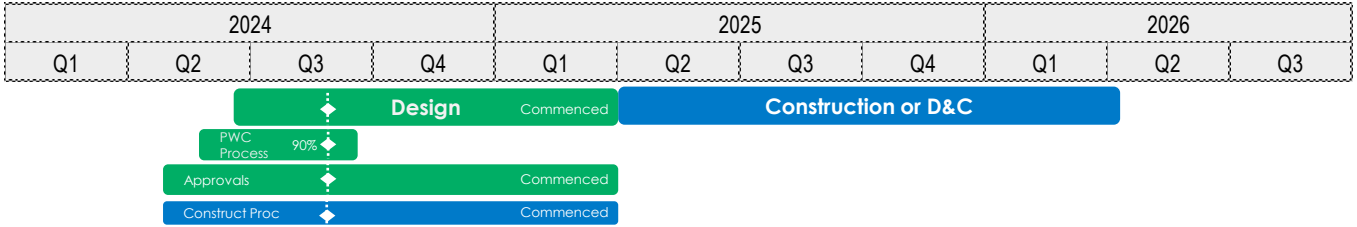
Water network and storage infrastructure - Craigmore Tank (Water)

Inlet valve works Craigmore Tank. Includes new control valves and upgrades to facilities providing additional flow and greater control to storage tanks.



Water network and storage infrastructure – Elizabeth East Tank (Water)

Inlet valve works Elizabeth East Tank. Includes new control valves and upgrades to facilities providing additional flow and greater control to storage tanks.

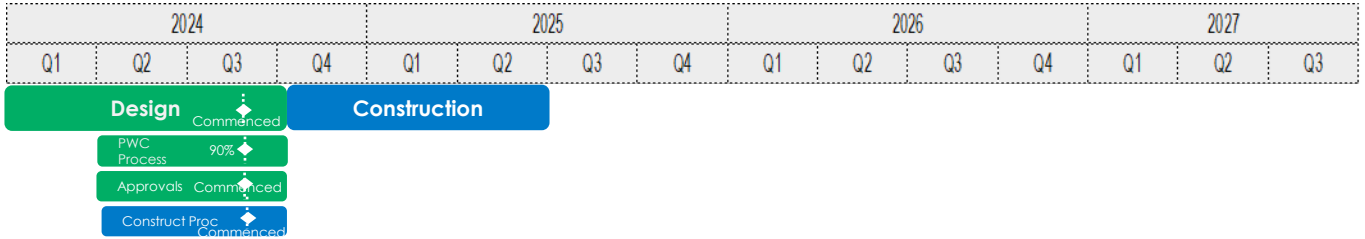


Delivery timelines subject to Public Works Committee approval

Summary of Tranche 1 Wastewater Projects

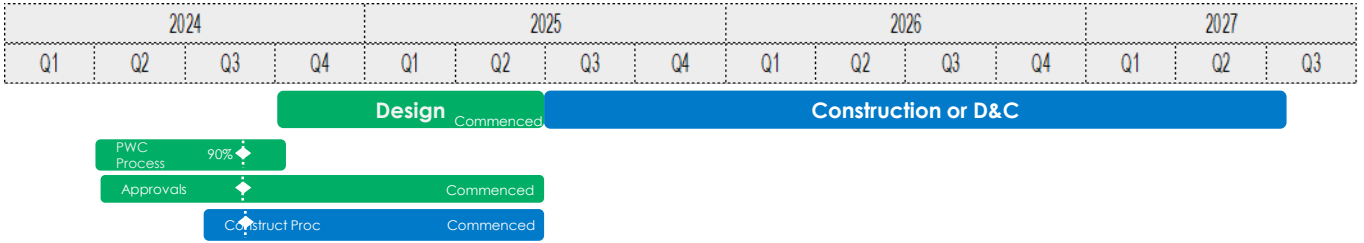
Angle Vale Stage 2 (Waste Water)

Pump station upgrades including new pumps within existing pump chamber, electrical equipment upgrades duplicating transfer capacity from the Angle Vale development catchment.



Roseworthy - Stage 2 (Waste Water)

5.7km of gravity sewer main, 2km pumping sewer main, new pump station. Includes river crossings, deep excavation within residential areas, pipe under boring road crossings, complex traffic management.

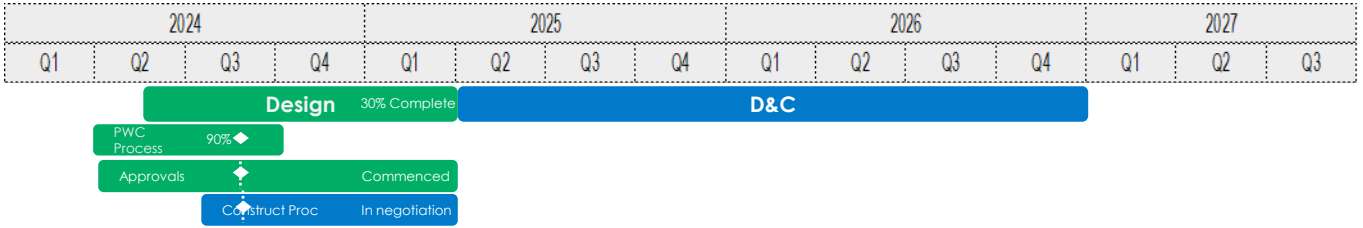


Delivery timelines subject to Public Works Committee approval

Summary of Tranche 1 Wastewater Projects

Network Infrastructure (enabling system) Munno Para Trunk (Waste Water)

10km DN600 trunk main duplication Andrews Road, Stebonheath Road cross-connection.



Development area delivery plans and status

Angle Vale

- Existing commitments with developers (DAFIs) will be met
- Building upon existing available water capacity, an additional 1400 lots will be supplied by water infrastructure from Q3, 2026
- 800 more wastewater connections available after Q2, 2025 will minimise the need for tankering currently occurring for these homes
- An additional 2,200 lots will be able to be connected to wastewater infrastructure by Q4, 2027
- Pipes have been delivered, technical design is underway

Delivery Schedule Angle Vale

Wastewater

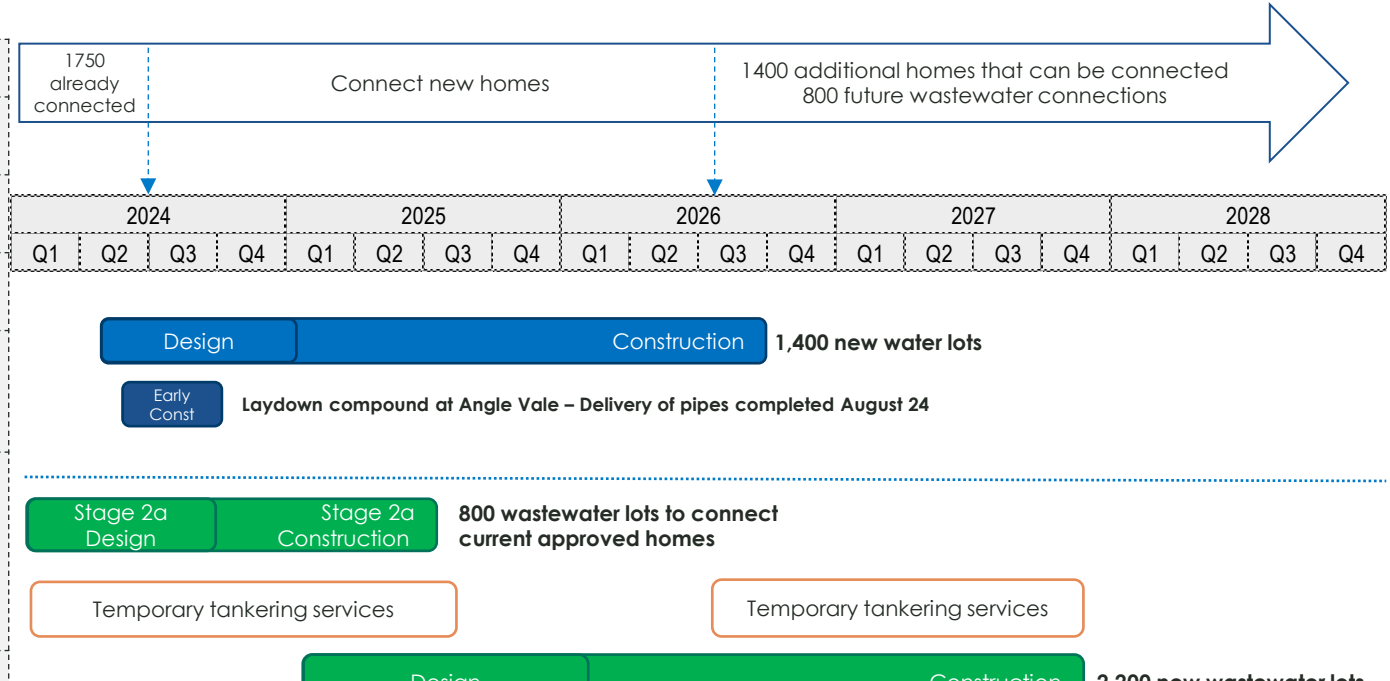
Water

Temporary tankering services
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Angle Vale

Key drivers of delivery:	• System capacity • Developer expectations
Homes connected	Approximately 1,750
Delivered so far:	Laydown compound; pipework procured, design
Water works to be done:	DN1200 trunk main from the Craigmore tank; DN1000 trunk main Curtis Rd; DN750 main in Curtis Rd
Wastewater works to be done:	Pump station upgrades including new pumps and electrical equipment 3.7km sewer mains; 3 pump stations; 2.4km DN300 pumping main
New services capacity:	Water 1,400 Wastewater 800 for DAFIs Wastewater 2,200



Roseworthy

- Construction starts late 2024 to increase capacity for an additional 2033 water lots to increase capacity for existing and future customers
- To enable continual housing construction in the area we are already managing the water network with storage and water management interventions, and talking with developers about further opportunities until the permanent infrastructure is in place
- SA Water has no existing wastewater network to service new houses in Roseworthy and is tankering wastewater from new developments
- Whilst tankering is in place for now, works start 2024 to design and construct a new network to service 1,500 lots
- Design works have started for Roseworthy, pipes have been procured

Delivery Schedule Roseworthy

Wastewater

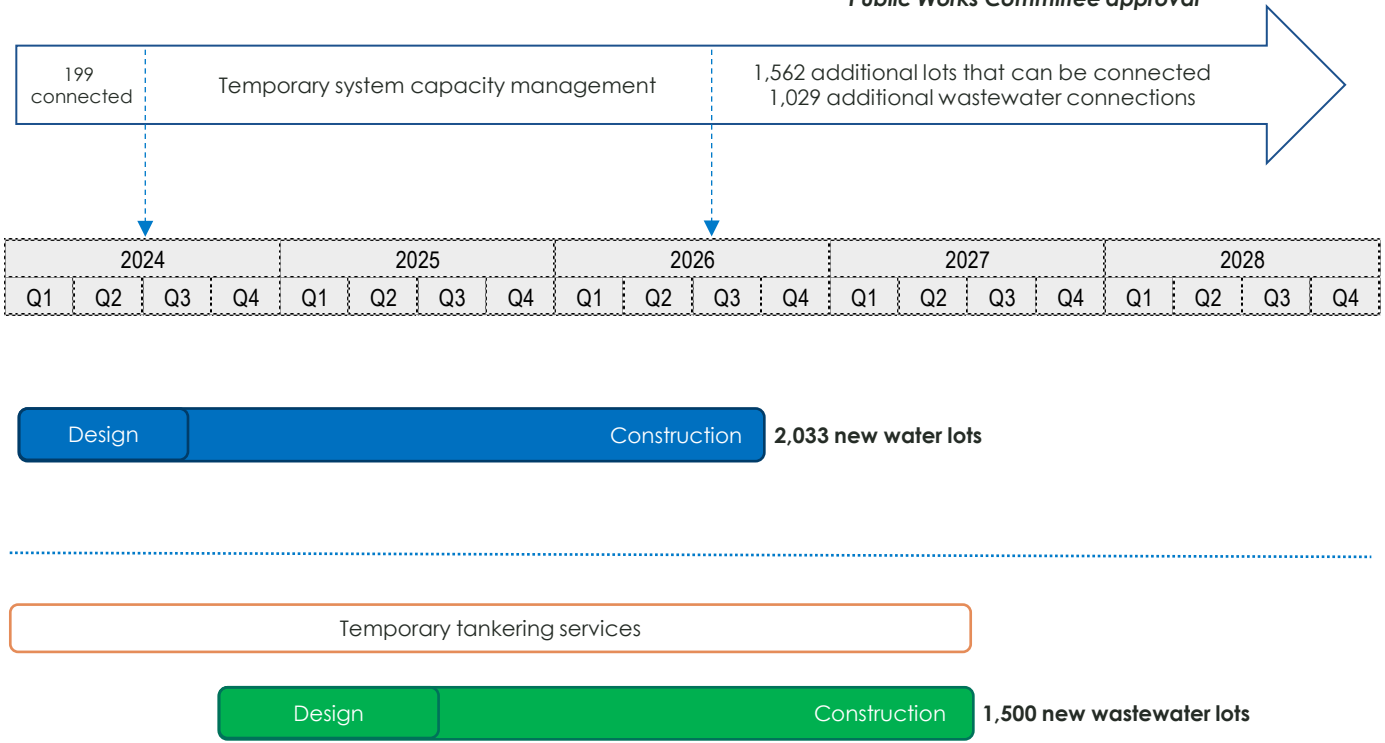
Water

Temporary tankering
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Roseworthy

Key drivers of delivery:	• Services new homes • System capacity • Developer expectations
Homes Connected:	199
Delivered so far:	Design works 90% Tankering in place
Water works to be done:	4km DN750 trunk main duplication, Gawler East Pump Station; Roseworthy Booster Pump Station upsize, Sandy Creek DN1000 trunk main
Wastewater works to be done:	5.7km of gravity sewer main, 2km pumping sewer main, new pump station. Temporary tankering
New services capacity:	Water 2,033 Wastewater 1,500



Riverlea

- By 2026 the water network capacity will be increased to 1,100 lots and by 2027 up to 3,980 lots will have water services
- Pipes have been procured and design is underway
- We are working with the developer on ways to keep construction moving with interim solutions to increase water capacity, such as onsite tanks
- Further investment in stage 2 will directly connect Riverlea to Bolivar WWTP and enable wastewater services for a further 3,295 lots

Delivery Schedule Riverlea

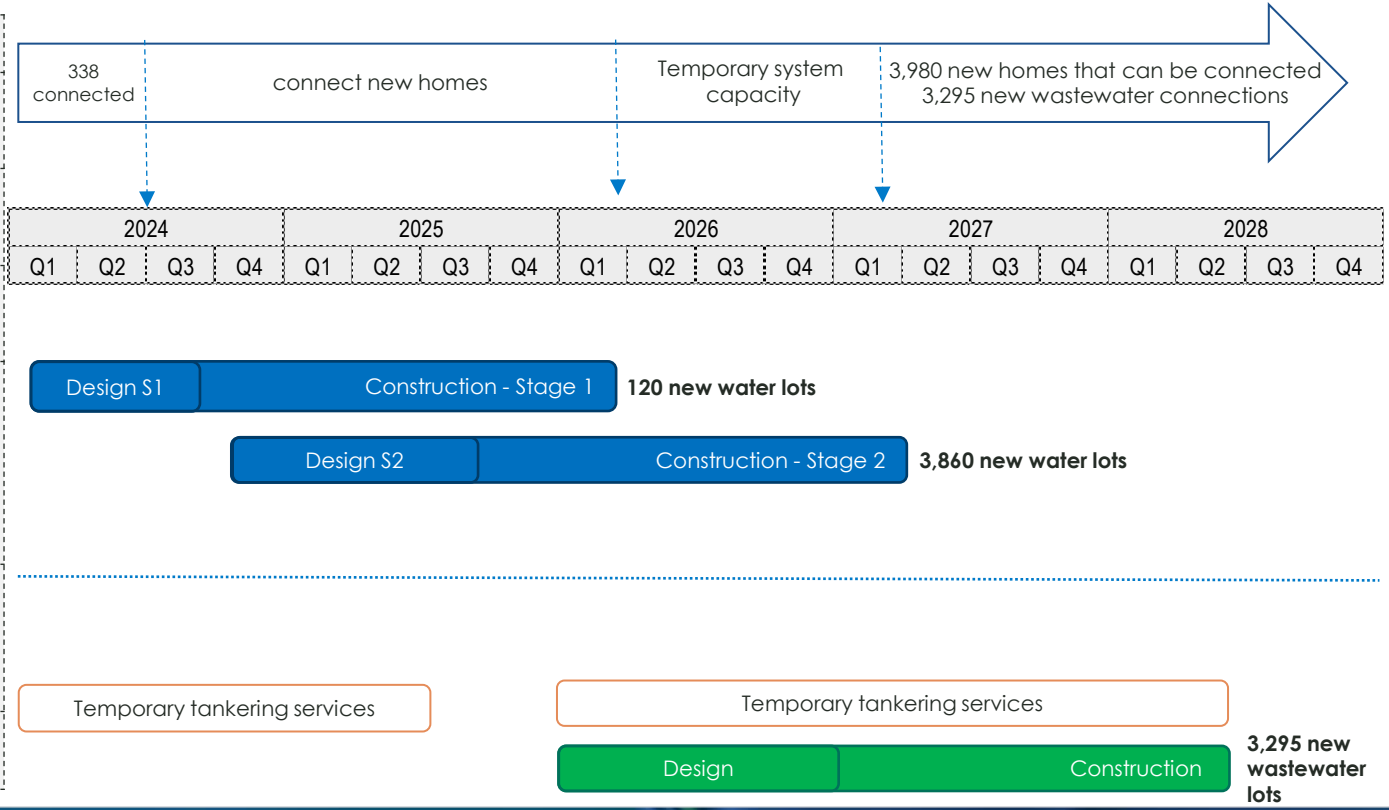
Wastewater

Water

Temporary tankering
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Riverlea	
Key drivers of delivery:	• Services new homes • System capacity • Developer expectations
Homes connected:	338
Delivered so far:	Water design underway; pipework procured. Wastewater design done.
Water works to be done:	Trunk Main duplication: 1.3km DN1200,3.4kmDN750 7km DN1000 trunk main; 3km DN1200 trunk main, pressure reducing works, headworks connectors.
Wastewater works to be done:	**Arrangements agreed with developer** Temporary tankering 15km sewer pumping main
New services capacity:	Water 3,980 Wastewater 5,095



Virginia

- The current water network that services Virginia is reaching capacity
- This could result in low water pressure and low water flows
- New water infrastructure will increase capacity by 700 lots
- Timing of this construction is linked to the Riverlea water infrastructure
- There is no funding allocated to expand the Virginia wastewater network, existing tankering services in place will need to continue

Delivery Schedule Virginia

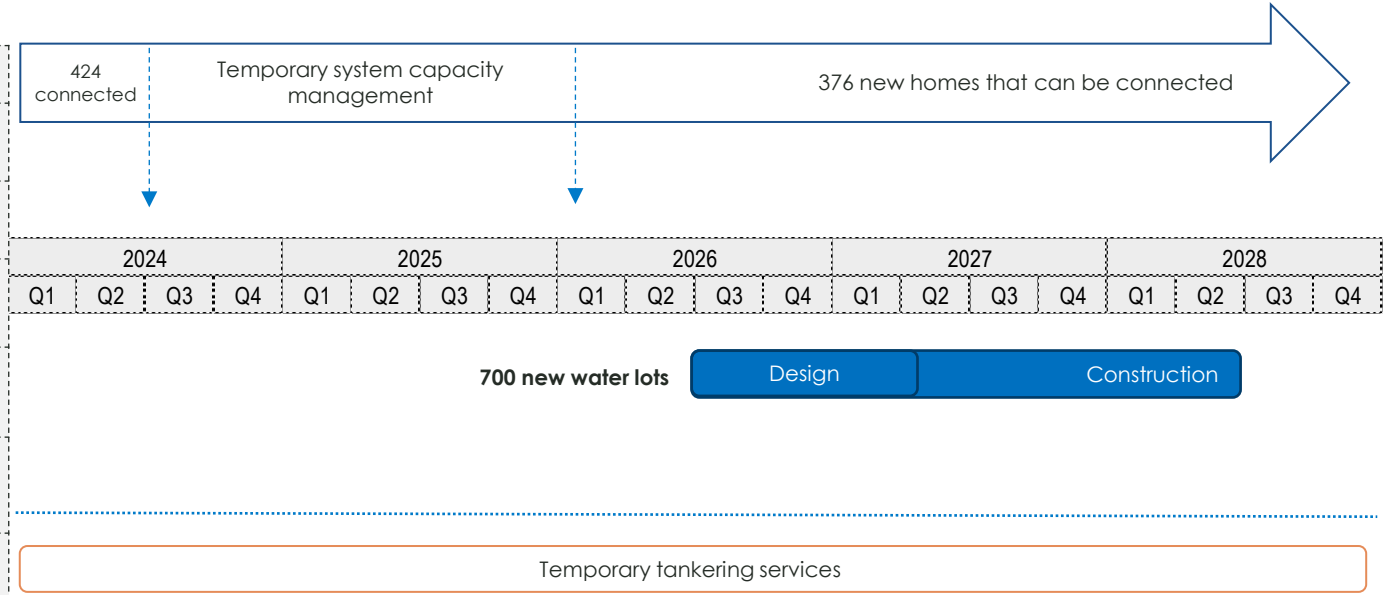
Wastewater

Water

Temporary tankering
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Virginia	
Key drivers of delivery:	• Services new homes • System capacity
Homes Connected:	424
Delivered so far:	Not started
Water works to be done:	800m DN450 water main 450m DN600 water main
Wastewater works to be done:	Ongoing tankering
New services capacity:	Water 700 Wastewater : none



Gawler East

- To enable further growth, capacity in the water network will be increased by 1,600 lots
- Negotiations are currently underway with the developer to fund and construct wastewater augmentation works

Delivery Schedule Gawler East

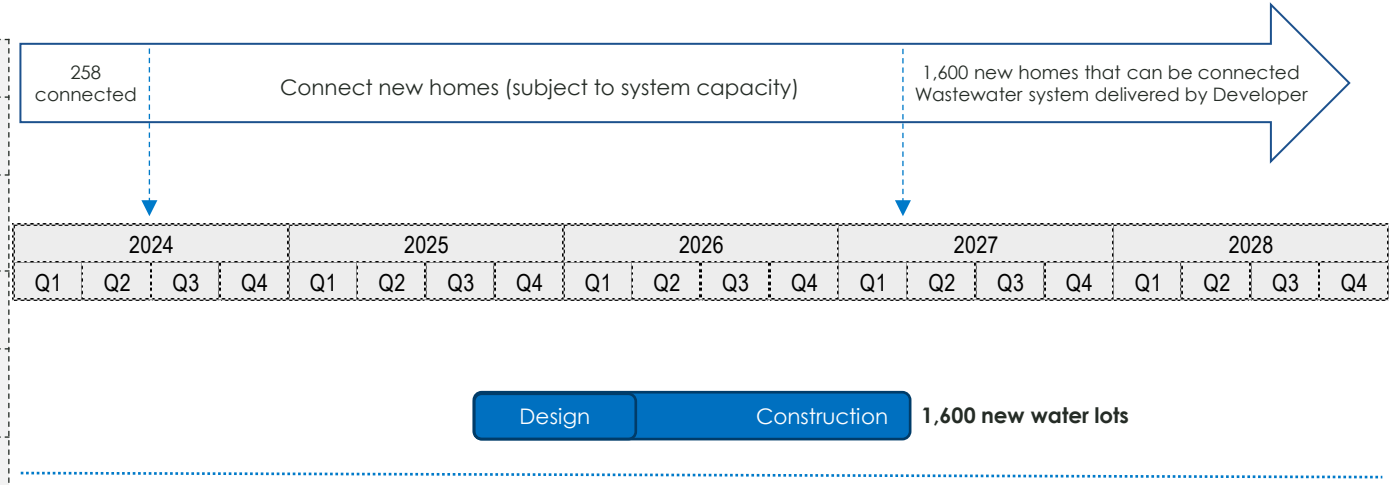
Wastewater

Water

Temporary tankering
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Gawler East (Springfield)	
Key drivers of delivery:	• Developer expectations
Homes connected:	258
Delivered so far:	Not started
Water works to be done:	New Gawler East Pump Station
Wastewater works to be done:	Proposed delivery by Developer
New services:	Water 1,600 Wastewater : by developer



Two Wells

- The current water network that services Two Wells is reaching capacity
- This could result in low water pressure and low water flows
- Existing developer agreements will be challenging for SA Water to service.
- Funding will only allow design and partial works in 2024-28
- Developer has plans for a private wastewater network and treatment facility

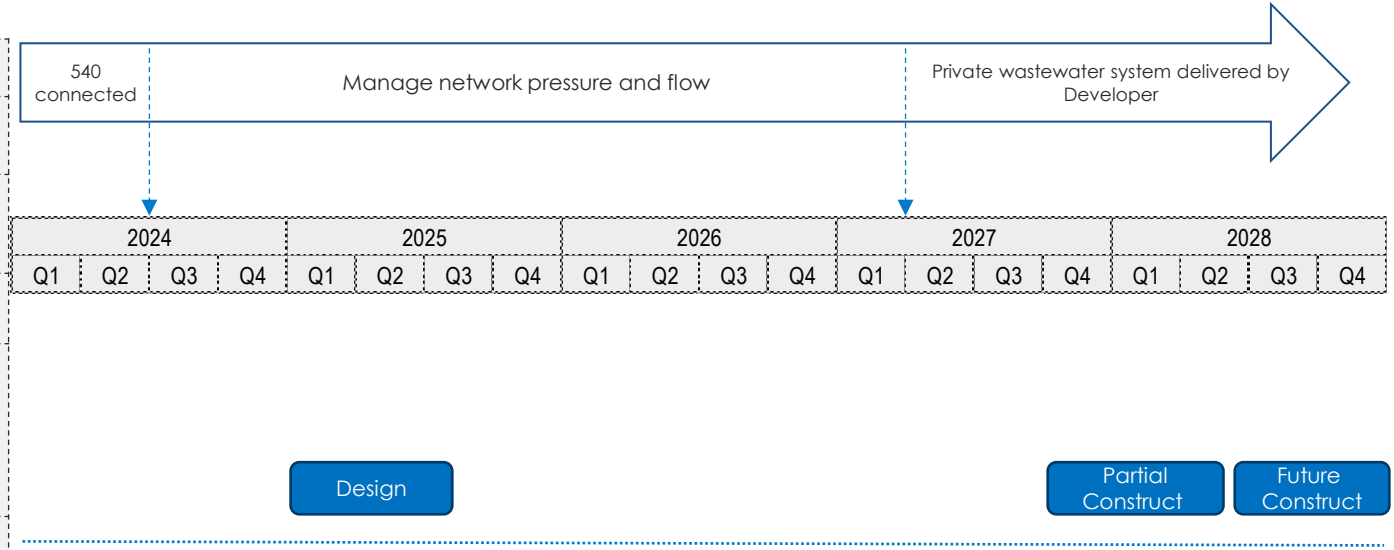
Delivery Schedule Two Wells

Wastewater

Water

Delivery timelines subject to Public Works Committee approval

Two Wells	
Key drivers of delivery:	• Services new homes • System capacity
Homes connected:	540
Delivered so far:	Not started
Water works to be done:	Design works only and best endeavours to commence partial construction within allocated budget (8km DN600 and DN525 water trunk main duplication)
Wastewater works to be done:	None
New services:	Water: none Wastewater : by developer



Hackham (Onkaparinga Heights)

- Working together with the developer and Renewal SA, a staged servicing strategy is being developed
- These works will be enough to get this development started
- Water works will service 1,500 lots and temporary wastewater infrastructure will service around 500 lots

Delivery Schedule Onkaparinga Heights

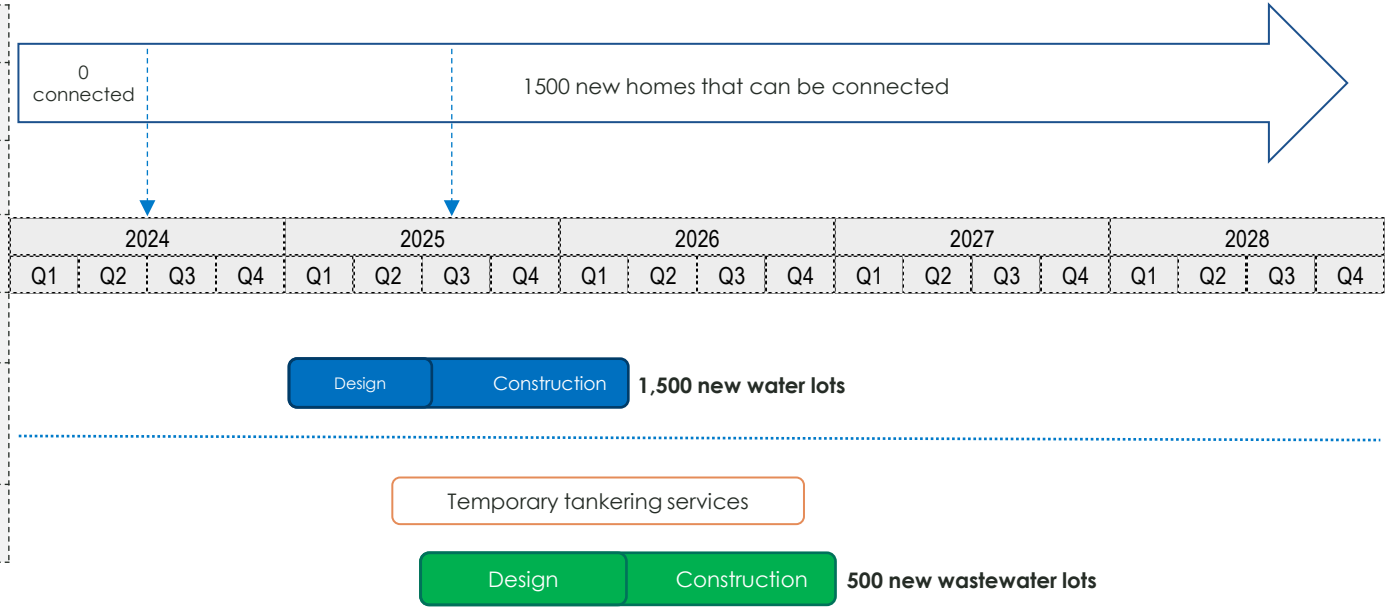
Wastewater

Water

Temporary tankering
(subject to agreement with developer and capacity)

Delivery timelines subject to Public Works Committee approval

Hackham (Onkaparinga Heights)	
Key drivers of delivery:	• Developer expectations
Homes connected:	0
Delivered so far:	Not started
Water works to be done:	1.3km DN300 water main
Wastewater works to be done:	New onsite storage tank and connections Temporary Tankering
New services:	Water: 1500 Wastewater: 500



Connecting and enabling infrastructure

To enable water growth, we will deliver trunk main upgrades, new storage tanks, control valves and facility upgrades

To enable wastewater growth, we will upgrade sewer trunk mains to increase inflow capacity, increase storage capacity and odour control

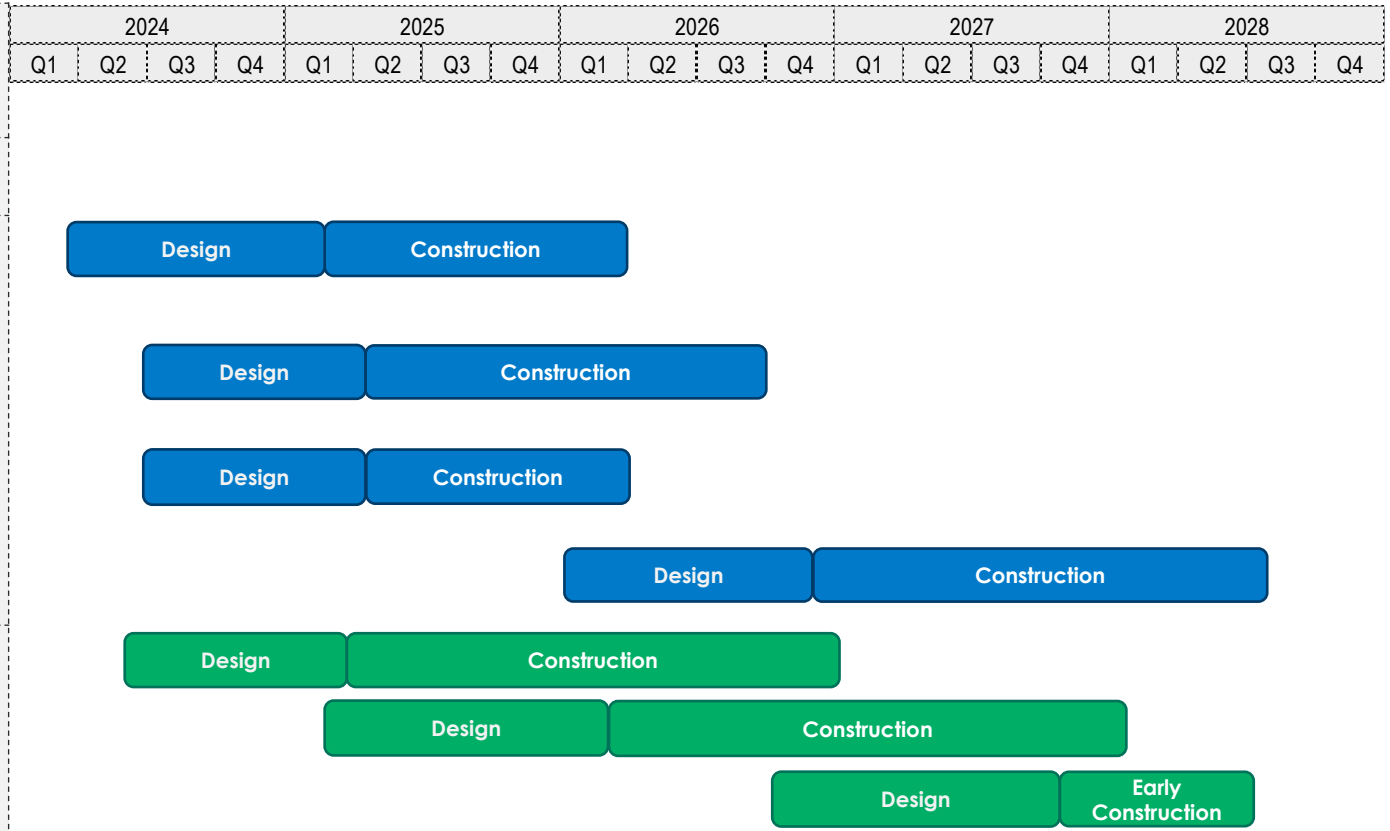
To ensure Bolivar wastewater treatment plant has the capacity to treat waste, we will commence design and early works of capacity upgrade of the plant which will be completed in the following regulatory period

Delivery Schedule: connecting services

Wastewater
Water

Delivery timelines subject to Public Works Committee approval

Connecting water **Connecting wastewater** **Enabling wastewater**	
Key drivers of delivery:	• System capacity
Water connecting works	Sandy Creek tank, inlet valves, control valves, facility upgrades, land acquisition Craigmore tank, inlet valves, control valves, facility upgrades. Elizabeth East tank, inlet valves, control valves, facility upgrades Barossa Trunk Main section upgrades
Wastewater connecting works	Munno Para 10km trunk main, cross-connection Salisbury Trunk Main upgrades, storage, odour control
Enabling	Bolivar WWTP capacity



Residential growth

"Together with other investments included in SA Water's 2024-28 delivery program, we will deliver services to an estimated 40,000 new homes across the state, including an extra 17,000 new homes in the state's growth areas." –p43 Housing Roadmap

- The 11,000+ allotments directly enabled through this infrastructure will be brought online in the 2024-28 period and beyond.
- Infrastructure being installed now will enable greater long-term capacity in future networks, where it will unlock capacity for around 50,000 residential allotments by the 2050s.
- It is projected that more than 17,000 homes will be constructed in existing and new greenfield zones by 2028.