



Status of Major Projects Supplement

Outcomes report 2020–21

13 October 2021



An appropriate citation for this paper is:

Essential Services Commission 2021, Status of Major Projects Supplement: Outcomes report 2020–21, 19 October

Copyright notice

© Essential Services Commission, 2021



This work, Status of Major Projects Supplement, is licensed under a Creative Commons Attribution 4.0 licence [creativecommons.org/licenses/by/4.0]. You are free to re-use the work under that licence, on the condition that you credit the Essential Services Commission as author, indicate if changes were made and comply with the other licence terms.

The licence does not apply to any brand logo, images or photographs within the publication.

Contents

Background	iii
Summary of Major Projects	3

Background

In their pricing submissions for the 2018–23 pricing period, water businesses included their proposed major capital investment projects to be progressed or completed during the period. Some of these projects commenced in the previous 2013–18 pricing period, and have been rolled-over to incur major capital expenditure in the 2018–23 period. Our final pricing determination for each business included a scheduled list of these projects allowed for in pricing, along with the anticipated start and completion years.

Customers' prices include recovering capital investment costs in accordance with this approved project schedule. It is appropriate that water businesses explain delays or alterations to their project schedules, because approved funds will flow from pricing whether the expenditure is incurred or not, unless the water businesses lower their prices accordingly. Also, changes to project delivery schedules may materially impact the services received by customers.

This section tracks the businesses' reported progress against their original project schedule as reflected in their price submissions and our pricing determinations.

The major project status categories are:

- on-schedule — no significant changes to the project start and end dates
- delayed — either the project start was delayed, or completion will be later than scheduled
- deferred — the business rescheduled the entire project, either within the current pricing period or into a future period
- cancelled — the project will not proceed in the foreseeable future
- completed on time — the project was completed in accordance with the original scheduled completion date (includes early completion)
- completed late — the project was completed within the period, but later than the original scheduled completion date.

Table 1 provides details for each scheduled major project for each water business, including:

- a brief description or project name
- the original scheduled start and end years (as per the pricing determination)
- businesses' latest updates on the actual or expected start and end years
- an overall project status (on-schedule, delayed, deferred, cancelled or completed)
- general comments by the water business to explain any relevant details of the project and its current status.

Table 1 also includes some projects from the 2013–18 pricing period that were not completed before the end of 2017–18, and were therefore carried over into the 2018–23 pricing period. We will monitor all major capital projects through to their conclusion.

The information in Table 1 has been provided to us by the businesses and is their own explanation of the status of their major projects. We have reviewed this information only to ensure that relevant dates, project status and comments are consistent with what has been previously reported.

Summary of Major Projects

Table 1 Summary of major projects by water corporation

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Barwon Water						
Torquay West high level feeder main	Carried over	2013-14	2025-26	2028-29	Deferred	This project has been deferred to more closely align with when the asset would be required due to delays in the land use planning for this future growth area. Project to be completed in stages as development proceeds through growth area. The pattern of growth has been different to what was expected in this pricing period with slower land development in Torquay and faster development in other growth areas such as Armstrong Creek, Lara West and Ocean Grove. Accordingly, expenditure has been reallocated to those growth areas.
Black Rock water reclamation plant hydraulic capacity upgrade	Carried over	2015-16	2013-14	2019-20	Completed late	This project was completed later than scheduled due to modifications required to inlet screens.
Property realisation (Thornhill Rd Highton)	In progress	2018-19	2018-19	2020-21	Completed late	This project was completed later than scheduled due to initial delays experienced seeking council approval of engineering plans.
Colac water treatment plant clear water storage upgrade	In progress	2019-20	2018-19	2019-20	Completed on time	This project was completed in 2019-20 of this pricing period.
Colac water reclamation plant sludge dewatering upgrade	In progress	2019-20	2019-20	2025-26	Deferred	Through innovation we have been able to meet the project objectives at a lower cost and defer additional expenditure to a later date with a better value outcome for customers

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Barwon Water (continued)						
Property realisation (Scenic Rd Highton)	In progress	2020-21	2021-22	2026-27	Deferred	Project deferred due to change in Government policy relating to surplus land and subsequent delays in obtaining agreement on the treatment of a Crown Land component at this landholding. Expenditure and sale revenue will be deferred to the next pricing period.
Colac pipeline upgrade	In progress	2027-28	2023-24	2028-29	On schedule	Project consists of a staged replacement of sections of the pipeline most at risk. All priority 1 and 2 sections of the pipe are on track for replacement by June 2023. Priority 3 and 4 sections of the pipeline assessed as lower risk due to condition and expected to be progressed in the next pricing period as scheduled in the 2018 Pricing Determination.
Black Rock renewable energy project stage 2	2018-19	2019-20	2018-19	2019-20	Completed on time	This project was completed in 2019-20.
Gellibrand water treatment plant upgrade	2019-20	2021-22	2021-22	2022-23	Delayed	Project delayed however scheduled for completion by June 2023 within this pricing period. Project design stage nearing completion.
Telemetry RTU PLC HMI hardware & software	2020-21	2021-22	2020-21	2021-22	Delayed	Project delayed however scheduled for completion within this pricing period. Delivery of project underway with works to occur progressively throughout 2021/22 and 2022/23.
Forrest water treatment plant upgrade	2020-21	2022-23	2020-21	2022-23	Delayed	Project delayed however scheduled for completion by June 2023 within this pricing period. Project design stage nearing completion.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Barwon Water (continued)						
Black Rock water reclamation plant effluent storage	2021-22	2023-24	2029-30	2031-32	Deferred	Through innovations in the configuration of existing infrastructure at the site, additional recycled water storage has been able to be efficiently achieved by utilising an existing effluent channel, enabling deferment of this project. This project has been deferred due to modifications to existing infrastructure allowing the planned project to be postponed.
Central Highlands Water						
Ballarat South wastewater treatment plant lagoon pipeline upgrade	In progress	2018-19	2019-20	2019-20	Completed late	This project was delayed due to late changes to the design that impacted construction .
Evansford raw water pipeline renewal	In progress	2018-19	2018-19	2019-20	Completed late	Original planned construction start delayed due to Cultural Heritage and Environmental approvals.
Fellmongers siphon replacement	In progress	2019-20	2018-19	2019-20	Completed on time	Completed in accordance with original scheduled timeframes.
Daylesford water supply upgrade	In progress	2020-21	2018-19	2022-23	Delayed	Currently finalising design (operational) optimisation and commencing tender package. External approvals process has delayed the project. Currently scheduled for tender in late 2021 to enable early works to start in 2022. Supporting projects to assist in improving and upgrading Daylesford's Water supply security have been completed.
Ballan wastewater treatment plant – increase in recycled water winter storage capacity	In progress	2020-21	2018-19	2019-20	Completed on time	Completed in accordance with original scheduled timeframes.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Central Highlands Water (continued)						
Ballarat South outfall sewer duplication	In progress	2022-23	2021-22	2022-23	On schedule	Investigations, approvals and functional design completed, tender package well progressed for tendering and award in late 2021. Due to local council preference, this project was deferred due to the Ballarat East Sewer duplication commencing first.
Ballarat South wastewater treatment plant inlet works upgrade	2018-19	2020-21	2018-19	2022-23	Delayed	Works packages tendered and components of works underway, final completion of all components delayed due to Covid 19 impacts. Key components needed to be sourced from overseas and has presented some supply chain issues.
Ring Road trunk water main duplication	2018-19	2022-23	2021-22	2022-23	On schedule	Alternative/substitute works were identified to deliver the required pressure improvement outcome for customers including pressure reduction value improvements and network cross connections (at the Avenue of Honour).
Maryborough wastewater reuse scheme improvements	2019-20	2020-21	2020-21	2022-23	Delayed	Procurement of additional land requirements, main project component of pipeline connection complete and complimentary optimisation of irrigation infrastructure and land completed. Key irrigation upgrade areas scheduled for completion in 2021/22 with further irrigation area expansion to occur in following years.
Ballarat East sewer duplication and flow storage	2019-20	2022-23	2021-22	2021-22	On schedule	Works well advanced with completion scheduled for late 2021.
Coliban Water						
Echuca and Cohuna water treatment plant upgrades	Carried over	2015-16	n/a	n/a	Cancelled	Project cancellation confirmed in 2018-19 reporting – project was no longer required, and is now closed.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Coliban Water (continued)						
Digital customer metering	2018-19	2022-23	2018-19	2022-23	On schedule	Stages 1-4 of the project are completed and currently planning for commencement of stage 5. The project has experienced minor delays from COVID-19.
Western Bendigo water network growth and pressure	2018-19	2021-22	2018-19	2021-22	On schedule	<p>Works on site for a storage tank and booster pump station have commenced under an existing contract for tanks and booster pump stations. These works are on track for completion December 2021.</p> <p>Preliminary design of water mains is complete. A contract for Coliban Region pipelines has been awarded including packages of works for water mains in Marong, Maiden Gully, Strathfieldsaye and Huntly.</p>
Strathfieldsaye water network augmentation	2018-19	2021-22	2018-19	2022-23	Delayed	<p>Concept design works for storage tank and booster pump station has been developed. Storage tank and booster pump station will be delivered as part of a tank delivery program and are scheduled for completion in 2022-23.</p> <p>As detailed above (Western Bendigo water network growth and pressure), preliminary design of water mains is complete and a contract for Coliban Region pipelines has been awarded including packages of works for water mains in Marong, Maiden Gully, Strathfieldsaye and Huntly.</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Coliban Water (continued)						
Kyneton water reclamation plant lagoon compliance works	2018-19	2021-22	2018-19	2021-22	On schedule	Phase 1 included the lagoon compliance works planned for the 2018-2023 regulatory period and these have been completed. The works for Phase 2 includes construction of a Class C to B Treatment Facility and construction of a 200ML storage lagoon. These works were brought forward and have also been completed. Phase 3 works includes a 40ML BNR lagoon and a Recycled Water Pipeline. These works have also been brought forward. The 40ML BNR lagoon has been completed and the Recycled Water Pipeline is scheduled for completion mid-2022, subject to weather, approvals and any further impacts from COVID-19.
Heathcote water reclamation plant compliance	2018-19	2021-22	2018-19	2020-21	Completed	<p>Initial works have focussed on reducing wastewater from Heathcote water treatment plant. This work has been completed as part of the Heathcote WTP upgrades project. A review of the success of the Heathcote WTP upgrade project has commenced.</p> <p>Further works beyond the initial scope have been identified and are currently progressing through conceptual development. These works are not currently required (expected beyond 2023) so will form part of a discrete new project.</p>
Echuca water treatment plant security of supply	2018-19	2022-23	2018-19	2022-23	On schedule	Works have been completed to replace critical valves at the Echuca WTP upgrade which are part of the scope of this project. The main contract was awarded early 2021 and works have commenced on site. Works remain on track for the entire project to be completed in 2022-23.
Echuca West tank	2019-20	2021-22	2018-19	2020-21	Completed	The works have been successfully delivered during 2020-21.
Castlemaine water reclamation plant sludge handling upgrades	2020-21	2022-23	2020-21	2023-24	Delayed	Design works scheduled to commence in 2022-23.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Coliban Water (continued)						
Epsom Huntly water main augmentation	2020-21	2022-23	2019-20	2022-23	On schedule	As detailed above (Western Bendigo water network growth and pressure), preliminary design of water mains is complete and a contract for Coliban Region pipelines has been awarded including packages of works for water mains in Marong, Maiden Gully, Strathfieldsaye and Huntly. Construction is scheduled to commence in 2021-22.
Bendigo water reclamation plant sludge processing upgrades	2020-21	2023-24	2020-21	2023-24	On schedule	Despite minor delays with finalisation of the business case, these works remain on track scheduled for completion in 2023-24.
Heathcote WTP upgrades	2018-19	2019-20	2018-19	2019-20	Completed	The works are complete.
East Gippsland Water						
Paynesville main supply pipeline (stage 2)	Carried over	2015-16	2017-18	2025-26	Cancelled	This project was deferred pending a condition assessment to ensure a targeted approach to replacement. Following the condition assessment it has been re-scoped and rescheduled under the project listed below 'Bairnsdale to Eagle Point main supply pipeline renewal'.
Bairnsdale wastewater treatment plant upgrade	Carried over	2017-18	2014-15	2018-19	Completed late	This project is now complete. Main components of this upgrade include digester refurbishment, combined heat and power unit, gas storage unit and a head-of-plant flow balancing tank which was commissioned in 2018-19. The new 1.3ML tank will improve plant process performance (environmental outcome) and overall efficiency (reduce operating costs). The project was completed over budget.
Sarsfield clear water storage augmentation	In progress	2019-20	2017-18	2021-22	Delayed	Defects identified with the internal liner has delayed Practical Completion. Liner has been replaced and is in the final stages of commissioning.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
East Gippsland Water (continued)						
Upgrade main supply pipeline (Sarsfield to Johnsonville)	In progress	2020-21	2017-18	2019-20	Completed on time	Construction of pipeline was completed and commissioned for service in 2019-20. This project was completed \$500k below the allocated budget for PS 2018-23.
Lakes Entrance wastewater treatment plant odour management	2018-19	2019-20	2017-18	2022-23	Deferred	Stage 1 of this project was completed in 2018-19 which significantly reduced odour levels. Odour monitoring is currently in progress to ensure Stage 2 project is well targeted, with design scheduled to commence in 2021/22.
Wy Yung clear water storage	2018-19	2020-21	2017-18	2020-21	Completed on time	Construction of the 36ML reinforced concrete tank reached Practical Completion in the 2020-21 financial year.
Dinner Plain recycled water storage augmentation	2019-20	2020-21	2017-18	2023-25	Deferred	Design of 14ML new winter storage basin is in progress. Construction has been deferred to enable the completion of some sewer network infiltration rectification works. These works may reduce the volume of winter storage required.
Paynesville recycled water storage and irrigation augmentation	2020-21	2022-23	2018-19	2022-23	On schedule	Functional design commenced to increase winter storage capacity and increase irrigation capacity.
Bairnsdale to Eagle Point main supply pipeline renewal	2020-21	2022-23	2017-18	2022-23	On schedule	Detail design was completed in 2019-20.
Mallacoota clear water storage	2020-21	2022-23	2018-19	2022-23	On schedule	Functional design progressed in 2020/21.
Lindenow storage water quality improvement	2020-21	2022-23	2019-20	2022-23	On schedule	Functional design of new 1ML tank progressed in 2020/21.
Woodglen raw water storage– dam safety upgrades	2021-22	2023-24	2018-19	2022-23	On schedule	Detailed design complete.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Gippsland Water						
Sale sewer – outfall sewer pump station	In progress	2019-20	In progress	2020-21	Completed late	The commissioning of the sewer pump station was completed in June 2021 and is now operational. The project timing was due to unfavourable ground conditions.
Drouin sewer – new wastewater treatment plant	In progress	2021-22	In progress	2022-23	Delayed	The project is well progressed with most of the concrete and civil works completed. A project business case was approved by the Minister for revision of the completion date and remains on track for completion in 2022-23.
Moe water – treatment plant basin liner and cover replacement	2018-19	2018-19	2020-21	2022-23	Delayed	While this project is on track to be completed within the five-year pricing period, we have made some scheduling adjustments to enable us to maintain a reliable water supply for customers and major industry while we complete the works. All planning approvals and easements have been acquired, detailed design is complete and tenders have been sought. Construction to commence in second quarter of 2021-22.
Mirboo north water – rising main replacement	2018-19	2019-20	2018-19	2019-20	Completed on time	Project completed as scheduled.
Coongulla water – interconnect to Heyfield	2018-19	2020-21	2018-19	2022-23	Delayed	All planning approvals have been received and easements acquired. The contract has been awarded and will commence shortly, with the project on-track to be completed in the current five-year pricing period.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Gippsland Water (continued)						
Sale sewer – convert sewer pump station no. 2 to underground facility	2019-20	2021-22	2020-21	2022-23	Delayed	Functional design is complete and approvals received. This project is on track to be delivered in the current five-year pricing period.
Warragul water – Western Ring main to South Basin	2019-20	2022-23	2019-20	2022-23	On schedule	All planning approvals have been received. The detailed design is complete and tenders have been sought with construction on schedule to commence in the second quarter of 2021/22.
Warragul sewer – North East branch augmentation (to Sutton Street)	2019-20	2022-23	2019-20	2023-24	Deferred	Project scheduling adjustments have enabled more critical works to proceed at Moe water treatment basin, which is a great outcome for our customers. The decision to reschedule the Warragul sewer north-east branch augmentation will have no material impact on our capital program and was based on recent modelling and field performance data, confirming a longer life expectancy with no customer impact. Functional design is complete with easement acquisition and planning approval commenced.
Saline waste outfall pipeline – stages 4 and 5 upgrade	2021-22	2022-23	2025-26	2026-27	Deferred	The delivery timelines for this project have been adjusted in consultation with the major customer while we work to determine the best delivery approach. A detailed technical review highlighted an increased life expectancy for this asset, meaning it can be deferred to the next five-year pricing period. The costs associated with this project are fully recoverable from the major customer.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Gippsland Water (continued)						
Churchill water – sanders treated water basin liner and cover replacement	2021-22	2022-23	2021-22	2022-23	On schedule	Detailed design is complete and the project is on schedule.
Goulburn Valley Water						
Mansfield wastewater management facility additional winter storage	Carried over	2020-21	2015-16	2023-24	Deferred	This project started in Pricing Period 3 as a future winter storage and irrigation upgrade project. For Pricing Period 4 this project was changed to an environmental offsets option which was under investigation at the time. The environmental offsets option has proven to not be feasible and the project has reverted to a winter storage option. Regardless of the change in option the project completion would have been deferred based on required project timing from updated capacity modelling.
Shepparton wastewater management facility high rate anaerobic lagoon cover replacement	2016-17	2020-21	2016-17	2020-21	Completed on time	The new cover is in service and was completed on time.
Shepparton outfall rising main replacement	2017-18	2019-20	2017-18	2020-21	Completed late	The project is complete and the new outfall sewer is in service. The project completion date was delayed due to an initial tender process not providing offers that represented good value for GVW. A subsequent re-design and tender process delivered a better value outcome for GVW.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Goulburn Valley Water (continued)						
Broadford water treatment plant upgrade	2017-18	2020-21	2017-18	2026-27	Deferred	Project works will now be completed over an extended period. Power supply upgrades and minor treatment upgrades to manage risk are currently in progress. This will enable the construction of additional storage and major WTP upgrades to be deferred for completion in 2026-27.
Shepparton raw water pump station augmentation	2017-18	2021-22	2017-18	2023-24	Deferred	Interim risk controls have been enacted to enable the project to be deferred.
Kilmore wastewater management facility offsets	2017-18	2021-22	2017-18	2020-21	Completed on time	Project is completed and new assets are in service.
Climate change mitigation strategy	2017-18	2023-24	2017-18	2023-24	On schedule	Renewables program Stage 1 is complete. Stage 2 is scheduled for completion in 2021-22. Energy performance projects are being implemented as required to support the strategy.
Digital enablement strategy	2017-18	2024-25	2018-19	2023-24	On schedule	The first major project (Finance System Replacement) has now been completed. The second major project (Asset Management System Replacement) is currently progressing towards implementation which is expected to take 12 months. The third significant project (Billing / CRM System Replacement) is progressing through the initiation stage and is expected to be completed in 2022-23. A number of smaller, supporting projects are on track to commence in 2021-22.
Seymour sewer pump station no.1 rising main replacement	2019-20	2020-21	2019-20	2022-23	Delayed	The project has been delayed by a compulsory land acquisition process. The project is scheduled for tendering in the first half of 2021-22.
Nathalia treated water pipeline	2020-21	2023-24	2021-22	2026-27	Deferred	Deferred based on implementation of short term works to address risks. Design and planning has commenced in 2021-22 however construction is not scheduled to commence until 2024-25.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Goulburn Valley Water (continued)						
Replacement of Abbinga reservoir	2021-22	2022-23	2017-18	2020-21	Completed on time	Works are complete and the upgraded Reservoir is in service. Project was completed earlier than originally scheduled due to the opportunity to combine projects and achieve efficiencies.
Greater Western Water (previously City West Water area)						
CBD sewerage strategy stage 1 (Spencer Street)	In progress	2018-19	2017-18	2018-19	Completed on time	Construction at the Spencer Street sewer commenced in 2017-18 and was completed in 2018-19 ahead of schedule and under budget. The Spencer Street sewer is an integral part of our CBD sewer network, and its upgrade has reduced the risk of sewer spills from this branch.
Nicholson Street (Carlton/Carlton North) water main Renewal	In progress	2019-20	2019-20	2020-21	Completed late	<p>The new water main and associated community projects were built mainly along Canning St (Parallel to Nicholson St) and was completed in October 2020 with the work site fully reinstated and handed back to the community. This renewal included the replacement of the old 450mm diameter water main with an upgrade to a 750mm diameter water main to cater for growth.</p> <p>The project required extensive engagement and approvals from stakeholders which delayed the project slightly and resulted in requiring additional funding (compared the amount included in the 2018 Pricing Submission) to complete mainly due to higher tender prices that are reflective of the current market. The additional funding was accommodated within the overall capex program.</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously City West Water area) (continued)						
West Werribee sewage pump station upgrade	In progress	2019-20	2019-20	2020-21	Completed late	<p>Construction of the West Werribee sewage pump station upgrade is complete and the facility became operational in February 2021. This upgraded sewage pumping station caters for increased flows and anticipated growth in the area. The facility is now located away from housing.</p> <p>The detailed design for the upgrade, including the environmental and heritage approval and requirements for connection to the Western Trunk Sewer, took longer than anticipated. As a result, the project was delayed, and additional funding was required compared to the original 2018 pricing submission plan and allocated budget.</p>
Greek Hill water supply (Dohertys Rd, Derrimut Rd & Davis Rd mains and Melbourne-Geelong pipeline interconnection)	2018-19	2019-20	2018-19	2020-21	Completed late	All potable water project components relating to the Greek Hill dual supply system were tendered for in 2018-19 and were completed in 2019-20. Approximately 97% of the works had been completed with the only one outstanding SCADA commissioning on the Melbourne Geelong pipeline interconnection remaining. The outstanding commissioning was delayed due to availability of new power supply connections which was then completed in October 2020.
Greek Hill recycled water supply (Dohertys Rd, Derrimut Rd & Davis Rd mains)	2018-19	2019-20	2018-19	2019-20	Completed on time	Recycled water components of the Greek Hill Recycled water components of the Greek Hill dual supply system were laid in parallel to the potable water mains. There was a minor change in scope to part of the Dohertys Road section where no recycled water pipes were installed until the permanent water works were constructed, which has now been completed on time.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously City West Water area) (continued)						
CBD sewerage strategy stage 2 (Lonsdale Street)	2018-19	2020-21	2018-19	2020-21	Completed on time	<p>Following extensive engagement with key stakeholders to plan and coordinate works, construction of the sewer renewal commenced in October 2019. In March 2020, a major milestone was reached with the tunnel boring machine commencing tunnelling works.</p> <p>Construction was completed and the new sewer was put online in November 2020. It comprises of a new 1400mm diameter sewer that extends for approximately 900m between the newly constructed Stage 1 (Spencer St Sewer) and Elizabeth St, completed in mid-2018-19. This upgrade is Stage 2 of the Melbourne CBD Sewer Augmentation Strategy that is required to cater for growth in Melbourne CBD. The project was delivered on time and within budget.</p>
Mt Atkinson outlet sewer	2019-20	2020-21	2019-20	2020-21	On schedule	<p>The Mt Atkinson outlet sewer comprises of the construction of a new 600mm diameter sewer that extends for approximately 4km along Hopkins Rd and Derrimut Rd, Truganina in Melbourne' outer west. It will cater for growth in the area and provides a sewer outlet for the upstream Mt Atkinson Development.</p> <p>The project is substantively complete with all works to be finalised by August 2021. The project experienced minor delay due to hard ground conditions that impacted the tunnelling works. However, the project is being delivered within budget and will be delivered in time to service upstream urban development.</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously City West Water area) (continued)						
Billing and collection system replacement	2020-21	2022-23	2020-21	2022-23	On schedule	<p>The Billings & Collections program was initiated in 2019-20 with a first version business case. The Go to Market and supplier onboarding was conducted in 2020-21.</p> <p>Over the next year, the Billings & Collections program will focus on the collaborative design phase and proof of concept. Upon successful completion of this phase the business case will be updated for Board approval and the program will move into delivery phase.</p>
Ravenhall outlet sewer	2020-21	2022-23	2019-20	2023-24	Delayed	<p>The Ravenhall outlet sewer will be delivered in two stages. It will be partially delivered by developers over the next two years and the remainder will be delivered by Greater Western Water in 2023-24.</p> <p>In 2020-21, we finalised discussions with the Department of Transport and the Department of Justice and Community Safety to align the propose sewer adjacent to their land. An agreed alignment could not be secured in the Freeway and prison precinct, causing a delay.</p> <p>The project team is currently exploring alternative alignments and is expecting to finalise alignment selection and design in 2021-22. Due to changes in growth patterns and forecast usage, updated hydraulic modelling has indicated that the sewer is not required until 2024-25. It is now scheduled to be finalised in 2023-24 to meet the demand in the following year.</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously City West Water area)						
Tarneit West outlet sewer (section 1)	2020-21	2022-23	2020-21	2028-29	Deferred	<p>The Tarneit West outlet sewer crosses the Werribee River and through major council parks. Preliminary work on investigations, design and consultation with key stakeholders commenced in 2019-20.</p> <p>Updated monitoring has identified sewer flows lower than previously forecasted and the impact of wet weather events on the sewer through inflows and infiltration was less than expected. The project has now been deferred due to the new monitoring information and is now expected to be constructed in 2028-29. Engagement with Wyndham Council is ongoing to secure the sewer alignment.</p> <p>The Tarneit West Outlet Sewer is a strategic sewer in the western growth area and can be utilised, through an extension to the north, to alleviate growth pressures on the Melton RWP. The deferral will allow GWW to better understand the customer growth in Melton, the constraints on the outflows of the Melton RWP and ensure that the Tarneit West Outlet Sewer is utilised to its maximum potential in servicing the west of Melbourne.</p>
Greater Western Water (previously Western Water area)						
Surbiton Park RWP upgrade (digester)	Carried over	2014-15	2013-14	2018-19	Completed late	Contract awarded in September 2016. Project completion delayed due contract dispute. The project was completed in 2018-19 and the new digester is operational.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously Western Water area) (continued)						
Sunbury additional water storage — Bald Hill tank	Carried over	2016-17	2021-22	2023-24	Deferred	Slower growth rates experienced over the last year due to COVID-19 indicates that additional water storages at Bald Hill will be required by 2023-24 based on the updated growth rates in Sunbury. The land has now been acquired and the project has commenced with the detailed design for the construction of the water storages at the site.
Bacchus Marsh rising main	Carried over	2017-18	2018-19	2020-21	Completed late	The Bacchus Marsh rising main provides supply redundancy and capacity increase for Bacchus Marsh. The project was deferred after testing found the existing main was in better condition than expected. This was due to air entrainment issues being rectified through the installation for additional air valves. This has increased the flow rate from the pump station and enhanced environmental compliance. The project benefits have been delivered at a more cost-effective solution.
Bacchus Marsh sewer rising main Geelong Road	Carried over	2017-18	2019-20	2020-21	Delayed	This project forms part of the wider Bacchus Marsh sewage servicing strategy to cater for the growth in Maddingley, south west of Bacchus Marsh. The project links with the Grant Street sewer pump station and was initially delayed due to design issues and cultural heritage management approvals prior to proceeding. Construction commenced in 2019-20 after an update to the original design work.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously Western Water area) (continued)						
Melton South Exford Road sewer pump station/rising main/ sewer	2018-19	2020-21	2018-19	2022-23	Delayed	This project caters for growth in Melton South facilitating the construction of a new sewer pump station and rising main. Discussion for the purchase of land for the pump station site has commenced with the landowner. The business case has been developed with the site configuration changing from original design to improve accessibility for maintenance. We are timing the delivery of the Sewer Pump Station and Rising Main to match the development at Toolern. With development at Toolern reaching a point where a permanent pump station and rising main was needed, we commenced construction in 2020-21 and expect it to be completed by 2022-23.
Sunbury recycled water plant upgrade	2018-19	2022-23	2018-19	2018-19	Completed on time	The official opening of the upgraded Sunbury Recycled Water Plant took place in June 2019. The \$53 million government funded upgrade is the largest capital works project in Western Water's history.
Beattys Road East Trunk Water Main (Plumpton)	2019-20	2021-22	2019-20	2022-23	Delayed	The Beatty's Road East Trunk Water Main in Plumpton will provide water supply to the growing Melton region. We have deferred the project to better match urban development in this region. We have undertaken some minor works nearby to ensure there will be no impact to customer service. Construction is expected to commence in early 2022 and will align with updated forecast in new customer connections.
Sunbury Outfall Sewer Duplication	2018-19	2022-23	2018-19	2022-23	On schedule	Sunbury is experiencing significant growth and this augmented sewer will be required to service the new areas of Sunbury. This pipeline will transfer gravity flows into the Sunbury Recycled Water Plant from the existing township as well as the new growth areas to the north, east and south of Sunbury. We have commenced the project and it is expected to be delivered mid 2023.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously Western Water area) (continued)						
Melton Recycled Water Plant - Convert Aeration tank 5 & 6 to IFAS (Integrated Fixed Film Activated Sludge)	2020-21	2022-23	2021-22	2024-25	Deferred	Further strategic planning has been undertaken and have identified a larger package of upgrades required at the Melton site to ensure environmental compliance and it is timed with the construction of the Western Irrigation Network project. The other projects relating to the Melton Recycled Water Plant Upgrade have been prioritised and are underway
Derrimut Diversion Sewer Pump Station/Rising Main	2018-19	2023-24	2018-19	2023-24	On schedule	A design layout has been completed and is currently under review. Negotiations are underway with the landowners in the region on the preferred site to secure the land prior to progressing to the next design phase.
Gisborne Recycled Water Plant - Stage 1 Bioreactor	2018-19	2023-24	2018-19	2024-25	Delayed	The Gisborne Recycled Water Plan – Stage 1 Bioreactor will form part of a larger package of works to be undertaken to upgrade the site. Procurement has commenced on the new recycled water plant at the existing site in Gisborne to service growth in the region, improve energy efficiency and improve the quality of recycled water produced..
Parwan-Balliang Irrigation District network (Western Irrigation Network Stage 1)	2019-20	2023-24	2021-22	2023-24	On schedule	This project will connect existing Western Water recycled water sources to supply a new irrigation district in the Parwan Balliang area. The project allows for recycled water to be transferred between multiple sites to meet customer demand needs and optimise the use of onsite storages. The construction works for this project are expected to commence in mid-late 2021.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Greater Western Water (previously Western Water area) (continued)						
Melton Recycled Water Plant - additional onsite storage	2018-19	2020-21	2019-20	2021-22	Delayed	This project addresses a future EPA compliance requirement (from June 2022) by installing an additional 1.0 GL of on-site storage at the recycled water plant. Draft Detailed Design has been completed, and expected to go out shortly. Commencement of site works has been put on hold for 6 weeks due to Stage 4 COVID-19 restrictions
Bacchus Marsh recycled water plant to Melton recycled water plant interconnector	2018-19	2020-21	2019-20	2021-22	Delayed	This project connects the Melton and Bacchus Marsh recycled water plants to allow recycled water to be transferred between the sites to meet customer demand needs and enable the best use of the onsite storages. Environmental approvals are behind schedule and are expected to be obtained in the first half of the year, and construction will follow in late 2021. The project is expected to be completed in 2021-22, only a few months behind.
Grant Street sewer pump station, Bacchus Marsh	2018-19	2020-21	2019-20	2020-21	Completed	The timeline for the project delivery was delayed due to design, cultural heritage, and asbestos pipe issues at the site. The new pump station was completed during 2020-21, and provides for enhanced environmental compliance through containment of sewer flows.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
GWMWater						
South West Loddon Rural Water Supply Project	2016-17	2018-19	2016-17	2019-20	Completed late	Project completed in March 2020, 9-months later than planned. Delays experienced initially with planning and environmental approvals, then land acquisitions and finally a blue-green algae bloom in the Waranga Channel which delayed commissioning.
Mallee Towns Drinking Water Project – Brim, Beulah, Woomelang and Sea Lake	2017-18	2018-19	2017-18	2019-20	Completed late	Project completed in May 2019. Project was delayed due to a combination of delays in obtaining planning permits and pipe manufacturing constraints. Gazettal of the towns as a drinking water supply was completed in late August 2019.
Sewerage scheme – Goroke	2018-19	2018-19	2018-19	2021-22	Delayed	Stage 1 of the reticulated sewer scheme has been constructed. Construction of the sewerage treatment plant will be completed in late 2021.
Urban remote metering and customer portal	2018-19	2019-20	2018-19	2020-21	Completed late	<p>Digital meter installations commenced in 2019 and was completed during 2020-21 with the installation of a further 1,272 digital meters, bringing total installations to 31,307. The completion of the final meters was slowed due to pipe modification works required for large meter installations and meter and RTU devices manufacturing delays resulting from COVID-19.</p> <p>GWMWater's Customer Portal functionality was extended to Urban customers during 2020-21. The first phase involved recruiting 200 'early adoptors' to provide feedback on the sign-up process and functionality in late 2020. During 2021 GWMWater implemented a phased rollout issuing more than 10,000 activation links to urban customers with a take-up rate of around 30 per cent. At the end of 2020-21 there were over 5,000 GWMWater customers now actively accessing the Customer Portal to set alerts and monitor their water usage.</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
GWMWater (continued)						
East Grampians Rural Water Supply Project	2018-19	2020-21	2018-19	2022-23	Delayed	<p>An Early Work contract to deliver, design and obtain statutory approvals was awarded in January 2020. Design and approvals are in advanced stages, expected to be complete late 2021. Logistical issues and resourcing inefficiencies (including decreased availability of field representatives for CHMP development) due to COVID-19 restrictions have further contributed to extended delivery timing expectation.</p> <p>Further to this Expressions of Interest from landowners seeking to connect have been received from outside the boundary and the detailed design has assessed a greater risk of rock in construction determined by the feasibility study and business case. GWMWater is assessing the impact of this on the total estimated cost with the project partners.</p> <p>Timing of construction contract award is linked to pending outcomes of funding discussion.</p>
Water treatment plant upgrades – health based treatment targets	2018-19	2020-21	2018-19	2022-23	Delayed	Planned upgrades have been completed at Willaura. Procurement is underway for upgrades at Underbool and Ouyen. Construction will commence in 2021-22 and be completed in early 2022-23.
Treated water supply – Ultima	2019-20	2019-20	2019-20	2021-22	Delayed	Construction has commenced and expected to be completed in 2021-22.
Upgrade wastewater treatment plant & reuse system – Donald	2019-20	2020-21	2019-20	2022-23	Delayed	Project planning is advanced with completion of the first phase of upgrades to improve treatment and reuse infrastructure planned for completion in 2022-23.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
GMMWater (continued)						
Treated water supply – Kaniva	2020-21	2020-21	2020-21	2022-23	Delayed	Project planning is advanced with design and construction to commence in 2021/22.
Development servicing – pressure improvements commercial and industrial – fire services	2020-21	2021-22	2018-19	2021-22	On schedule	Renewals and upgrades across Horsham, Stawell and Ararat are ongoing to address pressure concerns in industrial and commercial areas.
Dam safety works – Lake Fyans	2021-22	2021-22	2021-22	2021-22	On schedule	Project planning is advanced with procurement to occur in late 2021 and construction in early 2022.
Treated water supply – Moyston and Elmhurst	2022-23	2022-23	2021-22	2022-23	On schedule	Project planning is advanced with delivery commencing in 2021-22 and completion in 2022-23.
Urban Pressure Improvement Works	2019-20	2020-21	2019-20	2020-21	On schedule	This project was initiated to address to ensure water pressure and flowrates across all urban towns committed to in GMMWater’s Urban Customer Charter are achieved. The need for this work was identified during the delivery of the Urban remote metering project. Works identified and being progressed include construction of new pump stations, mains renewals and valve replacements, service line renewals, reconfiguration and interconnection of pressure zones and augmentation of the network. Works have been undertaken at Ararat, Charlton, Dimboola, Donald, St Arnaud, Elmhurst, Glenorchy, Stawell and Moyston. Investigations and planning are underway for further improvement works at Edenhope, Stawell, Warracknabeal, Kaniva, Donald and St Arnaud.
‘Clean Water’ Pilot - Northern Mallee Pipeline ***NEW PROJECT***	2021-2022	2021-2022	2021-2022	2021-2022	On Schedule	This project was initiated to address the increasing incidents and associated operations and maintenance impacts of algal events on rural and urban to customers serviced through the Northern Mallee pipeline system which draws it water from the Murray River. This pilot is focussed on the area serviced by the Wemen pump station.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Lower Murray Water – Rural						
Mildura central pump station replace manifold/rising main	2018-19	2018-19	2018-19	2019-20	Completed late	Project Complete.
Millewa replace river pump station	2018-19	2018-19	2018-19	2022-23	Delayed	Additional environmental requirements for fish screens being addressed in modified detail design. Construction expected to commence in 21/22 and be finalised in 22/23
Red Cliffs main pump station upgrade to clear supervisory control and data acquisition	2018-19	2018-19	2018-19	2019-20	Completed late	Project Complete.
Robinvale – HPPS 100 kilowatt solar photovoltaic pilot	2018-19	2018-19	2018-19	2018-19	Completed on time	Project Complete.
Millewa upgrade to clear supervisory control and data acquisition	2019-20	2020-21	2019-20	2022-23	Delayed	Review of strategy in regards to roll out of common SCADA platform and renewal of automation hardware resulted in reduced work scope to maximise existing electrical asset life with implementation of common alarming platform
Lower Murray Water - Urban						
WTP water quality improvements	Carried over	2016-17	2011-12	2018-19	Completed late	Project Complete.
WTP PLC replacement	Carried over	2016-17	2011-12	2018-19	Completed late	Project Complete.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Lower Murray Water – Urban (continued)						
Kerang replace treated water pump station	2018-19	2018-19	2017-18	2018-19	Completed on time	Project Complete.
Merbein wastewater treatment plant divert to Koorlong	2018-19	2018-19	2018-19	2021-22	Delayed	This project has been scheduled for 2021-22 and is on track for delivery.
Swan Hill – replace wastewater treatment plant rising main stage 2	2018-19	2018-19	2018-19	2018-19	Completed on time	Project Complete.
Koorlong – wastewater treatment plant construct 400 ML wet weather storage no 1	2018-19	2019-20	2018-19	2020-21	Completed late	Project Complete
All sites – ultraviolet treatment plants	2018-19	2022-23	2018-19	2022-23	On schedule	UV successfully installed at the Murrabit, Piangil, Koondrook and Red Cliffs WTP's. plants Delivery forthree further UV installations (Kerang , Robinvale, Mildura West WTP's)over winter 2021-22 with contract award imminent. Remaining two (Mildura 7 th Street and Swan Hill) scheduled to be complete within WP4.
Koorlong – wastewater treatment plant upgrade to clear supervisory control and data acquisition	2019-20	2021-22	2019-20	2021-22	Deferred	Review of strategy in regards to roll out of common SCADA platform and renewal of automation hardware resulted in reduced work scope to maximise existing electrical asset life with implementation of common alarming platform
Swan Hill DN450 Truck main Arnoldt/Stratbroke (1,245 m)	2020-21	2020-21	2019-20	2020-21	Cancelled	See Swan Hill North WTP 6 ML ground level storage.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Lower Murray Water (continued)						
Swan Hill – North water treatment plant 6 ML ground level storage	2020-21	2020-21	2019-20	2021-22	Delayed	Options assessment concluded that additional storage can be constructed within the reticulation reducing the need for a new re lift pump station and interconnecting main. Contract has been awarded for construction of additional storage to be delivered in 2021/22. See Swan Hill North WTP 6 ML ground level storage
Swan Hill – North water treatment plant treated water pump station (stage 1)	2020-21	2020-21	2019-20	2020-21	Cancelled	See Swan Hill North WTP 6 ML ground level storage.
Melbourne Water*¹						
WTP treatment capacity increase	2011-12	2016-17	2014-15	2018-19	Completed late	Practical Completion was achieved on 26 April 2019. The project met the revised schedule and was within budget. Benefit is increased treatment capacity for future population growth.
Maroondah aqueduct renewal	2009-10	2017-18	2015-16	2017-18	Completed on time	Project completed on schedule and within budget. Benefit is renewal of aqueduct to manage risk of water loss due to age of asset.
St Georges Road water main renewal	2010-11	2017-18	2015-16	2017-18	Completed on time	Project completed on schedule and within budget. Benefit is renewal of existing water main to reduce water losses.

Continued on next page

¹ Note that Melbourne Water has a different regulatory period from the other businesses: Melbourne Water's regulatory period is from 1 July 2016 to 30 June 2021.

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Melbourne Water (continued)						
Winneke WTP UV system upgrade	2010-11	2021-22	2022-23	2024-25	Deferred	Project deferred to May 2023 to be in line with the upcoming revision of the Australian Drinking Water Guidelines (2011) where a microbial health based target (HBT) of 1 microDALY per person per year is to be introduced. When this HBT gets introduced it is anticipated there will be an implementation period for water utilities to make any changes required to achieve compliance. Project is included in 2021 Price Determination Period, with the expected completion remaining within 2024-25. Benefit is to meet new water quality compliance requirements.
Holden supply tank and inlet augmentation	2010-11	2019-20	2010-11	2020-21	Delayed	The project is currently within budget. Project completion delayed to May 2021 to allow for an outage required to complete the works. Pipeline planned to be handed over to operations in August 2021. Benefit is to provide for future population growth.
WTP 55E renewal	2010-11	2024-25	2011-12	2024-25	On schedule	The project is currently on schedule (based on revised schedule to deliver via Detailed Design followed by Construct Only delivery strategy) and within budget. Benefit is increased energy efficiency and level of service for asset.
Upper Hobsons Bay sewer renewal	2011-12	2018-19	2017-18	2018-19	Completed on time	Project completed on schedule and within budget. Benefit is renewal of existing sewer main to prevent uncontrolled spills and service disruptions.
Merri Creek to MCG main renewal	2014-15	2019-20	2018-19	2020-21	Completed late	The project was completed, with an over-expenditure approved to finalise the project. Benefit is renewal of existing water main to reduce water losses.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Melbourne Water (continued)						
ETP sludge digester augmentation	2014-15	2022-23	2019-20	2022-23	Delayed	Project construction commenced August 2020 and is within budget. Benefit is to increase sludge digestion capacity for future growth.
Regan St Flood mitigation project	2015-16	2017-18	2020-21	2023-24	Delayed	The Regan Street Retarding Basin project was intended to be delivered as part of land development works with the developer constructing the retarding basin as an integral component of their works. The developer has delayed delivery of their project and hence the retarding basin construction has also been delayed. Project will be delivered during the 2021 Price Determination period. Benefit is a reduction in the risk of flood events.
Mile Creek East retarding basin upgrade	2015-16	2017-18	2013-14	2016-17	Completed on time	Project completed on schedule and within budget. Benefit of upgrade is to reduce risk of asset failure and compliance with relevant guidelines.
Jacana retarding basin upgrade	2015-16	2017-18	2013-14	2016-17	Completed on time	Project completed on schedule and within budget. Benefit of upgrade is to reduce risk of asset failure and compliance with relevant guidelines.
Murrumbeena main drain flood mitigation	2015-16	2019-20	2015-16	2019-20	Completed on time	The project completed late due to delays with other approval authorities and above budget due to high costs associated with managing contaminated land. Benefit is a reduction in the risk of flood events.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Melbourne Water (continued)						
WTP sludge drying capacity	2016-17	2019-20	2019-20	2021-22	Delayed	The commencement date of the project was delayed to allow for learnings from optimisation work on existing drying pans to be incorporated into the technical design. Functional design was completed in June 2019. Project early works commenced February 2020 with preferred service provider while unplanned DTF approvals (due to increased project costs) were progressed. Commissioning planned to commence in September 2021. Benefit is to increase sludge drying capacity for future growth.
Alexandra Parade main drain redecking	2018-19	2021-22	2017-18	2018-19	Completed on time	Project completed on schedule and within budget. Benefit of re-decking is improved safety of the asset.
North East Water						
Yackandandah reclaimed water management	Carried over	2016-17	2018-19	2023-24	Deferred	This project has commenced but as previously reported deferred due to proportionally large areas of development and accelerated growth projections impacting the system. The continued development of a system strategy will inform the project outcomes.
Wangaratta wastewater treatment stage 1 upgrade	Carried over	2017-18	2014-15	2019-20	Completed late	Project completed.
Beechworth wastewater system upgrade	2018-19	2019-20	2018-19	2022-23	Delayed	A contract has been awarded for the pump station and transfer main. This is scheduled to be completed 2022-23. As previously reported the expansion of the project scope to include the influent chemical load due to industrial growth has delayed the treatment upgrade. A system review is being undertaken that will inform the development of the site.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
North East Water (continued)						
Wodonga wastewater treatment plant capacity & emissions reduction	2018-19	2021-22	2020-21	2023-24	Delayed	The Business Case for the modified scope of the project has been completed in 2020-21 which has been endorsed by the Board and forwarded to the Minister for Water and Treasurer for approval to proceed which is pending. This project remains a key project in delivering against the Corporation's greenhouse gas emissions reduction pledge outcome while providing needed capacity to meet the growth requirements for a rapidly expanding city. Technical design development to support the development of a tender package for delivery of the works has commenced and is scheduled to be completed by the end of 2021, with the project schedule to be completed during the 2023-24 period.
Region-wide digital business sustainability	2018-19	2021-22	2018-19	2021-22	On schedule	Project commenced and on schedule.
Wodonga wastewater treatment plant solar power	2018-19	2022-23	2018-19	2021-22	On schedule	Detailed Designs have been finalised and the project is entering the construction phase.
Region-wide information and communications technology infrastructure	2018-19	2027-28	2018-19	2027-28	On schedule	Project commenced and on schedule.
Benalla water distribution upgrade	2019-20	2020-21	2019-20	2023-24	Deferred	Engineers commenced network modelling in 2019-20. A reprioritisation of the programme has resulted in this project being rescheduled.
Wodonga sewerage transfer capacity	2019-20	2022-23	2021-22	2023-24	Deferred	Program reprioritisation sees this project rescheduled.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
North East Water (continued)						
Wodonga wastewater treatment plant major upgrade	2020-21	2024-25	2019-20	2024-25	On schedule	Ahead of Schedule. This project is essential in ensuring that the West Wodonga Wastewater Treatment Plant continues to be maintained in a satisfactory condition to continue to provide compliant wastewater treatment services for the rapidly growing city of Wodonga. Contracts have been awarded during 2020-21 for the delivery of key upgrade requirements including upgrades to aging electrical and control systems, improved inlet screening facilities and upgrades to sludge dewatering and handling systems. These works are expected to be substantially completed during the 2021-22 period.
Benalla wastewater treatment plant upgrade	2023-24	2025-26	2019-20	2025-26	On schedule	Early start for this complex project to manage risks associated with delivery timeframes.
Wangaratta water distribution	2023-24	2025-26	2023-24	2025-26	On schedule	Engineers commenced network modelling in 2019-20.
South East Water						
Boneo treatment plant interim capacity interim upgrade	Carried over	2016-17	2016-17	2018-19	Completed late	Interim works to defer the Boneo upgrade were completed.
Pakenham East sewer servicing	In progress	2019-20	2022-23	2023-24	Delayed	The Pakenham East Precinct Structure Plan (PSP) was approved in January 2021 after lengthy delays which have pushed the completion of this project outside the current regulatory period. The official award of the tender was issued in late April 2021 with an expected commencement in early 2022. It is expected that this project will now be completed during the first year of the subsequent regulatory period 2023-24.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South East Water (continued)						
Rye–Portsea backlog scheme	Carried over	Beyond 2017-18	2013-14	Ongoing	On schedule	As at the end of June 2021 approximately 6,500 properties have been connected to the network. Property connections in the Peninsula ECO project area and the backlog region of the peninsula has continued. However, the connection rate was impacted by COVID19 especially during the second lockdown from 7 July to end of October 2020. South East Water didn't initiate any major marketing plans to encourage connection due to the potential impact of financial issues for these customers. We did change the message and branding of the signs on the Mornington Peninsula to be clearer and more contemporary. Connections were still in demand; we believe this to be because COVID19 is a health issue and property owners wanted to ensure a healthy home especially those choosing to spend more time living in those properties during restrictions or wishing to earn income from paying guests with a functioning wastewater system.
Digital capability pilot	In progress	2019-20	2019-20	2021-22	Completed late	Our digital capability pilot has been completed with end-end core capability to procure, install and operate digital meters successfully implemented and proven. 23,900 digital meters have been installed at customer properties. Less than 30 customers declined to have digital meter installed. More than 900 customers with digital meters have been notified about potential water leaks in their homes. Customers who act are saving on average \$150 from their next water bill. 13,000 customers now have their water bills calculated from digital reads, improving billing quality and reducing the number of billing disputes resulting from estimated reads. During the pilot, meters were deployed that also contained advanced vibration and pressure sensors. Significant potential benefits were identified with both, with further work required to quantify these opportunities.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South East Water (continued)						
Ballarto Road East sewer pump station	In progress	2019-20	2017-18	2021-22	Completed late	Construction of the pump station was initially delayed due to the Cultural Heritage Management Plan. The Pump Station and rising main were commissioned during the 2019-20 year with associated defect rectification work completed in 2020-21.
Boneo water recycling plant upgrade	In progress	2020-21	2018-19	2021-22	Delayed	The Boneo WRP upgrade made significant progress during 2020/21 with most of the construction completed during this period. Commissioning of the tertiary treatment plant and anoxic tank in November 2020 ensured sufficient treatment capacity was available for the summer peak. The remainder of plant commissioning commenced in early 2021. The recycled water treatment plant (RWTP) was taken offline after the summer 2020/21 irrigation period with construction underway during the winter off-season. Covid-19 impacted on the delivery of the project during 20/21, particularly related to costs associated with the management of the workforce onsite and travel of specialist technicians. The time and cost impacts of Covid-19 are under discussion with the John Holland Suez Beca (JHSB) joint venture.
Land purchase (Fishermans Bend)	In progress	2021-22	2018-19	2021-22	Delayed	Many approaches were made to owners of suitable sites with no success. Land at Fishermans Bend is tightly held with only two transactions of suitable size in the past few years. This year, we publicly advertised an expression of interest for land acquisition and received submissions. We are currently negotiating with land owners and have retained legal counsel to prepare for a compulsory acquisition process if needed.
Water recycling plant drying pan and stockpile area upgrades	In progress	2022-23	2018-19	2022-23	On schedule	This project included concrete treated crushed rock lining of the drying pans and stockpile areas at Boneo, Mt. Martha, Somers and Pakenham. The Sludge Drying Pans program has been delayed due to wet weather, spoil management and managing issues associated with COVID-19 with the final two sites (Somers and Pakenham) scheduled for completion in the summer of 2022-23..

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South East Water (continued)						
Land purchase (Pakenham WRP)	In progress	2022-23	2018-19	2022-23	On schedule	The Pakenham South precinct plan, adjacent to the plant, has been finalised giving the future plant protection on the western and southern boundaries. A concept plan is progressing well with a joint working group between South East Water and Cardinia council focussing on the northern boundary. Valuations have been completed for most land parcels with negotiations to commence with land owners.
Hanna Street sewerage capacity improvements	2018-19	2021-22	2020-21	2023-24	Delayed	Early Works Tendered and Awarded in 2020-21. Early Works due to commence on site in 2021. Board Approval for Stage 1 obtained in early 2021. Board approval for the PS5 Stage 2 Project being sort in late 2022 with Works expected to be commence in Mid 2023
Elster Creek sewer catchment capacity improvement works	2018-19	2022-23	2021-22	2023-24	On schedule	Through the Price Submission review process we have made the decision that cost recovery of the Elster Creek and Clayton East & West Catchment Capacity Improvement Works will not be included in the 2018 Price Submission. A lower cost alternative is currently awaiting board approval and will consist of four components. The tender for the first two parts of the projects is close to going out to market and expected to be awarded by the end of 2021-22 with the remaining components to be considered in the 2023 submission.
Clayton East and West sewer catchment capacity improvement works	2020-21	2022-23	2024-25	2026-27	Deferred	Through the Price Submission review process we made the decision that cost recovery of the Elster Creek and Clayton East & West Catchment Capacity Improvement Works will not be included in the 2018 Price Submission. A lower cost alternative will be sought. Pre-planning is currently underway with any future works to be deferred and included in the 2023 submission.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South Gippsland Water						
Lance Creek water connection project	2018-19	2018-19	2016-17	2018-19	Completed on time	This contract received funding in the 2016-17 State Budget, later than originally anticipated. The project was completed before the completion date specified in the funding agreement and within budget. Customers in the connected towns are now benefiting from a more secure water supply with fewer restrictions forecast. The project has also help improve taste and odour of drinking water delivered to customers.
Sewer system major renewal item (Lawler Street Sewer Pump Station renewal)	2018-19	2019-20	2018-19	2019-20	Completed on time	Project has been completed. The project aimed to maintain service standards in Yarram by renewing aged and unreliable assets.
Wonthaggi wastewater treatment plant inlet pump station renewal	2018-19	2019-20	2018-19	2019-20	Completed on time	Project has been completed. The project aimed to maintain service standards by renewing aged and unreliable assets, while also accommodating growth in the catchment.
Fish Creek treated water distribution main renewal	2018-19	2022-23	2019-20	2027-28	Deferred	Project scope and schedule changed in 2018-19.
Sewer System Augmentation - Wonthaggi Mains	2018-19	2026-27	2018-19	2026-27	On schedule	Project is under construction in stages and is progressively increasing system capacity to maintain service standards while accommodating growth.
Water treatment plant disinfection upgrade projects	2018-19	2026-27	2018-19	2026-27	Delayed	Disinfection upgrades at water treatment plants are occurring in two stages. The first stage was due to be completed in 2019-20 but is still in construction with completion now expected by late 2021. The second stage is planned for Regulatory Period 5. The projects will further improve drinking water safety in the region.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South Gippsland Water (continued)						
Carbon emission reduction upgrades	2018-19	2027-28	2018-19	2023-24	Delayed	Installation of behind the meter solar installations in stages. The first is complete and the second stage is largely complete with four of five planned installations now commissioned. The projects will help meet South Gippsland Water's obligations to reduce greenhouse gas emissions.
Leongatha raw water transfer main	2020-2021	2022-23	2020-21	2021-22	On schedule	The project scope in Regulatory Period 4 covers planning for future work. The project aims to maintain service standards in Leongatha by renewing assets.
Sewer system expansion (Inverloch) sewer pump station	2020-21	2022-23	2020-21	2022-23	On schedule	Detailed design work is underway for a project with three drivers; supporting growth, compliance and renewal of assets to maintain service standards.
Wonthaggi Low Level Basin Pump Station Renewal	2019-20	2020-21	2019-20	2020-21	Completed on time	The project renewed and upgraded an existing pump station to maintain service standards in Wonthaggi and Cape Paterson.
Leongatha Water Supply Augmentation	2020-21	2020-21	2020-21	2020-21	On schedule	The project scope in Regulatory Period 4 covers planning for future work to secure water supply in Leongatha and Koonwarra.
Leongatha Wastewater Treatment Plant Inlet Works	2020-21	2021-22	2020-21	2021-22	On schedule	The project aims to maintain services and to address compliance risk.
Port Albert Vacuum Sewer Renewal	2021-22	2023-24	2021-22	2023-24	On schedule	Field trial work is underway for a project that aims to maintain service standards.
Service Basin Cover and Liner Replacements	2020-21	2024-25	2020-21	2024-25	On schedule	Construction work for the first two of six service basins is complete and work on a third basin is underway. The project aims to maintain drinking water safety in the region.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
South Gippsland Water (continued)						
Wonthaggi Wastewater Treatment Plant Augmentation	2021-22	2024-25	2021-22	2024-25	On schedule	Design work is underway for a project that will be delivered in stages over Regulatory Period 4 and 5. The project aims to maintain service standards for the growing town.
Facilities Strategy	2022-23	2024-25	2022-23	2024-25	On schedule	The strategy is currently on schedule but subject to review and revision based on lessons from the COVID19 pandemic.
Southern Rural Water						
Werribee office redevelopment	2018-19	2018-19	2018-19	2018-19	Completed on time	This project reached practical completion at the end of 2018-19. The budget was increased subsequent to the Price Submission. The redevelopment is to be funded from non-prescribed asset sales, and so doesn't impact customer prices.
Werribee irrigation district modernisation	2018-19	2019-20	2018-19	2019-20	Completed on time	The project is now in the benefits realisation phase.
Bacchus Marsh irrigation district modernisation	2018-19	2019-20	2018-19	2018-19	Completed on time	The project is now in the benefits realisation phase.
Maffra weir operating gear	2018-19	2019-20	2018-19	2021-22	Completed late	Practical completion has been reached.
Asset management system upgrade	2018-19	2019-20	2023-24	2024-25	Deferred	The project was deferred following the development of an asset management maturity study and improvement plan that reprioritised the creation of a Strategic Asset Management Plan and Asset Information Strategy together with data standards and framework before pursuing a new asset management software package. A business case will be developed in 2022.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Southern Rural Water (continued)						
Macalister irrigation district 2030 1B	2018-19	2020-21	2018-19	2020-21	On schedule	Phase 1b was completed in 2020. We have also commenced initial construction of Phase 2 works which will complete the full modernisation business case.
Macalister irrigation district channel bank renewal	2018-19	2022-23	2018-19	2022-23	On schedule	This represents an annual provision of funds for an on-going preventative maintenance program progressively refurbishing eroded earthen channels in the MID. Following a capital prioritisation review we have reduced the scope to provide funds within our revenue cap more critical emerging projects, including replacement of Siphon No 1 (see below)
Glenmaggie re-paint spillway gates	2018-19	2022-23	2023-24	2024-25	Deferred	Project was reprioritised and is now scheduled in 2024.
Groundwater and rivers meter replacement	2018-19	2022-23	2018-19	2022-23	On schedule	<p>This represents an annual provision of funds to continually undertake meter replacements and upgrades to ensure we meet our obligations under the National Framework for Non-Urban Meters and associated State Implementation Plan.</p> <p>We have prioritised these funds initially for meter replacements where safety issues have been identified. At the same time, we have developed a more significant program to achieve compliance with the State Implementation Plan. Meeting this obligation will require more significant investment during the 2023 – 2028 pricing submission and business cases to inform that are underway..</p>

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Southern Rural Water (continued)						
Macalister Irrigation District Siphon replacement ***NEW PROJECT***			2018-19	2019-20	Completed	The MID siphons are typically between 50 and 100 years old. Siphon failures cause significant disruption to supply and can take several weeks to return supply to customers. Siphon No 1 has previously had preventative maintenance work carried out but a large detected leak has required this siphon to be replaced. Funding for this project required some reprioritisation of other projects, such as channel bank renewal and Glenmaggie spillway gate painting.
Wannon Water						
Cobden and Casterton water reclamation plant irrigation works	Carried over	2017-18	2014-15	2018-19	Completed late	Wannon Water has prevented the need for significant works and expenditure on additional winter storages at these sites. An amended discharge licence was applied for and has been received for Cobden WRP. The application and approval process took longer than expected. No further works are required at either site.
Portland reclamation plant wind energy project	Carried over	2015-16	2014-15	2019-20	Completed late	This major project is delivering a significant reduction in energy costs and carbon emissions at the site. The project experienced a number of delays in relation to the negotiation of commercial terms with the turbine supplier, as well as some delays associated with electrical connectivity into the power grid. The wind turbine was erected on site during May 2019. Connection to the power grid was completed in September 2019 and it has been operational since.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Wannon Water (continued)						
Hamilton – new biosolids drying area	2018-19	2019-20	2018-19	2020-21	Completed late	This project was completed in March 2021. Design was completed and construction commenced in 2018-19. The original Contractor engaged to undertake the works was unable to complete the works. This caused a delay as the remaining works were retendered and completed by another Contractor.
New clear water storage for Hamilton water treatment plant	2018-19	2019-20	2018-19	2020-21	Completed late	Construction of a new clear water storage tank is complete and the tank is operational. Contractor travel and attendance at site was impacted by COVID-19 border restrictions which resulted in delays to project completion date.
Warrnambool – water reclamation plant augmentation project	2018-19	2021-22	2018-19	2023-24	Delayed	This is Wannon Water’s largest ever capital project. Delays relating to pre-construction approvals continued during 2020-21. Detailed design of the upgrade is complete and given progress made relating to pre-construction approvals late in the year, the expectation is that approval, tendering and site preparation stages will be completed during 2021-22. Construction is now planned to commence in 2022 with completion scheduled in 2023-24.
Warrnambool – Wangoom Road water tower and pump station	2018-19	2021-22	2018-19	2022-23	Delayed	The construction of the pipeline element of this project commenced during 2020-21. Construction of a new water tower and pump station is experiencing delays due to land acquisition and is currently planned for 2022-23.
Substitution works to improve summer flows in Gellibrand River	2018-19	2021-22	2018-19	2022-23	Deferred	Project study and design phase has been deferred. Commencement of works will be dependent on matching funding to ensure value for money outcomes for our customers.
Camperdown – refurbish Camperdown biosolids facility	2019-20	2020-21	2018-19	2020-21	Completed on time	Construction of the refurbished biosolids drying facility is complete.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Wannon Water (continued)						
Warrnambool water treatment plant – install ultraviolet	2019-20	2020-21	2019-20	2022-23	Delayed	A contract has been awarded for the procurement of the UV equipment, allowing design which commenced in 2019-20 to be completed for the associated building and pipework. COVID-19 has resulted in extended lead in time for delivery of UV equipment. Installation of UV equipment is planned to commence in 2021-22 and be completed in 2022-23.
Warrnambool – Wollaston Road Tower and water pump station	2019-20	2020-21	2019-20	2022-23	Delayed	This project is not funded within Wannon Water's current Price Submission period. Delivery of infrastructure will occur in a future Price Submission period. Concept design and community consultation stages are planned to occur during this period. During 2020-21, delivery of the community consultation stage has been impacted by COVID-19 restrictions.
Hamilton water reclamation plant – effluent reuse upgrade	2019-20	2020-21	2018-19	2022-23	Delayed	Construction of Stage 1 of infrastructure to upgrade the effluent reuse options at Hamilton WRP commenced in 2019-20 and was completed in 2020-21. Design of Stage 2 infrastructure is underway with expected completion in 2022-23.
Port Campbell – second bore	2020-21	2021-22	2019-20	2021-22	On schedule	Design and approvals were brought forward to 2019-20 to facilitate construction of a new bore in 2021-22.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Westernport Water						
Business transformation project	2018-19	2019-20	2019-20	2021-22	Delayed	This project includes renewing Westernport Water’s billing, finance, payroll and HR information ICT systems. Payroll and HR systems have now been renewed. The existing approaches to renewing finance and billing systems are under review to ensure value.
Building asset management plan – stage 3	2018-19	2019-20	2018-19	2020-21	Completed late	This project includes the upgrade of existing warehousing and workshop, focusing on safety by reducing the risk to staff undertaking mechanical works. The project scope has been successfully delivered even with COVID -19 restrictions. The following upgrades were delivered: pipe and fittings storage; new storage shelving and racking; new concrete plant and machinery parking area; security gates and electronic access..
Phillip Island water supply security project	2018-19	2020-21	2018-19	2020-21	Completed on time	This project's scope includes constructing a 2.3ML potable water storage tank and pipework to reduce water supply interruptions on Phillip Island. The construction phase commenced in 2019-20 but was delayed due to COVID-19 restrictions. Nonetheless, construction works reached practical completion and the system commissioning was successfully completed by the scheduled completion date 2020-21.
Cowes wastewater treatment plant upgrade – stage 2	2018-19	2021-22	2019-20	2021-22	On schedule	The Cowes Wastewater Treatment Plant (Cowes WWTP) is Westernport Water’s major wastewater treatment plant that services Phillip Island and the township of San Remo. Stage 1 upgrade was completed in Water Plan 3. Stage 2 will increase the clarifier capacity to meet 2036 demand. The construction contract was awarded in March 2021 and the project is on schedule.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Westernport Water (continued)						
Zone metering and pressure management	2018-19	2022-23	2018-19	2020-21	Completed on time	This project aims to reduce the water pressure in reticulation mains to extend asset life. The project includes the construction of seven pressure reduction stations in Westernport Water’s distribution network. The concept design has been completed for all seven zones. The pressure reduction facility at Cape Woolamai has been successfully commissioned as a pilot project. The remaining six pressure reduction stations have been deferred to the next regulatory period. An assessment has been undertaken and deferring the remaining six stations will not impact our performance service levels for customers. The project budget has been reallocated to Cowes WWTP Stage 2 upgrade.
Emissions reduction pledge implementation	2018-19	2022-23	2018-19	2020-21	Completed	This initiative assists Westernport Water in meeting its 8% emissions reduction pledge. The project includes installing behind the meter solar photovoltaic (PV) renewable energy across the three top energy-consuming Westernport Water sites (Stage 1). That includes solar arrays at Church Street Pump Station, Newhaven office and depot, and King Road WWTP. Stage 1 was successfully completed in 2019-20. Under Stage 2 of the project, 99.6kW ground-mounted solar PV at Cowes WWTP has been successfully installed. Construction works have reached practical completion and the system commissioning has been successfully completed.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Westernport Water (continued)						
San Remo basin renewal project	2020-21	2022-23	2020-21	2022-23	On schedule	San Remo Basin is Westernport Water’s main drinking water storage in our water distribution system. The basin was originally constructed in 1968 as an uncovered earthen basin. Later in 1999, the basin was upgraded with a polyethylene (PE) liner and a floating cover. The theoretical useful life for the San Remo Basin liner and floating cover was 20 years. This project will replace the existing liner and cover. The Design and Construct contract has been awarded and construction will commence in October 2021.
Sustainable water reuse & land management	2020-21	2022-23	2018-19	2020-21	Completed on time	This project delivers on Westernport Water’s Recycled Water Strategy. The project scope includes land purchase at the King Road WWTP and expansion of irrigation at the Cowes WWTP to increase our effluent reuse targets. The land purchase component of the project was completed in 2018-19. The associated irrigation connecting the new pivot at King Road WWTP has been completed.
San Remo basin to Cowes '648 pipeline valve renewal program	2020-21	2022-23	2020-21	2022-23	On schedule	This project includes renewing critical valves in our 650mm diameter water supply pipeline from San Remo Basin to Cowes. The project commenced, and procurement of valves has already been completed in 2021-22. The construct only tender has been released in 2021-22 with construction on scheduled to be completed in 2022-23.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Westernport Water (continued)						
San Remo to Newhaven Bridge pipeline and fittings renewal project	2021-22	2022-23	2021-22	2022-23	On schedule	Westernport Water has two water pipelines (400mm diameter Mild Steel Cement Lined and 375mm diameter HOBAS) and one sewer pipeline (300mm diameter HOBAS) under the Phillip Island Bridge. These pipelines are critical to providing water and sewer services to Phillip Island. The pipeline brackets have experienced corrosion. The scope of this project includes renewal of the under-bridge pipeline brackets and fittings. The detailed designs and technical specifications were completed in 2020-21. The contract only tender will be released in 2021-22.
Yarra Valley Water						
Donvale sewerage project	Carried over	2015-16	2013-14	2019-20	Completed	Construction was completed in August 2020. The Project was delayed due to longer than anticipated planning approval timeframes and construction being slower than expected due to rock and inconsistent ground conditions.
Kalkallo Creek BS – stage 1E	2018-19	2018-19	2018-19	2019-20	Completed late	The construction of the Project was completed in 2019-20. The Project was delayed due to a longer than anticipated tendering phase.
Epping branch sewer To MCM – tunnel extension	2018-19	2019-20	2018-19	2019-20	Completed on time	The project was completed in 2019-20.
Drinking water (DW) pumping station 610 Kalkallo pumping station augmentation (Mt Ridley to Bald Hill)	2018-19	2019-20	2019-20	2020-21	Completed late	The project was completed in 2020-21. The project was delayed to match the timing of the Melbourne Water Bald Hill Tank which was delayed due to a long land acquisition process.

Continued on next page

Table 1 Summary (continued)

Project description	Scheduled start date	Scheduled completion date	Expected/actual start date	Expected/actual completion date	Status	Water corporation comments
Yarra Valley Water (continued)						
Doreen pressure main sewage pumping station 651 to ELT49	2018-19	2020-21	2018-19	2021-22	Delayed	Major storms delayed the project. The construction works are complete and the new assets are now being put into operation.
Craigieburn flow storage and distribution – stage 2A tank3	2018-19	2020-21	2020-21	2022-23	Delayed	The project schedule has been adjusted to reflect actual urban growth rates including a change in the sequencing of connecting assets that has delayed the Tank portion of the project. The project is now scheduled to be completed in 2022-23.
Lockerbie main sewer	2018-19	2021-22	2019-20	2021-22	On schedule	The project is in construction and is on track to be completed on schedule in 2021-22.
CSA034The Patch (West) – community sewerage program	2018-19	2023-24	2018-19	2023-24	On schedule	The project is currently in construction and on track to be completed on schedule in 2023-24.
CSA032 Monbulk (Central) – community sewerage program	2018-19	2024-25	2017-18	2024-25	On schedule	The project is currently in detailed design and on track to be completed on schedule in 2024-25.
CSA033 Sherbrooke / Kallista (West) – community sewerage program	2018-19	2024-25	2018-19	2024-25	On schedule	The project is currently in detailed design and on track to be completed on schedule in 2024-25.
CSA030A Sassafras (East) – community sewerage program	2019-20	2024-25	2019-20	2024-25	On schedule	The project is currently in detailed design and on track to be completed on schedule in 2024-25.