Appendix N

Capital delivery

How we have delivered in 2016-20

For the 2016-20 regulatory period we committed to appropriately manage water and sewerage infrastructure risks, maintain high standards for the quality of water supplied to customers, and not increase the number of temporary water supply interruptions or sewer overflows for customers. We are performing well against these commitments. Tables N.1 and N.2 show our targets for the current regulatory period and our current performance for each.

Table N.1: Water outcomes for customers

Outcome	Target	Performance as at June 2014	Performance as at June 2019
Zero serious injuries to members of the community	0	0	0
Serious injury frequency rate	<5.0 by 2020	11.44	5.94
Number of customers with 3+ interruptions	<1,900	1,900	2,315*
Compliance with Australian Drinking Water Guidelines	100% metropolitan 99.8% regional	99.81% metropolitan 99.85% regional	100% metropolitan 100% regional
Water quality incidents per year	<2 Priority Type 1 <35 Type 1 <60 Type 2	3 Priority Type 1 34 Type 1 87 Type 2	1 Priority Type 1 24 Type 1 54 Type 2

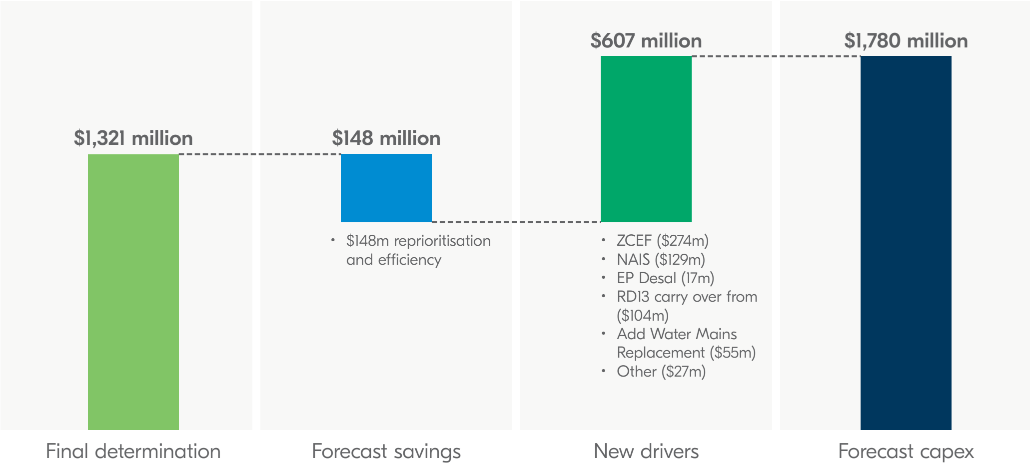
* Our data shows an increase of customers experiencing three or more water interruptions in a year. This is largely due to refinements and improvements in the assumptions used by our Geospatial Information System to calculate how many customers have been interrupted by a service issue. In response to improved data we have also developed a model to help us determine the impact of investment on target water mains to reduce this number in 2020-24, without additional cost to customers.

Table N.2: Sewer outcomes for customers

Outcome	Target	Performance as at June 2014	Performance as at June 2019
Serious injury frequency rate	<5.0 by 2020	11.44	5.94
Internal overflows per year	<217	217	180
Compliance with Department of Health and Ageing Licence	100%	100%	100%
Total Type 1 and 2 reportable overflows per year	77 by 2019-20	69	124
Compliance with EPA Licence	100%	100%	100%
Odour complaints per year	<450	514	553

We have met the majority of the performance objectives set in our 2016 regulatory proposal. Where we have not met them, some of this is due to improved data which requires us to reconsider the original target, such as for customers experiencing multiple interruptions and reportable overflows. Although we have not yet met our target for significant frequency injury rate we have made significant improvement reducing the rate from 11.44 to 5.94 and we are seeking to achieve this target by June 2020. We acknowledge work is still required to meet the odour complaints target and this will be a focus in the 2020-24 regulatory period.

Figure N.1: Capital expenditure against allowance



During the current regulatory period, new needs and opportunities arose. For example, to protect the natural resources supplying the Eyre Peninsula we need to build a climate independent water source. We also identified the opportunity to invest in energy infrastructure to protect our customers from rising costs given these form a large part of our operating costs.

To fund these new initiatives we reprioritised our initial capital plan. This was done in an informed way, using detailed asset condition information and performance data to make risk-based decisions. Where new information makes it clear the infrastructure is not degrading at the expected rate, we deferred expenditure.

These targeted decisions have enabled us to meet new investment pressures while continuing to perform well against the customer outcomes we committed to.

The Essential Services Commission of South Australia (ESCOSA) allowed us $1,321 million in capital expenditure (December 2018 real dollars) to achieve these outcomes in 2016-20. This included an efficiency target of approximately 5 per cent, or $66 million. Figure N.1 shows how we have performed against this allowance, saving $148 million against the $66 million target.

Achieving the efficiency target

With prudent reprioritisation of expenditure and delivery efficiencies, we are outperforming the efficiency target applied by ESCOSA in the 2016-20 determination.

We have saved $148 million for our customers by:

- challenging the need for renewals expenditure with robust condition assessment and an increased risk profile
- deferring growth-related upgrades in areas where the growth is not occurring as fast as forecast
- reprioritising expenditure to meet new challenges
- Continuous improvement in the way we deliver our capital program (detailed below)

Our enhanced capital delivery framework incorporated an efficient capital delivery initiative, category management and estimating improvements.

Drawing on our relationship with KBR, we have access to leading capital delivery practices from around the world. Innovative continuous improvement practices were trialled in the metropolitan capital delivery environment and we implemented a continuous improvement roadmap which focused on areas including:

- Cost intelligence – ensured automation and tracking of all estimating requests, reducing transaction times, prioritising effort and reducing turnaround time.
- Enablement and assurance tools and systems – developed a capable 'centre of excellence' support services team providing timely and accurate data, enabling informed decision making from output to portfolio and reducing unnecessary effort.
- Governance – streamlined governance processes, tools and systems and applied robust assurance of decision making.
- Work health and safety – built capability across project management teams and capital delivery leadership to increase the quality of safety conversations on site and create safer environments for our people.
- Talent and capability – developed a baseline talent and capability framework across all roles in capital delivery and assessed people capability against this framework. From this emerged improved workforce planning and work to develop a robust succession planning framework.
- Construction services – implemented a business partner portal for all our stakeholders to easily access up to date project and program information to optimise project teams.

A formal innovation process was introduced to promote collaboration and idea generation. One example was the introduction of Make a Difference, an initiative incentivising our supply chain partners to innovate in construction, ensuring safe and more efficient outcomes.

Principles for efficient decision making in project teams were established, reinforced and communicated broadly across the business.

Work to understand target cost outcomes to date and analyse the gain/pain positions is helping us influence target cost agreements for remaining work not yet in contract.

Analysis of contingency management across the program identifies inconsistencies and ensures stable and consistent risk management and reporting.

In depth analysis has been undertaken of contractor approaches to cost allocation, resource management and risk mitigation including:

- a review of preliminary contracts which will reduce management team overheads
- interrogation of owner's engineer allowances in the cost forecasting with a reduction anticipated
- comparison of progress and forecast upper limiting fees
- identification of any Prime Cost sums still sitting in target out-turn costs
- understanding contingency allowances in contractor forecasts and ensuring a consistent approach.

Ongoing leadership discussions are held with lead contracting personnel to ensure a coordinated effort to lower the cost of delivery and identify further scope reduction opportunities which might be passed forward for formal value management.

Working together with project teams, we have identified and pursued opportunities to reduce costs through effective and consistent value management reviews. This has included confirming success criteria, assessing scope to ensure it is fit for purpose, specification, resourcing and improved delivery methodologies.

Monthly reports for the Capital Delivery Executive Steering Committee have been prepared and communicated broadly with teams to enable proactive change management.

A 'one team' leadership model for capital delivery was delivered in the 2016-20 regulatory period. This brought together our four capital delivery models so we could:

- lead and manage our overall performance more effectively by aligning delivery strategies, governance, processes, systems and skills
- collaborate throughout the asset lifecycle and fully use talent where it adds most value
- leverage supply chain capability and innovation.

The 'one team' model

This model brought together PMP Solutions (a joint venture with KBR) and our Infrastructure Delivery team to ensure a consistent approach to capital program delivery, while recognising the different aspects of program bundling and large project delivery.

The teams were co-located and enabled integration of skills and experience to create the right environment for consistent and efficient capital delivery.

Key features of the model included:

- creating an Enablement and Assurance team bringing together:
  - cost intelligence
  - portfolio services (cost and schedule management)
  - governance, information and value
- a formal continual improvement process
- co-locating supporting teams, such as Procurement, Stakeholder Engagement and Enablement and Assurance with delivery teams (project and program management)
- a single point for engineering management in capital delivery
- monthly project reviews to provide consistent leadership support to project delivery teams and ensure:
  - a consistent approach to risk and contingency management
  - a shared understanding of project scoping requirements
  - accurate cost and schedule outcomes forecasting
  - management of program changes
- establishing a cross-organisation Program Advisory Group to provide streamlined governance and decision making at project and program level.

We are therefore forecasting to outperform our regulatory efficiency target of $66 million by a further $82 million.

Improving delivery efficiency, 2020-24

As part of our commitment to delivering more efficiently for our customers, we have proposed a further 5 per cent efficiency target across our capital plan for 2020-24.

To deliver this additional saving, we have learnt from the current regulatory period and designed a new capital delivery model (Figure N.2).

This model will:

- improve the line of sight between customer outcomes and capital delivery to ensure every dollar is invested to achieve the outcome, and not one dollar more
- improve collaboration between business and supply chain partners
- increase involvement of construction partners in decision making processes, taking advantage of external knowledge and expertise
- use evidence-based data to a greater extent to drive more effective decision making
- enable increased accountability from supply chain partners by linking operational and customer outcome performance to financial remuneration
- integrate asset planning and capital delivery processes to ensure outputs are optimised, clearly conveyed and efficiently delivered.

Managing capital delivery costs is vital to ensure every dollar is invested prudently and efficiently. The change in our approach will ensure we continue to provide the services our customers value while keeping prices as low and stable as possible.

An integrated planning process involving our supply chain will ensure we are ready to make these changes and deliver for our customers. This will be supported by an 'early start' program which seeks to substantially mature our outputs for delivery before the 2020-24 regulatory period starts, and supports a stable investment profile for 2020-24. Early start programs are used in the United Kingdom and have improved investment profiling and increased productivity by 3-5 per cent. The increased productivity is largely being found in labour costs which comprise approximately 33 per cent of the total capital cost of a project.

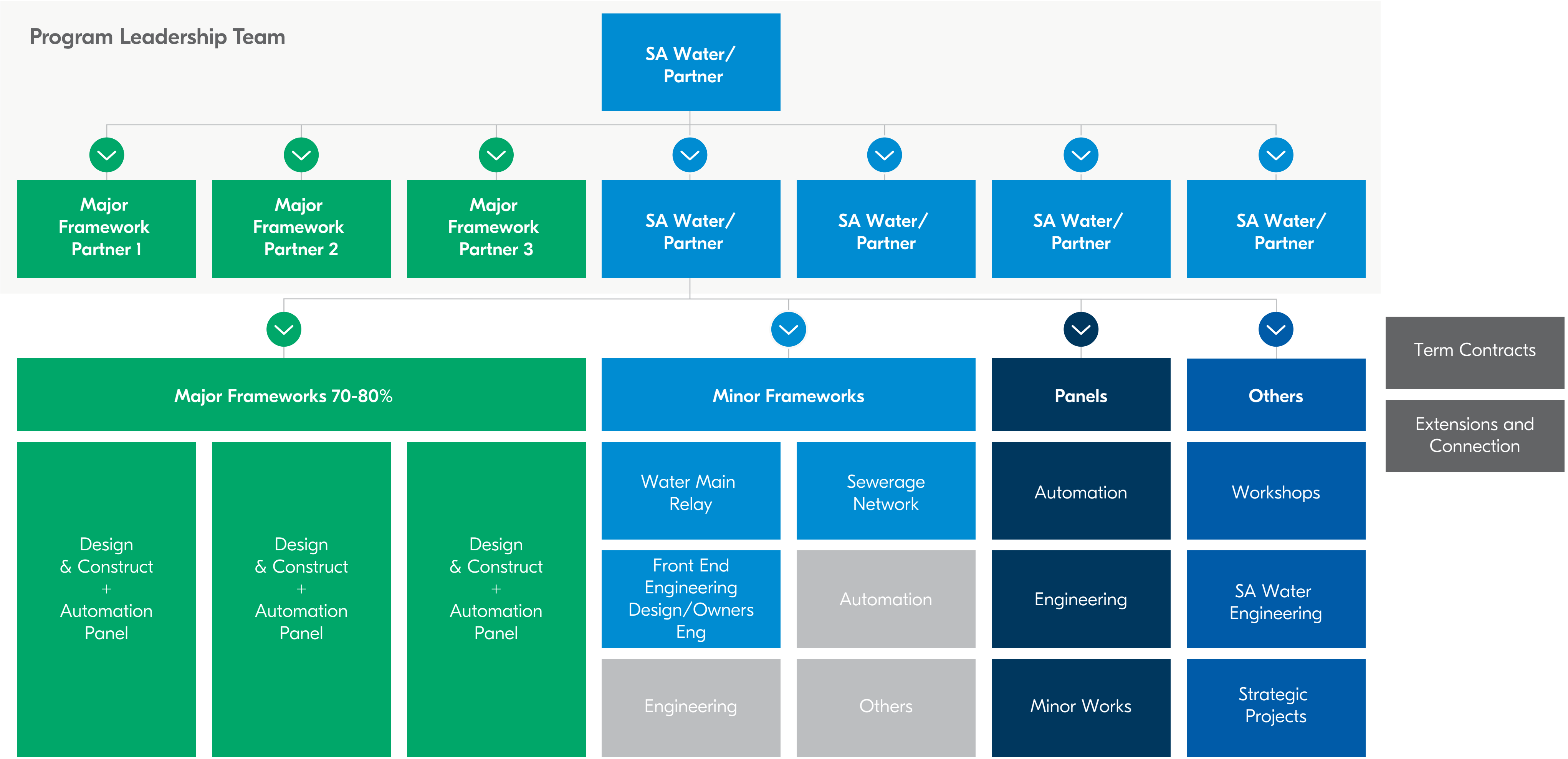
Our early start program includes:

- **Implementing major framework partnerships**
  Major framework partners will be brought into the program delivery environment early, improving decision making, safety outcomes and ensuring the projects are properly positioned to deliver for our customers at the lowest cost. Frameworks will also incentivise partners to achieve target customer outcomes at a lower than expected cost.
- **Engaging a client organisation partner**
  We have engaged a joint venture between KBR and Aurecon as our preferred client organisation partner to provide program management and Front End Engineering Design services in the 2020-24 regulatory period. This will enable early readiness, improved safety outcomes and value engineering. It is envisaged the client organisation partner will support the planning, market approach, evaluation, award and implementation requirements. This support will extend to other procurement and non-procurement initiatives focused on ensuring we are ready to efficiently deliver the capital plan from July 2020.
- **Designing kit frameworks**
  These standardised solutions which, if agreed up front, can reduce overall costs through a 'production line' of standard item. These can be implemented where standard kit is used across similar installations in our network, such as electrical switchboards.

This program will bring benefits critical to achieving a step change in efficiency including:

- ensuring continuity of resources in the supply chain
- more time for planning, ensuring a safe environment for delivery teams
- early mitigation of key program risks
- opportunities to build a constructive culture across supply chain partners.

Figure N.2: Capital delivery model



Other improvements

A number of capital planning initiatives are underway to streamline processes and reduce administrative costs. These include:

- workforce planning (including culture, diversity and inclusion, and onboarding)
- scope prioritisation modelling
- scope definition – Front End Engineering Design services
- project controls – continual improvement, governance, capitalisation, systems etc.
- improved activity across asset lifecycle activities – connecting Asset Planning, Capital Delivery, Operations and Maintenance to realise greater collaboration and improve decision making through shared ownership of the overall process
- continuing to build our constructive culture and ensuring accountabilities and responsibilities are clear
- embedding a collaborative partnering ethos within our business and with our partners
- setting transparent priorities for interventions and minimising the impact of change
- clear risk management protocols relating to the inclusion of risk provisions in project cost forecasts and active management of these provisions including their removal from project cost forecasts once the risk has passed
- developing a catalogue of standard products which will bring efficiencies to delivery by reducing the need to design from first principles every time and to ask operators to study design details through the Safety in Design process
- ensuring our people and partners understand the new model, roles and responsibilities within it, objectives of the program to deliver Our Plan 2020-24, and expected partnering behaviours
- stress testing the proposed commercial model whereby construction delivery partners can enhance their earnings through performance at both total program level and their own sub-program level.

A number of modifications and improvements to our existing systems and processes will be implemented to improve the efficiency of our capital delivery, including the following:

Integrated / competitive target outturn cost (TOC) development and value for money work practices

This will define the methodology, tools and requirements relating to the development of target outturn costs in a collaborative working environment and competitive market. The benefits are:

- business readiness to ensure efficient delivery of projects and programs
- a standardised approach to developing TOCs in a sole source and collaborative contracting environment
- improved cost intelligence, risk management and leveraging of market opportunities for cost savings
- assurance of value for money
- informed resource requirements and delivery structures for Our Plan
- informed training, system and tools requirements
- informed market approach process for frameworks including amendments to current documentation.

Work allocation

A decision making tool for selecting how work is allocated to the major framework partners needs to be designed before these partners are selected, and finalised following their selection.

Performance management model and reporting

The maturing of the performance framework and how we incentivise our supply chain to deliver for our customers needs to be fully defined, independently verified and negotiated with our preferred partners. Our existing Supplier Performance Measurement Tool will need to be reviewed and potentially updated or replaced. This will ensure we have reliable and fit for purpose measurement and commercial analysis systems enabling timely, credible and evidenced-based decision making.

Collaboration through online data and resource management

An IT solution that facilitates exchange of strategic data, supports timely decision making and reduces transactional overhead will be an important feature of the new model. This solution will be developed with input from a range of stakeholders.

Terms, conditions and governance

A number of our existing terms, processes and governance procedures need to be reviewed and, where necessary, updated to ensure supply risk, compliance and value for money is adequately managed. These include but are not limited to:

- general conditions of contract – terms and conditions
- target cost contracting (including audit and risk and opportunity management)
- supplier financial health
- framework guidelines (including management structure, meetings, reporting, terms, contract management process, work allocation, audit).