Closing Regulatory Asset Base - Water Plan 2

The closing Regulatory Asset Base (RAB) included $47.2 million of capital expenditure for 2012-13 (in $2018). This compared to the benchmark forecast of around $30.1 million as determined by the regulator.

The Essential Services Commission (ESC) have at this stage adopted North East Water's (NEW) proposed amounts for past net capital expenditure to estimate its closing RAB, however the ESC has requested in the Draft Decision that NEW provide more information to justify the net capital expenditure above its 2013 determination forecast, in order to have these amounts confirmed in the final decision for 2018-2026.

The table below outlines at a summary level total capital expenditure incurred for the 10 year period covering Water Plan 2 and 3 periods compared to that determined in the final decisions. In summary NEW have delivered $219.2 million of capital expenditure compared to $219.4 million as determined ($2018) a variance of less than 1% of what customers have been priced across this period.

$2018 - Deterimination v Actual	Water Plan 2 $mill					Water Plan 3 $ mill				
	2008-09	2009-10	2010-11	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Determination	30.9	29.1	37.3	25.4	17.5	20.2	16.6	13.6	16.8	12.1
Cumulative Total	30.9	60.0	97.3	122.7	140.2	160.3	176.9	190.5	207.3	219.4
Actual	21.3	20.0	19.9	15.7	47.3	28.5	13.3	17.1	13.6	22.7
CumulativeTotal	21.3	41.3	61.1	76.8	124.1	152.6	165.8	182.9	196.5	219.2
Cumulative Variance between Determination and Actual Spend	9.6	18.7	36.2	45.9	16.1	7.8	11.1	7.6	10.8	0.2

The attached sheet details the 8 major projects where actual expenditure incurred in 2012-13 total $36.99 million or 78% of total expenditure incurred in that year.

For each project the following is outlined:

- Problem or project driver
- Assumed most likely option (based on WP3 submission)
- Solution implemented
- Benefits delivered
- Procurement method
- Water Plan 2 total project cost and associated timing
- 2012-13 actual spend
- Full systems definition estimate
- Total Budget
- Contract value (where identified)
- Total project cost (all years)
- Supporting documentation including Ministerial approvals and Business Cases

Due to the amount of material contained in business cases these will be hand delivered to the ESC.

	Investment	Problem / Drivers	Assumed Most Likely Option (2013 WP3 submission)	Solution Implemented	Benefits Delivery	Procurement	Water Plan 2 Total Project Cost Preliminary Estimate $'2013	2012-13 Actual Spend in $'2018	Full Systems Definition Estimate $ of the day	Total Budget $ of the day	Contract Value $ of the day	Total Project Cost at Completion (all years) $ of the day	Supporting Documentation
WATER	Corryong - WTP Upgrade	Town had non compliant Safe Drinking Water supply from rudimentary treatment process with no redundancy, due to the minimum standard having been increased by government investment was deemed timely. Town had inadequate storage of Safe Drinking Water in the event of WTP outage.	Direct filtration WTP.	Dissolved Air Flotation and Filtration WTP to enable growth, compliance and ability to treat algae leaden raw water sources. Clear Water Storage Tank.	Fully delivered safe drinking water supply. Previously non compliant and no reserve of safe drink water. As at May 2018 no further safe drinking water related investment has been identified and benefits continue to be delivered to the communities of Corryong and Cudgewa.	In recognising that two specialist streams were required to implement the project procurement was split into two discrete sub-projects. The relative specialisation required to both design and construct the required solution lead to a Design and Construction Contract (D&C). D&C can inherently significantly escalate costs due to the contractor pricing risk high to compensate for a lack of information at time of Tender. To mitigate this VfM risk NEW Engineers provided a comprehensive preliminary design developed in house for both the WTP and Tank and this was issued to the open market via a RfT. This approach combined with Systems Engineering techniques provided an optimal approach to mitigating scope and cost exceedances.	**$3.47 million** Timing 2010-11 -$0.3 million 2011-12 - $1.7 million 2012-13 - $1.4 million	$4.77 million	Year = 2008 WTP = $4.6m Tank = $1.0m	Revised 2008 WTP = $4.6m Tank = $1.0m	2008 Lump Sum WTP = $4.28m Tank = $0.92m	WTP = $4.32m Tank = $0.98m Design development stage completed in May 2011 resulted in changes to key assumptions used for original budget which included upgrade of plant capacity from 2.3 to 3 ML per day and an upgrade of CWS capacity from 1.3 to 2Ml per day). Project was delivered within 100.3% against the budget.	September 2011 Board Report Corryong and Cudgewa Water Supply – Securing Water Quality - Preliminary Business Case - June 2010
	Bundalong - Augmentation of Water Supply	Bundalong's supply system was constructed by a land developer and handed over to NEW. The towns raw water supply was found to be at risk during periods of drought, with many residences relying on private bores to augment their supply.	Connect to the compliant WTP at the major centre of Yarrawonga via a pipeline. Provide raw water option to residences via a pump station on the Ovens river and provide a raw water reticulation system to improve climate resilience and reduce operational costs associated with production of safe drinking water and hence defer capacity upgrades at Yarrawonga WTP.	As per Assumed Most Likely Option.	Fully delivered safe drinking water supply. Previously non compliant and no reserve of safe drink water.	The infrastructure to be created was relatively low risk and low complexity and as such a detail design was prepared by consulting engineers and subsequently a RfT for construction was issued to the open market. The project was partially funded by a compulsory land holder contribution of $3,000 or $5,000 per lot, dependant upon property size and zoning.	**$1.17 million** Timing 2012-13 - $1.17 million	$3.93 million	Year = 2011 $4.72m	Revision 2012 $4.56m	Lump Sum $4.34m	Lump Sum $4.39m Project was delivered at 96.2% against total budget.	May 2010 Business case
	Lombah Dam - Spillway Dam Safety Upgrade	The Lombah Dam was risk assessed against the ANCOLD requirements for Dam Safety as posing a significant risk (including loss of life) of failure with no operational alternatives to lower the risk and hence required an asset investment solution.	Spillway capacity was the primary reason for the dam's non compliance and hence a higher capacity spillway would be required.	A "Piano Key Spillway" was constructed.	This larger dam is inspected annually as part of NEW's Dam Safety obligations and continues to be assessed having the capability to continue to operate within the ANCOLD safety guidelines.	Larger dam design is a highly specialised field and as such an engineering design was completed by consulting engineers. Subsequently a lump sum construction contract was selected for issue in a RfT to the open market. A Piano Key type spillway was selected as a design solution as it afforded a design that was highly compact and hence significant cost savings against a conventional spillway as it significantly reduced the volumes of solid rock that would need to be excavated.	**$2.95 million** Timing 2008-09 - $0.1 million 2011-12 - $2.85 million	$1.76 million	Year = 2008 Design = $0.11m Construction = $2.8m	2010 Design = $0.12m Construction = $2.04m	Lump Sums Design = $0.12m Construction = $1.76m	Design = $0.15m Construction = $1.93m The total project was delivered at 71.5% of its 2008 estimate and at 98% against total budget.	Tender Assessment - December 2011
	Whitfield - WTP Water Quality Improvement	At the time of compiling WP3 the then Department of Sustainability and Environments' objectives included improving the drinking water quality of small towns. Whitfield and Springhurst were two small towns identified as needing safe drinking water upgrades and the department entered into a 50:50 funding arrangement based upon preliminary estimates. DSE provided a total of $1.65m for the two small towns.	Upgrade existing WTP to direct filtration technology was the assumed most likely option and the basis of estimates.	Dissolved Air Flotation and Filtration WTP technology was implemented combined with a day supply of Clear Water Storage (Tank). Raw water offtake pump station from ground water bores required as the existing surface water supply was at high risk of contamination due to agricultural practices (dairy farming). Transfer main to link pump station and WTP.	Fully Delivered Safe drinking water supply. Previously non compliant. As at May 2018 no further safe drinking water related investment has been identified and benefits continue to be delivered to the community.	A similar approach to the Corryong WTP's procurement was undertaken for the breakdown of work and contracts for Whitfield WTP.	**$1.34 million** (DSE Funding = $0.68m Whitfield)	$1.29 million	Year = 2011 WTP = $1.65m Raw Water Offtake = $0.14m Transfer Main = $ 0.32M	Year = 2012 WTP = $1.75m Raw Water Offtake = $0.15m Transfer Main = $ 0.25M	Lump Sums WTP = $1.65m Raw Water Offtake = $0.11m Transfer Main = $ 0.29M	WTP = $1.65m Raw Water Offtake = $0.11m Transfer Main = $ 0.29M This investments context when viewed from the programme management level shows that for the combined projects at Whitfield and Springhurst, NEW contributed 47.1% of the total final cost of the projects.	Acceptance of Funding DEWLP 2 June 2010 Whitfield Water Supply - Business Case October 2011
	Bright - Off stream Storage	The townships of Bright, Porepunkah and Wandiligong were supplied by a run of river supply with no raw water storage. In times of drought there was insufficient supply available in the river and the need for extensive drawing of raw water during times of low passing flows was detrimental to the river systems ecology. A temporary water treatment plant had been placed to service Bright as a short term solution during the Millennium Drought, that was failing to meet minimum drinking water safety requirements.	Construction of a 320 mega litre off stream storage reservoir.	The solution includes land acquisition and construction of a 520 mega litre off stream storage reservoir as well as a river diversion structure including pump station and pipelines. The original intent of 320 mega litres did not address the environmental flows requirement and as such final sizing was lifted to 520mega litres. The additional cost of upsizing was partly offset by RDV funding of $2 million.	Security of supply during climatic drought periods and river system environmental health have been delivered.	A detailed design was prepared by consulting engineers and subsequently a RfT for the storage construction was issued to the open market. The storage was one element of a sub-programme required for the Bright Water System, the remaining elements built that comprise the total system are: * 2mega litre Clear Water Storage Tank. * River Offtake and Pump Station. * Trunk Main to connect Storage to Bright reticulation system. * A new Water treatment Plant	**$8.79 million (storage only)** Timing 2008-09 - $0.53 million 2008-10 - $2.16 million 2009-10 - $6.10 million	$0.74 million	Year = 2012 Total = $14.6m RDV Funding = $2.0m			Storage = $7.58 million 2ML Tank = $1.01 million River Offtake and Pumps = $0.8 million Transfer Main = $3.99 million	Site Selection approved by Minister for Water 2 September 2011. Business Case approved by Ministers for Water and Treasury and Finance Dec 2012.
WASTE WATER	North Wangaratta Reclaimed Water	The key driver of this project was to enable the support of residential and industrial growth and meeting waste water management compliance.	Construction of a 500ML winter storage and ground irrigation system	Construction of a 500ML winter storage and ground irrigation system	Completed in 2014 this system is meeting all functional performance requirements and forms a basis for further strategic development, for which land has recently (2018) been purchased.	In order to minimise costs associated with land acquisition for the irrigation component an arrangement was made to exchange parcels of land with the Wangaratta Council to the mutual benefit of both parties. This enables the future industrial expansion targeted for the Northern Wangaratta corridor.	**$5.58 million** Timing 2008-09 - $0.26 million 2009-10 - $0.16 million 2010-11 - $0.99 million 2011-12 - $2.28 million 2012-13 - $1.87 million	$6.43 million		$7.78m	$6.39m	$6.71 million	Business Case September 2010
	Tungamah, Oxley, Milawa and Glenrowan Sewer Schemes.	The small town sewer scheme was instigated to meet part of the State Government objectives defined by the Country Towns Water Supply and Sewerage Programme. The sewering of the towns was to eliminate environmental damage caused by widespread septic tank effluent discharges and improve amenity.	Conventional sewer reticulation was to be implemented for all towns. Treatment systems were to be constructed at Tungamah and Glenrowan. Sewerage from Oxley and Milawa was to be connected to the Wangaratta WWTP via trunk mains.	As per most likely option	The four town sewer systems were completed in 2014.	A detailed design was completed by a consulting engineering company. An RfT was issued with each of the four towns offered as separate contracts to ensure that optimal value could be achieved and ensure timely construction. This approach enabled three contractors to be engaged to complete construction.	**Not included** Projects specifically ring frenced from Price Submission	$12.89 million				**Total (all towns) $17.04 million** Tungamah $5.17 million Oxley - $4.43 million Milawa $3.16 million Glenrowan $4.28 million	Business Cases for each town (2010).
CORPORATE	Regional Head Quarters	North East Water's head office was set-up in 1997 located within the Wodonga Council offices building. Due to no available expansion of office space being available some business units were dispersed in different buildings around the city. As such the need was to procure larger efficient premises.	Construct a purpose built facility incorporating new works depot to reunite Administration, Engineering and Operations groups.	Land was purchased and a new centralised facility was constructed in Wodonga affording high electrical efficiency design.	New facility has enabled a regrouping of previously fragmented business units within a single facility that is providing efficient service delivery to customers and stakeholders. The site also allowed for the consolidation and relocation of the Wodonga works depot to the new Headquarters.	A design was completed utilising Architects and engineers to ensure efficient building utilisation and operation. A construction contract was awarded for the building.	**$5.53 million (land acquisition excluded from Price Submission)** Timing 2011-12 - $2.27 million 2012-13 - $3.25 million	$5.18 million	$12.3 million	$12.73 million		$14.1 million (including land purchase of $2.89 million)	Business Case dated February 2012 approved by The Treasurer of Victoria in June 2012 to a total value of $12.3 million
								$36.99 million					