

Irrigation Infrastructure Renewal Projections - 2013/14 to 2046/47

Report - Central Brisbane Tariff Group



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A Renewal Projections



1. Introduction

Seqwater owns and operates the following seven irrigation schemes:

- Central Lockyer WSS;
- Lower Lockyer WSS;
- Logan River WSS;
- Mary River WSS;
- Cedar Pocket WSS;
- Warrill Valley WSS; and
- Central-Brisbane WSS.

Segwater also owns and operates a distribution system, the Morton Vale Pipeline.

There are nine tariff groups associated with these schemes.

To assist with the determination of price paths, a forecast of future renewal expenditure is required at the individual tariff group level.

The renewal projections have been developed, in accordance with the scope and methodology separately documented in the Methodology report. The projections have been developed in separate reports, one for each tariff group.

This report outlines the projections for the Central Brisbane Tariff group. It should be read in conjunction with the Methodology report.



2. Asset Information

2.1 Irrigation Infrastructure

A summary of Seqwater's irrigation infrastructure facilities and assets is provided in Table 1 below.

Table 1 Summary of Irrigation Infrastructure

WSS Scheme	Tariff Group	Dams	Weirs	Off-Stream Storage	Other Key Assets
Central Brisbane	Central Brisbane	Wivenhoe Dam, Somerset Dam	NA	NA	NA

A schematic drawing of the scheme is provided in Appendix A.

2.2 Relevant Asset Information

The following existing information was reviewed and where relevant, utilised to develop the renewal projections:

- Annual, 5 Year and Comprehensive Dam Safety Reviews and Assessments;
- 2009 Asset Valuation Cardnos;
- 2010 Asset Valuation Dams & Weirs Cardnos;
- Somerset Dam Facilities Asset Management Plan (FAMP) 2010;
- Wivenhoe Dam Facilities Asset Management Plan (FAMP) 2010; and
- Business Case Irrigation Customer Meters Renewal (SM 12/13 02).



3. Projections

3.1 Summary

A summary of the renewal and refurbishment projections for the period 2013/14 - 2046/47 is provided in Table 3.

Further details are provided in Appendix A.

It should be noted that all values are in \$2012-13.

3.2 Significant Projects

A list of projects that come under one of the following categories is provided in Table 2 below:

- ▶ Scheduled between 2013/14 and 2016/17 financial years and having a project value greater than the average project value for that period; and
- A project that has an impact on the annuity of greater than 10%¹.

Table 2 Significant Projects

Asset	Description of Work	Timing of Work	Project Value	Signif.*
Wivenhoe Dam – electrical winch	Replacement of baulk seals on No 1,2,4,5 & 6	2014/15	\$100k	HAV
Wivenhoe Dam – trash screens	Repainting	2015/16	\$80k	HAV
Wivenhoe Dam – cone valves	Refurbish and replace seals	2015/16	\$100k	HAV
Somerset Dam – spillway crest gates	Repainting	2013/14	\$75k	HAV
Somerset Dam – spillway crest gates	Repainting	2014/15	\$50k	HAV
Somerset Dam – spillway crest gates	Replace electric winch motor and brake	2016/17	\$60k	HAV

¹ The impact on annuity was assessed in April 2012 when version 2 of this report was produced. At that time, the water meter renewal program had not been fully developed and included in the assessment. An updated assessment of impact has not been undertaken in updating this current version 3 of the report.

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Asset	Description of Work	Timing of Work	Project Value	Signif.*
Somerset Dam – spillway sluice gates	Repainting	2013/14	\$75k	HAV
Somerset Dam – spillway sluice gates	Repainting	2014/15	\$50k	HAV
Somerset Dam – spillway sluice gates	Replace electric winch motor and brake	2016/17	\$60k	HAV
Somerset Dam – Gantry Crane – Steel Superstructure	Refurbishment of Structure	2025/26	\$3000k	IA
Somerset Dam – Outlet Works – Inlet Screen & Trash Racks	Refurbishment of Structural walls, columns and beams	2025/26	\$3250k	IA
Water Meters	Water Meter Renewal Program	Annually, commencing 2022/23	\$246k over 25 years	Ref. Footnote 1 on previous page

Notes: *Significance: HAV – Higher than Average Value (for period from 2013/14 to 2016/17) IA – Project was assessed in April 2012 (refer Footnote 1 on previous page) as having an impact on the annuity of greater than 10% (refer Section 3.3 for commentary).



Table 3 Summary of Renewal Projections

Parent Asset								Expend	diture Fo	orecast	Each Ye	ar (\$k)						
		2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/23	2023/24	2024/25	2025/26	2026/27	2027/28	2028/29	2029/30
Wivenhoe Dam		-	120	195	35	-	-	45	427	42	-	-	-	3,570	-	172	-	1,815
Somerset Dam		170	120	60	140	120	105	180	60	-	-	326	-	13,011	889	-	-	-
Water Flowmeters		-	-	-	-	-	-	-	-	-	6	10	10	10	10	10	10	10
	Total	170	240	255	175	120	105	225	487	42	6	336	10	16,591	899	182	10	1,825

Parent Asset								Expend	diture Fo	orecast	Each Ye	ar (\$k)						
		2030/31	2031/32	2032/33	2033/34	2034/35	2035/36	2036/37	2037/38	2038/39	2039/40	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam		1,760	282	355	-	2,767	4,014	558	-	-	-	-	-	-	-	-	-	-
Somerset Dam		-	-	384	-	-	8,584	-	-	-	-	725	-	-	-	-	89	-
Water Flowmeters		10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
	Total	1,770	292	749	10	2,777	12,608	568	10	10	10	735	10	10	10	10	99	10



3.3 Additional Commentary

For some assets, the available asset data indicated the theoretical asset life was either expired or due to expire within the first four years. Where a site assessment was not able to verify the need to renew an asset within the first four years, the timing of the renewal was updated to occur beyond 2016/17 financial year. This was the case for the following assets:

- Wivenhoe Dam gate controls useful life was extended based on assessment in FAMP.
- Wivenhoe Dam bulkhead gate control panel useful life was extended based on assessment in FAMP.
- Wivenhoe Dam sample pump control panel useful life was extended based on assessment in FAMP.
- Wivenhoe Dam winch control panel intake useful life was extended based on assessment in FAMP.
- Wivenhoe Dam air compressor useful life was extended based on assessment in FAMP.
- Wivenhoe Dam hydraulic lines useful life was extended based on assessment in FAMP.
- Wivenhoe Dam hydraulic pack useful life was extended based on assessment in FAMP.
- Wivenhoe Dam oil transfer pump useful life was extended based on assessment in FAMP.
- Wivenhoe Dam pump useful life was extended based on assessment in FAMP.
- Wivenhoe Dam portable hydraulic power unit useful life was extended based on assessment in FAMP.
- Wivenhoe Dam spill equipment useful life was extended based on assessment in FAMP.
- Wivenhoe Dam mechanical spares useful life was extended based on assessment in FAMP.
- Wivenhoe Dam laboratory equipment useful life was extended based on assessment in FAMP.
- Wivenhoe Dam sampling equipment useful life was extended based on assessment in FAMP.
- Wivenhoe Dam gate control instrumentation useful life was extended based on assessment in FAMP.
- Wivenhoe Dam instrumentation useful life was extended based on assessment in FAMP.
- ▶ Wivenhoe Dam road pavement on saddle dam 1 and 2 useful life was extended based on assessment in FAMP.
- Wivenhoe Dam gantry crane structure useful life was extended and refurbishment scheduled based on assessment in FAMP.



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- Wivenhoe Dam gate hoisting mechanisms useful life was extended based on assessment in FAMP.
- Wivenhoe Dam site power supply useful life was extended based on assessment in FAMP.
- ▶ Somerset Dam gate hoisting mechanisms useful life was extended and refurbishment planned based on assessment in FAMP.
- ▶ Somerset Dam gantry crane mechanisms useful life was extended and refurbishment scheduled based on assessment in FAMP.
- Somerset Dam instrumentation useful life was extended based on assessment in FAMP.

The following projects, that have a higher than average project value, have been identified as being required as a result of condition and criticality assessment completed as part of the FAMP development process:

- Replacement of baulk seals on No. 1,2,4,5 & 6 at Wivenhoe Dam;
- Repainting of trash screens at Wivenhoe Dam;
- Refurbish and replace seals in cone valves at Wivenhoe Dam;
- Repainting spillway crest gates at Somerset Dam;
- Replacement of electrical winch motor and brake for spillway crest gates at Somerset Dam;
- Repainting spillway sluice gates at Somerset Dam; and
- Replacement of electrical winch motor and brake for spillway sluice gates at Somerset Dam.

The following commentary is provided on the two projects listed in Table 2 as having an annuity of greater than 10%:

The renewal work has been forecasted for when the assets are considered likely to reach the end of their useful life based on their age and typical useful asset life. The cost estimates shown are based on the replacement cost from the asset valuation data. The renewal work will most likely comprise of asset refurbishment, and be less than the replacement cost.

Appendix A Renewal Projections

	Asset Details		Renewal Detai	ile															Fv	nenditure	Forecast E	ach Vear (Śk)														
Parent Asset	Asset Description	Works	Comments	Costing Source	2013/14 201	4/15 2015	5/16 2016,	/17 2017	/18 2018	/19 2019	/20 202	20/21 202	1/22 202	22/23 202	23/24 202	24/25 202	5/26 2020	6/27 2027						3 2033/	34 2034/3	5 2035/3	6 2036/3	7 2037/	/38 2038/	/39 2039,	/40 2040/	/41 2041	/42 2042/	43 2043/	44 2044/4	45 2045/4	16 2046/47
Wivenhoe Dam	Water Infrastructure - Dams -	Description Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Wivenhoe Dam - Control Building Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Control Panel - Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- :	342	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Controls Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Control Panel - Baulkhead Gate Control Panel		-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	49	-	-	-	-	-	-	-	-	
Wivenhoe Dam		Replace 3	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	
Wivenhoe Dam Wivenhoe Dam	Water Infrastructure - Dams - Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Air	Replace Replace	-	DW Val 2010 DW Val 2010	-	-	-	-	-	-	-	=	-	-	-	=	-	=	÷	-	-	-	-	-	-	11	-	96	-	=	=	-	-	-	-	ē	
Wivenhoe Dam	Compressor Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical -	Replace	-	DW Val 2010	-	-	-	=	=	-	=	÷	-	=	=	÷	=	Ē	Ē	-	-	-	-	-	- !	903	-	-	-	÷	=	=	-	=	÷	Ē	
Wivenhoe Dam	Hvdraulic I ines Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Hvdraulic Pack	Replace	-	DW Val 2010	-	-	-	-	-	-	=	=	=	Ē	=	-	-	-	÷	-	-	-	-	-	- 1	505	-	-	-	=	-	=	-	=	Ē	=	
Wivenhoe Dam		Replace	-	DW Val 2010	÷	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	3	-	-	-	=	-	-	-	-	-	=	
Wivenhoe Dam	Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Pump		-	DW Val 2010	-	-	=	-	=	-	=	=	-	-	-	-	-	-	=	-	-	-	-	-	= ;	205	-	-	-	-	-	=	-	-	=	=	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Portable Hydraulic Power Unit	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	82	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Spill Fauinment	Replace	-	DW Val 2010	-	-	-	-	-	-	=	=	-	=	=	=	-	=	=	-	-	-	-	-	-	33	-	-	-	=	=	=	-	=	=	=	
Wivenhoe Dam		Replace 3	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Ventilation Plant	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	14	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Engine Cooling System	Refurbish	Standby Generator Coolin pump	ng FAMP	-	-	-	-	-	-	35	-	-	-	-	=	-	=	=	-	-	-	-	-	=	=	-	-	-	=	=	-	-	-	-	=	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Fire Suppression System		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Generator Set Controls	Replace 3	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Ups Battery Charger		-	DW Val 2010	÷	-	-	-	-	-	=	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam		Replace 3	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	=	-	=	41	-	-	-	-	-	-	=	-	-	-	=	-	-	-	-	-	=	
Wivenhoe Dam		n	-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam		Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	269	-	=	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam			-	DW Val 2010	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Instrumentation (Dam) - Telemetry	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	=	-	=	=	-	-	-	282	-	-	=	-	-	-	=	-	-	-	-	-	=	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Monitoring - Seismic Monitoring		-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	1642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Monitoring - Water Quality Monitoring		-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	173	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Instrumentation (Dam) - Piezometers	Replace n	-	DW Val 2010	Ē	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	

Parent Asset	Asset Details Asset Description	Works	Renewal Detai	ils Costing Source	2013/14 2014	.4/15 201	15/16 201	.6/17 201	7/18 201	8/19 2019	/20 2020	0/21 202:	1/22 2022	2/23 2023	3/24 2024	1/25 2025	5/26 2026	5/27 2027			e Forecast E 9/30 2030			33 2033/	34 2034/	35 2035/	36 2036/	37 2037/	/38 2038/	/39 2039	/40 2040	/41 2041/	42 2042/-	43 2043/4	44 2044/4	45 2045/	46 2046/4
Wivenhoe Dam	Water Infrastructure - Dams -	Description Replace	=	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Wivenhoe Dam - Instrumentation (Dam) - Surface Movement Points - Surface Settlement																																				
Wivenhoe Dam	Dainte Water Infrastructure - Dams - Wivenhoe Dam - Instrumentatioi (Dam) - Seepage V Notch Weirs - V Notch Weir Large	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Wivenhoe Dam - Instrumentation Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	n Refurbish	Electrical Winch - Baulks need seal replaced on No		-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	379	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Refurbish	refurbish Bulk Head gate storage ventilation	FAMP	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Screen Fishing	Refurbish	Paint trach rack fishing Gear	FAMP	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Gear Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens &	Refurbish	Paint Trash Screens	FAMP	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Trash Rack - Trash Rack Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens &	Refurbish	Trash Rack *48 to be painted	FAMP/DCE	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Trash Rack - Trash Rack Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Rack	Refurbish	Paint temp trash rack Screens	FAMP	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Penstock Baulk Winch - Hoist Winch 1	Refurbish	Both Penstock outlet Valves 1.9 and 3.6 need to be repainted.		-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Regulator Valves		Refurbish Cone Valve and replace seals		-	=	=	35	-	-	=	-	-	=	=	=	=	=	-	-	-	-	=	-	-	=	-	-	=	=	=	=	-	-	=	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Road Pavement - Gravel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	39	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Road Pavement - Gravel		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 1		-	DW Val 2010	-	=	-	-	-	-	=	Ē	Ē	Ē	=	=	30	=	-	-	-	=	-	-	-	=	-	-	=	-	Ē	Ē	-	Ē	-	=	-
Wivenhoe Dam Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 2 Water Infrastructure - Dams -		-	DW Val 2010 DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 3 Water Infrastructure - Dams -		-	DW Val 2010	-	-	-	- -	- -	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 4 Water Infrastructure - Dams -		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	_	-	-	-	_	-	-	-	-	-	-	-	-	=
Wivenhoe Dam	Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 5 Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 1A &1R Gate 1 Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Hoisting Mechanisms - Winch 2A & 2B Gate 2 Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Hoisting Mechanisms - Winch 3A & 3B Gate 3 Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Hoisting Mechanisms - Winch 4A &4R Gate 4 Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 5A	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	& SR Gate 5 Water Infrastructure - Dams - Wivenhoe Dam - Spillway -		Refurbish Cone Valve and replace seals	FAMP/DCE	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Spillwav Gates Water Infrastructure -Dams - Wivenhoe Dam - Site Works	Replace	=	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	(Dam) - Fencing And Gates Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Wivenho Admin Centre Generator	Replace e	-	DW Val 2010	-	=	=	-	-	-	-	-	-	=	=	=	=	=	-	-	-	-	-	-	-	=	55	-	-	=	-	=	-	-	=	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Alterations To Hv Reticulation Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Circuit	Replace	-	DW Val 2010	-	-	-	-	-	-	-	=	=	-	-	-	-	-	-	-	-	-	-	-	-	=	16	-	-	-	=	=	-	=	-	-	-
Wivenhoe Dam	Breaker (Transformer) Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - High Voltage Power Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1368	-	-	-	-	-	-	-	-	-	-

	Asset Details		Renewal Deta	ils															Ex	xpenditure	Forecast	Each Year	(Śk)														
Parent Asset	Asset Description	Works	Comments	Costing Source	2013/14 201	4/15 2015	5/16 2016	/17 2017	/18 2018	/19 2019	/20 2020	0/21 2021	/22 2022	2/23 2023	/24 2024	/25 2025	5/26 2026	/27 2027						33 2033/	34 2034/	35 2035	/36 2036	/37 2037	/38 2038	/39 2039/	/40 2040	/41 2041,	/42 2042/	43 2043/	44 2044/4	45 2045/	6 2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works	Description Replace	1 -	DW Val 2010	-	-			-	-	-	-	-	-	-	-	-	-	-	-	-			-	-	-	958	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	(Dam) - Power Supply - High Voltage Switch Gear Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Light &	Replace	-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	÷	438	-	-	-	-	-	=	-	-	-	
Wivenhoe Dam	Power Reticulation Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Auto	Replace	-	DW Val 2010	-	-	=	=	-	-	-	=	-	-	=	-	=	-	-	-	-	=	=	-	-	-	12	-	-	-	=	=	=	=	=	=	
Wivenhoe Dam	Dialler Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Electrica	Replace	-	DW Val 2010	-	-	-	-	=	-	=	Ē	=	=	=	=	-	=	-	=	-	÷	-	-	-	-	11	-	-	÷	-	Ē	÷	-	-	=	
Wivenhoe Dam	Cahinet Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Electrica		=	DW Val 2010	-	-	=	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	27	-	-	-	=	-	-	-	-	-	
Wivenhoe Dam	Snares Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Ring Ma	Replace	-	DW Val 2010	-	-	-	-	-	-	-	=	-	-	=	-	-	-	-	-	-	-	-	-	-	-	207	-	-	=	-	=	-	-	-	-	
Wivenhoe Dam	Unit Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Transformer (300Kva, Dry Type)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	82	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply -	Replace	-	DW Val 2010	-	-	-	-	=	-	=	-	=	=	÷	=	-	=	-	=	-	Ē	-	-	-	-	6	-	-	-	-	-	-	-	-	=	
Wivenhoe Dam	Uns(25kva) Water Infrastructure -Dams - Wivenhoe Dam - Site Works (Dam) - Roads And Drainage	Replace	-	DW Val 2010	-	-	-	-	-	-	-	339	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication System Mobile Phone		-	DW Val 2010	-	-	-	-	-	-	=	=	-	-	=	-	-	-	-	-	-	4	-	-	-	-	-	-	-	=	-	=	=	-	-	=	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	3	-	-	-	-	-	-	-	-	-	=	=	-	-	-	
Wivenhoe Dam	Pa Svstem Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication System Radio	Replace	-	DW Val 2010	-	-	=	-	-	-	-	-	-	-	-	-	=	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	=	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication System	Replace	-	DW Val 2010	-	-	-	-	=	-	=	-	=	-	-	=	-	-	-	=	-	59	-	-	-	=	-	-	-	-	-	-	-	-	-	Ē	
Wivenhoe Dam	Telenhone Water Infrastructure -Dams - Wivenhoe Dam - Site Works (Dam) - Site Signange	Replace	=	DW Val 2010	-	-	=	-	-	-	-	88	-	-	-	-	=	-	-	-	-	-	-	-	-	-	88	-	-	-	=	-	-	=	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Suppression & Alarm Syster	Replace m	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Services (Lwtic)	Replace	-	DW Val 2010	-	-	=	-	-	-	-	-	-	-	-	-	=	-	-	-	-	224	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Indicator Panel	Replace	-	DW Val 2010	-	-	=	-	-	-	-	-	-	-	-	-	=	-	-	-	-	11	-	-	-	-	-	-	-	=	=	=	=	-	=	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Logan Camp Water Reservoir &	Replace	-	DW Val 2010	-	-	=	-	-	-	=	-	-	-	-	-	=	-	-	-	-	189	-	-	-	-	-	-	-	=	-	=	=	-	=	=	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Meters (Lwtic) Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	378	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Plant Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	-	DW Val 2010	-	-	=	-	-	-	-	=	-	-	-	-	=	-	-	-	-	328	=	-	-	-	-	-	-	=	=	=	-	-	-	-	
Wivenhoe Dam	Fire Sunnression System Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	-	DW Val 2010	-	-	-	-	=	-	=	-	-	-	-	=	-	=	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	=	
Wivenhoe Dam	Fire Sunnression System 2 Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	=	DW Val 2010	-	-	=	-	-	-	-	=	-	-	=	-	=	-	-	-	-	4	-	-	-	-	-	-	-	-	=	-	-	=	-	-	
Wivenhoe Dam	Ser - Water Services Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Tank (Teampoly 1085L 4 Modul	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Wivenhoe Dam	Water Services (Water Line To Picnic Shade) Water Infrastructure -Dams - Wivenhoe Dam - Dam Wall -	Refurbish	Left embankment - Place More Rip Rap	FAMP	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Zone 4 Riprap Water Infrastructure - Dams - Somerset Dam - Control Room - Standby Generator - Diesel	Replace	-	DW Val 2010	-	-	=	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	
Somerset Dam	Generator Water Infrastructure - Dams - Somerset Dam - Control Room - Standby Generator - Diesel Generator Unit (132 5Kva)	Replace	-	DW Val 2010	-	-	-	-	-	-	=	=	-	-	=	=	-	-	-	-	-	=	-	-	-	-	-	-	-	=	=	685	=	-	-	=	

Parent Asset	Asset Details Asset Description	Works Description	Renewal Detai Comments	ils Costing Source	2013/14 2014	4/15 2015	5/16 2016	6/17 2017	7/18 201	8/19 2019	9/20 202	20/21 202	1/22 202	2/23 202	3/24 2024	4/25 2025	5/26 2026	/27 2027			e Forecast E 0/30 2030/			3 2033/	34 2034/3	5 2035/	36 2036/3	7 2037/3	88 2038/3	39 2039/	40 2040/	41 2041/	42 2042/4	43 2043/4	44 2044/4	5 2045/4	2046/47
Somerset Dam	Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Somerset Dam - Control Room - Switchboard - Distribution Switchboard Water Infrastructure - Dams - Somerset Dam - Control Room -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Switchboard - Main Lv Switchboard Water Infrastructure - Dams - Somerset Dam - Control Room -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	193	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
C	Switchboard - Main Swtichboard			DW V-1 2040																							244										
Somerset Dam Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate I - Radial Gate Water Infrastructure - Dams -	Replace Replace	-	DW Val 2010 DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-			
Somerset Dam	Somerset Dam - Gates - Gate I - Trunion Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	_	-	_	-	-	-	-	-	-	
Somerset Dam	Somerset Dam - Gates - Gate J - Radial Gate Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	_	_	-	-	-	-	_	-	_	-	_	_	-	_	-	-	_	-	-	_	-	56	_	-	_	-	_	_	_	-	_	
Somerset Dam	Somerset Dam - Gates - Gate J - Trunion Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	_	_	-	-	-	-	_	-	_	-	_	_	-	_	-	-	_	-	-	_	-	244	_	-	_	-	_	_	_	-	_	
Somerset Dam	Somerset Dam - Gates - Gate K - Radial Gate Water Infrastructure - Dams -	=	_	DW Val 2010	-	_	_	_	_	-	_	_	_	_	-	_	_	_	-	-	-	_	_	_	_	_	56	_	_	_	_	_	-	_	-	-	
Somerset Dam	Somerset Dam - Gates - Gate K - Trunion Water Infrastructure - Dams -	-	_	DW Val 2010	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	_	244		_	_	_	_	_	_	_		
Somerset Dam	Somerset Dam - Gates - Gate M Radial Gate Water Infrastructure - Dams -	- Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-		
Somerset Dam	Somerset Dam - Gates - Gate M Trunion Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	_	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	244	_	-	_	-	_	-	-	-		
Somerset Dam	Somerset Dam - Gates - Gate N - Radial Gate Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Somerset Dam - Gates - Gate N - Trunion Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	_	-	244	_	-	-	-	-	-	-	-	-	
Somerset Dam	Somerset Dam - Gates - Gate O - Radial Gate Water Infrastructure - Dams - Somerset Dam - Gates - Gate O -	Replace	-	DW Val 2010	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Trunion Water Infrastructure - Dams - Somerset Dam - Gates - Gate P -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	
Somerset Dam	Radial Gate Water Infrastructure - Dams - Somerset Dam - Gates - Gate P -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Trunion Water Infrastructure - Dams - Somerset Dam - Gates - Gate L -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	
Somerset Dam	Radial Gate Water Infrastructure - Dams - Somerset Dam - Gates - Gate L -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Trunion Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	50	-	-	-	-	-	=	-	-	-	
Somerset Dam	Gate I - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	÷	-	-	-	-	=	÷	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gate I - Steelworks Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	=	-	-	-	-	÷	-	=	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	
Somerset Dam	Mechanisms - Counterweight - Gate I - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Mechanisms - Counterweight - Gate I - Steelworks Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	
Somerset Dam	Mechanisms - Counterweight - Gate I - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	÷	-	-	-	-	-		-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Mechanisms - Counterweight - Gate I - Steelworks Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	=	÷	-	-	-	=	-	Ē	-	-	-	-	-	-	50	=	-	-	-	÷	-	-	-	-	
Somerset Dam	Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate K - Concrete Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate K - Steelworks Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	_	-	-	-	-	-	_	-	-	-	-	-	_	50	-	_	-	-	-	-	-	-	-	
	Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate M - Concrete				-																																
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	=	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gate M - Steelworks Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	÷	-	÷	-	-	-	-	50	÷	-	-	-	-	-	-	-	-	
Somerset Dam	Gate N - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gate N - Steelworks Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	
Somerset Dam	Mechanisms - Counterweight - Gate O - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
	Mechanisms - Counterweight - Gate O - Steelworks																																				

Parent Asset	Asset Details Asset Description	Works Description	Renewal Do Comments	etails Costing Source	2013/14 2014	4/15 201	5/16 201	6/17 2017	7/18 201	8/19 2019	/20 2020	0/21 202:	1/22 202	2/23 202	3/24 2024	4/25 202	25/26 2026	6/27 2027			e Forecast E 0/30 2030,			'33 2033/	34 2034/	35 2035/	36 2036/	/37 2037/	′38 2038/	/39 2039 <i>/</i>	/40 2040,	/41 2041/	42 2042/-	13 2043/4	4 2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Mechanisms - Counterweight - Gate P - Concrete Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gate P - Steelworks Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Gate Winches &	Replace	-	DW Val 2010	-	=	-	-	-	-	-	-	-	-	-	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gearing - Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - 900Mm Dia	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-
Somerset Dam	Sheaves Water Infrastructure - Dams - Somerset Dam - Gantry Crane -	Replace	-	DW Val 2010	=	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gantry Crane - Cable Reeler Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Carriage Structur	Refurbish	refurb	SEQ_290312	-	-	-	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Double Drop	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	72	=	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Sheaves Water Infrastructure - Dams - Somerset Dam - Gantry Crane -	Replace	÷	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Gantry Crane - Drive Motors Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Electrical Panels	Refurbish	refurb	SEQ_290312	-	-	-	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Slings 100T Swl	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	(Snares) Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Slings 10T Swl	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	=	=	-	-	-	-	-	-	-	-	=	-	-	-	-	-
Somerset Dam	(Snares) Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Steel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	2984	-	=	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Superstructure Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Spare Carriage	Replace	-	DW Val 2010	-	-	=	-	-	-	Ē	Ē	-	=	-	-	16	-	-	-	-	-	Ē	-	=	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Wheels Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Compresso		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Sampling Equipment	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Exhaust Fa		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Temperature Sensing System	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Gate Controls -	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Piezometer System - Foundation Piezometers	Replace n	-	DW Val 2010	-	-	-	-	-	=	=	=	-	=	=	-	267	=	-	-	-	=	=	-	=	-	-	-	-	-	=	=	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Piezometer System -		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Lower Gallery Piezometers Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Monitoring - Seismic	Replace n	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Monitoring Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Monitoring - Water Leve	n	-	DW Val 2010	-	-	=	=	-	-	÷	=	-	=	-	-	53	÷	-	-	-	=	÷	-	-	-	-	-	-	-	=	÷	-	=	-	-	
Somerset Dam	Recorder Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Security - Security Alarm		-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Security - Security Senso	Replace n	-	DW Val 2010	-	-	-	-	-	-	=	=	-	=	-	-	93	=	-	-	-	Ξ	=	-	-	-	-	-	-	-	÷	=	-	-	-	-	
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	- 80) -
Somerset Dam	Works - Gate Seals - Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Racks - Base Concrete Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash	Replace	-	DW Val 2010	-	-	-	-	-	-	=	-	-	-	-	-	3251	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	
Somerset Dam	Racks - Structural Walls, Colums & Reams Water Infrastructure - Dams - Somerset Dam - Inlet Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	2498	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
l	Works - Inlet Screens & Trash Racks - Precast Concrete																																				J

Parent Asset	Asset Details Asset Description	Works	Renewal Deta Comments	ils Costing Source	2013/14 2014	4/15 2015	5/16 201	.6/17 201	7/18 201	8/19 2019	9/20 202	20/21 202	21/22 202	2/23 202	23/24 2024	4/25 202	5/26 202	5/27 202			re Forecast 19/30 2030			/33 2033	/34 2034	/35 2035	/36 2036/	/37 2037	//38 2038	8/39 203	9/40 204	0/41 204	1/42 2042	2/43 2043	3/44 2044	/45 2045/	46 2046/4
Somerset Dam	Water Infrastructure - Dams -	Description Replace	<u>-</u>	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
	Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Spares In Sand Blasting Shed For Refurbishment																																				
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Trash Screen Fishing Gea	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	1399	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Racks - Trash Screens Water Infrastructure - Dams - Somerset Dam - Inlet Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9
Somerset Dam	Works - Gate Seals? - Water Infrastructure - Dams - Somerset Dam - Site Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	(Dam) - Fencing And Gates - Brockhurst Fencing Water Infrastructure - Dams - Somerset Dam - Site Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	(Dam) - Fencing And Gates - Beam Creek Fencing Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	-	-	-	-	_	-	-	-	-	-	-	=	-
	Somerset Dam - Site Works (Dam) - Fencing And Gates - Fencing Around D/S Toe Of																																				
Somerset Dam	Fmhankment Water Infrastructure - Dams - Somerset Dam - Site Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	(Dam) - Fencing And Gates - Kirkleigh Roundary Fence Water Infrastructure - Dams - Somerset Dam - Site Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	(Dam) - Fencing And Gates - Villeneuve Road Fence Water Infrastructure - Dams -	Replace	-	DW Val 2010	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Somerset Dam - Site Works (Dam) - Fencing And Gates - Westvale Road Fencing Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	_	_	_	_	-	53	_	-	-	_	-	-	_	_	-	-	_	-	-	_	_	-	-	-	-
	Somerset Dam - Site Works (Dam) - Power Supply - Load Bank 33 Kva																																				
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Power Supply - Light & Power Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	747	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Power Supply - Power	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Sunnlv Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Power Supply - Underground Power Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	34	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Power Supply - Wiring	Replace	-	DW Val 2010	-	÷	=	=	-	-	=	=	-	÷	-	-	=	53	-	-	-	-	-	-	-	-	-	÷	-	-	-	-	-	-	-	-	=
Somerset Dam	Works Water Infrastructure - Dams - Somerset Dam - Dam Wall -	Replace	-	DW Val 2010	-	=	Ē	Ē	=	-	=	-	-	-	-	-	-	-	-	=	-	-	=	-	-	-	107	-	-	-	=	=	-	=	-	Ē	=
Somerset Dam	Gallery - Pipework Inc. Valves Water Infrastructure - Dams - Somerset Dam - Dam Wall - Gallery - Pumps	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Metal Work - Gates	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-
Somerset Dam Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Metal Work - Hand Railing Water Infrastructure - Dams -		-	DW Val 2010 DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-
	Somerset Dam - Dam Wall - Metal Work - Chain Mesh Walls				-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-		-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Bearings (Service	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Rridge) Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Bridge Beams	Replace	-	DW Val 2010	-	-	=	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2552	-	-	-	-	-	-	-	-	=	=
Somerset Dam	(Steel) Water Infrastructure - Dams - Somerset Dam - Dam Wall -	Replace	-	DW Val 2010	-	=	=	=	-	-	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1398	-	-	-	-	-	-	-	-	=	=
Somerset Dam	Service Bridge - Bridge Deck (Service Bridge) Water Infrastructure - Dams - Somerset Dam - Dam Wall -	Replace	-	DW Val 2010	-	=	=	=	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	583	-	-	-	-	-	-	=	-	=	=
Somerset Dam	Service Bridge - Gantry Track Rails (Service Bridge) Water Infrastructure - Dams - Somerset Dam - Dam Wall - Services - Compressed Air	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Services - Compressed Air Delivery System Spillway Crest	Refurbish	Spillway Crest Gate - Gate I,J,K,L,M,N,O and P - Inspect condition on gate and paint as required.		75	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	-	-	-	=
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice Gate L, M and N - Inspect conditon on gate and pair		75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Hydro	Refurbish	as required. Hydro - Conduit - Guard Valve - Seal to be checked		20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
			and repaired.	•																																	

	Asset Details		Renewal Details		Expenditure Forecast Each Year (\$k) 2013/14 2014/15 2015/16 2016/17 2017/18 2018/19 2019/20 2020/21 2021/22 2022/23 2023/24 2024/25 2025/26 2026/27 2027/28 2028/29 2029/30 2030/31 2031/32 2032/33 2033/34 2034/35 2035/36 2036/37 2037/38 2038/39 2039/40 2																		\neg															
Parent Asset	Asset Description	Works Description	Comments Costing So	urce 2013/14	2014/15	2015/16	2016/17	2017/18	2018/19	2019/20	2020/21	2021/22	2022/2	3 2023/	24 2024	/25 2025	/26 2026	/27 2027						2/33 203	3/34 203	4/35 203	5/36 203	5/37 2037	7/38 2038	8/39 203	9/40 2040)/41 2041	/42 2042	2/43 2043	3/44 2044	/45 2045/	46 2046/	47
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate FAMP O and P - Inspect condition on gates and paint as required.	-	50	0		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	=	-	-
Somerset Dam	Regulator	Refurbish	Regulator 3 - Outlet - Cone FAMP Valve - Replace seal	-	20	0		-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice FAMP Gate O and P - Inspect condition on gate and paint	-	50	0		-	=	-		-	-	=	=	=	=	-	=	=	-	÷	Ē	÷	=	-	=	=	÷	-	Ē	=	=	-	-	Ē	=	-
Somerset Dam	Regulator	Refurbish	as required. Regulator 2, 3 12 and 13 - FAMP Sluice Gate - Structure - Inspect condition of paint on gate and paint as required.	-		- 4	- 0	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 12 - Outlet - FAMP Cone Valve - Replace seal	-		- 2	-	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate FAMP I, J, and K - Electric Winch - Replace Motor and brake	-		-	- 60	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spilway Sluice	Refurbish	Spillway Sluices - Sluice FAMP Gate I, J and K - Sluice Winch - Replace motor and brake	-		-	- 60	-	=	-		-	-	-	=	-	=	=	=	=	-	=	=	=	=	-	-	=	=	-	=	-	=	-	=	=	=	-
Somerset Dam	Hydro	Refurbish	Hydro - Intake - Sluice Gate FAMP - Winch - New motor and Brake system	-		-	- 20	-	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate FAMP L, M and N - Electric Winch - Replace Motor and brake	-		-		60	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	=	=
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice FAMP Gate L, M and P - Sluice Winch - Replace motor and hrake	-		-		60	-	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate FAMP O and P - Electric Winch - Replace Motor and brake	-		-		-	40	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 2, 3, 12 and 13 - FAMP Sluice Gate - Winch	-		-		· -	40	-		Ē	=	÷	÷	÷	-	÷	-	-	-	-	-	-	-	=	=	-	÷	-	=	÷	=	=	-	-	-	-
Somerset Dam	Sump Pump	Refurbish	Replace sump pump 1, 2, 3 FAMP and meter	-		-		-	25	-		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Generator	Refurbish	Portable Generator (Trailer FAMP Mounted) - Load bank - Refurbish	-		-		-	-	80		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Somerset Dam	Generator	Refurbish	Portable Petrol Motor - FAMP Replace	-		-		=	-	20		-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	=	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 2, 3, 12 and 13- FAMP Intake - Trash Racks - Paint	-		-			-	80		=	-	=	=	=	-	-	=	-	-	=	=	=	-	=	-	=	=	-	Ē	=	=	-	-	-	-	-
Somerset Dam	Town Water	Refurbish	Local Water Supply - Town FAMP Water Pumps and Valves	-		-		-	-	-	5	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Hydro	Refurbish	Hydro - Intake - Trash Rack FAMP	-		-		-	-	-	1	0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Flow Meters	Water Meters (Currently do not exist. Will be installed over next years as part of NWI)		Water Meter Renewal - Program	-		-		-	-	-		-	-	6	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10	10
L				Total 170	240	0 25	5 175	120	105	225	48	7 4	2	6	336	10 1	6591	899	182	10	1825	1770	292	749	10	2777	12608	568	10	10	10	735	10	10	10	10	99	10