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

Report - Central Brisbane Tariff Group

April 2012

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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.

Seqwater 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 **Error! Reference source not found.**.

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; and
- Wivenhoe Dam Facilities Asset Management Plan (FAMP) 2010.

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%.

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
Somerset Dam – spillway sluice gates	Repainting	2013/14	$75k	HAV

Asset	Description of Work	Timing of Work	Project Value	Signif.*
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

Notes: *Significance: HAV – Higher than Average Value (for period from 2013/14 to 2016/17) IA – Project has an impact on the annuity of greater than 10% (refer Section 3.3 for commentary)

Table 3 Summary of Renewal Projections

Parent Asset	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
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	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25
Total	**170**	**240**	**255**	**175**	**120**	**105**	**225**	**487**	**42**	**-**	**326**	**-**	**16,606**	**914**	**197**	**25**	**1,840**

Parent Asset	Expenditure Forecast Each Year ($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	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
Total	**1,785**	**307**	**764**	**25**	**2,792**	**12,623**	**583**	**25**	**25**	**25**	**750**	**25**	**25**	**25**	**25**	**114**	**25**

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.

- 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 Details		Expenditure Forecast Each Year ($k)																																		
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Control Panel - Gate Controls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	342	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Control Panel - Baulkhead Gate Control Panel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	49	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Control Panel - Sample Pump Control Panel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	96	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Air Compressor	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Hydraulic Lines	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	903	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Hydraulic Park	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1505	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Oil Transfer Pump	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Pump	Replace	-	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 Equipment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	33	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Other Mechanical - Mechanical Spares	Replace	-	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	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Engine Cooling System	Refurbish	Standby Generator Cooling pump	FAMP	-	-	-	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Fire Suppression System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Generator Set Controls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	68	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Ups Battery Charger	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	22	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Control Building (Dam) - Standby Generator - Emergency Ventilation Damper	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	41	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Downstream Protection Works - Cement Stabilised Sandstone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Downstream Protection Works - Pneumatically Applied Mortar	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Downstream Protection Works - Reinforcing Bar To D/S Slopes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Downstream Protection Works - Reinforcing Mesh To D/S Slopes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Downstream Protection Works - Sand Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Dam Foundation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Dam Top Soil	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Standpipes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Grouting Drill Holes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Core Drilling	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Foundations - Pressure Grouting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Drainage - Chute Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Drainage - Culverts	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Drainage - Pipes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Wave Wall - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 3 - River Gravels	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 3 - 3B&3C Rolled Sandstone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 3 - Graded River Gravels	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 3 - Rolled Sandstone Transition	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 1 - Zone 1A	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 1 - Zone 1D General Fill	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 2 - 4.75Mm Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 2 - 37.5-4.75Mm Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 2 - 19Mm Filter Wivenhoe	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 2 - Sand Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Zone 2 - Selected Sand Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall (Lhs Sloping Core Embankment) - Rip Rap (Zone 4) - Zn4A&4B U/S & D/S Rip Rap	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Equiptment - Laboratory Equipment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	86	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Equiptment - Sampling Equipment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	269	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Instrumentation (Dam) - Gate Controls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																		
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Instrumentation (Dam) - Telemetry	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	282	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Monitoring - Seismic Monitoring	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1642	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Monitoring - Water Quality Monitoring	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	173	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Instrumentation (Dam) - Piezometers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	350	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Surface Movement Points - Surface Settlement Points	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation (Dam) - Seepage V Notch Weirs - V Notch Weir Large	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Instrumentation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Refurbish	Electrical Winch - Baulks need seal replaced on No	FAMP/DCE	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	379	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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) - Outlet Pipes - Outlet Pipes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Outlet Pipes - Outlet Pipe 2	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Screen Fishing Gear	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Screen Fishing Gear	Refurbish	Paint trach rack fishing Gear	FAMP	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Rack	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Rack	Refurbish	Paint Trash Screens	FAMP	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Inlet Screens & Trash Rack - Trash Rack	Refurbish	Trash Rack *48 to be painted	FAMP/DCE	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	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) - Inlet Screens & Trash Rack - Trash Rack Hoist	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Penstock Baulk Winch - Hoist Winch 1	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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.	FAMP	-	-	15	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Penstock Baulk Winch - Baulk Winch	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Regulator Valves	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Inlet/Outlet Works (Dam) - Regulator Valves	Refurbish	Refurbish Cone Valve and replace seals	FAMP	-	-	-	35	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Foundations - Dam Foundation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Foundations - Top Soil Exc	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Drainage - Swale Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Embankment - Rip Rap	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Embankment - Transition Zone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Embankment - Topsoil & Grass	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 1 - Embankment - Miscellaneous Fill	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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 - Foundations - Dam Foundation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Foundations - Too Soil Exc	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Drainaee - Swale Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Embankment - Rip Rap	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Embankment - Transition Zone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Embankment - Topsoil & Grass	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Embankment - Miscellaneous Fill	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Saddle Dam 2 - Road Pavement - Gravel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	51	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Approach Channel - Too Soil	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Bvh Road Bridge - Bearings (Bvh Road Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Bvh Road Bridge - Deck (Bvh Road Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Bvh Road Bridge - Guard Rails (Bvh Road Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Bvh Road Bridge - Seals (Bvh Road Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Bulkhead Gate - Misc Steel Metalwork	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Anchor Bars Slabs	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Anchor Bars Walls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Anchor Bars Supply And Place	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Backfill Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Bridge Supporting Cantilevers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Concrete Piers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Conc Spillway Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Dental Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Monolith Da 1A - 1B	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Monolith F1A - F1B	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Monolith Lh1-16	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Monolith Rh1 - 17	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Monoliths	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Poststress Cables Supply & Install	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Poststressing Bars & Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Poststress Holes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Post Tensioning	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Reinforcing Steel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Retensioning Equipment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Conc Floor Slabs (S/W Chute)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Crest Structure - Pvc Waterstop	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Foundations - Hand Cleanup (Dam Foundations)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Foundations - Dam Foundation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Foundations - Grouting Drill Holes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Foundations - Core Drilling	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gantry Crane - Hoisting Equipment	Refurbish	Refurb - SEQmeeting_280312	SEQmeeting_280312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gantry Crane - Crane Structure	Refurbish	Refurb - SEQmeeting_280312	SEQmeeting_280312	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gantry Crane - Gantry Crane Remote Control	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 1	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 2	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 3	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 4	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Cables & Sheaving - Gate 5	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 1A &1B Gate 1	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 2A &2B Gate 2	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 3A &3B Gate 3	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 4A &4B Gate 4	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Gate Hoisting Mechanisms - Winch 5A &5B Gate 5	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	684	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Operating Deck - Davit Arm	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Operating Deck - Fencing (Op Deck)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Operating Deck - Handrails (Op Deck)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Baffle Plates (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Bearings (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Bridge Deck	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Gantry Track Rails (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Handrails (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Precast Bridge Beams	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Service Bridge - Gantry Track Beams	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 1 - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 1 - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 2 - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 2 - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 3 - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 3 - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 4 - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 4 - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 5 - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates 5 - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Spillway - Spillway Gates	Refurbish	Refurbish Cone Valve and replace seals	FAMP/DCE	-	-	100	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Site Works (Dam) - Fencing And Gates	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	215	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Wivenhoe Admin Centre Generator	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Alterations To Hv Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	55	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Circuit Breaker (Transformer)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - High Voltage Power Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1368	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - High Voltage Switch Gear	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	958	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Light & Power Reticulation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	438	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Auto Dialler	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	12	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Electrical Cabinet	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Electrical Spares	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Power Supply - Ring Main Unit	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	207	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	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 - Ups(25Kva)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	6	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	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 Systems - Mobile Phone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication Systems - Pa System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication Systems - Radio	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Communication Systems - Telephone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	59	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Site Works (Dam) - Site Signange	Replace	-	DW Val 2010	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-	-	-	88	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																		
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Suppression & Alarm System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	30	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Services (Lwtir)	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 & Tank	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	189	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Water Meters (Lwtir)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Water Plant	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	378	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Suppression System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	328	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Fire Suppression System ?	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	104	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Ser - Water Services	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Tank (Teampoly 1085L 4 Module)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Site Works (Dam) - Water & Fire Services - Water Services (Water Line To Picnic Shed)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Bulk Earthworks & Excavation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Drill & Blast	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Clear & Strip	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Grout Curtain	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Landscaping	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Sediment & Erosion Control	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Soil	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Foundations - Top Soil Fer	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Apron Slabs - Anchors	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Apron Slabs - Excavation To Slab Thickenings	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Apron Slabs - Downstream Apron Slab	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Apron Slabs - Upstream Apron Slab	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 1 - Zone 3 (Rock Fill)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 1 - Zone 1 (Clay Core)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 1 - Zone 2 (Fine & Coarse Filter)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 1 - Zone 4 (Rip Rap)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 1 - Zone 5 (Slope Protection)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 2 - Zone 3 (Rock Fill)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																				
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 2 - Zone 1 (Clay Core)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 2 - Zone 2 (Fine & Coarse Filter)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 2 - Zone 4 (Rip Rap)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 2 - Zone 5 (Slope Protection)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 3 - Zone 3 (Rock Fill)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 3 - Zone 1 (Clay Core)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 3 - Zone 2 (Fine & Coarse Filter)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 3 - Zone 4 (Rip Rap)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Fuse Plug Bay 3 - Zone 5 (Slope Protection)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Divider Walls - Anchors	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Divider Walls - Wall	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Divider Walls - Footings	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Divider Walls - Excavation To Footings	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Ogee Structure - Anchors	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Ogee Structure - Excavation To Facing Beam	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Ogee Structure - Crest	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Ogee Structure - Upstream Wall	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Training Walls - Anchors	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Training Walls - Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Training Walls - Cantilever Retaining Wall	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Secondary Spillway - Training Walls - Wall Lining	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Dam Foundation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Grouting Standpiles	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Grouting Drill Holes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Core Drilline	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Pressure Grouting	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Foundations - Top Soil	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Drainaae - Chute Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Drainaae - Culverts	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Drainage - Pipes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Downstream Protection Work - Cement Stabilised Sandstone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																				
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Downstream Protection Work - Pneumatically Applied Mortar	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Downstream Protection Work - Reinforcing Bar To D/S Slopes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Downstream Protection Work - Reinforcing Mesh To D/S Slopes	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Downstream Protection Work - Sand Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Dam Wall - Wave Wall	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 1 (Impervious Core) - Zone 1A	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 1 (Impervious Core) - Zone 1D General Fill	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 2 - 4.75Mm Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 2 - 37.5-4.75Mm Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 2 - 19Mm Filter Wivenhoe	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 2 - Sand Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 2 - Selected Sand Filter (Wivenhoe)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 3 (Rockfill - River Gravels	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 3 (Rockfill - 3B&3C Rolled Sandstone	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 3 (Rockfill - Graded River Gravels	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure - Dams - Wivenhoe Dam - Dam Wall - Dam Zone 3 (Rockfill - Rolled Sandstone Transition	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Dam Wall - Zone 4 Riorap	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Wivenhoe Dam	Water Infrastructure -Dams - Wivenhoe Dam - Dam Wall - Zone 4 Riorap	Refurbish	Left embankment - Place More Rip Rap	FAMP	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Control Room -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Standby Generator - Diesel Generator	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	40	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Standby Generator - Diesel Generator Unit (132 Skva)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	685	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Switchboard - Distribution Switchboard	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Switchboard - Main Lv Switchboard	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Control Room - Switchboard - Main Swtichboard	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	193	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate I - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate I - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate J - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate J - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate K - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate K - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate M - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate M - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate N - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																		
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate N - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate O - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate O - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate P - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate P - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate L - Radial Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	244	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gates - Gate L - Trunion	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate P - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate P - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate P - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate L - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate L - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate I - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate I - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate I - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate J - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate J - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate J - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate K - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate K - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate K - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate L - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate L - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate L - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate M - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate M - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate M - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate N - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate N - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate N - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate O - Centre Lift Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate O - Side Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Cables & Sheaving Gate O - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate I - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate I - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate J - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate J - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate K - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate K - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate M - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate M - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate N - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate N - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate O - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate O - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate P - Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Counterweight - Gate P - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	56	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Gate Winches & Gearing -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	107	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate I -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate J -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate K -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate L -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate M -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate N -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate O -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gate Hoisting Mechanisms - Winch - Gate P -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Cable -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - 900Mm Dia Sheaves	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	171	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Cable Reeler	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Carriage Structure	Refurbish	refurb	SEQ_290312	-	-	-	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Double Drop Sheaves	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	72	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Drive Motors	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Electrical Panels	Refurbish	refurb	SEQ_290312	-	-	-	-	-	-	-	-	-	-	-	-	150	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Slings 100T Swl (Spares)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Slings 10T Swl (Spares)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	1	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Steel Superstructure	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	2984	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Gantry Crane - Spare Carriage Wheels	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	16	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Hoisting Equipment - Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Gantry Crane - Hoisting Equipment - Winch Motor	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Compressor	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	21	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Sampling Equipment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	13	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Exhaust Fan	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Equiptment - Temperature Sensing System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	112	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Gate Controls -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Piezometer System - Foundation Piezometers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Piezometer System - Lower Gallery Piezometers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	267	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Monitoring - Seismic Monitoring	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Monitoring - Water Level Recorder	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Security - Security Alarm	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Instrumentation (Dam) - Security - Security Sensor	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	93	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Emergancy Coaster Gate -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Seals -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	80	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Guides - Regulator Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Guides - Sluice Gate	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Guides - Steel Supports	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Guides - Steelworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Base Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	994	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Structural Walls, Colums & Beams	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	3251	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Precast Concrete	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	2498	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Spares In Sand Blasting Shed For Refurbishment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	175	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Trash Screen Fishing Gear	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	27	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Inlet Screens & Trash Racks - Trash Screens	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	1399	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Outlet Gate Baulk -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Outlet Sluice Gates -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Outlet Winch Cable & Sheaving - Cables	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Outlet Winch Cable & Sheaving - Spare Cable	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Outlet Winch Cable & Sheaving - Sheaving	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Regulator Valve Baulk -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Regulator Cable -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Regulator Sluice Gates -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Regulator Valves - Fixed Cone Value	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Regulator Winch -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Steel Line Regulator -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Spare Rollers & Bearings For Sluice Gates -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Tunnel Linine -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	9	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Inlet Outlet Works - Gate Seals? -	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Monoliths	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Concrete Piers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Forming Galleries	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Forming Gate Shafts	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Forming Low Level Sluices	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Concrete Structure - Copper Waterstops	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Foundations - Bulk Earthworks & Excavation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Foundations - Foundation Tunnel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Foundations - Grout Curtain	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Dissipator - Concrete Slab	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Dissipator - Concrete Sill & Baffle	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Dissipator - Concrete Side Walls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Drainage - Drain Holes In Rock	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Drainage - Foundation Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Drainage - Monolith Brick Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Drainage - Monolith Contraction Joint Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Service Bridge - Bearings (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Service Bridge - Bridge Beams (Steel)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Service Bridge - Bridge Deck (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Service Bridge - Precast Bridge Beams (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Spillway - Service Bridge - Waterproof Roof Over Dam Gate Winches	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Brockhurst Fencing	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Beam Creek Fencing	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Fencing Around D/S Toe Of Embankment	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	240	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Kirkleigh Boundary Fence	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	3	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Villeneuve Road Fence	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Fencing And Gates - Westvale Road Fencing	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	126	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Site Works (Dam) - Power Supply - Load Bank 33 Kva	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
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 Supply	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	2	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	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 Works	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	53	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Mass Concrete Monoliths N.Ei Watestops	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Trash Rack Frame	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Concrete Piers	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Diversion Wall	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Forming Galleries	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Inlet Retaining Walls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Concrete Structure - Copper Waterstops	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Foundations - Earthworks	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Foundations - Bulk Earthworks & Excavation	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Foundations - Foundation Tunnel	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Foundations - Grout Curtain	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Drain Holes In Rock	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Foundation Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Monolith Brick Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Monolith Cored Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Drainage - Monolith Contraction Joint Drains	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

Asset Details			Renewal Details		Expenditure Forecast Each Year ($k)																																			
Parent Asset	Asset Description	Works Description	Comments	Costing Source	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	2040/41	2041/42	2042/43	2043/44	2044/45	2045/46	2046/47
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Gallery - Pipework Inc. Valves	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	107	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	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	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Metal Work - Hand Railing	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	200	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Metal Work - Chain Mesh Walls	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	11	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Bearings (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	400	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Bridge Beams (Steel)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	2552	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Bridge Deck (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	1398	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Service Bridge - Gantry Track Rails (Service Bridge)	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	583	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Water Infrastructure - Dams - Somerset Dam - Dam Wall - Services - Compressed Air Delivery System	Replace	-	DW Val 2010	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	32	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate I,J,K,L,M,N,O and P - Inspect condition on gates and paint as required.	FAMP/DCE	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice Gate L, M and N - Inspect conditon on gate and paint as required.	FAMP/DCE	75	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Hydro	Refurbish	Hydro - Conduit - Guard Valve - Seal to be checked and repaired.	FAMP	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate O and P - Inspect condition on gates and paint as required.	FAMP	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 3 - Outlet - Cone Valve - Replace seal	FAMP	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice Gate O and P - Inspect conditon on gate and paint as required.	FAMP	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 2, 3 12 and 13 - Sluice Gate - Structure - Inspect conditon of paint on gate and paint as required.	FAMP	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 12 - Outlet - Cone Valve - Replace seal	FAMP	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate I, J, and K - Electric Winch - Replace Motor and brake	FAMP	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spilway Sluice	Refurbish	Spillway Sluices - Sluice Gate I, J and K - Sluice Winch - Replace motor and brake	FAMP	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Hydro	Refurbish	Hydro - Intake - Sluice Gate - Winch - New motor and Brake system	FAMP	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate L, M and N - Electric Winch - Replace Motor and brake	FAMP	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Sluice	Refurbish	Spillway Sluices - Sluice Gate L, M and P - Sluice Winch - Replace motor and brake	FAMP	-	-	-	-	60	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Spillway Crest	Refurbish	Spillway Crest Gate - Gate O and P - Electric Winch - Replace Motor and brake	FAMP	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 2, 3, 12 and 13 - Sluice Gate - Winch	FAMP	-	-	-	-	-	40	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Sump Pump	Refurbish	Replace sump pump 1, 2, 3 and meter	FAMP	-	-	-	-	-	25	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Generator	Refurbish	Portable Generator (Trailer Mounted) - Load bank - Refurbish	FAMP	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Generator	Refurbish	Portable Petrol Motor - Replace	FAMP	-	-	-	-	-	-	20	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Regulator	Refurbish	Regulator 2, 3, 12 and 13- Intake - Trash Racks - Paint	FAMP	-	-	-	-	-	-	80	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Town Water	Refurbish	Local Water Supply - Town Water Pumps and Valves	FAMP	-	-	-	-	-	-	-	50	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Somerset Dam	Hydro	Refurbish	Hydro - Intake - Trash Rack	FAMP	-	-	-	-	-	-	-	10	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Water Flow Meters	Water Meters (Currently do not exist. Will be installed over next 9 years as part of NWI)	Replace	Replace batch of 7 meters per year	Est	-	-	-	-	-	-	-	-	-	-	-	-	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25	25
				Total	**170**	**240**	**255**	**175**	**120**	**105**	**225**	**487**	**42**	**0**	**326**	**0**	**16606**	**914**	**197**	**25**	**1840**	**1785**	**307**	**764**	**25**	**2792**	**12623**	**583**	**25**	**25**	**25**	**750**	**25**	**25**	**25**	**25**	**114**	**25**