sunwater

Final Service and Performance Plan 2023

Barker Barambah Bulk Water Service Contract

10 January 2024

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This Service and Performance Plan has been prepared by Sunwater to provide indicative information to our customers for the purpose of consultation. It contains estimates and forecasts which are based upon a number of assumptions. The actual financial performance of the service contract to which this plan relates, and the operations and activities actually undertaken by Sunwater during the relevant periods, may vary materially from the information contained in this plan. This plan should not be relied upon beyond its purpose as a tool for consultation and you should not rely on the information contained in this plan in making decisions about your circumstances. Sunwater will not be responsible or liable for any loss (including consequential loss), claim or damage (including in tort) that is in any way connected with the use of this plan or the information contained within it.

At a glance

Our customers

The majority of our 152 customers in this service contract are irrigation customers in the areas of Redgate, Murgon and Mondure. Water is also provided to supplement the town water supply for the townships of Murgon, Wondai, Byee and Cherbourg.

Our irrigation charges

Table 1 Irrigation charges for 2023-24

Charges by tariff group 2023-24							
Barker Barambah		Irrigation charge[1]		Cost-reflective charge[2]		Δ to cost reflective	
River	Part A	$29.90	$/ML	$ 46.59	$/ML	-$16.69	$/ML
	Part B	$3.78	$/ML	$ 4.55	$/ML	-$0.77	$/ML
Redgate Relift	Part A	$29.90	$/ML	$51.96	$/ML	-$22.06	$/ML
	Part B	$20.49	$/ML	$57.14	$/ML	-$36.65	$/ML

1. *Includes the Queensland Government's 15 per cent discount for irrigation customers. Refer to www.rdmw.qld.gov.au for more information.*
2. *Is the cost-reflective price determined by the Queensland Competition Authority (QCA) in its 2020–2024 irrigation price investigation. Costs reflect lower bound cost recovery, i.e. recovery of future replacement and ongoing maintenance and operations.*

For more information on Sunwater's fees and charges, refer to: www.sunwater.com.au/customer/fees-and-charges/

Our performance

Operations and maintenance costs				
		QCA $'000	Sunwater $'000	Δ to QCA
Actual	2022-23	$1,111.5	$1,318.1	18.6% ▲
Forecast	2023-24	$1,137.5	$1,430.8	25.8% ▲

Expenditure funded by the annuity				
		QCA $'000	Sunwater $'000	Δ to QCA
Actual	2022-23	$499.6	$215.9	-56.8% ▼
Forecast	2023-24	$225.1	$910.6	304.5% ▲
Actual + Forecast	Σ Price path	$3,496.4	$5,392.3	54.2% ▲

▲	△	⧫	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target	5% below the QCA target	10% below the QCA target

Water delivered	Total		To irrigators		
2021-22	2,117	ML	1,656	ML	
2022-23	11,589	ML	11,063	ML	
	447.3%	▲	568.0%	▲	*YoY change by group*

▲	⧫	▼
5%	0%	-5%

Service targets	Exceedances	Notes
2021-22	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.
2022-23	0	Unplanned shutdowns (duration) and maximum number of interruptions were not met.

Introduction

This Service and Performance Plan (S&PP) details a range of proposed scheme activities and projects and presents a breakdown of anticipated costs for review. It also sets out Sunwater's actual costs for 2022-23.

The purpose of this year's S&PP for Barker Barambah is to:

- examine Sunwater's performance in 2022-23 against cost and service targets
- present to customers Sunwater's projected costs[1] for 2023-24 and 2024-25
- consult with our customers on forecast operating and annuity-funded costs for 2023-24 and the forward program of works.

In addition to this S&PP, Sunwater submitted its irrigation pricing proposal to the Queensland Competition Authority (QCA) on 30 November 2023 which explains the types of costs we incur in delivering water to our customers and how those costs are allocated to service contracts. The pricing proposal and associated customer material is available at: www.sunwater.com.au/projects/price-path/.

Input from customers is a valuable part of Sunwater's planning process and ensures that we invest in areas which support the services we provide to customers.

Sunwater engages with its customers both formally and informally throughout the year and customer feedback is a valuable part of our planning process.

The publication of an annual S&PP is an important part of the formal feedback process, providing a snapshot of Sunwater's performance over the most recently completed financial year, as well as an outline of the areas of focus for the current year.

We welcome and encourage your feedback on this S&PP. To have your say, please contact us via email or post:

Email: sppfeedback@sunwater.com.au
Post: S&PP Feedback

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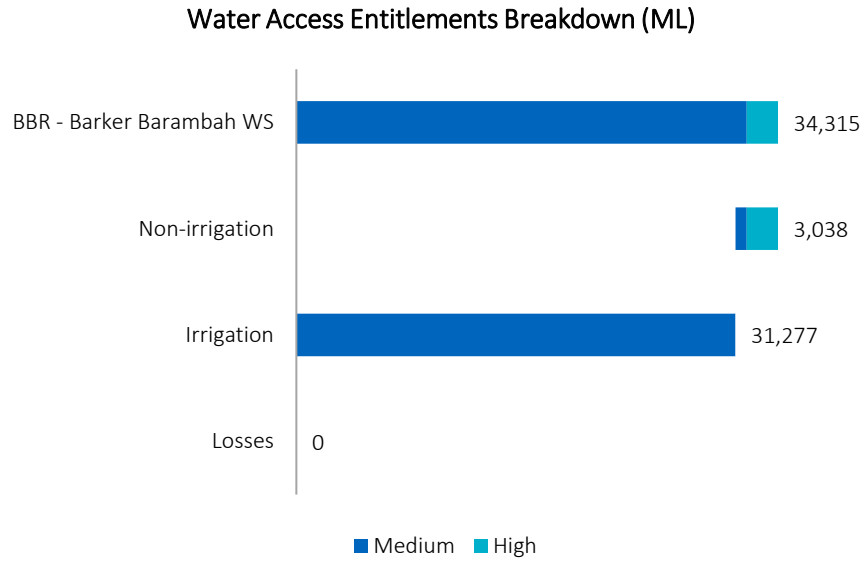
[1] All financial figures reported in this document are in nominal dollars, i.e. dollars of the day. Figures may not sum due to rounding.

Delivering services to our customers

Entitlements

The water allocations for each customer segment are shown below.

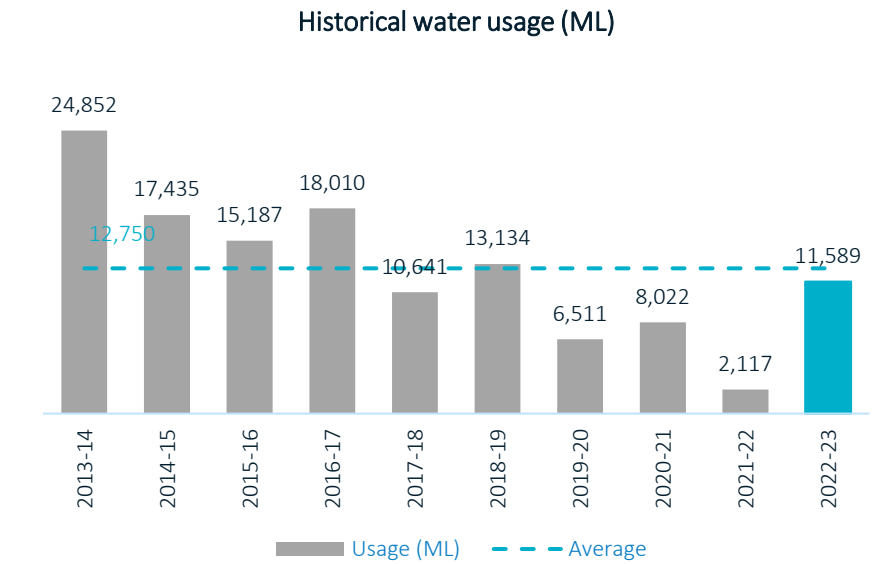
Figure 1 Water access entitlements (as of 30 June 2023)



Historical water usage

The chart below shows annual water usage for the past 10-years.

Figure 2 Historical water usage data for the past 10-years



- Usage in 2022-23 was broadly in line with the level of the 10-year average of 12,750 ML.
- Part B prices for the current period were set using a 20-year average of 14,337 ML.

Service targets

Sunwater and customers have agreed Water Supply Arrangements and Service Targets for Barker Barambah. Table 2 sets out our recent performance against selected service targets for this scheme.

Table 2: Scheme service targets and performance

Service target		Target	Number of exceptions		
			2020-21	2021-22	2022-23
Planned shutdowns – notification	For shutdowns planned to exceed 2 weeks	8 weeks	0	0	0
	For shutdowns planned to exceed 3 days	2 weeks	0	0	0
	For shutdowns planned to be less than 3 days	5 days	0	0	0
Unplanned shutdowns – duration	Unplanned shutdowns will be fixed so that at least partial supply can be resumed	48 hours	0	0	0
Maximum number of interruptions	Planned or unplanned interruptions per water year	6	0	0	0

In addition, Sunwater has company-wide customer interactions service targets. Our performance in 2022-23 against these service targets is shown in Table 3.

Table 3: Customer interactions service targets and performance

Service target	Target	2022-23
Telephone answering[1]	80.00%	92.50%
Requests actioned within Service Level Agreement (SLA) timeframes[2]	> 95.00%	99.47%

1. *This target measures the percentage of 13 15 89 calls that are answered within 60 seconds.*
2. *This target measures the percentage of email or workflow requests (such as property transfers and temporary transfers) to the Customer Support team that are completed within the agreed SLAs. The SLA timeframes range between two and 10 business days, depending on the request.*

Key infrastructure

Table 4 lists the key infrastructure used to deliver bulk water services to our customers in Barker Barambah.

Table 4: Key infrastructure

Asset	Description	Total storage capacity (ML)
Bjelke-Petersen Dam	Earth and rock fill dam, consisting of a saddle wall and a main wall. The spillway is located on the left abutment. Classified as a referable dam under the *Water Supply (Safety and Reliability) Act 2008*.	134,900
Joe Sippel Weir	Cascading concrete wall.	710
Silverleaf Weir	Timber piled, earth and rock structure.	580
Redgate Diversion Pipeline	Gravity, with a pumping unit installed when the dam level is too low. Transfers water from Bjelke-Petersen Dam to Joe Sippel Weir.	n/a
Upper Redgate Relift Pipeline	Includes a pump.	n/a

Cost of delivering services—Operating expenditure

Operating expenditure includes funds for: operations activities, (i.e., operations, electricity, and insurance); preventative maintenance; and corrective maintenance.

Table 5 sets out actual and forecast operating expenditure for Barker Barambah.

As Barker Barambah is one of our high electricity consuming schemes this category is discussed on the following page.

Our performance in 2022-23

In 2022-23, operating costs were higher than the QCA's recommended cost target. Further information is provided in the pricing submission proposal and associated scheme summaries.

Outlook for 2023-24

Barker Barambah Bulk Water Service Contract's total operations budget in 2023-24 is higher than the QCA's recommended cost target.

Insurance is one of Sunwater's largest expenditure items. These costs have increased significantly in recent years due to multiple flood events in Queensland and global insurable events impacting premiums. The escalation of insurance premiums has directly contributed to the rise in Sunwater's operating expenditure.

Sunwater's focus in 2023-24 is on performing operations and maintenance activities to a standard that ensures the scheme's reliability and functionality for delivering water to customers within agreed service standards while also meeting current asset maintenance standards and compliance obligations.

Table 5 Operating expenditure[1]

Operations and maintenance costs - by sub-category	2022-23 actuals $'000				2023-24 forecast $'000			
	QCA	Sunwater[3]	Δ to QCA		QCA	Sunwater[3]	Δ to QCA	
Insurance	$272.1	$303.5	11.6%	▲	$278.3	$365.8	31.4%	▲
Electricity	$44.7	$5.0	-88.9%	▼	$45.3	$5.8	-87.1%	▼
Operations & maintenance	$321.0	$441.6	37.6%	▲	$328.9	$470.9	43.2%	▲
Support costs	$473.6	$568.1	19.9%	▲	$485.1	$588.2	21.3%	▲
Total opex[2]	$1,111.5	$1,318.1	18.6%	▲	$1,137.5	$1,430.8	25.8%	▲

▲	△	◆▶	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

1. *Reflects the QCA's 2020–2024 irrigation price investigation final recommendations. Excludes recreational facility costs.*
2. *From 1 July 2020, irrigation customers no longer contribute towards the cost of operating and maintaining recreational facilities. These costs have been excluded from the total operating expenditure.*
3. *Sunwater's 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our 2025-29 pricing submission. Sunwater's 2023-24 figures align with our pricing submission, these figures will differ from the budget.*

Electricity in focus

Sunwater continues to proactively manage the cost of electricity. In 2022-23, Sunwater undertook the following energy improvement initiatives in the Barker Barambah Bulk Water Service Contract:

- a review of our electricity tariff selections to ensure that we are using the most cost-effective tariffs. Our review focused on the Upper Redgate pump station, which represents most of the consumption and scheme electricity costs. The analysis was based on three years of historical interval data which provides more accurate usage and demand data. There was a tariff change for 2022-23, where Sunwater requested a network reclassification from a large network to a small network. This means eligible tariffs have changed to align with the reclassification. This resulted in an average cost reduction from 30.79 c/kWh to 24.22 c/kWh. Remaining on a large, regulated retail tariff would have increased the average cost by 6.91c/kWh.

  The variability in water demand for operating this scheme results in the pump station being reclassified between a small standard asset customer (SAC) and a large SAC when the rolling 12-month average consumption is above or below 100,000kWh. Sunwater and Ergon Network can initiate this change and Sunwater proactively monitors consumption to ensure optimal tariff selection.

  The notified pricing published by the Queensland Competition Authority for 2022-23 estimated electricity cost increases of 10%-21%[2].
- Continue with Operational Electricity Dashboard Reporting with key electricity metrics regularly monitored to identify efficiency opportunities.[3]

Outlook for 2023-24

In 2023-24, Sunwater will continue our focus on managing the cost of electricity in this service contract. The following energy improvement initiatives are currently planned:

- annual tariff optimisation analysis based on four years of historical interval data. There was a tariff change, which has resulted in an average cost increase from 23.40c/kWh to 24.95/kWh. If the pump station had remained on the existing tariff arrangement the average cost would have been 33.51c/kWh.
  The notified pricing published by the Queensland Competition Authority for 2023-24 estimated electricity cost increases of 14% - 27%[4]
- desktop energy audit
- annual solar assessment
- monitoring of asset energy operational performance.

Table 6 Electricity Tariff Arrangement[1]

Pump Station	2023-24
Upper Redgate	T22C

1. The regulated retail tariff is subject to change with variations in customer water demand or operational requirements.

[2] Regulated retail electricity prices in regional Queensland 2022–23 (qca.org.au)

[3] Some measuring points are not currently available at all pump stations. Sunwater is working towards capturing this information in the future.

[4] Regulated retail electricity prices in regional Queensland 2023-24 (qca.org.au)

Electricity metrics

Table 7 sets out electricity usage and efficiency-related information for the Upper Redgate pump station.

Table 7 Electricity usage and efficiency-related metrics – Upper Redgate pump station[1]

Metric	2019-20	2020-21	2021-22	2022-23
Electricity usage (kWh)	56,130	195,620	421	566
Volume pumped (ML)	422	1448	11	6
Actual electricity cost ($)	21,367	50,427	18,640	4,108
Actual electricity cost per ML ($/ML pumped)	50.63	34.83	1,695	11.79
Average pump energy indicator[2] (kWh/ML/per metre of head)	5.32	5.15	1.53	4.18

1. *Upper Redgate pump station only. Electricity costs do not reconcile to figures presented elsewhere in this S&PP, which are scheme wide.*
2. *The industry guidelines are 3.4 to 4.5, depending on the size and design of the pump station with the benchmark for larger pump stations being more efficient.*

To effectively monitor pump efficiency, a granular level of both energy and water data is required. With the installation of interval meters in early 2020 to capture energy consumption at a granular level, Sunwater is now able to more frequently monitor our performance against this metric.

Cost of delivering services—Annuity and non-annuity funded expenditure

Renewals discussion

Sunwater recovers expenditure required to renew (maintain the current level of service an asset provides) its assets via a renewals annuity. The annuity treats all renewals related expenditure as an expense (i.e., not capital) and amortises a multi-year expenditure forecast (30-years) such that the amount customers pay is smoothed, relative to the actual expenditure profile. Negative opening balances reflect expenditure incurred by Sunwater which has not yet been recovered via the annuity contribution amount, while positive opening balances reflect expenditure which has been pre-recovered via the annuity contribution amount. Forecast annuity balances, and the impacts of budgeted spend, are shown in Table 8 below.

The QCA and Sunwater closing balances differ due to differences in the expenditure profile allowed by the QCA in its 2020-24 final recommendations and actual expenditure incurred by Sunwater in 2022-23 and what we expect to spend in 2023-24.

Annuity-funded expenditure includes funds for planned corrective maintenance (PCM), as well as large, one-off operations activities. Activities include monitoring of the asset condition to inform when an asset needs to be refurbished or replaced under the PCM program.

Non-annuity funded expenditure largely relates to Sunwater's Dam Improvement Program and recreational facility costs.

Our performance in 2022-23

Performance against the QCA target

Sunwater updates our program of works based on our whole-of-life replacement and maintenance strategy, which looks at the risk and condition of each asset and uses this information to estimate the future work required to ensure the asset will continue to provide the required level of service into the future. Other factors such as changes in project delivery timing (e.g. due to weather) may also affect the program of works.

These factors mean the actual program of works delivered in any given year will differ to the program assessed by the QCA. At a project level, cost variances may also occur due to changes in the scope of work and cost inputs.

Further explanation of our performance is provided in the pricing submission and scheme summaries.

Project level cost variances

Table 9 provides a comparison of the annuity-funded projects planned for 2022-23 and the actual projects undertaken, together with justification for the variances.

Outlook

Details of the major annuity-funded projects planned for 2023-24 and 2024-25 period are set out in Table 10.

Table 8 Annuity and non-annuity funded expenditure and roll-forward[1]

Annuity funded expenditure (and roll forward)		2022-23 actuals $'000					2023-24 forecast $'000				
		QCA[2]		Sunwater[4]	Δ to QCA		QCA[2]		Sunwater[4]	Δ to QCA	
Opening balance	*O*	$(3,966.2)	→	$(5,167.6)	30.3%	▲	$(3,499.8)	→	$(4,470.1)	27.7%	▲
Annuity funded expenditure	***E***	$(499.6)	→	$(215.9)	**-56.8%**	▼	$(225.1)	→	$(910.6)	304.5%	▲
Annuity revenue[3]	*R*	$1,139.4	→	$1,139.4	-	-	$1,148.8	→	$1,148.8	-	-
Interest	*I*	$(173.4)	→	$(225.9)	-	-	$(153.0)	→	$(195.4)	-	▲
Closing balance *C = (O + E + R + I)*	*C*	$(3,499.8)	→	$(4,470.1)	27.7%	▲	$(2,729.2)	→	$(4,427.4)	62.2%	▲
Other expenditure (not part of prices)											
Dam improvement program		-		$0.0	-		-		$0.0	-	
Recreational facility projects[1]		-		$0.0	-		-		$0.0	-	
Metered offtakes and dividend reinvestment		-		$20.3	-		-		$160.0	-	

▲	△	◆▸	▽	▼
10% above the QCA target	5% above the QCA target	In line with the QCA target <5%	5% below the QCA target	10% below the QCA target

1. *Forecast annuity-funded costs from 2020-21 exclude recreational facility projects.*
2. *Reflects the QCA's 2020–2024 irrigation price investigation final recommendations.*
3. *The annuity contribution is included in the prices paid by bulk water and distribution customers. From 2020-21 to 2023-24, the annuity contribution is based on the QCA's irrigation price investigation 2020–2024 final recommendations.*
4. *Sunwater's 2022-23 actual expenditure figures presented in this table are pre-adjustment and will differ from our 2025-29 pricing submission. Sunwater's 2023-24 figures align with our pricing submission, these figures will differ from the budget.*

Comparison of forecast and actual annuity-funded projects for 2022-23

The below table sets out the major annuity-funded projects planned for Barker Barambah in 2022-23[5] and the actual projects undertaken.

Table 9 Comparison of forecast and actual annuity-funded projects for 2022-23

Project	Activity description	Forecast $'000	Actual $'000	Commentary
Bjelke-Petersen Dam	Study – 20-year dam safety review based on regulatory requirements and to better understand asset condition and risk.	424	0	This project was deferred to 2023-24 and 2025-26.
Bjelke-Petersen Dam	Study – ground penetrating radar survey of the crest and chute to identify voids.	77	0	This project was deferred to 2023-24 due to site conditions.
Bjelke-Petersen Dam	Replace – fences, gates and grids based on known condition.	38	13	The scope of work was less than budgeted.
Bjelke-Petersen Dam	Study – options analysis to replace cables and cableways.	36	67	The scope of work changed to include future scheduled items and to ensure all assets are covered in a single report.
Bjelke-Petersen Dam	Study – grout anchor pull-out tests to inform the 20-year dam safety review.	154	14	This project was deferred to 2023-24 due to site conditions.
Multiple	Replace – customer meters based on known asset condition and age.	118	77	Fewer meters required replacing than originally planned.
Multiple	Non-scheduled projects.	-	43	This expenditure relates to a hydrographic survey completed at Bjelke-Petersen Dam ($51k) to identify submerged debris (objects and trees). In addition, a 5-year comprehensive inspection was completed at Bjelke-Petersen Dam ($20k) and an over accrual from a comprehensive risk assessment (-$28k).
2022-23 Total		**847**	**215**	

[5] Based on information extracted from Sunwater's systems in mid-2023. See the 2023 S&PP at www.sunwater.com.au/schemes/Barker-Barambah/

Annuity-funded projects for 2023-24 and 2024-25

The below table sets out Sunwater's currently planned annuity-funded projects for the 2023-24 to 2024-25[6] period for this scheme. While the immediate program is well defined, estimates become more uncertain further into the planning timeline. Forecasts are likely to change in future S&PPs, reflecting changes in project delivery timing; asset condition and risk updates; outcomes from scheduled asset inspections; and customer feedback. The data in Table 10 is presented at a granular level and may not align with the overarching program names in our pricing submission.

Table 10 Forecast annuity-funded projects for 2023-24 and 2024-25

Year	Facility	Activity description	Forecast $'000
2023-24	Bjelke-Petersen Dam	Study – Level 2 Bridge inspection based on Department of Transport and Main Roads structures inspection manual.	51
	Bjelke-Petersen Dam	Replace – outlet building dehumidifier based on known asset condition and age.	49
	Scheme	Replace – gauging station equipment based on condition.	17
	Scheme	Replace – customer meters based on known asset condition and age.	142
	Scheme	Study – investigating property tenure and title to understand whether it is possible to refurbish the earthworks at Rayam Francis Weir.	34
	Bjelke-Petersen Dam	Study – as low as reasonably practical (ALARP) investigation to determine if further short-term work is needed to improve dam safety.	138
	Bjelke-Petersen Dam	Study – 5-year comprehensive dam electrical and civil engineering inspection to understand current asset condition. The Comprehensive Risk assessment will also be undertaken over two years.	288
	Bjelke-Petersen Dam	Investigate – spillway anchor pull-out tests to determine the condition and explore options to anchor the spillway concrete to the rock foundations.	190
	2023-24 Total		**911**
2024-25	Bjelke-Petersen Dam	Study – arc flash risk assessment to identify arc flash hazards.	41
	Bjelke-Petersen Dam	Dam safety program to upgrade dams based on risk to meet new dam safety standards and regulation.	8
	Bjelke-Petersen Dam	Instrumentation program to upgrade current instrumentation to meet new dam safety standards.	201
	Scheme	Replace – customer meters based on known asset condition and age.	116
	Upper Redgate	Replace – customer meters based on known asset condition and age.	28
	Bjelke-Petersen Dam	Study – 5-year comprehensive dam electrical and civil engineering inspection to understand current asset condition. The Comprehensive Risk assessment will also be undertaken over two years.	134

[6] The project forecasts provided in this table align with our pricing submission. It is important to acknowledge that these projects are inherently dynamic and susceptible to changes influenced by various factors.

Year	Facility	Activity description	Forecast $'000
	Bjelke-Petersen Dam	Refurbish – reseal 1-meter-wide section of bitumen on saddle dam crest based on known condition and age.	57
	2024-25 Total		**584**