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Final Report

Asset Management Plan – Boyne River Supply – Service Contract BBY

Financial Years 2019 to 2024

Photo of Boondooma Dam

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List of Abbreviations

Abbreviation	Extension
AMP	Asset Management Plan
AMTD	Adopted Middle Thread Distance
AS DOC	Asset and Strategy Document
AS FAC	Asset and Strategy Facility
AS INS	Asset and Strategy Inspection
BP	Buildings and Plant
EM	Environmental Management
BBY	Boyne River Supply Service Contract
MW	Major Weir
NR MEC	Non-Routine Mechanical
NR MET	Non-Routine Metering
NSP	Network Service Plan
PAR	Persons at Risk
PS	Pump Station
QCA	Queensland Competition Authority
RE EXE	Renewals Executive Requirement
RE ICR	Renewals Improve Condition and Reduce Risk
RE PPS	Renewals Personal and Public Safety
ROL	Resource Operating Licence
ROP	Resource Operating Plan
SAMP	Strategic Asset Management Plan
UB	Urban
WHS	Workplace Health and Safety
WMS	Works Management System
WSS	Water Supply Scheme

Executive Summary

This Asset Management Plan (AMP) provides a link between the assets, the current and future service levels, expenditure drivers and the forecast expenditure. It clearly establishes the relationship between corporate goals and asset management outputs.

Boyne River Supply has assets with an estimated replacement cost of **$453.9M** with a weighted average asset age of **38 years**.

SunWater's aim is to manage its assets in a sustainable manner to meet SunWater's business objectives of safeguarding asset integrity and ensuring continuing asset serviceability. SunWater has developed a business model for determining the set of assets due for renewal over the forecast period. This model is risk based. Assets are assessed for condition and risk which is used in combination with anticipated asset lives to determine the type of intervention strategy required and the timeframe involved. Approximately **95 per cent** of Boyne River Supply assets are considered low or moderate risk. These risk ratings exclude major headworks assets as these are risk managed through a dam safety inspection program and do not have a corresponding risk rating for each asset.

For a summary of the financial forecasts, refer to the relevant Network Service Plan (which is available on SunWater's web site).

1. Introduction

1.1 Plan Purpose

The primary purpose of this Asset Management Plan (AMP) is to provide a clear line-of-sight from SunWater's customer service targets, through its asset strategies, to related works programs.

SunWater's business is divided into Service Contracts. Each AMP covers the operational assets associated with each SunWater Service Contract.

The Strategic Asset Management Plan (SAMP) establishes the strategic objectives for asset management and provides a framework for the generation of the AMPs.

The AMPs address a six year outlook for the area of coverage and provides a link between the assets, the current and future service levels, expenditure drivers and the forecast expenditure aligned with anticipated revenue. AMPs normally cover a five year period however it has been extended this year due to the upcoming Queensland Competition Authority (QCA) price review which covers the six years ending June 2024.

The preparation and review of such plans will provide SunWater with:

- Clarity regarding the scope of coverage for the plans;
- Consolidated technical and financial information for the assets and the services they provide to customers;
- An understanding of the issues that drive the expenditure proposed such as present and future demands, risk mitigation, asset performance and strategic initiatives;
- A current estimate of the short and long term financial commitment necessary to maintain both the assets and the services they provide;
- A clearly established link between corporate goals and asset management outputs.

1.2 Stakeholders

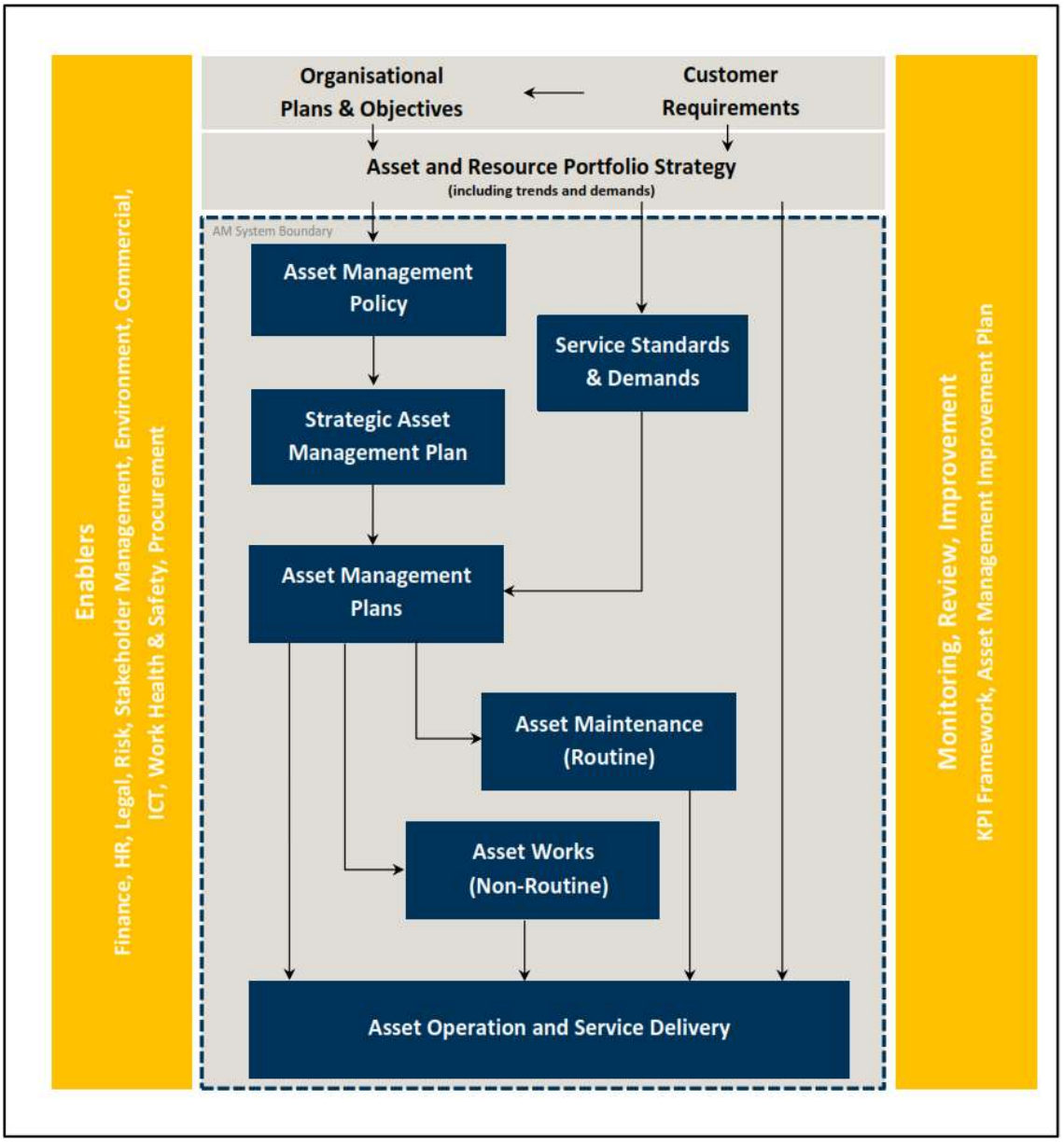
The key stakeholders who have a vested interest in the outputs of this plan are:

- SunWater Management and Board – strategic level information regarding the expenditure proposed over the five-year forecast period to support price path submissions and management decisions.
- SunWater Operations – alignment of expenditure forecast with revenue forecasts, monitoring implementation of agreed five-year price path and strategic direction for the operation, maintenance, renewal and growth of the asset portfolio.
- Customers – Clarity regarding the future direction for the services and assets over the five-year forecast period and how this translates into projects and programs of work.
- Queensland Competition Authority – Price path setting for monopoly based services namely Irrigation. Industrial pipelines are managed under individual customer contract and hence do not attract QCA oversight.

1.3 Context

SunWater's Asset Management System overview is provided in Figure 1 which shows where the asset management plans fit within the key elements of the asset management system.

Figure 1 Overview of the Asset Management System[1]



Asset Management Plans are tactical plans for achieving strategies resulting from the strategic planning process. The SAMP provides a more detailed roadmap as to how business processes relating to asset management planning are undertaken, whilst the AMP focuses on the outcomes of those processes.

[1] Sourced from SunWater's Strategic Asset Management Plan

Key information feeding into the AMP are:

- SunWater Corporate Plan and Statement of Corporate Intent
- Asset Management Policy
- Strategic Asset Management Plan
- Customer service standards and performance reports
- Asset performance reporting and studies
- Demand Forecasts, Risk Studies, Compliance Requirements and any other drivers for expenditure.
- Customer Feedback

Key information informed by the AMP includes:

- Operations and Maintenance Manuals
- Price path submissions
- Annual budget preparation and works scheduling
- Business Improvement Plans

1.4 Plan Methodology

Details regarding the methodology by which this AMP has been prepared are provided in SunWater's Strategic Asset Management Plan.

The AMP's findings and forecast are based on available information at the time of preparation. Where information and knowledge gaps exist, these have been reflected in the improvement plan section of the AMP to allow an ongoing and continuous improvement to the quality of the plan.

The Asset Management Plan is a living document, reviewed on an annual basis during SunWater's budgeting cycle.

2. Service Contract Summary

2.1 Boyne River & Tarong Water Supply Scheme

The Boyne River & Tarong Water Supply Scheme regulates water supplies for irrigation along the Boyne River, a tributary of the Burnett River, as well as supply water to the Tarong Power Station. The scheme incorporates the Boyne River Supply and Tarong Pipeline service contracts.

Figure 3 provides a schematic that describes the assets or systems that make up each of these service contracts.

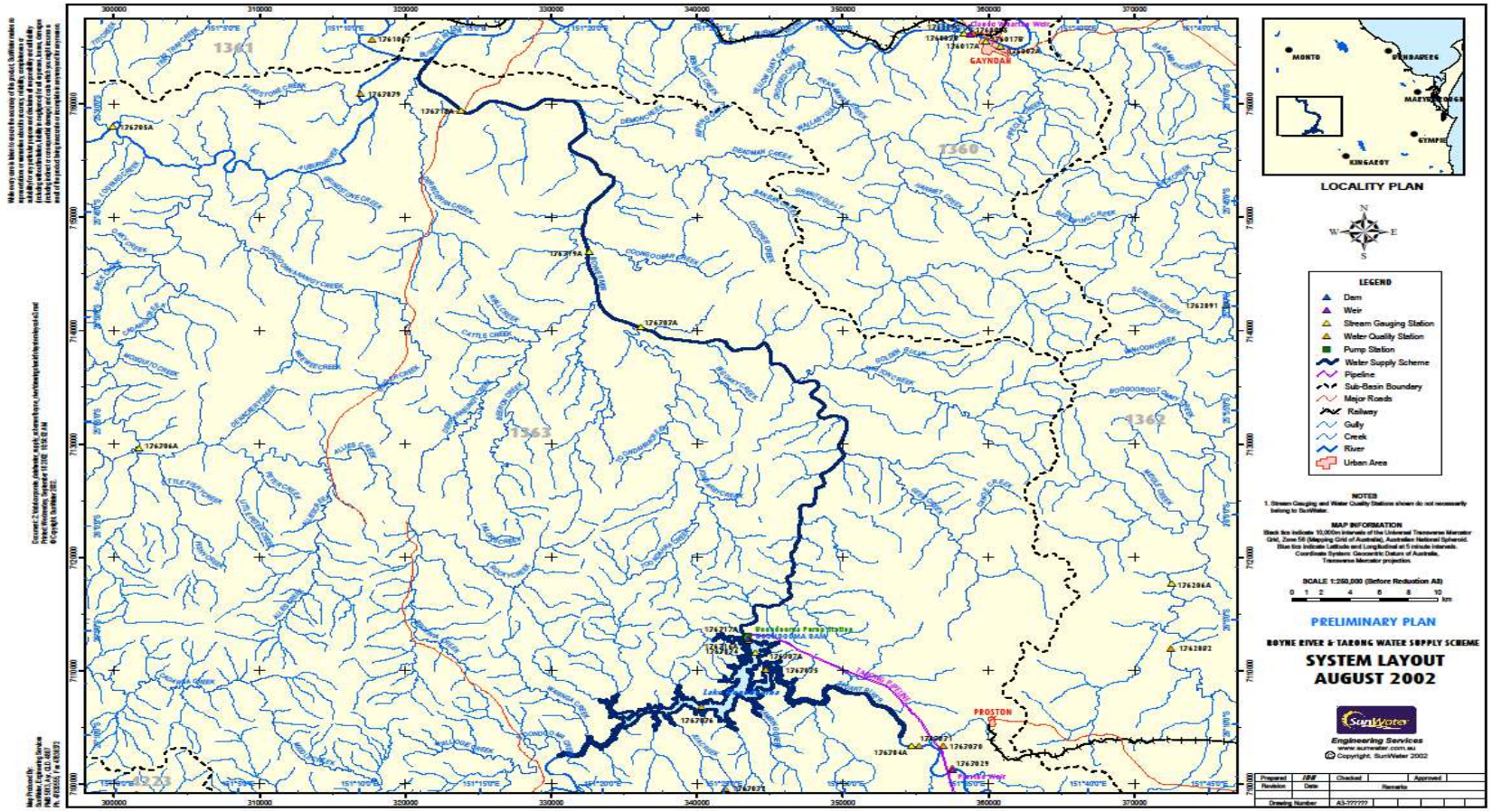
Boondooma Dam is the primary water supply facility which regulates releases downstream, and also acts as the supply to Tarong Power Station to the southwest via pump stations, balancing storages and 94 km of pipeline.

2.2 Location

Boondooma Dam (AMTD 86.7 km) was constructed at the confluence of both the Boyne and Sandy Creek Rivers, approximately 50 km north-west of the town of Wondai. The dam consists of two concrete faced rock-fill embankments, one on each river flow.

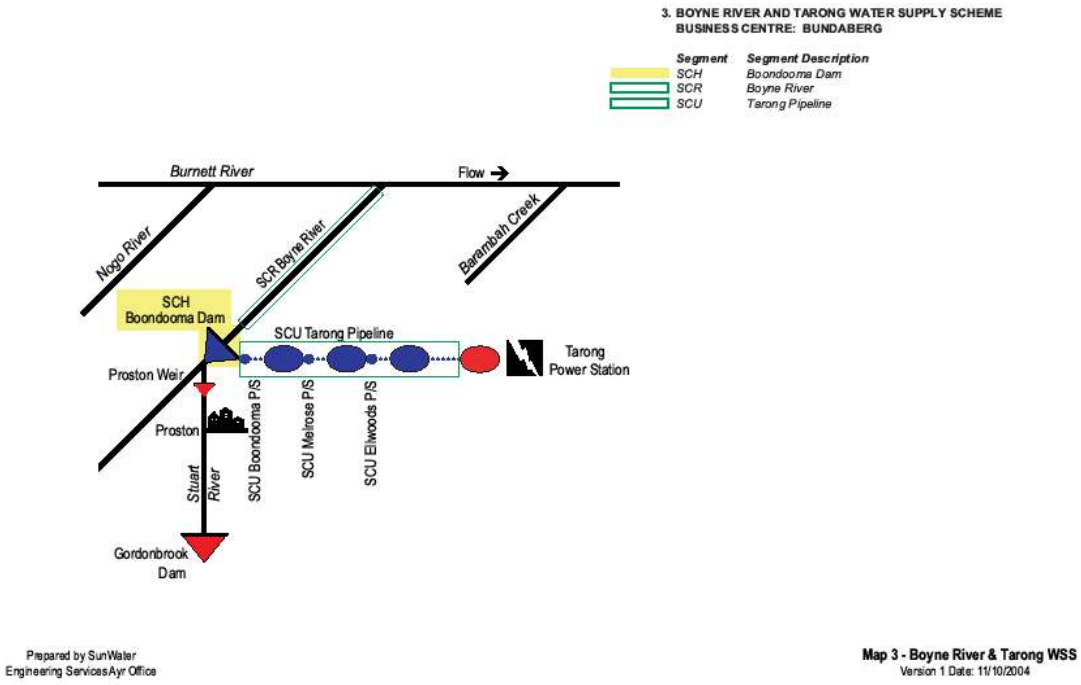
The dam was built primarily to supply water for the Tarong Power Station, approximately 85 km south-east of the dam via the Tarong Pipeline, as well as provide irrigation supplies along the Boyne River before it joins with the Burnett River to the north.

Figure 2 Location Plan[2]



[2] Image sourced from DIS

Figure 3 Schematic Diagram[3]



Note: Image last updated in 2004. Facilities shown in red are not owned by SunWater.

2.3 Capacities

The following table summarises the capacities of the Boyne River Supply key infrastructure.

Table 1 Boyne River Supply Facilities[4]

Facility	Function	Capacity
Boondooma Dam	Supplies Boyne River and Tarong Water Supply Scheme	204,200 ML

2.4 Operational Framework

Boyne River Supply is operated and maintained from the SunWater Bundaberg regional office.

Centralised support functions are provided through the SunWater head office in Brisbane.

2.5 Critical Assets

Facilities, or significant assets, considered to be critical to the operation of the Boyne River Supply service contract are as follows:

- Boondooma Dam

[3] Image sourced from DIS
[4] Data sourced from Five Year Asset Management Plan – Boyne River & Tarong 2011-2015 (#877344)

When developing the forward program of works as described in the WMS and for prioritisation of planned and unplanned maintenance activities, the criticality of the facility is taken into account to ensure works and undertaken within an appropriate timeframe and take precedence over works associated with less critical facilities.

2.6 Scheme Asset Profile

2.6.1 Asset Values and Age Profile[5]

The following table provides a summation of the estimated replacement cost for all assets as used in the asset register for renewals planning. Non-operational assets (such as depots and offices) and externally owned assets (but managed by SunWater) have been excluded from this list.

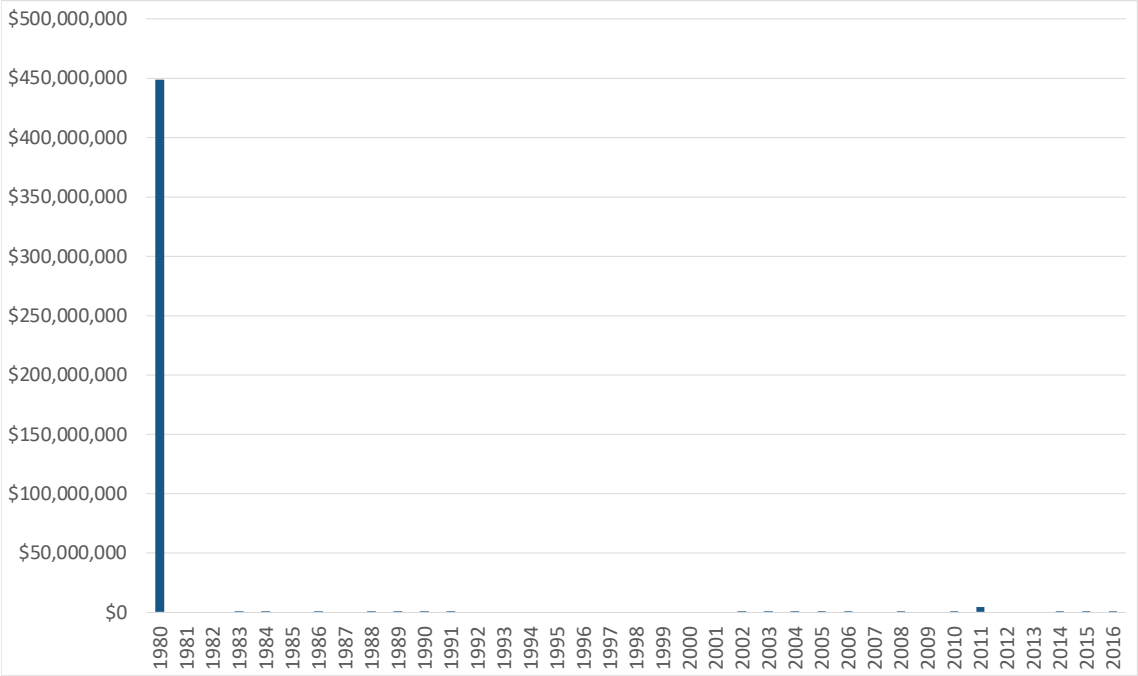
Table 2 Estimated Replacement Costs by Facility

Facility	Total
BOONDOOMA DAM	$453,548,591
BOYNE RIVER DISTRIBUTION	$367,870
BBY Total	**$453,916,462**

The following figure provides an age profile for the Boyne River Supply showing the years in which the majority of the assets were constructed.

[5] Table data sourced from SunWater Asset register as extracted on 28/11/2017

Figure 4 Boyne River Supply Age Profile



2.6.2 Risk and Condition Profile

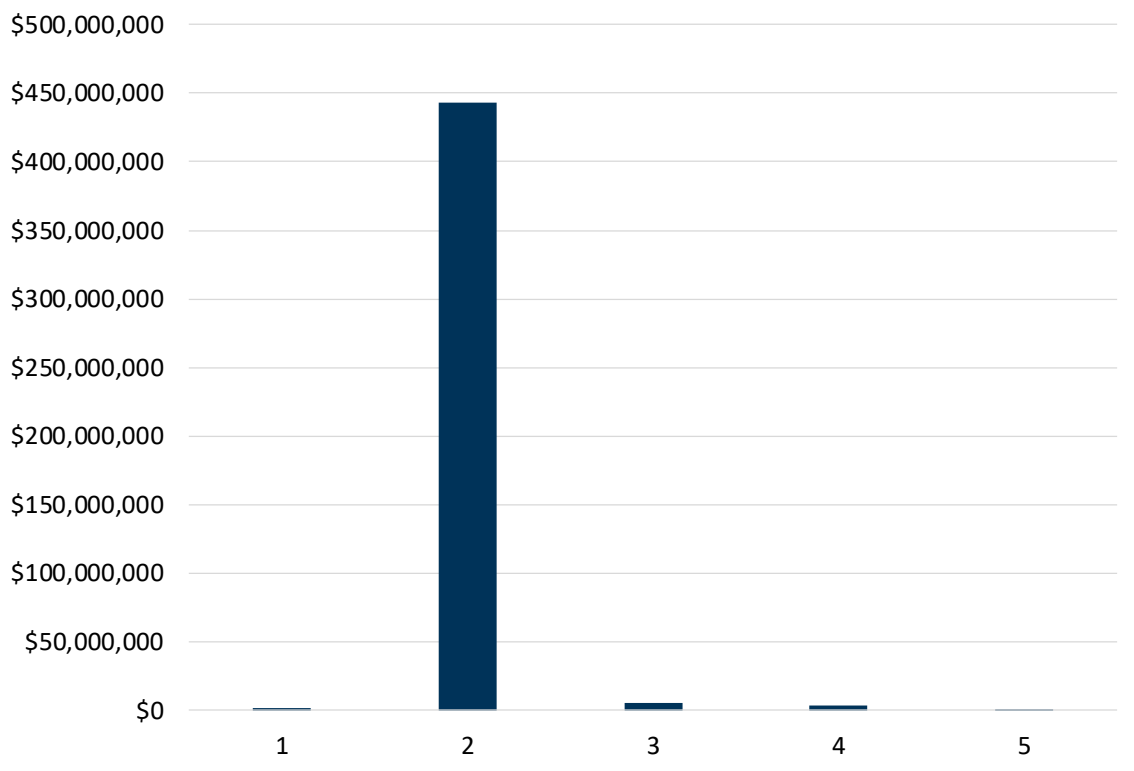
The following table provides a summary of the condition and risk profile for the Service Contract assets.

There are a number of assets that do not have a specific condition or risk score for logical reasons as described in the relevant assessment methodology manual.

Table 3 Boyne River Supply Risk and Condition

	Risk				
Condition	**1**	**2**	**3**	**4**	**Total**
1	0.21%	0.06%	0.00%	0.00%	0.27%
2	79.85%	17.37%	0.49%	0.00%	97.71%
3	0.26%	0.94%	0.00%	0.00%	1.20%
4	0.16%	0.33%	0.32%	0.00%	0.81%
5	0.00%	0.00%	0.00%	0.00%	0.00%
6	0.00%	0.00%	0.00%	0.00%	0.00%
Grand Total	**80.48%**	**18.71%**	**0.81%**	**0.00%**	**100.00%**

Figure 5 Condition Profile



Description of Condition Ratings are:

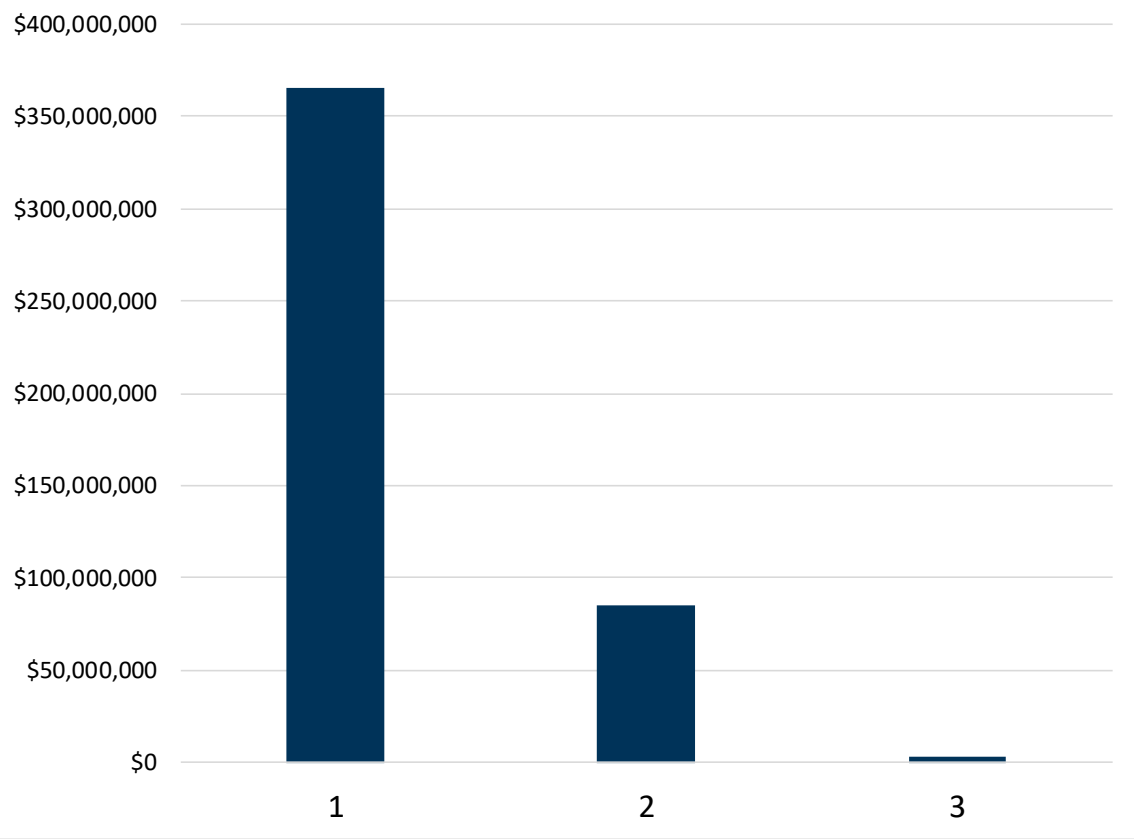
1. Perfect, as-new condition
2. Minor defects only
3. Moderate deterioration with minor refurbishment required to ensure ongoing reliable operation
4. Significant deterioration with substantial refurbishment required to ensure ongoing reliable operation
5. Major deterioration such that asset is virtually inoperable
6. Asset has failed and is not operable

Of the assets with a condition score some 99.2 per cent by value are in condition 3 or better.

There are <0.01 per cent in condition 5 and nearing end of life in addition. No assets are in condition 6 (no longer performing their function).

Overall the majority of Service Contract assets are in good condition and do not present a significant renewals or service delivery concern.

Figure 6 Risk Profile



Description of Risk Ratings are:

1. Low
2. Medium
3. High
4. Extreme

Of the assets that have been risk assessed:

80.5 per cent of all assets have a risk score of 1 (Low)

18.7 per cent Medium

0.8 per cent High

0 per cent Extreme – no assets were identified as an extreme risk.

2.7 Customers

Boyne River Supply customers are summarized as follows:

- Tarong Pipeline – supplies the Tarong Power Station (see separate AMP)
- Environmental releases – Queensland government.
- River offtakes – customers primarily irrigation

2.7.1 Service Contract BBY Customers[6]

The following table identifies the water entitlements as published in the 2018/19 Boyne River Bulk Water Network Service Plan (NSP).

Table 4 Boyne River Supply Customer Entitlements

Customer Segment	Water Entitlements (ML)	High Water Priority (ML)	Medium Water Priority (ML)
Irrigation	9,142	0	9,142
Urban	1,825	1,825	0
Industrial (excluding Tarong Pipeline)	343	0	343
Industrial (Tarong Pipeline)	29,990	29,990	0
SunWater (excluding distribution loss)	5	5	0
SunWater (distribution loss)	1,620	1,620	0
Other	480	480	0
Total	**43,405**	**33,920**	**9,485**

SunWater entitlements relate to channel system distribution losses.

2.8 Service and Asset Standards

Water is stored and distributed by SunWater within the Boyne River and Tarong Water Supply Scheme in accordance with the Burnett Basin Resource Operations Plan (ROP) 2014 and Water Act. SunWater Ltd is the Resource Operations License (ROL) under the ROP and holds water supply contracts with allocation holders.

2.8.1 Water Supply Arrangements and Service Targets

Water distribution arrangements for the Boyne River Supply and Tarong Pipeline are set out in the *Boyne River & Tarong Water Supply Scheme - Water Supply Arrangements and Service Targets* document (refer http://www.sunwater.com.au/schemes/boyne-river-tarong/scheme-information/rules-and-targets).

These arrangements detail how water is to be distributed throughout the Boyne River scheme and considers channel and river customers, supply rates, water ordering, planned shutdown timing, notices and durations, unplanned shutdowns and dispute resolution. The arrangements have been developed in consultation with customer representatives and are aimed at achieving sustainable, efficient and equitable delivery of water allocations.

Of relevance to the asset management plan and the potential need for capital intervention works is the following target:

- Channels and River customers – No customer will experience more than **10 unplanned interruptions** per water year.

Performance reporting against these service targets will identify any below target performances which will be investigated for possible rectification works.

[6] Sourced from 2018/19 NSP, 20 June 2018 version

2.8.2 Risk Management

SunWater has developed a business model for determining the set of assets due for renewal over the forecast period. This model is risk based; assets are assessed for condition and risk and which is used in combination with anticipated asset lives to determine the type of intervention strategy required and the timeframe involved.

This risk model and SunWater's acceptable risk threshold drives the majority of asset renewals and refurbishment based works.

Details of this risk based model are provided in the SunWater Documents

- ***Doc#956033 - Whole of Life Maintenance Strategy & Object Codes***
- ***AM20 Methodology for Risk Assessment of Infrastructure Assets***
- ***AM21 Asset Refurbishment Planning Methodology for Condition Assessments of Assets***

2.8.3 Compliance Requirements

2.8.3.1 Resource Operating Plan (ROP)

The *Burnett Basin Resource Operations Plan 2014 (ROP*) implements the provisions of the *Water Resource (Burnett Basin) Plan 2014* and is intended to drive water resource innovation and efficiency to benefit the region's community. The ROP sets out rules to guide supplemented water management in the Boyne River & Tarong Water Supply Scheme and implements strategies to support a number of ecological outcomes including monitoring requirements to assess performance against the water resource plan.

SunWater Ltd has been granted the Resource Operating Licence (ROL) for the Boyne River & Tarong Water Supply Scheme under the Burnett Basin Resource Operations Plan (ROP) August 2014.

As the Boyne River & Tarong Water Supply Scheme ROL holder, SunWater is required to operate the scheme in accordance with attachment 8 of the ROP which covers the following:

- Operating and environmental management rules:
- Water sharing rules:
- Dealing with water allocations:
- Seasonal water assignment rules:

Provisions are made under Chapter 8 of the Burnett Basin ROP to make amendments to the plan in accordance with the *Water Resource* (*Burnett Basin*) *Plan 2014* and/or relevant sections of the *Water Act 2000*.

2.8.3.2 Queensland Competition Authority (QCA)

The Queensland Government sets the water prices that SunWater charge irrigators for water supply. The Queensland Competition Authority (QCA) undertakes the price reviews as directed by the Government.

In May 2012, QCA released its 'SunWater Irrigation Price Review: 2012-17' Final Report. The recommendations of the report were subsequently approved by the Queensland Government where the *Rural Water Pricing Direction Notice (No1) 2012* was issued under section 999 of the *Water Act 2000*. The current irrigation price paths set for SunWater apply until 30 June 2017.

In 2016, the Government decided to delay the next QCA price review by two years to allow prioritisation of the local management reform of SunWater's channel schemes (Local Management Arrangements). In the interim, the QCA proposed to set the price path for the period 1 July 2017 to 30 June 2019 by continuing the current irrigation pricing policies. This approach used the QCA recommendations (from its last reviews) as the cost target for each scheme or tariff group and reflect

the minimum costs of supply for operating costs and asset maintenance costs, but excludes a commercial rate of return.

2.8.3.3 Dam Safety Management

Boondooma Dam is a referable storage under the *Water Supply (Safety and Reliability) Act 2008 and Water Act 2000*. Beardmore Dam is a Category 2 dam with a Persons at Risk (PAR) of greater than 100. SunWater's management of the storage is governed by a Dam Safety Condition Schedule issued by the Dam Safety Regulator.

As such, SunWater is obligated to implement a formalised dam safety program to monitor and manage the safety of this and other headworks structures, inspections, studies and asset renewals and refurbishments as typically driven by these dam safety compliance requirements.

2.8.3.4 Workplace Health and Safety

SunWater is required by law to comply with the *Work Health and Safety Regulation 2011*. This regulation states that a duty holder managing risks to health and safety must eliminate risks so far as is reasonably practicable. If it is not reasonably practicable to eliminate the risks the duty holder must minimise those risks so far as is reasonably practicable. The regulation also states that risks greater than significant to be mitigated/ controlled.

As such SunWater has a robust system in place to provide a duty of care to its employees, customers, contracts and visitors. Operating costs are invested annually to ensure this duty remains up to date and relevant.

Where the assets present a WHS risk, or where legislative changes require it, programs of safety improvements may be rolled out to protect the operators, visitors, customers and contractors.

2.8.3.5 Other Legislation

There are many standards and regulations which SunWater is required to comply with regarding specific asset types. Examples include: ramps and ladders, lifting equipment, access and egress, lighting, fire and electrical.

SunWater ensures all assets are compliant with current codes, legislations and standards and monitors for changes and updates that may require further asset investment to achieve compliance.

2.8.4 Continuous Improvement

SunWater undertakes a number of studies and investigations each year in order to identify opportunities to improve the efficiency or effectiveness of the service contract. Projects are identified on an as needs study and may apply across multiple service contracts or be specific to a service contract or specific assets. Such investigations and studies include:

- Energy usage and efficiency improvements for pump stations
- Water loss studies for channel and pipeline systems
- Improving metering and flows at weirs and dam spillways

2.9 Current and Future Demand

2.9.1 Current Demand

Water is released from Boondooma Dam to supply water to Boyne River Supply customers. Water usage patterns have remained unchanged for many years, with cropping remaining consistent, apart from a recent introduction of blueberries to the regions agricultural crops.

Formal water ordering is to be introduced to enable more effective water delivery to meet customer demands.

2.9.2 Future Demand

Water demand is expected to remain unchanged in the future. Future expansion of the scheme will be dictated by scheme reliability, which currently sits around 70 per cent.

2.10 Water Availability and Reliability

Water allocations for Boyne River Supply are split approximately 77 per cent High priority and 33 per cent Medium priority.

Records from 2002 show that 100 per cent of High priority entitlements have been allocated at the start of the water year (1 July). The only exception was for the 2007 water year which was fully allocated 7.5 months later (18 Feb 2008).

From 2007, Medium priority entitlements were fully allocated at the start of the water year. Years where this hasn't occurred, full allocations have been announced later in the year as listed below:

- 18 Feb 2008 – 7.5 months (80 per cent allocated)
- 2 Mar 2009 – 8 months
- 5 Mar 2010 – 8 months

Records between 2002 and 2007 suggest that priority ratings High-A and High-B were used instead of Medium. During this time, 100 per cent of High-A priority entitlements were allocated at the start of the water year. High-B priority entitlements were allocated accordingly:

- 1 July 2002 – 85 per cent allocation
- 14 Mar 2004 – 8.5 months
- 17 Nov 2004 – 4 months, 60 per cent allocation
- 1 July 2005 – 2 per cent allocation
- 1 July 2006 – 0 per cent allocation

Since 2007 the water supply has been able to cater to all High priority customers as well as Medium priority customers with only minor management of allocations. The supply is considered highly reliable.

Allocations prior to 2007 however, during which Medium priorities were split between High-A and High-B, presented a greater challenge particularly for High-B customers. Since merging to become Medium, these challenges have been eliminated as shown by the announced allocations since 2007.

3. Lifecycle Management Plans

3.1 Asset Planning Methodology

The following text provides an overview of the approach SunWater takes to planning for routine and non-routine asset expenditure. Details of each methodology are provided in relevant controlled documents for a more thorough understanding of the approach.

3.1.1 Routine Works

SunWater plans asset work on a routine (preventive) and non-routine basis. Routine work is currently defined as recurring work with a frequency of 12 months or less.

Routine work plans are developed based on industry specifications for each asset, SunWater experience, compliance requirements and improvements in technology. The program consists of inspections, surveillance, condition monitoring and servicing of assets. The purpose of the program is to monitor the performance and condition of assets to ensure they continue to meet the agreed service standards and to detect when assets are operating outside of acceptable parameters so corrective action can be taken or scheduled.

Each asset type has a standard maintenance strategy that prescribes the frequency and timing of each type of maintenance activity. For example, a guard valve will have three monthly and twelve monthly operational and maintenance tasks prescribed to ensure it is kept in an acceptable condition for operational reliability and reduces the need for non-routine work or unplanned routine work.

Assets and systems have undergone a risk assessment to determine the criticality of the asset and its components to the function of servicing the customer. As a result maintenance strategies are tailored to align with this risk. Higher risk assets will typically have an increased frequency of activities whilst very low risk assets may be run to failure if appropriate. Likewise, response times to unplanned events are aligned with these risk levels.

These maintenance strategies have undergone extensive analysis to ensure the required function, performance, safety and compliance is achieved at the lowest cost to the end user.

This asset management plan focuses on the outcomes of the routine works planning process and the potential implications or issues at a scheme level.

3.1.2 Non-Routine Works

SunWater has an extensive asset register including a structured asset hierarchy of assets or systems, such as pump stations, so key items such as condition, risk rating, replacement value and remaining life can be recorded against individually replaceable parts. The model SunWater applies to this data provides a draft plan of works over the forecast period. While this AMP refers to the next six years, the QCA looks at the next 30 years for price path considerations. Both however, draw on the same data. The identification of non-routine work is initially driven by a combination of the asset condition and risk.

As this information is presented at the asset or equipment level, the asset planner considers a number of factors in order to translate this into a set of proposed projects for the next financial year. Factors taken into account include:

- Is the work really required? Can it be deferred? Will deferring it result in a low risk of failure or poorer customer service?
- What is the best option for the work? Refurbishment, replacement or modified maintenance?

- Can the work be aggregated into a larger project for the facility or an asset type program to deliver economies of scale?
- Does the work generally align with the lifecycle strategy for the asset?
- Can the project or aggregate of projects be achieved within the financial year?
- Does the overall expenditure forecast align with the agreed QCA price path? Rationalisation of projects may be required in order to fit within the price path however where appropriate or necessary the price path can be exceeded giving due consideration to the past overall expenditures and future years forecasts.

Ongoing updates and improvements to the proposed non-routine works plan occur throughout the year in the lead up to the budget submission phase. An updated project list is maintained in SunWater's SAP Works Management System (WMS) and undergoes continual refinement and change. The financial forecast presented in this AMP represents a point in time view of the proposed works and will likely to have undergone a number of changes before and possibly after budget approval.

Year 2 and beyond proposed works are typically not translated into projects for the following reasons:

- The environment has a significant impact on the achievement of the proposed works plan. For example, times of flood may require projects to be extended or deferred into the following year.
- Major climatic events such as Cyclones may require a complete change to the proposed works plan.
- Unplanned asset failures may require planned projects to be deferred.

As there are a number of significant issues that can largely undo any planned works for Years 2 and beyond, it is considered by SunWater good business practice to keep this primarily as a forecast of overall expenditure rather than agreed projects.

In addition to the consideration of risk and condition to developing the non-routine works plan other expenditure drivers exist that may generate works.

These include:

- Performance reports identifying assets or systems below the desired target. For example, pump efficiency, reliability of supply, unplanned outage costs etc.
- Service and Asset Initiatives may arise from the Corporate plan, Statement of Corporate Intent or other sources that define a project
- Growth and future demand may drive the need for augmentation or expansion projects as possible disposal or rationalisation projects
- Compliance based projects may be required to meet changes in legislation such as WHS, regulator requirements or equipment compliance standards.

The following section on expenditure drivers identifies the reasons for the proposed routine and non-routine works.

Further details on SunWater's approach to the preparation and scheduling of non-routine works can be found in the following SunWater documents:

- ***#1587501-Asset Management System Manual***
- ***#1599118-Asset Management Planning Methodology Paper***
- ***#1800010-Bulk Water Assets Strategic Plan 2015***

3.2 Drivers of Expenditure

The following section draws out the key issues for the service contract regarding performance, compliance, growth and risk that are driving the proposed works program for the next six years.

3.2.1 Network Service Plans

Stemming from the QCA's 2012 review of irrigation prices, SunWater publishes annual Network Service Plans (NSPs) based on service contracts as required by the QCA's pricing practices recommendation. The documents are published in advance of the QCA recommendations to provide customer review and comment. The NSP aligned to the Boyne River and Tarong Water Supply Scheme is Boyne River Supply (BBY).

SunWater reviews the NSPs annually and prepares performance reports for customer representative bodies .The NSPs and the Annual Operations Reports can be found on the SunWater website http://www.sunwater.com.au/schemes/nsp/annual-nsp-and-performance-reports/network-service-plans-2018.

The NSPs primarily measures and reports on financial performance against budget and QCA targets. As the financial year progresses it may be necessary to defer some projects, modify budgets for some and bring others forward into the current year.

At the time of preparing this AMP there are no material changes to the proposed works program that will influence the six-year forecast.

3.2.2 Water Supply Service Targets

The following table provides performance reporting against the Water Supply Agreement and Service Targets for the entire scheme. This includes the service contracts for Boyne River Supply.

The service delivery failures reported relate to the distribution system, therefore Boyne River Supply has no performance measures which fall outside of the water supply agreement and is not driving any specific projects.

Table 5 Water Supply Performance Measures 2017/18

	Planned Shutdowns		Unplanned Shutdowns		Meter Repairs	Max No. of Interruptions	Complaints & Enquiries		
	No. of Events	No. of Notification Failures for Planned Events	No. of Events	No of Duration Failures for Unplanned Events	Faults causing restriction to supply will be repaired within	No. of Customers Exceeding Target	No. of Complaints	No. of Complaints Exceeding Target (initial)	No. of Complaints Exceeding Target (resolution)
July 2017	2	0	0	0	0	0	0	0	0
August 2017	2	0	0	0	0	0	0	0	0
September 2017	0	0	0	0	0	0	0	0	0
October 2017	0	0	0	0	0	0	0	0	0
November 2017	1	0	0	0	0	0	0	0	0
December 2017	0	0	0	0	0	0	0	0	0
January 2018	0	0	0	0	0	0	0	0	0
February 2018	0	0	0	0	0	0	0	0	0
March 2018	0	0	0	0	0	0	0	0	0
April 2018	0	0	0	0	0	0	0	0	0
May 2018	0	0	1	1	0	0	0	0	0
June 2018	0	0	0	0	0	0	0	0	0
Total YTD for 2017/18	**5**	**0**	**1**	**1**	**0**	**0**	**0**	**0**	**0**

3.2.3 Corporate Driven Projects

Strategic level projects defined and driven by the Corporate Business Plan or Statement of Corporate Intent are identified here.

For the Boyne River Supply, no strategic projects have been identified as listed in the Corporate plan.

3.2.4 Compliance Related Works

Dam Safety inspections and resulting works are compliance driven works to ensure the maintenance of safe and reliable headworks assets.

Dam Safety Upgrades are a significant expense and are intended to bring the Spillway and other assets into line with the latest design standards. As such, this program of work is funded separately by government and does not form part of the annuity calculation.

These Dam Safety Upgrades are also listed above as Corporate Plan listed projects and hence have a high focus from a corporate level that they are completed on time.

Other compliance driven works include programs such as installing compliant walkways, ladders and handrails for Workplace Health and Safety compliance and registered plant inspections and work.

A number of compliance driven programs have been established in the WMS. These include programs such as:

- Electrical switchboard inspections, testing and tagging
- Lifting equipment inspections, testing and tagging

- Dam Safety Inspections
- Weir Inspections
- Bridge inspections

3.2.5 Growth and Future Demand

No growth or future demand related projects have been identified for the Boyne River Supply service contract.

3.3 Strategic Direction for Scheme

No strategic direction statement is provided. Assumption for forecasting is existing services will continue as per current arrangements.

4. Financial Forecast

For a summary of the financial forecasts, refer to the relevant Network Service Plan (which is available on SunWater's web site).

5. AMP Improvement Plan

The following describes potential improvements that may be considered for implementation. Corporate level improvements apply across all AMP's whilst others are specific to this AMP.

5.1 Corporate Level Improvements

- Enhance the WMS to include a data field for each project to identify the work type, namely new asset, upgrade existing, replace, refurbish, disposal, study, investigation.
- Enhance WMS to include a data field to identify the primary driver for the works, namely compliance, service enhancement, condition and risk.
- Develop more asset related technical performance standards to guide and potentially drive the non-routine asset replacement and refurbishment programs. This could include for example measuring pump efficiencies in relation to condition, or monitoring water meter flow accuracies, and the impact of this on service standards Implement procedures to measure these performance standards to feed into the planning process.
- Continuous improvement to current condition and risk based model to confirm the proposed timing of works generated is an acceptable starting point for the next year's works program development.
- Enhance the Functional Location asset register so condition and risk scores can be presented at a parent or facility level. At present, they are only provided at the asset or equipment level.
- Develop and document a strategic direction for each scheme and service contract to identify a more tangible understanding of how assets and services may change into the future so the more significant asset investment decisions can be made in the context of the anticipated life and function anticipated from the investment. In addition, clarify the goals and objectives for the scheme, systems or service contracts to support this future vision.

5.2 Improvements for this AMP

- Locality map and schematics at Service Contract level
- Improved performance reporting that links to the proposed works program (i.e. better demonstrate why the work is needed)
- Future AMPs should address feedback from customers
- Future AMPs should contain more accurate information. This requires SunWater to review AMP sources and update them to ensure relevant and up-to-date information.

5.3 Monitoring and Review Procedure

- This AMP shall be reviewed and updated annually in line with the NSP and Budget Cycle.
- Responsibility for review and update of this AMP rests with the Manager Strategy and Assurance in consultation with the other signatories at the front of this document.

6. References

- Strategic Asset Management Plan (SAMP)
- Boyne River & Tarong Water Supply Scheme - Water Supply Arrangements and Service Targets
- Burnett Basin Resource Operations Plan 2014 (ROP)
- Water Resource (Burnett Basin) Plan 2014
- Rural Water Pricing Direction Notice (No1) 2012
- Work Health and Safety Regulation 2011
- Boyne River and Tarong Water Supply Scheme – Scheme Operations Manual
- #1587501-Asset_Management_System_Manual
- #1599118-Asset_Management_Planning_Methodology_Paper
- #1800010-Bulk_Water_Assets_Strategic_Plan_2015
- #2320076-v7-2019 Network Service Plan – Boyne Bulk Water Service Contract