Review of capital and operating expenditure plans for Busselton Water

Report

3606-23

Prepared for
Economic Regulation Authority of Western Australia

18 August 2017

Cardno
Shaping the Future

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1 Introduction

1.1 Background

1.1.1 Overview

The Economic Regulation of Authority of Western Australia (ERAWA) was requested by the Treasurer of Western Australia in October 2016 to undertake an inquiry into the efficient costs and tariffs of the Water Corporation, Aqwest and Busselton Water. The inquiry is triggered by the Treasurer's referral under Section 32 of the Economic Regulation Authority Act 2003.

The ERAWA is to inquire into the efficient costs for the services of the Water Corporation, Aqwest and Busselton Water for the five year period commencing 2018-19. The ERAWA published an Issues Paper on 6 December 2016. The ERAWA will publish its draft recommendation report in June/July 2017.

1.1.2 Economic Regulation Authority of Western Australia

The Economic Regulation Authority of Western Australia (ERAWA) is responsible for regulating the economic frameworks for gas, electricity and rail in Western Australia. Its primary objective is to ensure the provision of a competitive and fair environment, particularly where businesses operate as natural monopolies.

The ERAWA has a range of regulatory/advisory functions related to water including:

> Issuing licences and monitoring performance against the water licences held by the three businesses under the Water Services Act 2012 (the Act)

> Administering the regulatory instrument for customer protection, the Water Services Code of Conduct (Customer Service Standards) 2013 (the Water Code) and undertaking five-yearly reviews of the Water Code

> Providing economic advice to the Government in relation to water issues including competition, water resources management and planning, recycled water pricing, and retail water pricing.

1.1.3 Busselton Water

Busselton Water is a corporation established under the Water Corporations Act 1995 and is administered by a Board of Directors, owned by the WA Government, and is accountable to their sole shareholder, the Minister for Water, and their customers. It was first established in 1906 under the Water Boards Act 1904.

Busselton Water holds an Operating Licence issued by the Economic Regulation Authority of Western Australia under the Water Services Act 2012 which covers a wide area from Stratham and Gwindinup in the north, Dunsborough and Margaret River in the west, Jalbarragup in the east, and Augusta and Lake Jasper in the south. In August 2014, Busselton Water's operating licence area was expanded to cover the Busselton-Capel and Blackwood groundwater areas including a two kilometre offshore zone. Busselton Water's current Operating Licence is valid until 1 October 2021.

Busselton Water currently provides quality drinking water to over 12,875 customers in Busselton and surrounding areas including Port Geographe, Siesta Park, Vasse and Wonnerup. Busselton Water also have an agreement with Water Corporation (signed in 2010) to provide bulk water supplies to Dunsborough.

The Water Corporation is responsible for wastewater collection and treatment and can provide water services within Busselton Water's operating licence area. The City of Busselton is responsible for stormwater management. The Department of Water and Environmental Regulation is responsible for water resource management and planning activities.

1.2 Purpose

The purpose of this Review is to provide advice to ERAWA on the prudence and efficiency of Busselton Water's proposed capital and operating expenditure and as well as the prudence and efficiency of historical capital expenditure.

1.3 Scope

There are four complementary elements of scope set by the ERAWA:

> Review of governance arrangements

> Detailed review of capital and operating expenditure forecasts

> Review of actual and forecast capital expenditure

> Review treatment of disposed assets.

1.3.1 Review of strategic management

The ERAWA requires that as an initial task, the systems and processes used by Busselton Water to manage capital and operating expenditure are evaluated. The purpose of this review is to determine whether these systems and processes can be relied upon to generate expenditure that is prudent (or will be prudent for future expenditure).

This review is to consider expenditure management processes broadly and in particular:

1. Integration and consistency of procedures and policies across projects;
2. Adequacy of internal control structure or specific internal controls, to ensure due regard for effectiveness and efficiency;
3. Extent to which activities have been effective in achieving Busselton Water's objectives;
4. Timeliness of projects and their implementation at least cost;
5. Effectiveness of internal audit processes in relation to the CAPEX and OPEX processes including planning and procurement.

1.3.2 Detailed review capital expenditure and operating expenditure forecasts

The ERAWA requires a detailed assessment of the capital and operating expenditure forecasts for Busselton Water from 2018/19 to determine if the expenditure is consistent with that which a prudent service provider, acting efficiently, would incur – in line with good industry practice and to realise the lowest sustainable costs. The Brief identifies the following specific areas to be considered and commented on as appropriate:

1. Factors driving capital and operating expenditure efficiency, including:
    a. Key performance indicators that support the forecasts and comparisons with industry standards
    b. Comparison of service levels and operating performance with industry standards
    c. Forecast changes (if relevant) to operating performance and service levels.
2. Methodology used to determine capacity and utilisation forecasts, and independent assessment, including:
    a. Key drivers
    b. How capacity and utilisation forecasts inform expenditure forecasts.
3. Methods (and models) used to estimate expenditure including how needs are prioritised, including:
    a. Cost estimating
    b. Cost estimating risk and benchmark comparison to determine if the level is acceptable.
4. Overhead costs, including:
    a. Appropriateness of included costs
    b. Allocation of overhead across other OPEX categories
    c. Criteria for allocating overheads between services and regions

   d. Benchmarking with other service providers.

5. Interaction between capital and operating expenditure and trade-offs
6. Extent to which future efficiencies have been factored into capital and operating expenditure forecasts
7. Proposed escalation factors and how they have been applied
8. Reasonableness of procurement practices and processes
9. Any additional matters.

The Brief also requires that the review of OPEX should include:

10. Assessment of forecasts, accounting for historical and industry benchmark data, including:
    a. Assessment of the efficient level of base operating expenditure including the most recent actual operating expenditure. Undertake benchmarking with other service providers
    b. Justification and supporting evidence for any forecast increased costs
    c. Forecast operational and service level performance resulting from its forecast operating expenditure
    d. Operating expenditure arising from capital expenditure.
11. Evaluation of appropriate efficiency targets for overall operating expenditure given the growth scenarios expected over the forecast period, and accounting for benchmark comparisons with other Australian service providers.
12. Assessment of whether maintenance procedures meet best practice; including:
    a. Level and balance of maintenance costs (preventative v corrective) as a result of any changes in maintenance or replacement programs
    b. Assessment of whether Busselton Water have adopted optimal solutions in terms of that balance.

1.3.3 Review of actual/forecast capital expenditure

The ERAWA requires details of actual capital expenditure in the current regulatory period to determine whether it is appropriate to include this expenditure in the Regulated Asset Base, a key input into the building blocks for pricing. The review covers actual expenditure in 2011/12 to 2015/16 and forecast for 2016/17 and 2017/18. The review is to include:

1. Assessment of the overall prudency and efficiency of total capital expenditure in the period from 2011/12 to 2015/16, through reference to a representative sample of projects
2. Adequacy and reliability of information used as a basis for forecast capital expenditure for 2016/17 and 2017/18, through reference to a representative sample of projects
3. Review of the related depreciation schedules and depreciation criteria.

1.3.4 Review treatment of disposed assets

The Consultant is required to review a recent major asset disposal from between 2011/12 and 2015/16 to assess the efficacy of Busselton Water's method for disposing of assets.

1.4 Regulatory Environment

Busselton Water's regulatory environment is shaped by a number of state-based legal instruments administered by state government departments and independent statutory authorities. Table 1-1 summarises the key elements of this regulatory framework.

Table 1-1 Regulatory Framework

Water Pricing and Economic Regulation			
Economic regulator	**Key responsibilities**	**Regulated services**	**Who sets water prices?**
Economic Regulation Authority (ERA).	Price recommendation. Oversight for urban & rural water pricing practices.	Not applicable.	Western Australia Cabinet – Urban bulk & retail. Irrigation Cooperatives (3) – Rural retail.
Metropolitan Water Planning and Management			
Organisation responsible	**Key responsibilities**	**Key legislation and policy documents**	**Summary of planning strategy**
Department of Water (DoW).	The Department's responsibilities include protecting water quality, preparing policies and plans critical to the state's future development, analysis of water resources information, issuing licenses and regulating water use. The Department is also responsible for the quantity, quality, use and availability of the state's water resources and ensures that all Western Australians have access to water services. It develops policies and processes to ensure sustainable water services are delivered to both the private and public sectors. The department administers a state-wide water planning framework. http://www.water.wa.gov.au/Managing+our+water/Water+planning/default.aspx	*South West Regional Water Plan (2010-2030)*	Integrates a range of water policy reforms at state and national levels. The plan sets out broad state-wide strategic directions and policies for water.
Drinking Water Management			
Organisation responsible	**Key responsibilities**	**Key instruments**	**Drinking Water Quality Standards**
Department of Health	Advise on the appropriate health standards for drinking water. Regulate Busselton Water's drinking water quality.	Country Areas Water Supply Act 1947 Metropolitan Water Supply, Sewerage and Drainage Act 1909 State Planning Policy 2.7 - Public Drinking Water Source	The Department of Health has adopted the Australian Drinking Water Guidelines (2004).
Economic Regulation Authority	Issue operational licences that specify drinking water quality standards to water supply providers.	Water Services Licensing Act 2005 Operational licences	
Department of Water (DoW)	Identify and protect public drinking water source areas and prepare drinking water source protection assessments and drinking water source protection plans.	Operational licences	

1.5 Review Methodology

Our review and assessment of the efficient level of capital and operating expenditure is based on the hypothesis of an efficient organisation competing in an open market to deliver services to customers. We use this approach to compare the business processes and systems with current best practice. We review the decision-making processes for both operating and capital expenditure to test whether there is sufficient challenge and rigour to deliver total least cost solutions.

Governance arrangements

ERAWA requires us to assess the Busselton Water's governance processes used for identifying and managing capital and operating expenditure.

Within this review we have considered the asset management practices, demand forecasting methodologies and capital investment appraisal and procurement processes insofar as they are used to identify investment needs and timing, appraise solutions, prioritise projects within defined budgets and procure and manage timely delivery.

We comment in Section 3 on Busselton Water's strategic management systems and processes.

Operating Expenditure

ERAWA requires us to:

> Compare projected and actual expenditure for the period from 1 July 2012 to 30 June 2018 and assess the efficient level of base operating expenditure

> Assess the adequacy of the projected expenditure and make recommendations on the efficient level of the proposed operating expenditure for the period from 1 July 2018 up to 30 June 2023.

Our assessment is based on the actual operating expenditure provided by Busselton Water and the robustness and confidence of these estimates taking into account the basis of the estimates and confidence in the need, timing and scope of the requirements. We also take into account whether additional expenditure proposals have been through the internal approval and challenge processes.

We have interviewed senior managers, reviewed supporting reports and documents and assessed the current position on the development and implementation of corporate systems used to set budgets, control and monitor costs and allocate expenditure.

We present our analysis of the future expenditure proposals and comment on each activity in terms of the potential for efficiencies to be achieved through the robustness of estimates and the need and timing of expenditure.

We present our review of operating expenditure and our present proposals for an efficient level of future expenditure in Section 4.

Capital Expenditure

ERAWA requires us to:

> Compare actual capital expenditure with that projected over the period from 1 July 2012 to 30 June 2018, investigate reasons for variances and identify any expenditure that was not appropriate

> Examine projected expenditure for the period 1 July 2018 to 30 June 2023 and identify any expenditure that is not appropriate

> Make recommendations on the efficient level of historical and proposed capital expenditure.

Our assessment of historical expenditure is based on a review of a representative sample of projects. We reviewed the need for each project, its timing and the difference between actual costs and outputs against planned. We considered the basis of costs and the procurement route for implementation of sample projects.

Our approach to the assessment of future expenditure is based on:

> a review of the asset management and capital expenditure processes, project appraisal and decision processes

> a review of a representative sample of schemes in the program including confirmation of need for each project, the basis of cost estimates and the adequacy of planning study evaluation of options and proposed procurement methods.

We present our review of capital expenditure and our view on the efficient level of future capital expenditure in Section 5.

1.6 Assumptions

1.6.1 Price Base

The supporting information provided by Busselton Water does not provide a clear indication of the price base for the figures submitted. The 10 Year Financial Plan file, specifically the Reg Accounts worksheet, indicates that figures are nominal and include an allowance for inflation. There is also no specific date identified as the base date from which escalation occurs, although it is implied that the Budget Year 0 of 2016/17 is the base year.

Figures provided in the detailed expenditure breakdowns for each category show indexation of numbers post 2017/18 indicating numbers provided are nominal. On this basis we have assumed that Busselton Water has provided all figures in nominal terms.

Busselton Water's proposed capital works operational program (which is consistent with the Strategic Development Plan submitted to the State Government) has been provided in figures current as at March 2017.

We have used in 2017/18 as the base year in our operating expenditure assessment rather than the last year of reported actual expenditure, which is 2015/16. This has been done to provide a closer comparison to the projected expenditure from 2018/19 onwards and to reflect the availability of information on historical expenditure.

1.6.2 Definitions

Reference is made in this document to the current price path and the next price path. These are made for ease of reference to historical and projected figures / scenarios. These two categories are defined below:

> Current price path – defined as the period from 2011/12 to 2015/16 as well as 2016/17 and 2017/18

> Next price path – defined as the period from 2018/19 to 2022/23

It is noted that the ERAWA recommended prices from 2011/12 to 2015/16 while prices appear to have been rolled over, accounting for inflation, in 2016/17 and 2017/18.

2 Busselton Water

2.1 Overview

Busselton Water is a corporation established under the Water Corporations Act 1995 and is administered by a Board of Directors, owned by the WA Government, and is accountable to their sole shareholder, the Minister for Water, and their customers. It was first established in 1906 under the Water Boards Act 1904.

Busselton Water holds an Operating Licence issued by the Economic Regulation Authority of Western Australia under the Water Services Act 2012 which covers a wide area from Stratham and Gwindinup in the north, Dunsborough and Margaret River in the west, Jalbarragup in the east, and Augusta and Lake Jasper in the south. In August 2014, Busselton Water's operating licence area was expanded to cover the Busselton-Capel and Blackwood groundwater areas including a two kilometre offshore zone. Busselton Water's current Operating Licence is valid until 1 October 2021.

Busselton Water currently provides quality drinking water to over 12,875 customers in Busselton and surrounding areas including Port Geographe, Siesta Park, Vasse and Wonnerup. Busselton Water also have an agreement with Water Corporation (signed in 2010) to provide bulk water supplies to Dunsborough.

2.2 Asset Base

Busselton Water manages a water supply system where water is sourced predominantly from the deep Yarragadee aquifer and while some bores also tap into the shallower Leederville aquifer, water quality issues have led to these bores not being utilised often for normal supply. Eight production bores are used to extract water which is treated at three water treatment plants (using aeration, filtration, storage and now chlorination). Busselton Water provides retail water services to approximately 12,875 properties and bulk water services to Water Corporation to supplement the water supplies in Dunsborough.

Busselton Water's Annual Asset Management Plan for 2017/18 provides a summary of the asset base as at 30 June 2016 which is outlined below.

> Raw groundwater is treated in three water treatment plants located at Kent Street (Plant 1), Queen Elizabeth Avenue (North) (Plant 2) and Hobson Street (Plant 3). The treatment plants pump water directly into the distribution system.

> Five aboveground steel water storage tanks are located at Plant 1 (1 x 4,900kL), Plant 2 (1 x 2,600kL and 1 x 4,500kL), Plant 3 (1 x 4,500kL) and Plant 4 (1 x 4,500kL)

> Two pressure booster plants, one on Bussell Highway at Plant 4 which boosts the pressure to the western part of Busselton, the other on Queen Elizabeth Avenue (South) at Plant 9; which boosts the pressure at Ambergate Heights in the South.

> Fully integrated distribution system comprising a network of approximately 320 kilometres of water mains that delivers the treated water to customers across the operating area.

Key operating statistics are presented in Table 2-1 below.

Table 2-1 Relevant Statistics (2015/16)

Number of Customers	Water	12,875
	Sewerage	-
	Recycled Water	-
	Irrigation	-
Assets	Total Population	36,335 (approx.)
	Total Service connections	12,875 (approx.)
	Total above ground storage (kL)	21,000
	Total water treatment capacity per day (kL)	51,840

Total bore capacity per day (kL)	67,565
Total delivery capacity (L/s)	1,382
Peak Consumption Day (Production – January 2017)	24,777 kL
Length of Mains (km)	323.2
Properties connected to the supply network during 2015/16	331 (decrease of 22% from last year)
No. of Production Bores	8
No. of Water Treatment Plants	3
Total Asset Replacement Cost (as of June 30 2016)	$71,891,387

Reference: Busselton Water 2017-2018 Annual Asset Management Plan (Trim D17/505)

2.3 Service Level Performance and Cost Benchmarking

The Annual Asset Management Plan for 2017/18 summarises Busselton Water's key service level performance statistics, as presented in Table 2-2 below.

Table 2-2 Combined Annual Performance Statistics

	Annual Statistics					
	2015/16	**2014/15**	**2013/14**	**2012/13**	**2011/12**	**2010/11**
Properties served per km of water main	40.2	39.4	39.7	38.5	37.7	37.2
Average annual residential water supplied (kL/Property)	288	284.0	286.6	271.9	279.8	285.0
Total number of mains breaks	23	26	23	20	10	15
Water main breaks per 100km of water main	7.2	8.3	7.5	6.6	3.3	5.0
Total number of water quality complaints (per 1,000 properties)	3.9	1.7	2.4	18.50	22.01	1.35
Total number of water service complaints (per 1,000 properties)	0.4	0.0	Nil	0.17	0.44	0.81
Total number of account and billing complaints (per 1,000 properties)	0.0	0.2	0.2	0.26	0.53	0.90
Average Duration of an unplanned interruption- water (minutes)	0.1*	87	83	92	79.5	41.6
Average frequency of unplanned interruptions – water (per 1,000 properties)	18.6*	0.9	2.0	4.1	2.73	1.1
Economic real rate of return % - Water (net water revenue/ Written down value of water assets)	6	5.4	5.8	0.49	0.94	1.8
Lost time injury frequency rate (LTI per 100 workers)		21.8	43.4	20.65	Nil	21.4
Lost time injury incidence rate (LTI per 100 workers)		3.4	7.1	3.3	nil	3.6
% return on weighted balance of investments target AusBond Bank Bill 2.6%		3.6	3.9	4.74	5.99	-

*Notes: * Data indicates that figures have been miscalculated and that the trends are unreliable.*

Reference: Busselton Water 2017-2018 Annual Asset Management Plan (Trim D17/505), Bureau of Meteorology Urban National Performance Reporting 2015-16.

Benchmarking can provide a useful insight into the relative performance of regulated businesses over time and against each other. The most notable data set available is the National Performance Report for Urban Water Utilities which is prepared annually by the Bureau of Meteorology. However, there are difficulties in benchmarking performance and cost data relating to Australia's water utilities. These include differing business structures and scope of services, inconsistent interpretation of the National Performance Report definitions and a lack of consistency in the data submitted for the Report.

Busselton Water provide data to the National Performance Report via the ERAWA and in the latest 2015/16 report were classified as a 'non-major utility' with a customer base of between 10,000 and 20,000. The National Performance Report measures assessed in the 2012 Price Review included:

> Water supplied – to understand demand

> Water main breaks – which informs our assessment of asset performance

> Water losses – another indicator of asset performance

> Unplanned interruption frequency and duration – which relates to asset performance and customer service

> Complaints – which inform our assessment of customer service

> Operating costs – which inform our assessment of efficiency.

Overall, Busselton Water's performance has remained relatively stable however performance in a number of areas has deteriorated since the last review in 2012. Brief comments and comparisons on each category reviewed in 2012, using 2010-11 and 2015-16 National Performance Report data, are presented below:

> Water supplied – increased slightly from 285 kL/property to 288 kL/property (18 utilities supplied a lower amount)

> Water main breaks – increased from 5 breaks per 100km of mains to 7.2 breaks per 100km of mains (refer below for comparison)

> Water losses – improved from 97 L/ service connection/day to 69 L (7 utilities had lower losses)

> Unplanned interruption frequency and duration – increased significantly from <10 to >100 interruptions per 1000 properties during the period 2010/11 to 2014/15 although the final year of the period 2015/16 experienced just over 18 interruptions. The data for this indicator is highly variable and therefore likely unreliable in a trend analysis. The data for duration of interruptions was identified as having errors and cannot be assessed in the trend analysis.

> Complaints – water quality complaints increased from less than two to almost four complaints per 1000 properties (which is potentially correlated to the increase in unplanned interruptions and the introduction of chlorine dosing) (21 utilities had a lower number of complaints). It is noted, however, that the number of water service, and account and billing complaints decreased significantly.

> Operating costs – increased from $399 per property in 2010/11 to $508 per property in 2015/16 which at 27%, is a significant increase (only surpassed by Kalgoorlie-Boulder region) however the increase in the average prices over the period (average price 2006-07 to 2010-11 compared to average price 2011-12 to 2015-16) was only 8% (at the lower end of the increases across similar utilities). Section 4 presents further details on operating expenditure, however the introduction of chlorine dosing will have had a significant upward impact on operating costs).

While benchmarking utilities provides some useful information, the comparison of results across similar utilities also highlights that there are still some problems with the consistency and quality of information submitted for this national benchmarking process and therefore that this type of benchmarking should be used carefully. In this context, two comparators are outlined below as examples.

Over the period from 2010/11 to 2015/16, Busselton Water's operating cost per property is approximately 22% lower than the average of the 27 other non-major utilities between 10,000 and 20,000 connections. Approximately 56% (15) of the other utilities have a lower average operating cost per property than the overall average while 41% (12) of the other utilities have a lower average operating cost than Busselton Water.

Over the period from 2011/11 to 2015/16, Busselton Water's average frequency of water main breaks is approximately 56% lower than the average of the 27 other non major utilities between 10.000 and 20,000 connections. Approximately 61% (17) of the other utilities have a lower average number of main breaks than the overall average while only 18% (5) of the other utilities have a lower average number of breaks than Busselton Water.

3 Strategic Management Overview

3.1 Operating Environment

Busselton Water is a corporation established under the Water Corporations Act 1995 and is administered by a Board of Directors, owned by the WA Government, and is accountable to their sole shareholder, the Minister for Water, and their customers. It was first established in 1906 under the *Water Boards Act 1904* and was established as a State Owned Enterprise (SOE) corporation on 18 November 2013.

3.2 Business Planning

Since the previous review in 2012 and resulting from Busselton Water's corporatisation in 2013/14, the business has developed a new strategic management and business planning framework based on the Argenti model and the Australian Business Excellence Framework. This framework provides an outline for the strategic planning / operating model of the business and it is based on eight strategic priorities:

1. Leadership
2. Strategy and Planning
3. Information and Knowledge
4. People
5. Customers and Other Stakeholders
6. Process Management, Improvement and Innovation
7. Results and Sustainable Performance
8. Growth

A 10 Year Plan has been produced for each of these priorities and each of Busselton Water's corporate policies (as outlined in the Policy Manual) are structured around the priorities.

As a State Owned Enterprise, Busselton Water is required to produce a five year Strategic Development Plan (an internal document and subject to cabinet in confidence provisions) and an annual Statement of Corporate Intent, which is a publicly released summary of the SDP actions relevant to each release year.

The Statement of Corporate Intent outlines the proposed outcomes for each year based under each of the eight strategic priorities.

The new business planning framework is a comprehensive system providing a structure around which all other Busselton Water strategic planning documents are based. The new capital planning system was reviewed as part of the Operational Audit and Asset Management System Review conducted by Paxon in 2016 and received the highest audit ratings in relation to adequacy and performance.

3.3 Governance Arrangements

Busselton Water operate under the key governance levels outlined in Table 3-1:

Table 3-1 Key Governance Levels for Projects

Component	Category A	Category B	Category C	Minor Capital
Capital cost	>$1,000,000	$200,000 - $1,000,000	$100,000 - $200,000	$5,000 - $100,000
Typical scenario	Whole scheme or sub-scheme	Sub-scheme	Asset within sub-scheme	Asset
Business Case approval	Dept. of Treasury	BW Senior Executive Group	BW Senior Executive Group	BW GMO or SEG

Management Personnel	Project Manager, Superintendent Representative, Works Inspector	Project Manager, Superintendent Representative, Works Inspector	Project Manager, Works Inspector	Project Manager

Reference: *Asset Management Strategy*, January 2017, (TRIM D16/879) page 33

The requirements prior to funding for all projects are covered by policy P16 Asset Management and specifically supporting procedure PR05 Business Case Procedure for projects or asset acquisition.

The Senior Executive Group (CEO, GM Operations and GM Business Services) assesses all submissions for funding that are prepared by the Asset and Risk Management Officer.

Financial and capital expenditure planning (including governance arrangements) were assessed as part of the recent Operational Audit and Asset Management Review conducted by Paxon in 2016, with both components receiving the highest audit ratings for adequacy and performance.

3.4 Organisation, Structure & Functions

The corporatisation of Busselton Water in 2013/14 and a number of management changes led to an organisational restructure which was completed in 2014-15.

Busselton Water is a small organisation with around 30 staff (down from 32 as at June 2015), comprising an executive team of only three staff – the Chief Executive Officer (CEO), and two General Managers covering the two main functions of the business – Operations and Business Services.

Staff are relatively evenly split between the two groups with 14 full time staff in the broader Operations Team (Operations Business Unit Plan 2016-17, Jan 2017).

A detailed split of employees was included in Busselton Water's 2015/16 Annual Report:

Table 3-2 Staff Proportions 2015/16

Staff Description	% of Total Staff	No. of Staff (approx.)
Customer service and administration	30	9
Distribution	20	6
Executive	10	3
Finance	10	3
Operations administration	17	5
Water quality	13	4

Figure 3-1 Organisational Structure ***(Source: Busselton Water Annual Report 2015/16)***

Note: The Minister for Water is now the Hon. David Kelly MLA

3.5 Overheads and Cost Allocation

Overhead cost allocation is subject to annual review with Busselton Water's statutory accounts. We have limited our review of overhead allocation to sense check of the process employed.

Busselton Water has a comprehensive methodology for charging overhead costs to account areas which is based on a ratio of the total hours worked for engineering staff over the total hours worked charged to accounts. All labour costs that are unallocated to projects are then charged to the various accounts (water production, infrastructure, etc.) using this ratio applied to direct costs.

This methodology was reviewed in 2012 and was found to be sound, a conclusion which is still valid for the current cost allocation process.

3.6 Asset Management Framework

In late 2012, Busselton Water initiated a full review of the asset management approach undertaken across the business. The review led to a restructuring of the framework into a three tiered approach:

1. Strategic – long term (>10 years) – covering organisational context, systems and policies, and long term capital and operating plans
2. Tactical – medium term (<10 years) – covering practices, action plans, audits, and budget processes
3. Operational – short term (1-3 years) – covering the operation of the assets, risk assessments, standards

Busselton Water's asset management framework is managed by the Confirm asset management information system.

Busselton Water's asset management framework is assessed regularly in association with operational performance audits. The framework was last assessed in the Operational Audit and Asset Management Review conducted by Paxon in April 2016. This review concluded that Busselton Water operates in a professional and competent manner, achieving or exceed its minimum standards. The Paxon review

assigned the highest A1 rating to seven of the key processes under review with an A2 rating assigned to one further process and the remaining four process awarded B1 or B2 ratings, indicating good performance.

The outcomes of the Paxon review concluded that Busselton Water is adequately meeting the requirements of the Operating Licence and has an effective asset management system. Nothing in this review has led us to a conclusion other than one consistent with this outcome.

3.7 Cost Estimating Process

Busselton Water does not have a formal cost estimation policy and relies mostly on cost estimates produced by consultants. The Minor Works Business Case template makes reference to the Standard Activity Cost Estimates Template which can be used to assist in the determination of costs for works.

Cost estimates developed by, or for, Busselton Water come from a number of sources including:

> Busselton Water's own experience, which is important for operating expenditure and mains renewals projects

> Estimates from the ten year infrastructure and asset management plans

> Estimates from engineering and cost estimating consultants engaged by Busselton Water to undertake investigations, options assessments and design works.

Operating expenditure is given good scrutiny through regular variance reports to the Board, the annual budgeting process, and the use of historical activity costing data.

Due to the relatively small size of Busselton Water's capital and operating expenditure programs, cost estimating is undertaken on a case-by-case basis.

We believe that Busselton Water's informal approach to cost estimating is sound given the size of its expenditure and the rigour it applies to larger one-off capital projects.

3.8 Procurement

Busselton Water's policy on procurement is covered by P18. Procurement as included in the Policy Manual which outlines a commitment to efficient, effective and value for money purchasing and contracting. Supporting procedures include P18.PR01 Purchasing. The procurement policy covers:

> Competitive tendering for purchases >$150,000

> Probity and accountability

> Non-binding preference for local suppliers (within 5% price threshold)

> Contract performance monitoring

> Risk assessment

> Sustainable procurement generating benefits to the business, society and economy while minimising environmental impacts.

The process for the acquisition of new operating or capital assets is covered by procedure P16.PR05 Business Case Procedure for projects or asset acquisition which is applicable for all assets apart from light motor vehicles which are covered under procedure P16.PR03 Acquisition and Disposal of Light Motor Vehicles. The general process is also well described in Busselton Water's Asset Management Strategy (section 6.2.3).

The procurement policy is described in the context of its place within the asset management system informed by capital planning guidelines, funding and budgeting processes including business case and cost estimates, and the capturing of assets created within the asset register and financial systems.

The current procurement policies and procedures were reviewed as part of the Operational Audit and Asset Management System Review undertaken by Paxon in 2016 and were generally awarded the highest audit ratings. We believe that Busselton Water's procurement processes are appropriate for the size of the capital program.

3.9 Risk Management

Risk is a key component of Busselton Water's strategic asset management process and the Business Excellence Framework under the strategic priority of Leadership. The Risk Management Structure aligns with the WA Government Risk Management Guidelines by RiskCover, the AS/NZS ISO 31000:2009 Principles and Guidelines, and Public Sector Commissioner's Circular 2015-03 – Risk Management and Business Continuity Planning. The overall framework consists of:

> Risk Management Policy

> Risk Management Process

> Risk Management System

Since 2012, a number of system improvements have been implemented including:

> Creation of an Asset and Risk Management Officer role leads the Asset Management Team reporting directly to the General Manager Operations, and oversees a multi level approach to managing risk for the business

> Set up of the SynergySoft Risk Management System incorporating a single organisational risk register which allows risks to be identified, analysed, evaluated, treated and resolved, monitored, and reviewed

> Set up of the Occupational Health and Safety management system MYOSH in March 2013

> Business Continuity Management Plan was completed and endorsed in November 2013

> A new Risk Management Policy was approved by the Board on 22 January 2014 as part of the Busselton Water Policy Manual

> A risk ranking or prioritising tool was introduced in August 2014 for the purpose of assessing the risk associated with projects and for prioritising those projects within the capital program. Risk is assessed at a project level using a template included in the major project business case template and using a risk ranking spreadsheet referenced in the minor capital works form.

> An automated email notification system within the SynergySoft system was implemented in 2015 that notifies officers when a risk is allocated to them, an action is assigned to them and when an action becomes overdue.

Risk register reviews are conducted on a six-monthly basis in January and July/August each year while the overall risk management framework was recently audited along with the asset management system as part of the Operational Audit and Asset Management System Review undertaken by Paxon in 2016.

The Paxon review awarded relatively high audit ratings to the risk policies and procedures, however a specific recommendation was made to assess the risks associated with major distribution or reticulation pipe bursts that might lead to flooding impacts.

The improvements made to the risk management system since 2012 and the overall results of the Paxon review lead us to conclude that the risk management framework is suitable for Busselton Water's operating environment.

3.10 Summary

We have reviewed Busselton Water's systems and processes for managing capital and operating expenditure in order to determine if these systems and processes are likely to reliably result in expenditure that is prudent. Our review was based on interviews with senior staff at Busselton Water and the review of referenced and supporting documentation submitted as part of our information requests during the interviews. We were also greatly informed and assisted by the recent Operational Audit and Asset Management System Review conducted by Paxon in 2016, which reviewed, in some detail, the systems and processes for managing assets, and hence capital and operating expenditure.

Our review found that significant work has been completed by Busselton Water since the previous price review in 2012 including the corporatisation of the business, a subsequent restructure of the business, development of a comprehensive business planning system based on the Australian Business Excellence Framework, and significant restructuring of the asset management framework.

The new business planning system is an integrated approach to planning and provides a consistent set of strategic priorities that are reflected across all facets of the business. Busselton Water's Policy Manual provides the specific link between the business policies, procedures and work instructions and the strategic priorities outlined by the new business planning system.

Significant work has also been completed in a full review and assessment of the asset management system leading to a restructuring of the framework to a three tiered system covering strategic, tactical and operational levels. There have been recent updates to key documents, including the Asset Management Strategy (January 2017), which outlines effective processes for managing all facets of the asset lifecycle.

The improvements made to the strategic business planning framework since the 2012 review and specifically assessments and improvements made after the 2013 and 2016 Operational Audits and Asset Management System Reviews have led to a strategic management framework that:

> Sets strategic priorities / objectives and outlines the policies, procedures and work instructions required to achieve these objectives

> Provides integration and consistency of procedures and policies as linked to the strategic priorities

> Provides an internal control and review structure that should generate expenditure that is prudent, delivered in a timely fashion, and at an efficient cost

> Provides clear processes that can be internally and externally audited.

4 Operating Expenditure

In this section, we present the results of our review of the efficiency of Busselton Water's operating expenditure. We review:

> the efficient level of base operating expenditure; and

> the adequacy of projected operating expenditure and we make recommendations on the efficient level of the proposed operating expenditure for the period up to 30 June 2023.

Our assessment is based on actual operating expenditure details provided by Busselton Water and the robustness and confidence of the projected estimates, taking into account the basis of the estimates and confidence in the need, timing and scope of the requirements. We also consider the major cost drivers that Busselton Water is facing and the organisation's operating environment.

We have interviewed senior managers, reviewed supporting reports and documents and assessed the current position on the development and implementation of corporate systems used to set budgets, control and monitor costs and allocate expenditure. The findings of our review of systems and processes is set out in Section 3.

The predominant reference for costs quoted in this section is the 10 Year Financial Plan Schedules 17-18 to 26-27 (10 Year Financial Plan) with figures being nominal unless otherwise indicated. Other references are quoted specifically as required.

4.1 Overview

Busselton Water categorises operating expenditure into the following areas:

> Water production – which includes costs for treatment plant operation, meter reading, water quality monitoring and maintenance of production assets

> Governance – which includes Board member fees and expenses, public relations, sponsorships, audit fees and legal fees

> Administration – which includes administration staff salaries, telephone/internet, computer and office equipment and various other items

> Infrastructure – which includes expenses for operation and maintenance of the distribution network

> Works plants – which includes expenditure on tools and equipment

> Miscellaneous – which includes expenditure on private works only

> Taxation – which records the taxation equivalents that Busselton Water is liable for. We do not consider taxation in our analysis

> Finance and borrowing – which includes the costs for interest on loans. We do not consider finance and borrowing costs in our analysis.

Busselton Water's operating budget breakdown for 2017/18 is shown in Figure 4-1. It is noted that both taxation and finance and borrowing costs are excluded as they are not included in the regulatory model to determine prices. All figures quoted below therefore exclude expenditure for these two categories.

Total budgeted expenditure in Figure 4-1 is $7.7M. Water production is the most significant expenditure category, accounting for almost half (44%) of the total, followed by administration (36%), infrastructure (12%) and governance (7%). Works Plant and Miscellaneous account for only a minor proportion of all expenditure.

This breakdown of the operating expenditure stays relatively constant over the next regulatory period ending 2022/23, however there is a shift in the proportions of administration (increasing 5%) and water production (decreasing 2.5%).

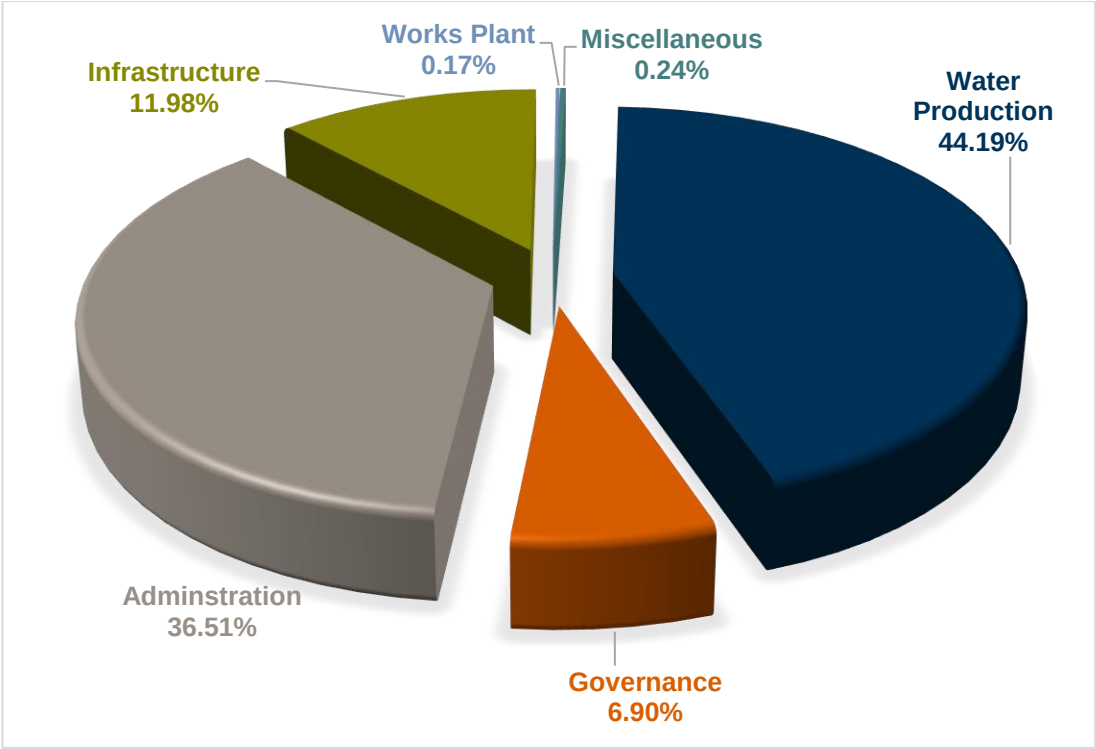

Figure 4-1 Busselton Water operating expenditure budget breakdown 2017/18

Busselton Water's actual and forecast operating expenditure between 2014/15 and 2026/27 is shown in Figure 4-2.

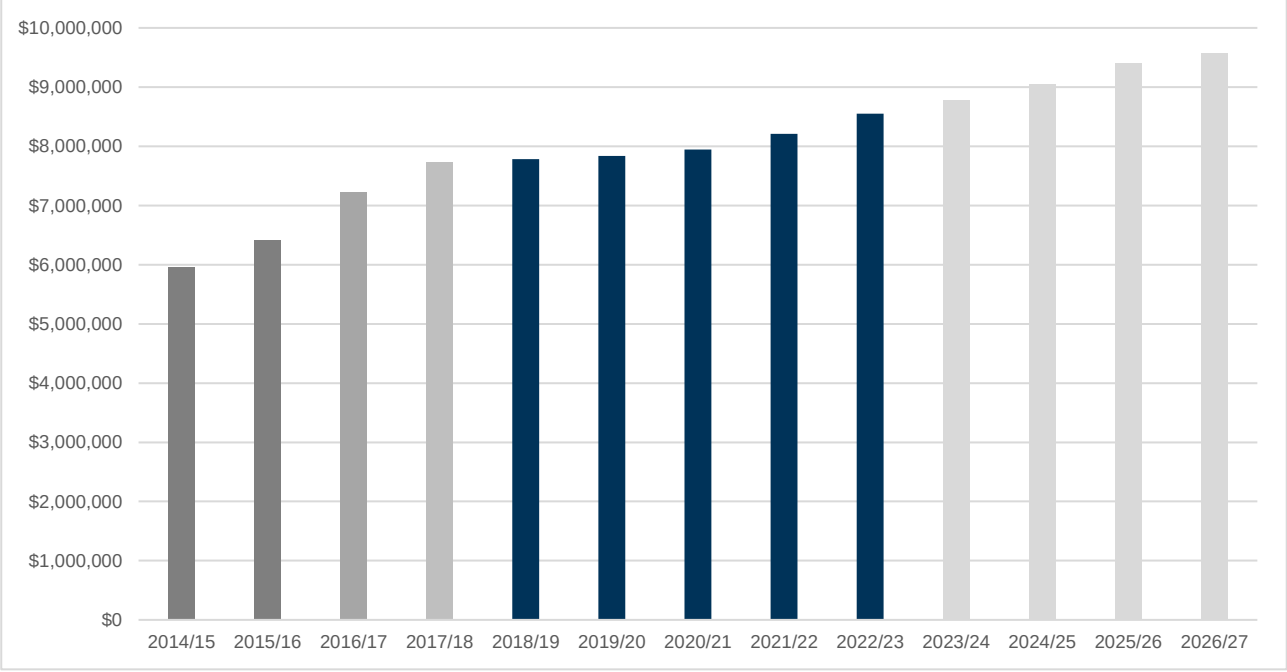

Figure 4-2 Busselton Water operating expenditure for 2014/15 to 2026/27

Figure 4-2 shows increasing actual operating expenditure over 2014-2016, a higher budgeted expenditure in 2016/17 and a further increase in proposed expenditure commencing 2017/18. The next regulatory period commencing 2018/19 shows a period of relatively stable expenditure to 2022/23 apart from some increases in the final years. Beyond the next regulatory period, increases in operating expenditure become more significant however these do not affect this review and are therefore not assessed.

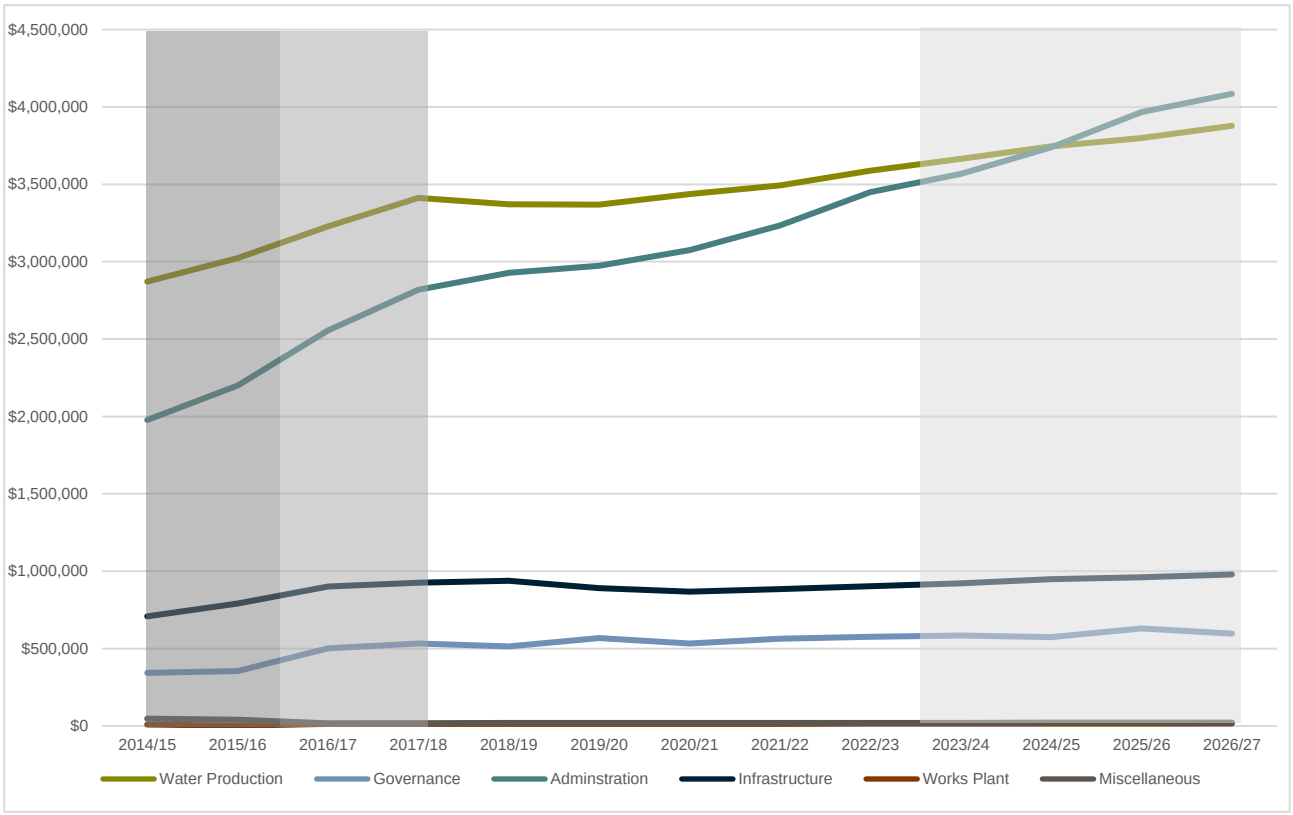

Figure 4-3 Busselton Water operating expenditure drivers 2014/15 to 2026/27

Figure 4-3 above shows that the key drivers for increases in operating expenditure are water production and administration. Administration costs are increasing rapidly and are expected to exceed the cost of water production in 2024/25 however this is outside the next regulatory period and so is not assessed in this review. Commentary on Administration costs is provided in sections 4.2.3 and 4.2.4.

4.2 Base Operating Expenditure

4.2.1 Overview

> A base operating expenditure level allows us to set a foundation for the assessment of proposed expenditure against new or increasing obligations on Busselton Water. The base operating expenditure is usually derived from a recent year of actual expenditure so that the major components of the expenditure can be assessed for prudence and efficiency.

> For this review, the last year of reported actual expenditure was 2015/16 while the first year of the next regulatory period is 2018/19 with budget figures for 2016/17 and 2017/18 available. The time between the last year of actual expenditure and the first year of the next regulatory period is considered too long to use 2015/16 as the base year for operating expenditure. As such, the 2017/18 budgeted expenditure is assessed for use as the base operating expenditure level.

> There are relatively large increases in operating expenditure from 2015/16 to 2017/18, as shown in Table 4-1 following which outlines the three key drivers, and as discussed further, in the following sections.

> The discussion sections below assess net increases in expenditure, that is the cumulative change in expenditure over the historical period. In some years, expenditure has increased and in some years expenditure has decreased.

Table 4-1 Key Drivers impacting Operating Expenditure increases 2014/15 to 2017/18

	Actual	Actual	Budget	Budget	Net Increase
	2014/15	2015/16	2016/17	2017/18	2014/15 - 17/18
Water Production	2,871,460	3,022,772	3,227,464	3,412,540	
Administration	1,977,225	2,200,132	2,556,486	2,819,002	
Infrastructure	708,568	792,358	901,947	925,279	
% Year on Year Increase					
Water Production	-	5%	7%	6%	17%
Administration	-	11%	16%	10%	48%
Infrastructure	-	12%	14%	3%	32%
$ Year on Year Increase					
Water Production		151,312	204,692	185,076	541,080
Administration		222,907	356,354	262,516	841,777
Infrastructure		83,790	109,589	23,332	216,712

4.2.2 Water Production

Water production is the largest single item in the historical operating expenditure representing over 44% of expenditure. It is dominated by the costs related to water plant operation, which represents over 59% of total water production expenditure, followed by pensioner rebates representing 13% of expenditure (as at 2018/19). The largest net changes over the period to 2017/18 are:

> Water plant operation = $254,137 (47% of total net change) [redacted]

> Housing Authority Rebates = $102,000 (19% of total net change) – due to introduction of rebates in 2016/17

> Pensioner Rebates = $83,875 (16% of total net change)

> Tenanted properties = $36,800 (7% of total net change)

> Water quality wages and overheads = $31,550 (6% of total net change).

These are offset very slightly by the following largest net decreases over the period to 2017/18:

> Monitoring programs = -$29,909 (6% of total net change)

The changes in operating expenditure have been assessed and are considered reasonable.

4.2.3 Administration

Administration expenditure represents over 36% of total operating expenditure. It is dominated by salaries related items, which combined represents 54% of the total administration expenditure and then Computer Expenses (and other IT), which combined represents 25% of total administration expenditure (as at 2017/18). The largest net changes over the period to 2017/18 are:

> Salaries = $160,181 (17% of total net change) [redacted]

> Computer expenses (combined) = $410,473 (43% of total net change) [redacted]

> Business development opportunities = $200,000 (21% of total net change) [redacted]

These are offset very slightly by the following largest net decreases over the period to 2018/19:

> Consultants / Special Projects = -$14,943 (2% of total net change) [redacted]

> Licence Compliance/Asset & Ops Mgt Review = -$6,716 (1% of total net change) – due to timing of licence reviews.

Executive salaries reported in the 2015/16 Annual Report show an increase of approximately $158,000 from 2014/15 to 2015/16 which is expected to carry through to 2017/18 and beyond. The salary for a Chief Executive Officer (CEO) of a Government Trading Enterprise (GTE) is set by the Board, but is subject to the concurrence of the Minister, in essence providing some form of governmental approval over the salary set. The CEO and other Executive remuneration is benchmarked by Busselton Water against local industry standards, an approach which is considered reasonable given the need to attract and to keep talented executives in the region. Non-executive staff are covered by the Busselton Water Enterprise Agreement 2014 which is valid until 30 June 2017 and which provides specific guidance on the classifications, expected salary, and salary increases (minimum 3%) over the duration of the agreement.

The Five Year ICT Strategic Development Plan document has not been provided by Busselton Water, however a summary of expenditure from 2014/15 was provided in the 10 Year Financial Plan. This breakdown is shown in Table 4-2 below.

Information and Knowledge (focussed on ICT) is a key strategic priority for Busselton Water as identified in the Statement of Corporate Intent. The focus on ICT system improvements is evident in the 2015/16 and 2016/17 Statement of Corporate Intent documents which outline the strategic priority areas (including Information and Knowledge) for the business, of which a number are related to or supported by ICT systems. These include the following capital and operational investment areas:

> Information and Knowledge – enhancing connectivity and communications through fibre optic connections; integrating meter data into businesses systems; upgrade, enhance and integrate core business applications; implement global positioning for assets; developing an interactive and dynamic website; increasing productivity through remote access capabilities

> Customers and other Stakeholders – empower customers with access to data and information on water services needs and usage; build and implement customer engagement capabilities

> Results and Sustainable Performance – improve measurement and reporting capabilities

> Process Management, Improvement and Innovation – improved water quality management systems; implement mobile technology and automated workflows; automated metering; optimise water treatment and production processes.

Given the importance of this ICT related expenditure in meeting the strategic priorities of the business we are satisfied that the historical actual expenditure is reasonable.

Business development expenditure predominantly relates to the strategic priority of Growth, under which Busselton Water seeks to grow their business by expanding existing water services and diversifying into wastewater, drainage and irrigation services. The Dunsborough Water Supply Scheme is the largest project under this category, however the Dunsborough Project was required to have been excluded from this review and we assume this has been done. We note Busselton Water is continuing efforts to expand its role into wastewater service provision, water resource management activities, and stormwater related activities. These areas will provide additional choices relating to integrated water management when considering future sources and in options analysis for capital projects and may provide alternative operational strategies that are more efficient, thereby leading to better outcomes for customers. Given this, we find that the expenditure on business development is reasonable.

4.2.4 Infrastructure

Infrastructure expenditure is entirely related to mains and service maintenance related costs. Actual expenditure in 2014/15 and 2015/16 averaged $750,463. Budgeted expenditure for the remainder of the period to 2018/19 averages $913,613, an increase of 22% over what was previously delivered. Supporting documentation provided (10 year Budget Summary Works Budget 17-18 to 26-27 - Plant & Mains) provides slightly higher figures for the actual costs in 2014/15 and 2015/16 but is otherwise consistent with the Financial Plan.

Investigations of Busselton Water's expenditure in this category in the 2012 Price Review process recommended allowing any increased maintenance expenditure supported by a robust preventative / planned maintenance strategy. The 2016 Paxon audit of Busselton Water's asset management system identified a strong and robust asset management framework. The 2016 Asset Management Strategy outlines the requirements of the planned / preventative maintenance program while the 2017-2018 Annual Asset Management Plan maintains the commitment to producing such a program for all classes of assets. Together these demonstrate a robust strategy for ensuring that expenditure is prudent and one that, in our opinion, supports increases in expenditure.

4.2.5 Summary

Busselton Water's operating expenditure from 2014-15 to 2017-18 has been increasing to meet the strategic priorities set in their Statement of Corporate Intent documents for the period and improve services. Our review of the systems and processes used to develop capital and operating expenditure (refer section 3) found a robust system that is likely to produce prudent and efficient expenditure. Our review of three of the driving factors for the increases in historical expenditure in the sections above has outlined the reasons for the increases.

Our analysis above therefore outlines why we believe that the operating expenditure incurred by Busselton Water in the current price path is justified, and therefore, appropriate.

We could not identify any specific inefficiency in Busselton Water's actual operating costs and note that Busselton Water's operating cost per property is approximately 21% lower than the average of all the 28 non-major utilities between 10,000 and 20,000 connections while only 12 other utilities have a lower average operating cost than Busselton Water. Busselton Water also has among the lowest typical residential bill (water) levels in Australia with only four of 28 utilities having lower typical bills.

As such the establishment of a base level operating expenditure using the 2017/18 budgeted figure is considered appropriate. This base level will be used to assess proposed increases in expenditure in the next regulatory period.

4.3 Forecast Operating Expenditure

4.3.1 Overview

Busselton Water's proposed operating expenditure for the next regulatory period 2018/19 to 2022/23 is presented in Figure 4-4 below and detailed in Table 4-3Table 4-3.

Table 4-3 Details of Proposed Operating Expenditure from 2018/19 to 2022/23

	2018/19	2019/20	2020/21	2021/22	2022/23
Proposed Expenditure	7,783,061	7,834,577	7,946,867	8,212,391	8,551,924
$ Yr on Yr Change	60,986	51,516	112,290	265,523	339,533
% Yr on Yr Change	1%	1%	1%	3%	4%

Proposed operating expenditure across the next regulatory period is relatively stable with minor increases each year, apart from a larger increase in the final year. As discussed in section 4.1, there are more significant increases in operating expenditure beyond the next regulatory period however they are only noted here and not discussed in detail. There are four key drivers for Busselton Water's proposed operating expenditure, as presented in Table 4-3, and as discussed below.

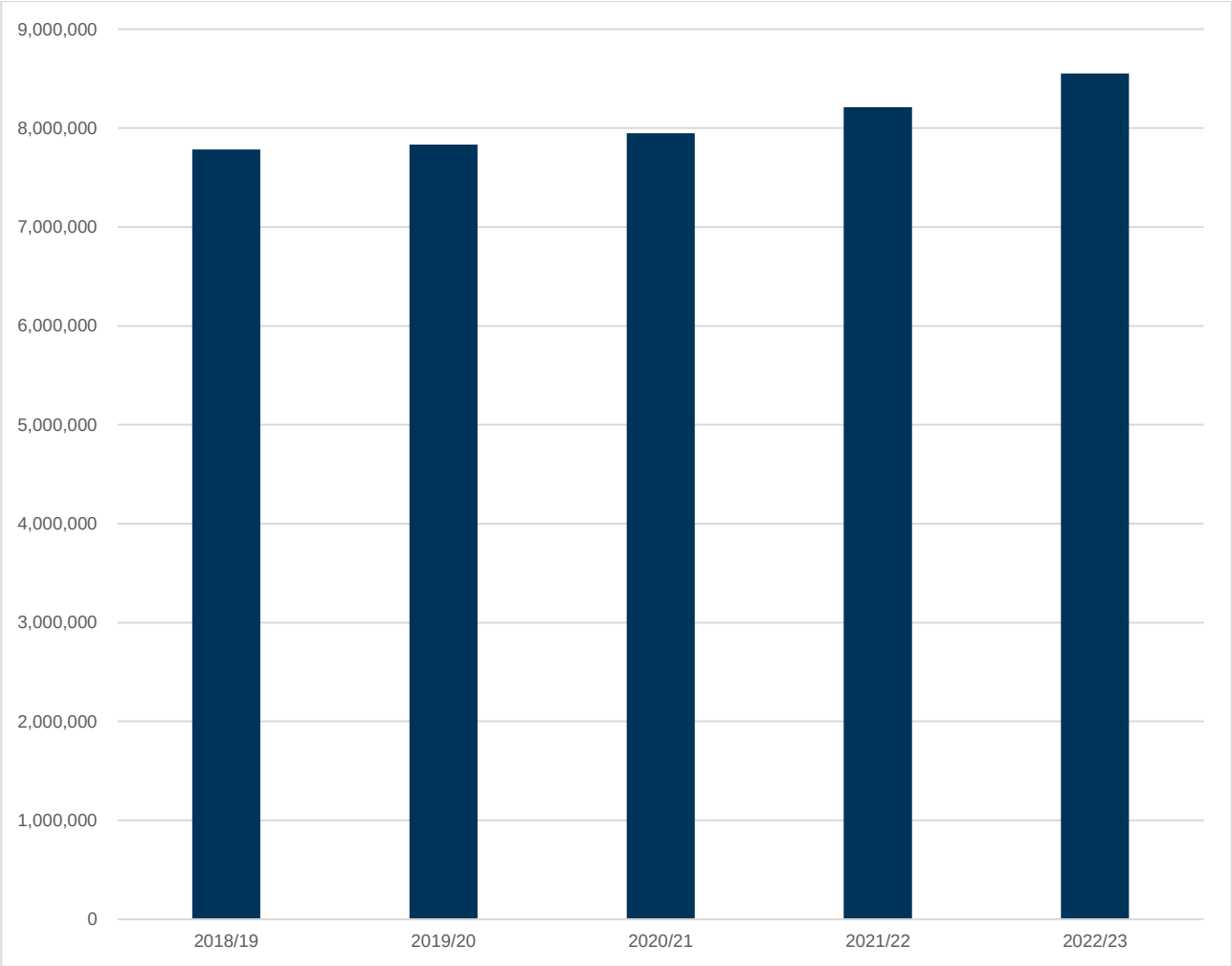

Figure 4-4 Proposed Operating Expenditure from 2018/19 to 2022/23

Table 4-4 Key Drivers impacting Operating Expenditure increases 2018/19 to 2022/23

	2018/19	2019/20	2020/21	2021/22	2022/23	Net Change
Proposed Expenditure						
Water Production	3,370,164	3,368,788	3,437,807	3,493,558	3,587,420	
Governance	514,578	567,313	532,496	564,594	575,467	
Administration	2,927,602	2,974,611	3,075,482	3,235,443	3,450,123	
Infrastructure	937,379	890,619	867,138	884,147	903,492	
% Year on Year Change						
Water Production	-1%	0%	2%	2%	3%	5%
Governance	-3%	10%	-6%	6%	2%	8%
Administration	4%	2%	3%	5%	7%	22%
Infrastructure	1%	-5%	-3%	2%	2%	-2%
$ Year on Year Change						
Water Production	-42,375	-1,376	69,019	55,751	93,862	174,880
Governance	-18,576	52,734	-34,817	32,098	10,872	42,312
Administration	108,600	47,009	100,871	159,961	214,680	631,121
Infrastructure	12,099	-46,760	-23,480	17,008	19,346	-21,787

4.3.2 Water Production

Costs related to Water Production remain relatively stable across the next regulatory period with increases of no more than 3% year on year and a net increase of around 5% over the period. Water plant operation remains the largest individual component of the changes representing 36%. Apart from a minor decrease in

2018/19 (4% decrease after a relatively larger increase of 9% in 2017/18), water plant operation costs are also fairly stable averaging increases of 1-3% per year.

This reflects a business as usual scenario with no significant adjustments to demand requiring adjustments to production levels and no major changes to the key component of plant operation – energy costs. We therefore find the forecasts to be reasonable.

4.3.3 Governance

Governance costs include those related to the Busselton Water Board, communications and engagement costs, audit fees and other minor administrative costs related to these three items. Governance represents a fairly small component of operating expenditure compared to the other drivers however there are some relatively large variances in the proposed expenditure across the period, particularly in 2019/20. The variances in 2019/20 are the result of three audits occurring in this year – the triennial National Water Initiative audits, and the biennial Quality Management System and Occupational Health and Safety audits. We find the forecasts of expenditure to be reasonable.

4.3.4 Administration

Administration costs are again the largest contributor to changes in operating expenditure with a net change of $631,121 (or 22%) over the next regulatory period. The key components of the changes to Administration costs over 2018/19 to 2022/23 are outlined below, salaries are the dominant factor in this change:

> Salaries = $491,726 (52%) – increases of between 6-9% year on year averaging around $121,000 per year

> Payroll tax and superannuation payments are the second and third largest components, however they are directly related to salary increases

> The three yearly revaluation of assets and the Operating Licence and Asset Management System Review audit are the next largest with both reviews scheduled twice in the regulatory period, in 2019/20 and in 2022/23

> Business Development costs are high in the first year of the next regulatory period ($200,000) but then decrease by $150,000 for the remaining years of the period.

Salaries and related costs dominate the changes to administrative costs. As discussed in section 4.2.3, the key components of the increases are related to executive salaries. These salaries are set to ensure talent can be retained in the area, with benchmark testing undertaken by Busselton Water to assess the consistency of executive salaries with equivalent local industry. The CEO salary requiring the concurrence of the Minister. Executive salaries are also publicly reported in the Annual Report.

Non executive salaries are set by Enterprise Agreement with the last one expiring on 30 June 2017. Busselton Water have forecast a labour index factor of 1.5% across the next regulatory period indicating that the next Enterprise Agreement might not include similar annual increments for staff.

The increasing costs for salaries remains an area of concern and these increases are sufficient for us to suggest that tighter management of operating costs is required in the next regulatory period. Our preferred option for this is discussed in Section 4.4 below.

4.3.5 Infrastructure

Infrastructure costs are entirely related to the mains and services maintenance program. This program experiences a net decrease over the next regulatory period of $21,787 with larger decreases in 2019/20 (5%) and 2020/21 (3%). The decrease in 2019/20 appears to be associated with reductions in overheads applied to the operating projects and to reductions in materials and contract costs. The decrease in 2020/21 appears to be related to further reductions in materials and contracts costs.

On further investigation of these decreases the key factor appears to be the significant reduction in leak detection services costs post 2019/20 due to the planned introduction of the Intelligent Water Network project. It is noted that this project was to be considered as part of the sample of capital projects, however it has been delayed due to a lack of approved funding. Should the IWN project not be completed in the timeframe expected, this reduction in operating costs will need to be deferred temporarily.

A concern raised in the 2012 Review was around whether Busselton Water's maintenance approach met best practice, including whether the balance between corrective and planned / preventative maintenance was at an optimum level. The 2017 Asset Management Strategy discusses Busselton Water's current maintenance approach being mix of condition based, cyclic (planned), run to failure, end of life, and a redesign and modify approach. The 10 Year Operational Works Program from 2016/17 highlights a significant program of planned maintenance, with some condition based programs, supported by an ongoing CCTV inspection program, particularly at the groundwater bores.

A mix of consultants contracted by Busselton Water provide expert advice on asset condition and plans / requirements for asset maintenance. The consultants engaged cover areas including corrosion, CCTV inspections, leak detection, valve condition, plant condition, electrical plant and civil structures assessment works. Reports provided by the consultants outline recommended replacement and preventative works to optimise asset lives and service levels. We are satisfied that the concerns previously raised have been addressed. In addition, the 2016 Paxon review found no cause for concern in this area.

4.3.6 Cost escalation

Busselton Water's operating expenditure is generally escalated at rates related closely to the CPI. The 10 Year Financial Plan Schedules 17-18 to 26-27 outlines the key factors used:

> CPI index rate – 1.75% for 2017/18 figures and 2.25% for 2018/19 onwards (noting a 3% CPI rate has been used prior to 2017/18)

> Annual salary increment rate = 3% based on Busselton Water Enterprise Agreement 2014

> Growth rate = originally 3% for first seven years (from 2013/14 to 2019/20) then 2% for next three years (2020/21 to 2022/23) but these were adjusted to a flat 1.5% rate for the 2017/18 update of the 10 Year Financial Plan. This is considered appropriate given the recent slow down in residential development.

> Interest rate = originally estimated at 4.5% it has now been adjusted to 2.6% (from 24 January 2016) for the 2017/18 update of the 10 Year Financial Plan. This is unlikely to affect operating expenditure, however as finance and borrowing costs are not included in this analysis.

Indexation factors are also outlined in the 10 Year Budget Summary Works Budget 17-18 to 26-27:

> CPI rates = consistent with figures above

> Overhead recovery rate = for overheads recovered from operating expenditure programs – annual figures provided vary from a high of 2.33 in 2018/19 to a low of 2.14 in 2017/18

> Labour index factor = averaging 1.015 (1.5%) across the next regulatory period

Both the Works Budget and the Financial Plan clearly outline which indexation factor has been used and a review of the figures input from the Works Budget into the Financial Plan indicate that there does not appear to be any double counting of indexation factors. We are generally satisfied with the escalation figures used and their application to the operating expenditure.

4.4 Efficiency

Busselton Water does not propose any efficiency target to apply to its operating expenditure in the future price path. It notes that it is still amongst the lowest operating cost service providers (in their class) in Australia.

Some opportunities for efficiency gains might be realised with an expanded role for Busselton Water in water resource management and stormwater. The opportunity of integrated water management solutions and alternatives to hard engineering solutions, could provide future efficiencies in both operating and capital costs.

Some continued assessment on Administration costs is warranted as these costs are expected to exceed the cost of water production in the medium term. Given a stable operating environment and relatively stable staff numbers, this is a trigger for a more detailed investigation of costs in this area. Busselton Water are forecasting 6-9% increases in administration costs (which are driven by salaries) but only a 1.5% labour index escalation rate. This increasing costs for salaries, particularly at a relatively rate of 6-9% year on year, remains an area of concern and these increases are sufficient for us to suggest that tighter management of

operating costs is required in the next regulatory period. Our preferred option for this is to apply a continuing efficiency factor to operating expenditure.

Regulators usually apply a frontier approach to assess the level of efficiency that water businesses may achieve in the next regulatory period. Under this approach, there are two components of efficiency gains that may be realised:

> Continuing efficiency is the gains that may be made all participants in an industry, for example through new technology

> Catch-up efficiency is that ability of a business to move towards the efficiency frontier. At the efficiency frontier, a business is achieving both technical and allocative efficiency and overall, providing its output for the lowest possible total cost.

Busselton Water is operating at a relatively low cost (12 of 28 utilities have a lower operating cost while only 4 of 28 utilities have a lower typical residential bill) already so a catch up efficiency target is not warranted, however work needs to be done to ensure that this low cost environment continues particularly when significant changes are proposed for the business and significant changes in operating environment (introduction of chlorine dosing) have already occurred.

A continuing efficiency factor can be used to ensure that continued effort is placed on tight management of ongoing costs. The levels of continuing efficiency factors applied by Regulators to water businesses around Australia are typically at 0.25% (most recently Sydney Water set by IPART in 2015).

We are of the opinion that Busselton Water can achieve an ongoing efficiency target and we therefore recommend the application of a 0.25% continuing efficiency factor to Busselton Water's operating expenditure to ensure tighter controls on operating expenditure growth in the next regulatory period.

4.5 Recommendations

We have reviewed Busselton Water's proposed operating expenditure and have identified the sources of changes to expenditure over the regulatory period. Overall the proposed expenditure reflects a fairly stable operating environment with a focus on maintaining services and asset condition.

We did not find any specific inefficiencies in the majority of proposed operating expenditure however as discussed in section 4.3.4 and 4.4 above, more detailed assessment of Administration costs, and in particular projections of staff salaries, was required to ensure that these costs remain justifiable as prudent and efficient.

We recommended that a continuing efficiency factor of 0.25% be applied to Busselton Water's operating expenditure in the next regulatory period to ensure there is some tighter control over increasing operating expenditure.

The recommended operating expenditure for the next regulatory period is shown in Table 4-5 below.

Table 4-5 Recommended efficient operating expenditure for Busselton Water

	2018/19	2019/20	2020/21	2021/22	2022/23
Operating expenditure forecast by Busselton Water	7,839,243	7,877,777	7,976,487	8,225,317	8,551,924
Recommended adjustments	0	0	0	0	0
Continuing efficiency factor applied (0.25%) each year	19,458	19,586	19,867	20,531	21,380
Recommended efficient level of operating expenditure	7,763,603	7,814,991	7,927,000	8,191,860	8,530,544

5 Capital Expenditure

In this section, we present the results of our review of the efficiency of Busselton Water's capital expenditure. We identify the major cost drivers and explain the variances in the current price path expenditure against the 2012 Determination. We comment on the efficiency of capital expenditure in the 2012 Determination period which is used to inform our view of future efficiency.

We comment in Section 3 on the main asset management systems and processes used to budget, track, monitor and report capital expenditure.

The methodology for evaluating capital expenditure relies on the information provided to us by Busselton Water for historic and future expenditure which is mainly sourced from its annually updated ten year capital works program and annual budgets. As these documents are routinely revised, making direct comparisons with the previous determination is, at times, difficult due to changes in classifications, naming and price base along with updates to cost estimates, particularly where a project is at an early stage of development.

The methodology also relies on our understanding of Busselton Water's internal and external operating environment and the cost drivers which it faces. Our views are guided by the evaluation of asset management and capital investment processes through interviews with Busselton Water staff.

We have selected a representative sample of historical and proposed projects to gain an understanding of the efficiency and appropriateness of the investment against the criteria defined by the ERAWA:

> the justification for the expenditure

> the adequacy of the information and documents from a technical perspective

> whether Busselton Water fully identified and considered all viable options and selected the best option

> the technical aspects of the project or program

> whether the procedures of planning, contracting and cost control are consistent with minimising costs

> unit rates of construction on past projects, compared to historical unit rates and benchmarked comparisons of unit rates for other service providers.

We present our analysis of the future expenditure proposals and comment for each driver on the potential for efficiencies through the robustness of estimates, the need and timing of expenditure and the impact of internal challenge and budget control.

The predominant references for costs quoted in this section is the 10 Year Financial Plan Schedules 17-18 to 26-27 (for program and category total costs) and file D15 1766 (Revision 78) Proposed Capital Works Operational Program - Updated to marry with SAP (for project specific costs). Other references are quoted specifically as required.

5.1 Overview

Busselton Water has a relatively small total capital expenditure program that is significantly affected by major projects.

The capital program has averaged $3.5M per annum for the last two years of actual expenditure from 2014/15 to 2015/16. It is budgeted to average a lower $2.7M for the last two years of the current regulatory period 2016/17 to 2017/18. Proposed capital expenditure for the next regulatory period to 2022/23 averages $3.8M while beyond the next regulatory period to 2026/27, capital expenditure is expected to increase sharply, averaging $5.1M including a spike in 2024/25.

Due to the relatively small size of this program, it can be quite variable from year-to-year, particularly where large projects are included. This was particularly evident historically for the 2011/12 financial year where construction of the bulk supply to Dunsborough, the introduction of chlorination and increasing supply capacity all contributed to a program value nearly four times larger than the average of the preceding four years. This occurs to a degree within the current regulatory period with expenditure in 2020/21 approximately 48% higher than the previous year and 31% higher than the next year.

Total capital expenditure is dominated by a single category – Infrastructure as shown in Figure 5-1 below which has a breakdown of capital expenditure in 2017/18.

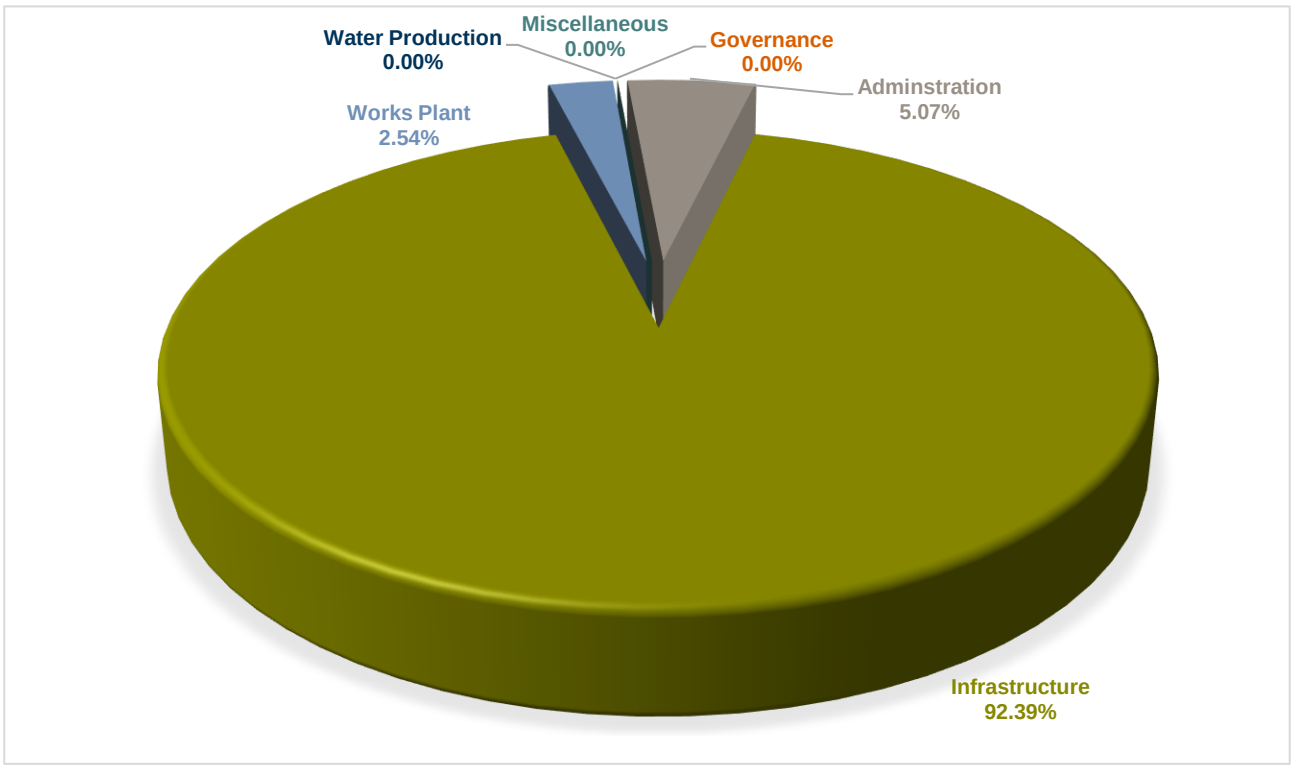

Figure 5-1 Breakdown of Capital Expenditure for 2017/18

The profile of capital expenditure over the period from 2014/15 to 2026/27 is presented in Figure 5-2 below. Note this expenditure excludes transfer to reserves.

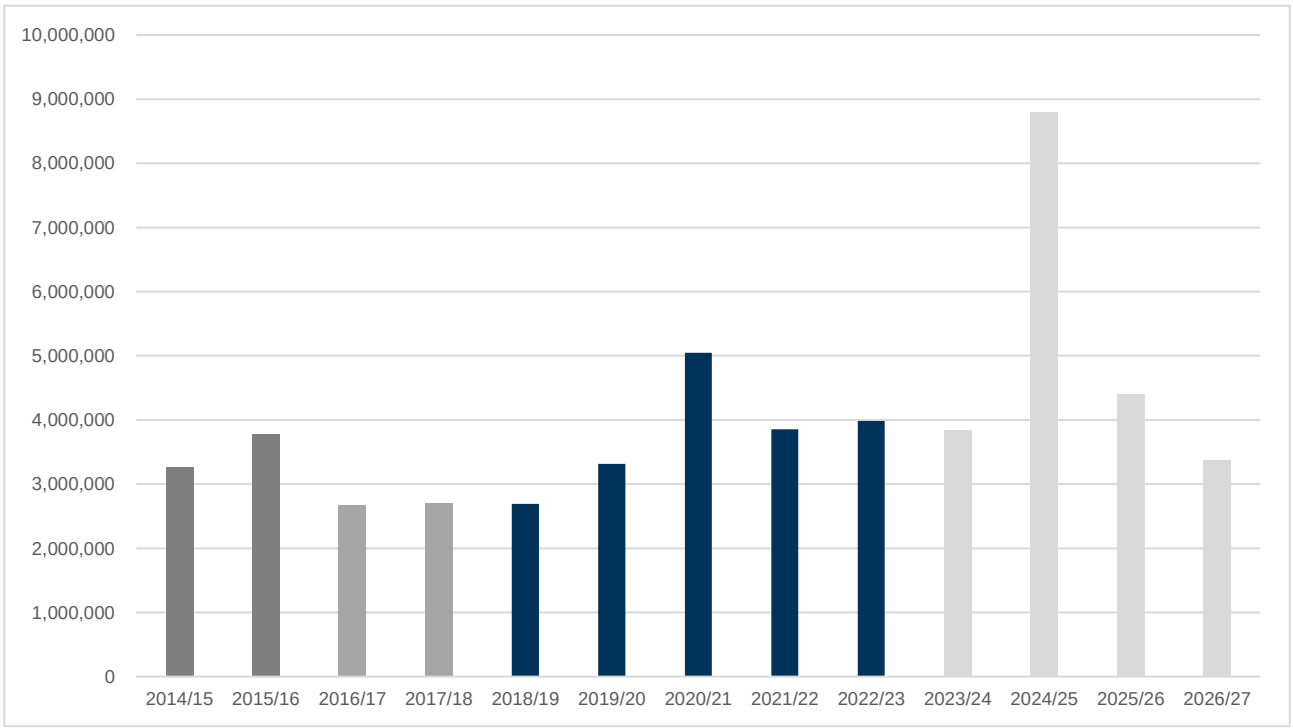

Figure 5-2 Profile of Capital Expenditure from 2014/15 to 2026/27

Figure 5-2 above shows the lumpy nature of the capital expenditure program as discussed above, and the large project related expenditure expected in the future regulatory period.

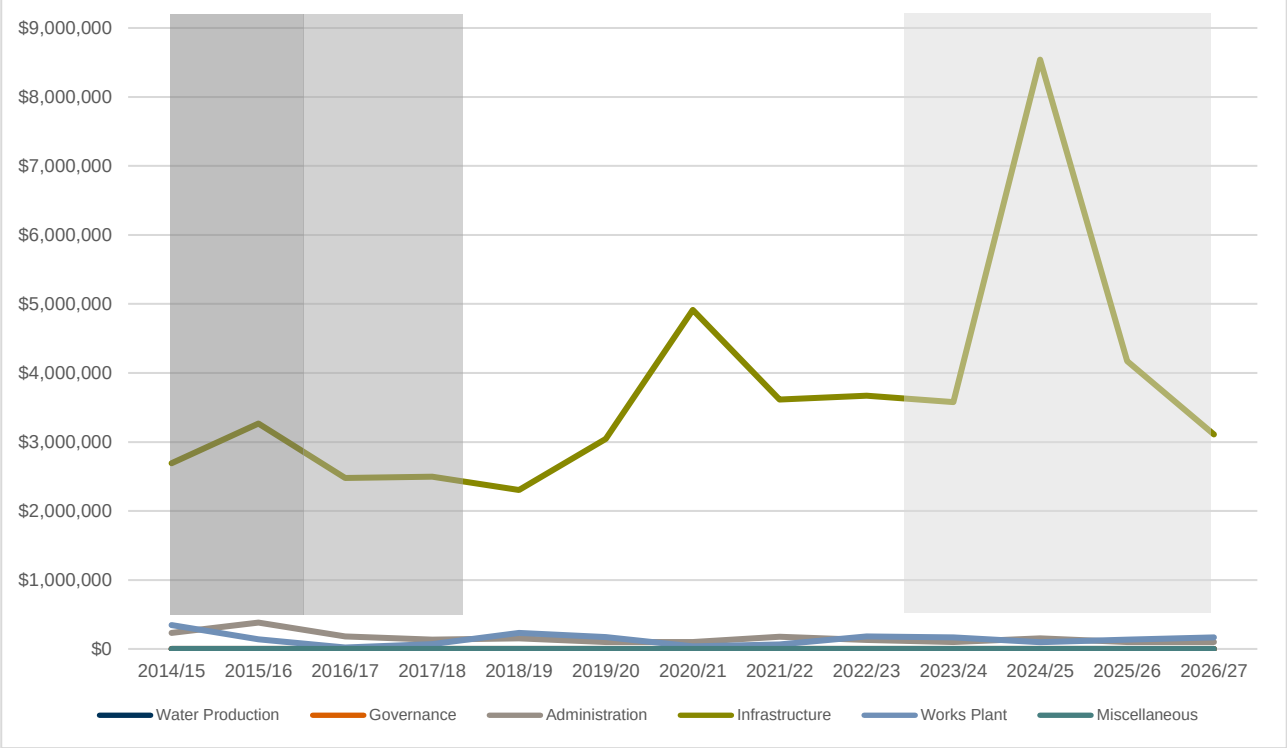

Figure 5-3 Busselton Water capital expenditure drivers 2014/15 to 2026/27

The breakdown of key drivers of capital expenditure in Figure 5-3 clearly shows the sole impact of the Infrastructure driver. Changes in expenditure for these key drivers will directly reflect on the total program irrespective of any offsets in the other programs. The remainder of the key drivers are all following a generally decreasing trend over the periods to 2026/27.

5.2 Historical Expenditure

5.2.1 Overview

Specific details on Busselton Water's historical performance against budgeted expenditure have not been provided, however details on actual expenditure for 2014/15 and 2015/16 have been provided along with budget expectations for 2016/17 and 2017/18. The key drivers for expenditure over the current regulatory period are outlined in Table 5-1 below.

Table 5-1 Key Drivers impacting Capital Expenditure increases 2014/15 to 2017/18

	Actual	Actual	Budget	Proposed	Net Increase
$ Real (2017)	**2014/15**	**2015/16**	**2016/17**	**2017/18**	**2014/15 - 17/18**
Administration	234,314	382,025	180,400	137,000	
Infrastructure	2,692,326	3,264,609	2,477,600	2,495,350	
Works Plant	346,213	139,705	21,000	68,650	
% Year on Year Increase					
Administration		63%	-53%	-24%	
Infrastructure		21%	-24%	1%	
Works Plant		-60%	-85%	227%	
$ Year on Year Increase					
Administration		147,712	-201,625	-43,400	-97,314
Infrastructure		572,283	-787,009	17,750	-196,977
Works Plant		-206,507	-118,705	47,650	-277,563

These key drivers are discussed briefly in the following sections along with discussion of the sample of projects with expenditure across this period.

5.2.2 Administration

Capital expenditure in this category includes once off and regular expenditure related to motor vehicles, the administration building, and expenditure related to the 5 Year ICT Strategic Development Plan.

The dominant driver is the ICT Plan with more than $510,000 spent over 2014/15 to 2015/16 reducing to a budgeted expenditure of just more than $210,000 over 2016/17 to 2017/18. Some breakdown of capital costs was provided specifically for 2017/18 showing expenditure [redacted]. Busselton Water's budgeted expenditure for its IT Strategy was reduced in 2016/17 and 2017/18 on instructions from Treasury.

Information and Knowledge (focussed on ICT) is a key strategic priority for Busselton Water as identified in the Statement of Corporate Intent. The focus on ICT system improvements is evident in the 2015/16 and 2016/17 Statement of Corporate Intent documents which outline the strategic priority areas (including Information and Knowledge) for the business, of which a number are related to or supported by ICT systems. These include the following capital and operational investment areas:

> Information and Knowledge – enhancing connectivity and communications through fibre optic connections; integrating meter data into businesses systems; upgrade, enhance and integrate core business applications; implement global positioning for assets; developing an interactive and dynamic website; increasing productivity through remote access capabilities

> Customers and other Stakeholders – empower customers with access to data and information on water services needs and usage; build and implement customer engagement capabilities

> Results and Sustainable Performance – improve measurement and reporting capabilities

> Process Management, Improvement and Innovation – improved water quality management systems; implement mobile technology and automated workflows; automated metering; optimise water treatment and production processes.

Given the importance of this ICT related expenditure in meeting the strategic priorities of the business we are satisfied that the historical actual expenditure is reasonable.

Costs relating to the purchase of light vehicles are incurred on a three-yearly basis and are well supported by a specific procurement policy.

On the basis of our interviews, our assessment of Busselton Water's systems and processes, and the critical nature of the systems where the historical expenditure is allocated, we are generally satisfied that the historical Administration expenditure incurred is appropriate.

5.2.3 Infrastructure

Infrastructure capital expenditure represents by far the largest component of actual expenditure over the period. The key drivers within this category are water plant replacements and new major mains required as a result of development growth. Together these categories represent over 71% of infrastructure capital expenditure.

The replacement of water plant is guided by the various asset management procedures and plans and is supported by specialist consultants who undertake investigations and inspections to identify and prioritise works for inclusion in the capital program. The expenditure allocated to replacements has been increasing steadily over the current regulatory period reflecting the age of assets in the system.

New major mains are required to prepare for future growth and are installed in advance of growth occurring. Demand projections, strategic infrastructure planning and the development of schedules and timing for required works are undertaken by a specialist consultant.

On the basis of our interviews and our review of the systems and processes used to develop and manage expenditure, we are generally satisfied that Busselton Water's historical expenditure on infrastructure is appropriate.

5.2.4 Works Plant

Expenditure in this category covers the purchase of light vehicles, the replacement of construction equipment / vehicles and small tools and other equipment.

The purchase of light vehicles and the replacement of construction equipment are both guided by a well-developed procurement policy – P16.PR03 Acquisition and Disposal of Light Motor Vehicles with the timing of expenditure based on the age of the asset and kilometres travelled / hours used as applicable.

On the basis of our interviews and our review of the systems and processes used to develop and manage expenditure, we are generally satisfied that Busselton Water's historical expenditure on works plant is appropriate.

5.2.5 Findings from review of sample of historical capital expenditure projects

We briefly reviewed a sample of five capital projects (historical and proposed) including the following projects with actual expenditure over the period from 2012/13 to 2017/18:

> Plant 1 Filter Replacement = [redacted]

> Replacement meters program = $127,360 (discussed in proposed expenditure section)

> New service connections = $924,329 (discussed in proposed expenditure section)

> Light vehicle replacement program = $89,650 (discussed in proposed expenditure section).

Plant 1 Filter Replacement

This project was first identified by Busselton Water's treatment plant operations consultant as a water quality issue as the groundwater bore from which water is sourced has some significant water quality issues. It was determined from the initial investigation that the filters needed replacing and upgrading due to their condition and to ensure that they could provide the required treatment. Separately, Busselton Water was also investigating the potential need to relocate the plant given that the lease for the site was potentially not going to be renewed.

An options analysis was carried out for the plant by Busselton Water's expert consultant, with the previously mentioned factors in mind, and, from a technical view point, it was determined that a new filter arrangement would be required, specifically horizontal pressure filters with a lower footprint and less noise (important given the plant's location in a residential area). Location issues were subsequently resolved with the plant to remain in its current location.

This project was identified and reviewed in 2012 for the current regulatory period however a detailed assessment was deferred to allow consideration of further options including the current option to link this project to the Bore 19 Relining (discussed in our assessment of proposed expenditure) to take advantage of potential project and scope efficiencies.

Budgeted expenditure for this project is presented in Table 5-2 below.

[redacted]

Notes provided indicate that this project is still under development with implications that the project has not yet been fully costed. Given the current date and the expectation, based on the above timeline, that the project would be at a mid way point, some clarification of current project status is required particularly as this project is related to the Bore 19 works discussed in the following section.

Specific supporting documentation has not been provided to support the project, however it is mentioned in broader strategy and planning documents, and from discussions with Busselton Water staff, the project is considered prudent. With full cost estimates yet to be finalised, an assessment of the efficiency is difficult however it is noted that the systems and procedures undertaken for capital projects, as reviewed in section 3 above, are considered robust and therefore likely to produce prudent and, in this case, efficient outcomes.

This project is a good example of capital expenditure that has been reassessed on the basis of seeking efficiencies by considering two projects together (Bore 19 project). While there are some uncertainties over the current timing of the project works, we find that this expenditure is appropriate.

Summary of historical expenditure assessment

Our assessment of Busselton Water's expenditure over the current regulatory period highlights that the capital program is relatively small with one or two larger projects comprising the majority of the program. Our review has not identified any issues of concern related to the projects identified apart from some concern over the timing of actual expenditure with the Plant 1 and Bore 19 (proposed) projects. While Busselton Water's systems and procedures are considered robust, and the discussion of projects with Busselton Water staff identified no specific concerns, the lack of documentation (business cases, design reports, options analysis, cost estimates, etc) provided to support the projects identified in the current program is a general issue of concern. Similar concerns were raised during the 2012 review of expenditure and will need to be addressed in future reviews. For this review, no specific adjustments are recommended to the expenditure incurred in the current regulatory period.

5.3 Proposed Capital Expenditure

5.3.1 Drivers for proposed capital expenditure

The key drivers for capital expenditure proposed in the next regulatory period are the same as those assessed in relation to the current regulatory period and these are shown in Table 5-3 below.

Table 5-3 Key Drivers impacting Capital Expenditure Changes 2018/19 to 2022/23

	Proposed Expenditure					Net Change
$ Real (2017)	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2018/19 - 22/23**
Administration	154,835	100,000	100,000	177,935	131,000	
Infrastructure	2,303,818	3,042,136	4,912,046	3,613,662	3,671,136	
Works Plant	231,347	172,112	36,860	65,590	180,004	
% Year on Year Increase						
Administration	13%	-35%	0%	78%	-26%	
Infrastructure	-8%	32%	61%	-26%	2%	
Works Plant	237%	-26%	-79%	78%	174%	
$ Year on Year Increase						
Administration	17,835	-54,835	0	77,935	-46,935	-6,000
Infrastructure	-191,531	738,317	1,869,910	-1,298,384	57,474	1,175,786
Works Plant	162,697	-59,235	-135,252	28,730	114,414	111,354

These key drivers are discussed briefly in the following sections along with discussion of the sample of projects with expenditure across this period.

Administration

Capital expenditure in this category includes once off and regular expenditure related to motor vehicles for administration related purposes, the administration building, and expenditure arising from the 5 Year ICT Strategic Development Plan, which includes a program of works funded by an annual allowance.

The dominant driver is the ICT Plan with a total allowance of $500,000 (over the five years) proposed for the next regulatory period. While no specific supporting documentation has been provided to detail the proposed expenditure, the works are part of a Strategic Development Plan aimed at improving the quality and efficiency of services provided to customers and setting the business up for implementation, and optimal use, of the integrated water network. We note that this expenditure category covers business critical systems including billing, finance and metering systems, which need to be supported and improved.

Some breakdown of IT related capital costs was provided for 2017/18 however details for the next regulatory period were not provided. The originally budgeted expenditure of $148,000 for 2017/18 was reduced to $100,000 on instructions from Treasury and remains at this level for each year of the next regulatory period. The proposed expenditure has been included as an allowance to cover a program of work. The program

value per year is half to a third of historical actual expenditure. All expenditure to be funded by the program undergoes internal review by the executive team.

Costs relating to the purchase of light vehicles are incurred on a three-yearly basis and are well supported by a specific procurement policy.

Our review of proposed capital expenditure for Administration supported by our interviews with Busselton Water staff leads us to find that the proposed expenditure for this category is appropriate.

Infrastructure

Infrastructure capital expenditure represents by far the largest component of proposed expenditure over the next regulatory period. The key drivers within this category are water plant replacements (51% of total expenditure), replacement meters (over 17% of total), upgrading existing mains and services (10% of total), and new service connections (10% of total) required as a result of development growth. Together these four categories represent over 88% of infrastructure capital expenditure.

The replacement of water plant program is guided by the various asset management procedures and plans and is supported by specialist consultants who undertake investigations and inspections to identify and prioritise works for inclusion in the capital program. The average annual expenditure allocated to replacements has been increasing steadily over the current regulatory period reflecting the age of assets in the system and improving asset management measures. An example project, the replacement of Bore 19, is discussed in the following sections.

The meter replacement program assessed in our sample capital projects below in section 5.3.2.

The program for upgrading existing mains and services is dominated by the replacement of existing asbestos cement pipes in the reticulation system. These pipes have been scheduled for replacement based on a combination of their age, the number of pipe breaks experienced and the condition of the asset.

Busselton Water's contracted consultant provides guidance on asset condition and scheduling / prioritisation of works. Older assets, with a larger number of pipe breaks are generally given a higher priority except where advised based on asset condition. Notes are also provided where pipe replacements have been re-prioritised based on funding shortfalls or where any capital savings made during the period will allow additional work to be undertaken.

New service connections are assessed in our sample of capital projects below in section 5.3.2.

Our review of proposed capital expenditure for Infrastructure supported by our interviews with Busselton Water staff leads us to find that the proposed expenditure for this category is appropriate.

Works Plant

Expenditure is this category covers the purchase of light vehicles for operations related purposes, the replacement of construction equipment / vehicles and small tools and other equipment. The replacement of light vehicles is assessed in our sample of capital projects below in section 5.3.2.

Overall these replacements are covered by robust procedures and policies which would produce outcomes likely to be prudent and efficient. We are satisfied that the proposed expenditure for replacement of works plant is therefore appropriate.

5.3.2 Findings from review of sample of proposed capital expenditure projects

Table 5-4 below shows the four sample projects we assessed as part of this review. These projects are assessed individually below.

Table 5-4 Sample Projects Assessed for Proposed Expenditure 2018/19 to 2022/23

	Proposed Expenditure					Total / Net Change
$ Real (2017)	**2018/19**	**2019/20**	**2020/21**	**2021/22**	**2022/23**	**2018/19 - 22/23**
Bore 19 Relining	[redacted]					960,000
Meter replacements						3,076,245
Light vehicle replacement						446,833
New service connections						1,690,488

% Year on Year Increase	[redacted]	
Bore 19 Relining		
Meter replacements		
Light vehicle replacement		
New service connections		
$ Year on Year Increase		
Bore 19 Relining		
Meter replacements		414,330
Light vehicle replacement		68,704
New service connections		43,279

Bore 19 relining

This project was initially identified by Busselton Water's bore management consultants as part of their regular bore inspection process. The bore was recommended for relining on the basis of it's condition and age and the project was submitted with the other relining projects.

Busselton Water's executive review of the submitted program identified that there were potential efficiencies available through considering this project in the context of filter replacement work being proposed at Plant 1. The filters required replacement because of the poor water quality generated by Bore 19, with the water quality issues being directly related to the design of Bore 19, which means that it drew water from the Leederville aquifer, a poor quality source.

Busselton Water developed an option whereby Bore 19 would be re-purposed so that it was drawing water from the Yarragadee aquifer only, a higher quality source. The proposed works would result in a higher cost for the Bore 19 works, but should result in significant savings at Plant 1 through re-design of the new filter systems intended to be installed there.

The works are currently being developed by Busselton Water's consultant after an initial investigation by the consultant provided cost estimates that were favourable (the figures quoted in Table 5-4 above). The consultant is undertaking a more detailed feasibility study looking at the different options available and Busselton Water intend to develop a business case to review the options and allow for funding of the works.

This is a good example of a project that has been reassessed due to an executive review identifying opportunities for efficiencies by combining projects. While the project is still under investigation, the intention of the project, and the supporting systems and processes as reviewed in 3, lead us to find that the project is appropriate.

Meter replacements

The meter replacement program is based on a specific meter replacement schedule and the P14.PR08. Meter Replacement procedure. The program aims to manage the replacement of the meter fleet such that the relevant industry and manufacturers standards are met.

Meters are replaced when they reach a specific volume, which is outlined in the procedure, or when a low battery alarm is activated. Busselton Water's meter fleet are smart meters allowing remote reading and will alarm if battery levels get low, however the meters are generally replaced prior to this occurring.

The Meter replacement procedure does not specify how the meters are scheduled for replacement however the funds for the program are identified from through Busselton Water's Aquarate customer meter reading and billing system. The process is managed by the Manger Finance and Administration with triennial reports from the Water Tariff Officer ensuring that the asset register is kept up to date with actual meter replacements.

The replacement program shows a very large increase in replacements in 2020/21 and 2021/22. This is due to an historical meter installation program which resulted in two thirds of the meter fleet being installed in two years. Some smoothing of the program was undertaken by Busselton Water to reduce the impact of this peak of expenditure (reduction of 28% in 2021/22), however the level of smoothing is limited by the need to comply with the meter replacement procedures.

Costs for the program are based on historical actual unit rates from 2012 for replacement meters, with the unit rates escalated by 3% each year to estimate current unit rates figures. This process is appropriate where it is to develop a funding allowance with the actual costs for replacements incurred when meters meet the replacement criteria outlined above.

Our assessment of this program, its supporting procedures and information provided by Busselton Water leads us to find that this program is appropriate.

Light Vehicle replacement

The purchase of light vehicles (which also includes the replacement of construction equipment) is guided by a well-developed procurement policy – P16.PR03 Acquisition and Disposal of Light Motor Vehicles with the timing of expenditure based on the age of the asset and kilometres travelled / hours used as applicable.

A schedule of replacements is produced providing detailed information on each asset to be replaced, the timing, and the reasons for replacement. Where possible, replacements are deferred however Busselton Water's own investigations have indicated that for light vehicles, the current three-yearly replacement schedule seems to be the optimal approach providing the best asset valuations of replaced assets, which are then used to offset the cost of the new vehicles (trade-in values are counted as capital revenue).

Busselton Water provided examples of the challenge process that is informally incorporated into this program. The examples showed how the replacement of assets is reviewed prior to entry of each years program into the financial systems with a view to ensuring only those assets that need to be replaced are included. Assets whose life can be extended for an additional year of service are deferred for replacement in later years of the budget.

This program is well supported with a documented policy and procedure and we reviewed evidence that there is an appropriate review process in place. We therefore find that this program is well supported that the expenditure proposed is appropriate.

New service connections

New service connections are forecast on the basis of new customer information provided from the Manager Finance and Administration, with the customer information based on previous trends in customer numbers and forecast new developments in the region.

Our review of the figures provided identifies a 3% growth rate used to project expenditure throughout the next regulatory period, apart from a reduction in 2018/19 and a corresponding correction in 2019/20. While this growth rate is consistent with earlier versions of the 10 Year Plan (2013/14 to 2022/23 version), the rate is somewhat different to the adjustments which appear to have been made in the current 10 Year Financial Plan 2017/18 to 2026/27, suggesting a 1.5% rate.

The primary source of the new connections data is the 10 Year Financial Plan is the 30 Year Capital Works Program, which in relation to new service connections, has only hard entered numbers. As a result, it is unclear exactly how the numbers have been derived apart from the obvious 3% rate of growth in the expenditure figures.

Overall the proposed expenditure program for connections is fairly flat however this program has typically been highly variable. It is noted that new property connections have been decreasing so it is more likely that the actual expenditure for this program will keep within the anticipated budget.

Our review of this program leads us to conclude that this expenditure is generally appropriate.

Summary of proposed expenditure assessment

Our assessment of Busselton Water's proposed expenditure over the next regulatory period highlights that the capital program is relatively small with one or two larger projects / programs comprising the majority of, and having a significant impact on, the total expenditure.

Our review has not identified any issues of concern related to the projects identified apart from some concern over the concurrent timing of expenditure related to Bore 19 relining and potential carryover of expenditure from the current regulatory period for Plant 1 filter replacement. These two projects are being re-examined as an integrated project and the results of the feasibility study are not yet available.

While Busselton Water's systems and procedures are considered robust, and the discussion of projects with Busselton Water staff identified no specific concerns, the lack of documentation (business cases, design reports, options analysis, cost estimates, etc) provided to support the projects identified for the next regulatory period is a general issue of concern. Similar concerns were raised during the 2012 review of expenditure and this issue will need to be addressed in future reviews.

For this review, no specific adjustments to individual projects or programs are recommended for the proposed expenditure into the next regulatory period. We are proposing some adjustments to overall expenditure based on efficiency factors and this is discussed further in section 5.5.

5.4 Capital Cost Escalation

We found no evidence of capital cost escalations applied to capital expenditure associated with individual projects or with ongoing replacement programs that were reviewed for the next regulatory period and included in the 10 Year Financial Plan Schedules 17-18 to 26-27 with one exception, the meter replacement program, where the new meter costs have been escalated by a 3% CPI figure from a 2012 base cost.

5.5 Efficiency

We have found no evidence that specific efficiency adjustments have been made to capital projects assessed as part of this review process. We note that some smoothing of expenditure has occurred in some cases (meter replacement) however there does not appear to be a specific target set.

We have assessed Busselton Water's processes for capital expenditure planning and delivery and in particular processes relating to:

> Investment planning

> The method of cost estimating

> The procurement processes.

We believe that there are clear opportunities for Busselton Water to improve its practices and thereby gain efficiencies in future expenditure delivery. We recognise that Busselton Water has a relatively small size capital works program to be managed. The size of the program and the fact that it will be dominated by a very small number of projects in one year mean that can be difficult to realise efficiencies due to process improvements which typically accrue incrementally across a large program of works.

Nevertheless, we feel there are some areas where Busselton Water can improve processes and implement some tighter control over expenditure through the use of innovation and continuous improvement processes. We are therefore recommending that a relatively small continuing efficiency factor or 0.25% be set across each year of the proposed capital program for the next regulatory period. These factors are typical in the regulated water industry and our recommended figure of 0.25% is at the lower end of factors recommended, accounting for Busselton Water's size and ability to achieve efficiency targets.

5.6 Recommendation

We have reviewed Busselton Water's actual and proposed expenditure in the context of their strategic planning systems and procedures and we have reviewed a sample of capital projects and ongoing replacement programs.

We found that Busselton Water's systems and procedures are well developed with significant improvements made since the 2012 review associated with the current regulatory period and further improvements made on the basis of recommendations from the operating licence performance audits and asset management system review conducted in 2016.

Whilst we have some general concerns over the lack of documentation provided to support the actual and proposed expenditure, we note that discussions with staff and our review of higher level strategies and plans have given us no reason to recommend adjustments to individual projects or programs.

We have, however, recommended that a relatively small continuing efficiency target of 0.25% be set on each year of the capital proposed for the next regulatory period. This target is achievable for Busselton Water as they continue to improve in the delivery of their services and implement innovate ideas and practices.

The derivation of our recommended level of capital expenditure for Busselton Water in the next regulatory period is shown in Table 5-5 below.

Table 5-5 Recommended efficient capital expenditure for Busselton Water for 2018/19 to 2022/23

	Recommended Capital Expenditure				
	2018/19	**2019/20**	**2020/21**	**2021/22**	**2022/23**
Capital expenditure forecast by Busselton Water	2,690,000	3,314,248	5,048,906	3,857,187	3,982,140
Recommended efficiency adjustment (0.25%)	6,725	8,286	12,622	9,643	9,955
Recommended efficient level of capital expenditure	2,683,275	3,305,962	5,036,284	3,847,544	3,972,184

Note: Capital expenditure sourced from 10 Year Financial Plan Schedules 17-18 to 26-27 and excludes Transfers to Reserves and Finance & Borrowing expenditure.

6 Special Items

6.1 Asset Disposal

Busselton Water disposes of lower value assets regularly through its light vehicle replacement program however the annual value of the program is relatively small. The disposal of assets is governed by a robust procedure, P16.PR03 Acquisition and Disposal of Light Motor Vehicles which outlines in some detail the processes for disposal, the reasons for, and the specific procedures for accounting for the asset value recovered from the disposal.

We have reviewed the disposal procedure and examples of the process, and find them to be well implemented. Vehicles identified for disposal are used as trade-in vehicles to offset the cost of new vehicles. The full trade-in value is counted as capital revenue while the full vehicle cost is counted as expenditure.

We have no recommended variations or improvements to the procedure at this time. If Busselton Water was to dispose of larger value assets, then it is recommended that the process of disposal be reviewed in detail at this time.