Deloitte.

Essential Services Commission

2013-18 Review of Water Prices

Assessment of expenditure forecasts for regional urban businesses

Wannon Water

Final Report

18 February 2013

Deloitte.

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Mr Marcus Crudden
Acting Director - Water
Essential Services Commission
Level 2, 35 Spring St
Melbourne VIC 3000

18 February 2013

Dear Marcus

Re: Assessment of expenditure forecasts for regional urban businesses

We are pleased to provide our Final Report setting out our assessment of Wannon Water's operating and capital expenditure for the 2013-2018 regulatory period. This Final Report provides our findings and recommendations. It should be read in conjunction with our *Overview* document, which sets out our approach to a number of common expenditure issues across the businesses we have reviewed.

Please do not hesitate to contact me if you have any questions regarding the report.

Yours sincerely

Paul Liggins
Partner
Deloitte Touche Tohmatsu

Contents

Executive Summary

Background

The Essential Services Commission (ESC) is currently conducting a review of the proposed prices to be charged by Victoria's water businesses for the period 1 July 2013 to 30 June 2018, referred to in this document as 'the next regulatory period' or third water plan period (WP3).

The businesses have submitted Water Plans to the ESC for the WP3 period. The Water Plans include forecasts of operating expenditure, capital expenditure, demand, proposed service standards and prices. The ESC will review the Water Plans and intends to release a draft decision in March 2013, with a final decision issued in May 2013.

Deloitte has been engaged by the ESC to review the expenditure forecasts made by 10 regional urban water businesses.

The ESC has requested that in our review of the capital expenditure forecasts we focus on the major projects that comprise a significant proportion of the total capital expenditure forecasts and provide advice on whether the expenditure meets certain criteria.

In relation to operating expenditure we have been asked to provide advice on whether changes in operating costs are consistent with the timing of major capital projects; that businesses are fulfilling their obligations and meeting customer service expectations as cost efficiently as possible; that forecast divergences can be readily explained; and one-off costs associated with the drought have been removed. The ESC has highlighted that energy, labour, IT and chemical costs should be a significant focus of the review.

Process for review

We took the following approach to undertaking this review:

- We reviewed the Water Plans and supporting documentation provided by Wannon Water to the ESC
- We submitted a request for further information and prepared a number of questions for Wannon Water
- We visited Wannon Water on 25 October 2012 to discuss the Water Plan and our questions
- We prepared a Draft Report which was provided to the ESC on 11 December 2012
- We held discussions with Wannon Water regarding the Draft Report and reviewed a written response from Wannon Water which was provided to us on 25 January 2013.

Approach to review

In our assessment of operating and capital expenditure proposed by each of the nominated water businesses, we have followed the direction of the *Water Industry Act (1994)* and the *Water Industry Regulatory Order* (WIRO). The WIRO requires, amongst other things that the ESC:

> *(a) be satisfied that the prices contained in the **Water Plan** which the **regulated entity** proposes it be permitted to charge for **prescribed services** over the term of the **Water Plan**, or the manner in which the **Water Plan** proposes that such prices are to be calculated or otherwise determined, are such as to:*

*(i) provide for a sustainable revenue stream to the **regulated entity** that nonetheless does not reflect monopoly rents or inefficient expenditure by the **regulated entity**;*

*(ii) allow the **regulated entity** to recover its operational, maintenance and administrative costs;*

*(iii) allow the **regulated entity** to recover its expenditure on renewing and rehabilitating*

existing assets;

*(iv) allow the **regulated entity** to recover:*

*(A) a rate of return on assets as at 1 July 2004 that are valued in a manner determined by, or at an amount otherwise specified by, the **Minister** at any time before 1 July 2004;*

(B) a rate of return on investments made after 1 July 2004 to augment existing assets or construct new assets;

Recommendations - operating expenditure

We have recommended the changes set out in the Table below to Wannon Water's forecast operating expenditure. Note that throughout this report, unless indicated otherwise, references to Wannon's 'forecast' or 'proposal' refer to its original September Water Plan proposal and not any subsequent proposals or adjustments that have been received.

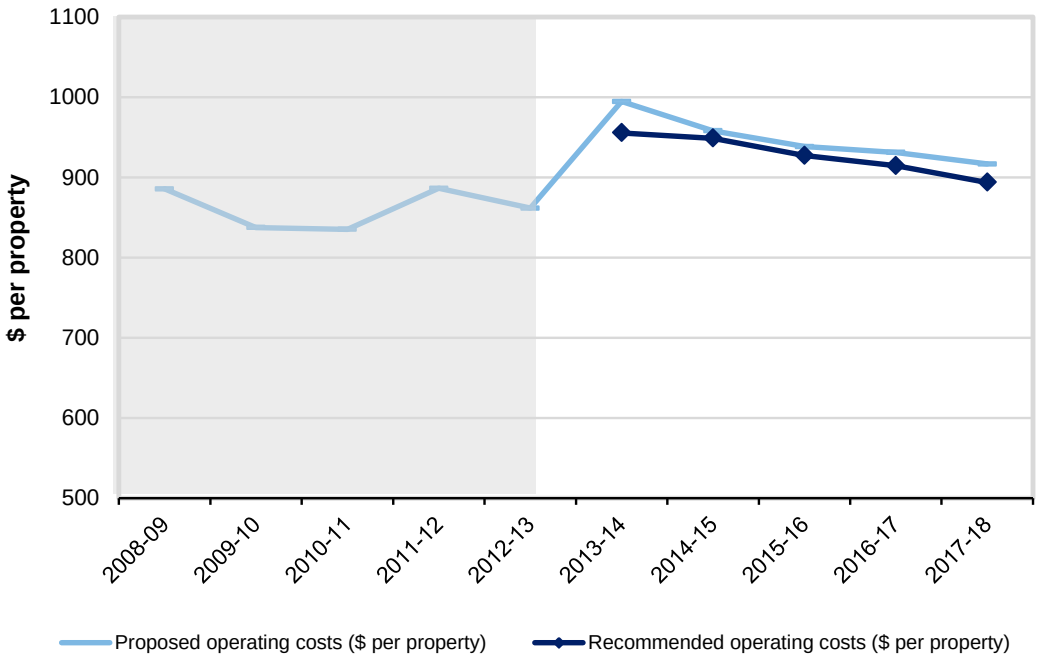
Table E1 Wannon Water forecast controllable operating expenditure and recommended adjustments ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Proposed controllable operating expenditure ($m)	36.553	41.471	40.372	39.960	40.042	39.810	**201.655**
Recommended adjustments							
Electricity		0.022	-0.129	-0.142	-0.333	-0.553	**-1.136**
Chemicals		-0.065	-0.109	-0.167	-0.217	-0.269	**-0.826**
Hardship GSL		-0.016	-0.016	-0.016	-0.016	-0.016	**-0.078**
Defined benefits		-1.314	0.140	0.136	0.132	0.129	**-0.777**
Minor new initiatives		-0.198	-0.240	-0.231	-0.238	-0.245	**-1.153**
Konongwootong operating activities		-0.035	-0.017	-0.035	-0.017	-0.017	**-0.121**
Safe work compliance training		-0.030	-0.030	-0.030	-0.030	-0.030	**-0.152**
Total recommended adjustments		-1.637	-0.402	-0.485	-0.719	-1.002	**-4.244**
Recommended operating expenditure		**39.835**	**39.970**	**39.475**	**39.322**	**38.808**	**197.411**

Notes: Controllable operating expenditure excludes licence fees, environmental contribution levy and bulk water costs

Figure E1 compares our recommended operating expenditure for Wannon Water (on a per connection basis) with Wannon Water's proposal.

Figure E1 Wannon Water forecast controllable operating expenditure and recommended operating expenditure ($ per property 01/01/2013)



Performance against productivity hurdle

The ESC's Guidance Paper notes that the ESC will require all businesses to achieve a minimum of 1% per year productivity improvement on customer growth adjusted business as usual (BAU) operating expenditure for the WP3 period (the productivity hurdle).

We have interpreted BAU operating expenditure as being all operating expenditure other than expenditure that is the result of new or changed service outcomes, or new obligations imposed by Government or technical regulators.

In the case of Wannon Water, we have assessed the following increases in operating expenditure above the 2011-12 baseline as meeting this definition:

- Electricity
- Defined benefits superannuation contributions
- Intelligent Water Networks
- Implementation of the hardship GSL
- Maintenance of property service pipes
- Bulk metering verification program
- Operating expenditure that is required as a result of new capital expenditure projects (i.e. Portland and Hamilton plants)
- De-sludging costs

The following table summarises the expenditure above the 2011-12 BAU for these items that we have assessed as meeting the ESC's requirements for prudency and efficiency.

Table E2 Prudent and efficient new initiatives and obligations expenditure above the 2011-12 baseline ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Electricity		0.512	0.593	0.642	0.639	0.648	3.035
Defined benefits		0.144	0.140	0.136	0.132	0.129	0.681
Intelligent Water Networks		0.050	0.050	0.050	0.050	0.050	0.250
Hardship GSL		0.037	0.037	0.037	0.037	0.037	0.186
Maintenance of property service pipes		0.412	0.412	0.412	0.412	0.412	2.061
Bulk metering verification program		0.043	0.043	0.043	0.043	0.043	0.213
Operating costs from new capital expenditure (Portland and Hamilton plants)		0.400	0.400	0.400	0.400	0.400	1.999
All sites desludge WRP lagoons		0.638	0.298	0.000	0.495	0.000	1.431
Total		**2.236**	**1.973**	**1.720**	**2.208**	**1.719**	**9.856**

Note: Electricity encompasses carbon price impacts.

Table E3 below calculates a "recommended BAU expenditure" using our total recommended operating expenditure less recommended expenditure on new or changed service outcomes, or new obligations imposed by Government or technical regulators above the BAU target. This amount is then compared with the growth and productivity adjusted BAU target to obtain a view on whether or not Wannon Water's operating expenditure, following our adjustments, meets the ESC's productivity hurdle.

Table E3 Productivity hurdle assessment ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Recommended operating expenditure		39.835	39.970	39.475	39.322	38.808	197.411
Less prudent and efficient new initiatives expenditure		2.236	1.973	1.720	2.208	1.719	9.856
Recommended BAU expenditure		**37.599**	**37.997**	**37.755**	**37.115**	**37.090**	**187.555**
Adjusted BAU target	36.513	36.432	36.392	36.351	36.311	36.271	181.757
Amount above BAU target		1.167	1.605	1.404	0.804	0.819	5.798

As shown in the table, following our recommended adjustments, and accounting for expenditure above the BAU target that is the result of new or changed service outcomes, or new obligations imposed by Government or technical regulators, Wannon Water does not meet the ESC's productivity hurdle. This is mainly due to increased expenditure on new initiatives. For Wannon Water to meet the productivity hurdle, a further reduction of $5.798m would be required.

Capital expenditure

We have recommended the changes set out below to Wannon Water's proposed capital expenditure.

Table E4 Wannon Water forecast capital expenditure and recommended adjustments ($m, 01/01/2013)

Capital expenditure item		Water Plan forecast					Total WP3
		2013-14	2014-15	2015-16	2016-17	2017-18	
Heywood	Proposed	0.000	0.000	0.227	4.573	0.000	4.800
Water Reclamation Plant Irrigation Works	Recommended	0.000	0.000	0.227	4.573	0.000	4.800
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Hamilton	Proposed	0.000	0.247	0.000	3.523	0.000	3.770

Capital expenditure item		Water Plan forecast					Total WP3
		2013-14	2014-15	2015-16	2016-17	2017-18	
Water Reclamation Plant Irrigation Works	Recommended	0.000	0.247	0.000	3.523	0.000	3.770
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Cobden Water Reclamation Plant Irrigation Works	Proposed	0.000	0.316	0.000	0.000	1.804	2.120
	Recommended	0.000	0.316	0.000	0.000	1.804	2.120
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Casterton Water Reclamation Plant Irrigation Works	Proposed	0.000	0.274	0.000	0.000	1.561	1.835
	Recommended	0.000	0.274	0.000	0.000	1.561	1.835
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Casterton WTP Clarifier	Proposed	0.000	0.429	2.761	0.000	0.000	3.190
	Recommended	0.000	0.000	0.000	0.000	0.000	0.000
	Net change	0.000	-0.429	-2.761	0.000	0.000	-3.190
Curdie Vale Bore Construction	Proposed	2.990	0.000	0.000	0.000	0.000	2.990
	Recommended	2.990	0.000	0.000	0.000	0.000	2.990
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Wyatt St Bore Construction	Proposed	0.035	2.925	0.000	0.000	0.000	2.960
	Recommended	0.148	0.000	0.000	0.000	0.000	0.148
	Net change	0.113	-2.925	0.000	0.000	0.000	-2.812
Wangoom Rd Water Tower and Pump Station	Proposed	0.000	0.182	0.186	2.393	0.000	2.760
	Recommended	0.000	0.182	0.186	2.393	0.000	2.760
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Wollaston Rd Water Tower and Pump Station	Proposed	0.000	0.153	2.197	0.000	0.000	2.350
	Recommended	0.000	0.153	2.197	0.000	0.000	2.350
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Portland	Proposed	0.087	0.861	0.773	0.575	0.384	2.680
	Recommended	0.087	0.861	0.773	0.575	0.384	2.680
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Port Fairy	Proposed	0.041	0.423	0.535	0.623	0.668	2.290
	Recommended	0.041	0.423	0.535	0.623	0.668	2.290
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Total proposed		20.887	25.200	21.643	22.875	18.438	109.044
Recommended capital expenditure		**21.000**	**21.846**	**18.883**	**22.875**	**18.438**	**103.042**
Recommended adjustments from proposed		0.113	-3.354	-2.761	0.000	0.000	-6.002

1 Introduction

1.1 Background

The Essential Services Commission (ESC) is currently conducting a review of the proposed prices to be charged by Victoria's water businesses for the period 1 July 2013 to 30 June 2018, referred to in this document as 'the next regulatory period'.

The businesses have submitted Water Plans to the ESC for the next regulatory period. The Water Plans include forecasts of operating expenditure, capital expenditure and demand, proposed service standards and prices.

1.2 Scope of review

The ESC has engaged Deloitte to provide it with advice on whether the regional urban water businesses' proposed expenditure forecasts are consistent with the requirements of the legislative framework.

In undertaking this review, Deloitte's key responsibilities are to:

- Assess the appropriateness of the expenditure forecasts in relation to the key objectives of the review
- Provide independent advice to the ESC regarding the appropriateness of the forecasts
- Where Deloitte's advice indicates that a proposed expenditure level is not appropriate, propose to the ESC a revised expenditure level.

Capital expenditure

In relation to capital expenditure, we have focussed on the major projects that comprise a significant proportion of the total capital expenditure forecasts. In forming a view as to whether expenditure meets the requirements in the WIRO, and consistent with advice in the ESC's Guidance Paper, we have had regard to the following items:

- Does proposed capital expenditure reflect obligations imposed by Government (including technical regulators) or customers' service expectations?
- Are proposed new major capital works consistent with efficient long-term expenditure on infrastructure services?
- Does the business have appropriate asset planning procedures?
- Does the business have appropriate asset management systems in place?
- Does the business have appropriate project management procedures in place to enable effective delivery of capital works?
- Has a risk-based approach been adopted to develop the capital expenditure program? Is there clear evidence that projects are prioritised?
- Are major projects consistent with long-term strategies and planning?
- Is the timing for the proposed new capital expenditure reasonable?
- Are individual project cost forecasts reasonable and do not include undue contingencies or provisions, and reflect current efficient rates for undertaking capital expenditure in the Victorian water sector?
- Is capital expenditure deliverable in the timeframes proposed?

In relation to deliverability of individual projects as well as capital expenditure programs more broadly, the ESC has indicated that the following points need to be considered:

- The actual performance against previous capital expenditure programs and the business' demonstrated capacity to deliver against capital budgets
- The internal and external resources available to the water business to deliver the identified projects
- Timing of proposed capital programs in terms of deliverability, taking into account the proposed capital expenditure across the industry
- The opportunity to smooth the business's capital profiles or defer discretionary or non-essential projects from the start of the regulatory period to later in the period
- The business' risk sharing, and incentive and penalty payment arrangements with its contractors.
- Whether businesses have appropriate project management systems and processes in place.

Operating expenditure

In relation to operating expenditure we have been asked to provide advice on, amongst other things, whether changes in operating costs are consistent with the timing of major capital projects; that businesses are fulfilling their obligations and meeting customer service expectations as cost efficiently as possible; that forecast divergences can be readily explained; and one-off costs associated with the drought have been removed.

The ESC has highlighted that energy, labour, IT and chemical costs should be a significant focus of the review. The Guidance Paper also outlines the ESC's intention to remove expenditure relating to drought mitigation and other related unnecessary water conservation, in light of the fact that Victoria is no longer experiencing a period of drought.

In addition, the Guidance Paper notes that ESC requires businesses to achieve at least a 1% productivity improvement on business as usual (BAU) expenditure.

Our approach to assessing operating expenditure for each business can be briefly summarised as follows:

1. **Assess 2011-12 BAU and adjust where necessary** – In general, we have removed one off expenditure, drought and other water conservation expenditure and other defined benefits, ultimately reaching an adjusted BAU expenditure for 2011-12.
2. **Assess business identified operating expenditure items increasing from 2011-12 levels and identify cuts consistent with prudent and efficient expenditure** – We have reviewed key areas of expenditure and where we are not satisfied that the expenditure is prudent or efficient we have removed it from the forecast to determine a revised operating expenditure forecast.

   In making our adjustments there are a number of areas or cost categories where issues are common across businesses – electricity cost increases being one example. We have applied a consistent approach to these areas across the businesses.

   We have not reviewed licence fee payments or environmental contribution levy payments as part of our analysis. We understand the ESC will review these items itself.
3. **Compare revised operating expenditure to target BAU (adjusted where necessary) –** Following our assessment of key areas of expenditure, we compare our total recommended operating expenditure (less recommended expenditure on new or changed service outcomes, or new obligations imposed by Government or technical regulators) with a growth and productivity adjusted BAU target to obtain a view on whether or not the business meets the ESC's 1% productivity hurdle. Where a business

does not meet the productivity hurdle, we identify the further downward adjustment to expenditure required to meet the hurdle.

1.3 Structure of this report

This report describes our approach and sets out our findings from the review of Wannon Water's Water Plan. It is structured as follows:

- Chapter 2 provides an overview of our methodology for conducting the review, the process followed and key timelines
- Chapter 3 briefly summarises Wannon Water's Water Plan with respect to expenditure forecasts and outlines key drivers of expenditure such as government obligations, service standards and demand forecasts
- Chapter 4 provides our analysis, conclusions and recommendations on key issues with respect to Wannon Water's operating expenditure forecast
- Chapter 5 provides our analysis, conclusions and recommendations on key issues with respect to Wannon Water's capital expenditure forecast.

2 Overview of approach

2.1 Process for review

Our approach to undertaking the review has involved the following key steps.

2.1.1 Initial planning and workshop with the ESC

The following steps were taken in the initial planning phase of the project:

- An initial review of Water Plans, financial model templates and associated documentation was undertaken to identify key issues
- A workshop was held with ESC staff to identify and discuss key issues for the focus of the review
- A detailed review of Water Plans and templates was undertaken, with an initial set of queries produced to guide our site visits with the businesses.

2.1.2 Questions to business and site visits

Following the planning phase, we prepared questions for the businesses and arranged site visits:

- We conducted our site visit with Wannon Water on 25 October 2012
- The site visits were used to hold discussions with Wannon Water and receive further information on key issues as required.

2.1.3 Preparation of Draft Report

A Draft Report was prepared and provided to the ESC on 11 December 2012. The ESC subsequently provided the Draft Report to Wannon Water.

2.1.4 Response from Wannon Water

We held discussions with Wannon Water personnel regarding the Draft Report. A formal response to the Draft Report was provided by Wannon Water on 25 January 2013. This response accepted some elements of our Draft Report, but disagreed with other elements.

We have closely examined Wannon Water's response and the information it provided to support its views. We subsequently held additional discussions with Wannon Water to clarify certain aspects of the forecasts and its response.

2.1.5 Final Report

This Final Report sets out our views of whether Wannon Water's operating and capital expenditure forecasts meet the requirements of the ESC/WIRO. Where we do not believe this is the case we have prepared alternative forecasts or recommended adjustments.

2.2 Approach to assessing forecasts

Our approach to reviewing many items of capital and operating expenditure is set out in our companion *Overview* document which should be read in conjunction with this report.

3 Summary of Wannon Water's forecasts

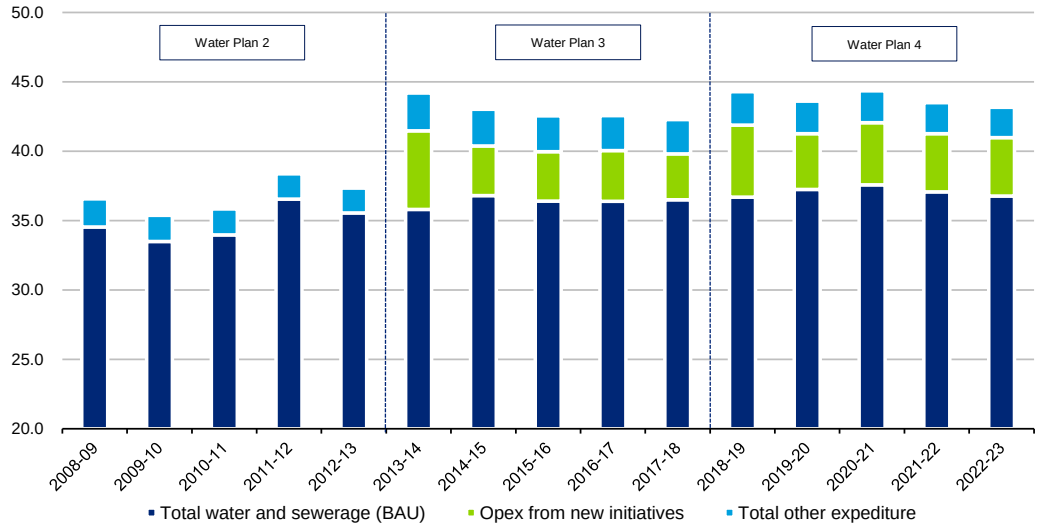
Wannon Water provides water and wastewater services to 41,236 customers, operates 29 water treatment plants and 18 sewage treatment plants and services an area of 23,424km^2. Key towns served include Portland, Warrnambool, Camperdown, Port Fairy and Hamilton.

3.1 Operating expenditure

Figure 3-1 shows Wannon Water's operating expenditure over the WP2, WP3 and WP4 periods. Wannon Water's operating costs (excluding licence fees, environmental contribution and bulk water charges) are forecast to be a total of $201.7m over WP3, which is an increase of 16% from WP2 (total of $174.1m).

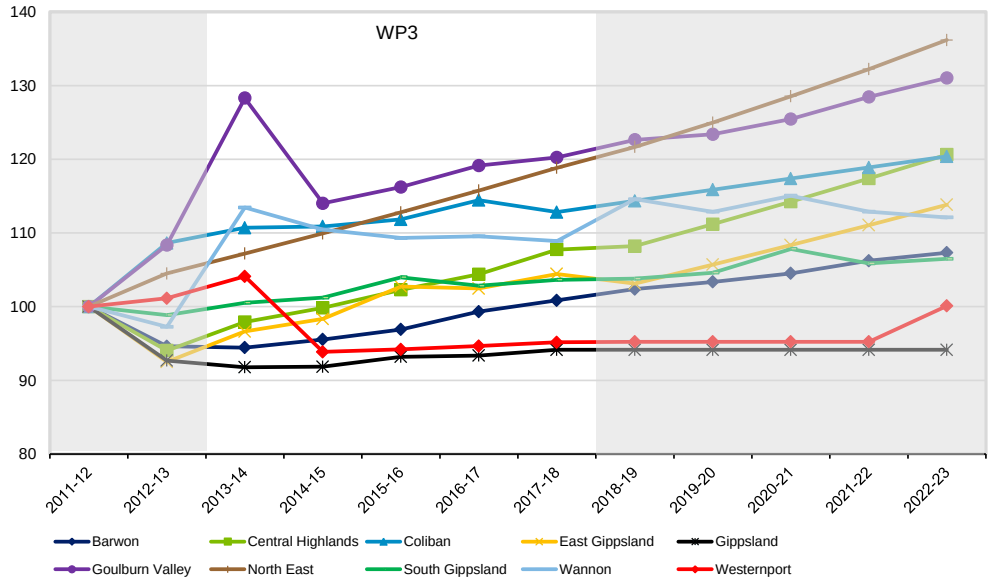
Note that throughout this report, unless indicated otherwise, references to Wannon's 'forecast' or 'proposal' refer to its original September Water Plan proposal and not any subsequent proposal or adjustments that have been received.

Figure 3-1 Wannon Water actual and forecast operating expenditure ($m, 01/01/2013)



Wannon Water has forecast one of the largest increases in operating expenditure over WP3 of the businesses we have reviewed. This is predominately due to the large number of new initiative items it has identified, many of which commence in 2013-14.

Figure 3-2 Operating expenditure (excluding licence fees, environmental contribution and bulk water charges) for 2011-12, 2012-13, WP3 and WP4 periods (Index 2011-12 = 100)



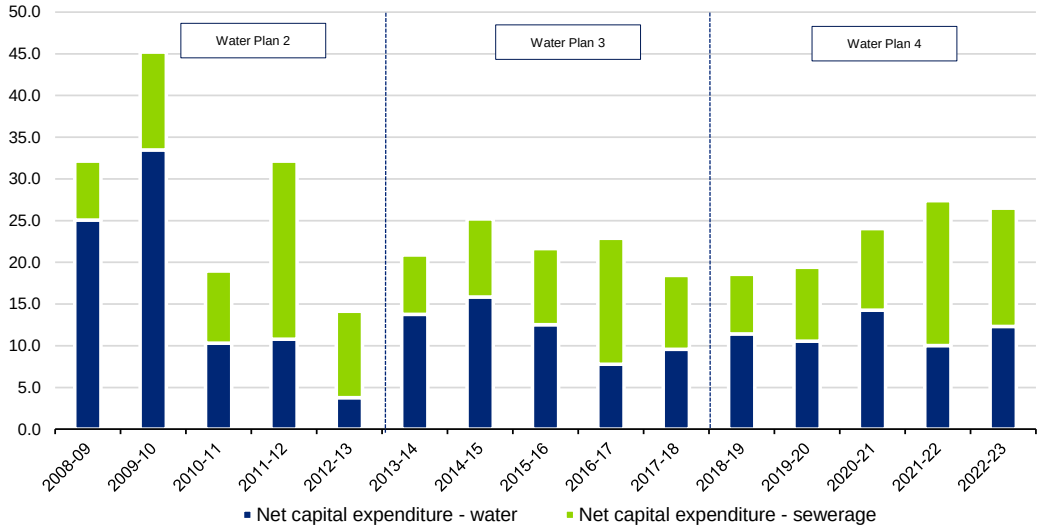
Total prescribed operating costs are forecast to be $44.5m in 2013-14. Wannon Water has identified that key drivers of operating expenditure across WP3 include:

- Customer growth
- New infrastructure project operating costs, such as new treatment plants and sewerage schemes
- Increased power costs resulting from increased electricity network charges and the introduction of the carbon tax.
- Increased regulatory compliance costs
- Increased environmental contribution paid to DSE.

3.2 Capital expenditure

Wannon Water's total capital expenditure for WP3 is forecast to be $109.04m which represents a 24% decrease on WP2 actual expenditure of $142.54m. The figure below shows Wannon Water's actual and forecast water and sewerage net capital expenditure.

Figure 3-3 Wannon Water actual and forecast net capital expenditure ($m, 01/01/2013)



Wannon Water's forecast capital expenditure for WP3 includes:

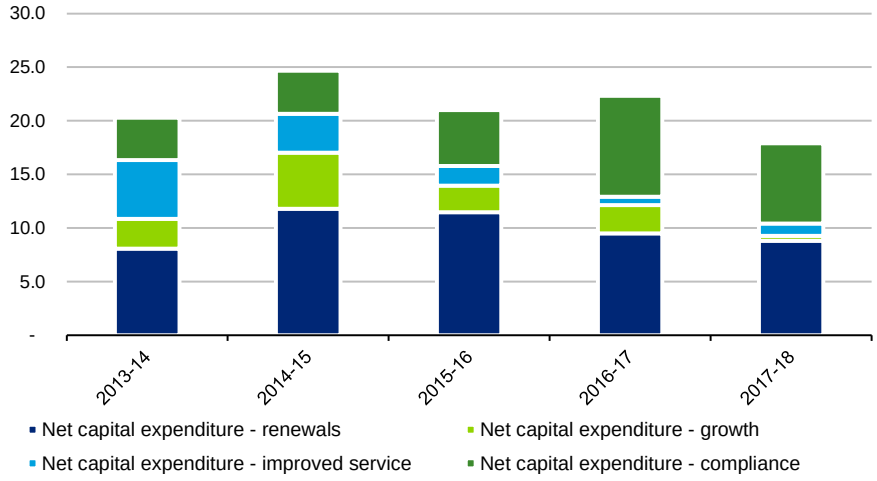
- Water expenditure of $59.47m down from $83.41m in WP2 (a decrease of 29%)
- Sewerage expenditure of $49.57m down from $59.13m in WP2 (a decrease of 16%)

The key drivers of capital expenditure for WP3 are:

- Asset renewals ($49.7m or 46% of total capital expenditure)
- Regulatory compliance ($30.1m or 28% of total capital expenditure), including major projects such as winter storage and irrigation works at both the Heywood ($6.07m) and Hamilton ($3.6m) Water Reclamation Plants

Expenditure on service growth ($13.6m or 12% of total capital expenditure) and service level maintenance/improvement ($12.8m or 12% of expenditure) is relatively minor. The Figure below shows Wannon Water's WP3 forecast capital expenditure by cost driver.

Figure 3-4 Forecast capital expenditure by cost driver



3.3 Key drivers and obligations

3.3.1 Government obligations

Wannon Water has identified that it faces a number of new government obligations that were not in the BAU baseline year of 2011-12 that will impact on WP3 operating expenditure. These include:

- Introduction of the carbon tax as at 1 July 2012
- Requirement from the ESC to implement a GSL in relation to conducting site visits prior to any restriction of supply or legal action of hardship customers. In May 2012, the ESC released its final decision on its Hardship Related Guaranteed Service Level Review. In its final decision, the ESC extended the hardship related GSL scheme to Wannon Water (among others) from 1 July 2012
- Additional responsibility to maintain and replace customer property service pipes and sanitary drains through a change in regulations of the *Water Act* 1989. This obligation is set to be introduced on the 1 January 2013. Prior to this date, Wannon Water has only maintained these assets. The change in regulations means that Wannon Water now has responsibility for renewal/replacement as required
- Additional responsibility for bulk metering verification. Under Section 43 of the Water Act, Wannon Water is required to prepare and complete a metering program to be approved by the Minister to comply with the obligations of each bulk entitlement. This program was submitted to the Minister, and on 18 July 2011, the Minister for Water requested that Wannon Water's metering plan include a methodology for enabling field accuracy of meters was required. Wannon Water did not currently have a meter verification program.

3.3.2 Service standards

Wannon Water has revised its service standard targets based on performance across the past five years of WP2, although these revisions are not expected to impact on operating costs.

Wannon Water has proposed three new service standards being biosolids reuse, sewerage backlog connections and environmental discharge licence requirements.

3.3.3 Demand

Demand for water is forecast to decline over the first two years of the WP3 period due to the continuing effect of consumer usage awareness and efficiency measures implemented during the drought. From 2015-16 onwards the Wannon service area is forecast to experience growth of 0.8% p.a. due to population growth, with usage per person remaining relatively constant.

4 Assessment of operating expenditure

This chapter sets out our assessment of operating expenditure including:

- An assessment of the 2011-12 baseline expenditure (which forms the basis of the growth adjusted BAU for WP3)
- Assessment of individual expenditure items. Our approach to assessing many of the expenditure items, including labour, electricity and superannuation guarantee costs, is set out in our *Overview* document
- Assessment of business specific expenditure items that are increasing and are above BAU (i.e. new initiatives or large increases in BAU items).

4.1 Business As Usual (BAU) expenditure

As outlined in the *Overview* document our approach to assessing BAU expenditure is to define efficient expenditure in the base year of 2011-12. Therefore we have removed material once-off items that were incurred in 2011-12, as well as adding back any material items that are normally incurred but were not in 2011-12. In addition, we have specifically removed any once-off and cyclical costs related to the drought in 2011-12, consistent with the ESC Guidance Paper.

We have assessed Wannon Water's 2011-12 BAU baseline and have made a downward adjustment of $0.040m. This amount relates to a one-off water leak rebate made to a large customer.

Table 4-1 below shows Wannon Water's proposed BAU expenditure (excluding licence fees, the environmental contribution levy and bulk water charges) for 2011-12 which is then growth and productivity adjusted for the WP3 years according to the methodology in the ESC's template.

Table 4-1 Wannon Water 2011-12 BAU and growth adjusted forecast ($m, 01/01/2013)

Operating expenditure item	Actual 2011-12	Water Plan forecast				
		2013-14	2014-15	2015-16	2016-17	2017-18
Proposed BAU	36.553	36.957	36.976	36.996	37.015	37.035
Deloitte adjustments to BAU	-0.040					
Deloitte adjusted BAU target	**36.513**	**36.432**	**36.392**	**36.351**	**36.311**	**36.271**

The ESC's Guidance Paper notes that the ESC will require all businesses to achieve a minimum of 1% per year productivity improvement on customer growth adjusted business as usual (BAU) operating expenditure for the WP3 period.

In the remainder of this chapter we assess the individual items of expenditure that Wannon Water has identified as increasing over the WP3 period. Following our assessment of each individual item, we compare our total recommended operating expenditure (less recommended expenditure on new or changed service outcomes, or new obligations imposed by Government or technical regulators) with the growth and productivity adjusted BAU target set out in Table 4-1 to obtain a view on whether or not Wannon Water is meeting the ESC's productivity hurdle.

This approach ensures that our assessment of Wannon Water's performance against the productivity hurdle takes into account the extent to which expenditure above the BAU target

is the result of new or changed service outcomes, or new obligations imposed by Government or technical regulators (i.e. is either driven by required service outcomes from customers or largely outside the control of the business).

4.2 Individual expenditure items

Individual expenditure items have been assessed for prudency and efficiency using the approach set out in the *Overview* document. We have reported these items on a 'by exception' basis, i.e. we have generally only provided commentary for those items where we have recommended adjustments.

In this section, and where the context requires, references to Wannon Water's 'original' forecasts reflect forecasts contained in its Water Plan of September 2012. References to Wannon Water's 'revised' forecasts reflect adjustments proposed by Wannon Water in response to our Draft Report.

4.2.1 Labour costs

Wannon Water's Proposal

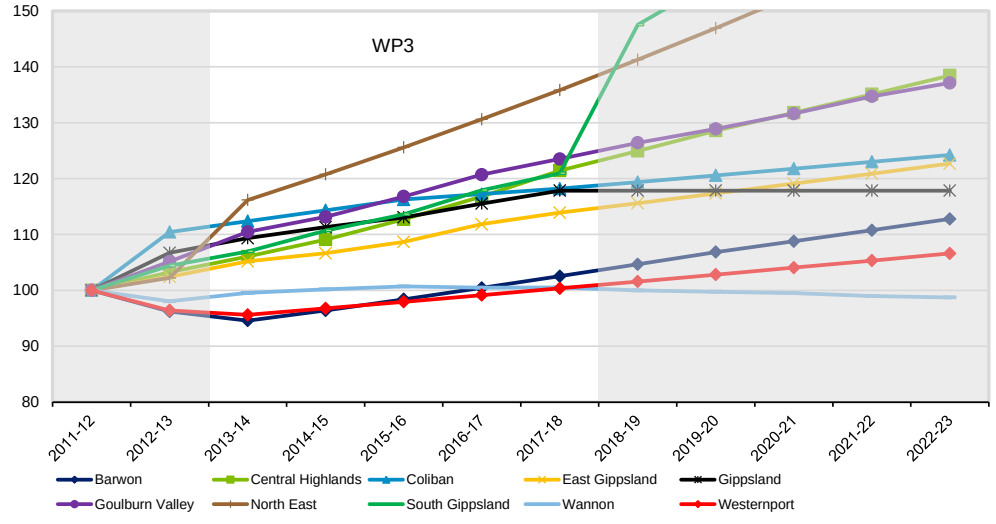
Wannon Water's original forecast total labour expenditure remains static across WP3 compared to the 2011-12 baseline. Key components of Wannon Water's original proposal for labour costs include:

- Nominal wage escalation increases of 3.75% p.a. for the first 3 months of WP3 (i.e. until its EBA expires on 30 September 2013) followed by 2.5% p.a. for the remainder of WP3
- Allowance for superannuation guarantee increases of $0.772m in total over the WP3 period
- A net increase of 3.2 FTEs by 2017-18 from the baseline (see Table 4-3)

In comparison to other ten regional urban businesses we reviewed, Wannon Water's labour is the:

- Equal lowest for total labour cost changes over WP3 from the 2011-12 baseline (see Figure 4-1)
- Lowest for total labour cost per FTE changes over WP3 from the 2011-12 baseline
- Equal second highest increase in FTE from 2008-09 to 2017-18.

Figure 4-1 Total labour costs (Index 2011-12 = 100)



Analysis and Recommended adjustments

Our approach to reviewing labour forecasts is set out in the *Overview* document and involves:

- Applying wage increases set out in existing EBAs to apply until the EBA expires
- Once a new EBA applies, applying a real growth in wages per FTE of 0%.
- Reviewing FTE numbers on a case-by case basis.

We have considered Wannon Water's labour expenditure using the approach above, and benchmarking against other businesses, and recommend that no adjustment be made to Wannon Water's forecast labour costs as outlined in Table 4-2. We are also satisfied that Wannon Water's forecasts of FTEs are reasonable and have not made any adjustment to FTE numbers (Table 4-3).

Table 4-2 Wannon Water labour expenditure ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast				
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18
Proposed labour expenditure	18.206	18.122	18.236	18.332	18.290	18.299
Recommended adjustments		-	-	-	-	-
Revised labour expenditure		18.122	18.236	18.332	18.290	18.299

Table 4-3 Wannon Water proposed FTEs

	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18
Proposed FTE	213.6	217.8	217.8	217.8	216.8	216.8

4.2.2 Electricity costs

Wannon Water has almost 40 large sites and a large number of small sites. Wannon Water has used Procurement Australia (PA) to tender for its electricity supply.

The Water Plan forecasts assume large price increases in both 2012-13 and 2013-14, combined with increasing volumes in 2013-14. Its large site price per KWh moves from the second lowest of the businesses in 2011-12 to one of the highest in 2017-18.

Table 4-4 Water Plan electricity forecasts ($m, nominal)

	Actual	Water Plan forecast					
	2011-12	2012-13	2013-14	2014-15	2015-16	2016-17	2017-18
Large sites	2.064	2.759	3.348	3.673	3.836	4.153	4.529
Small sites	0.769	0.505	0.514	0.563	0.588	0.623	0.664
Total	**2.834**	**3.264**	**3.862**	**4.236**	**4.425**	**4.776**	**5.193**
% Change	13.10%	15.20%	18.30%	9.70%	4.40%	7.90%	8.70%

As noted in our *Overview* document Procurement Australia has recommended that AGL be selected to provide electricity services and a new three year quote has been provided to Wannon Water.

Using the quote provided by Procurement Australia and known changes in network tariffs, we recalculated Wannon Water's electricity expenditure for our Draft Report, removing a total of $3.339m.

In response to our Draft Report Wannon Water provided us with an updated electricity forecast model which included forecasts on a site-by-site basis and reflected the Procurement Australia quote. Wannon Water also advised us that the electricity forecasts contained in its Water Plan were expressed in nominal (not real) dollars.

We are satisfied that this model is robust and have used it, together with our base assumptions as set out in the *Overview* document, to arrive at an updated forecast of electricity costs. In total we have removed $1.136m from Wannon Water's original forecasts – a large element of the smaller reduction compared to our Draft Report being the recalculation of electricity costs in real, rather than nominal, terms.

Table 4-5 Electricity costs ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast				
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18
Proposed electricity expenditure	2.878	3.391	3.620	3.678	3.863	4.089
Recommended adjustments		0.022	-0.129	-0.142	-0.333	-0.553
Revised electricity expenditure		3.413	3.491	3.536	3.530	3.536

4.2.3 Chemicals

Wannon Water has proposed chemical costs of $5.580m for WP3. Chemical costs increase by 15% in 2013-14 and by an average 5% annually from 2014-15 to 2017-18. The 2013-14 increase is largely due to the commissioning of new water treatment facilities at Portland and Hamilton. Wannon Water has assumed that chemical prices will increase by 4.45% p.a. in real terms for WP3, which is based on a weighted average of chemical prices over the past four years. Wannon Water has used 2009-10 as the base year (as it is representative of 'normal' chemical demand conditions) and applied the 4.45% increase beginning 2013-14.

As outlined in our *Overview* document, for the purposes of adjusting businesses' forecasts we have assumed a small real increase in chemical prices in 2012-13 over base year prices and no real changes in chemical prices thereafter. In relation to Wannon Water, given 2009-10 was used as the base year and is higher than 2011-12, we have assumed no real price increases for chemical costs from 2013-14 onwards.

We recommend a reduction of $0.827m to WP3 operating expenditure to better reflect likely chemical costs.

Operating expenditure item	Actual	Water Plan forecast				
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18
Proposed chemical expenditure	0.884	1.016	1.059	1.118	1.168	1.220
Recommended adjustments		-0.065	-0.109	-0.167	-0.217	-0.269
Revised chemical expenditure		0.951	0.951	0.951	0.951	0.951

4.2.4 Implementation of hardship GSL

Wannon Water has proposed a total increase in expenditure (above BAU) of $0.264m for WP3 relating to undertaking site visits associated with the new hardship GSL. The hardship GSL is an additional obligation on Wannon Water (along with three other businesses) beginning on 1 July 2012. Wannon Water noted that the additional expenditure is for carrying out site visits prior to restriction or legal action of a customer, which it was not previously undertaking.

In our draft report, we recommended that the assumptions around the number of site visits be based upon the average number of legal actions and restrictions over the past five years. For this final report, we have accepted Wannon's proposal that the number of site visits be based upon actual site visits undertaken from July to November 2012.

We therefore recommend a downward adjustment to Wannon Water's original forecast operating expenditure for WP3 of $0.078m.

Table 4-6 Wannon Water GSL hardship expenditure for WP3 ($m, 01/01/2013)

Operating expenditure item	Water Plan forecast				
	2013-14	2014-15	2015-16	2016-17	2017-18

Proposed hardship GSL expenditure	0.053	0.053	0.053	0.053	0.053
Recommended adjustments	-0.016	-0.016	-0.016	-0.016	-0.016
Revised hardship GSL expenditure	0.037	0.037	0.037	0.037	0.037

4.2.5 Defined benefits superannuation costs

Wannon Water has included a once-off operating expenditure item of $1.458m in its 2013-14 forecasts as a result of its requirement to make an additional defined benefit superannuation contribution (including contribution tax) to Vision Super.

Background information regarding the requirement to make additional superannuation contributions is set out in our *Overview* document. As outlined in the *Overview* document we have allowed businesses to include an annuity payment in their operating forecasts to meet this obligation, calculated as the principal and interest payment on a 15 year loan at 5.75%.

We recommend a reduction of $0.777m to operating expenditure over WP3, to reflect defined benefit payments being made over 15 years at 5.75% rather than a lump sum.

Table 4-7 Wannon Water defined benefits superannuation expenditure ($m, 01/01/2013)

Operating expenditure item	Water Plan forecast				
	2013-14	2014-15	2015-16	2016-17	2017-18
Proposed superannuation payment	1.458	-	-	-	-
Recommended adjustments	-1.317	0.138	0.134	0.130	0.127
Revised superannuation payment	0.141	0.138	0.134	0.130	0.127

4.3 New initiatives

New initiative expenditure items have been assessed for prudency and efficiency on a case by case basis. We have reported these items on a 'by exception' basis, i.e. we have only provided commentary for those items where we have recommended adjustments.

Wannon Water has identified 72 new initiative operating projects which equal $20.16m for WP3 (or $19.74m if adjusting for one efficiency initiative that was identified). Of the ten regional water businesses we have reviewed, Wannon Water has the highest number of individual projects in new initiatives (the next highest being 30) and the second highest total expenditure coming from new initiatives.

Of Wannon Water's 72 new initiatives, we have undertaken a prudency and efficiency assessment on 24 of the largest projects which equates to $18.16m or 90% of total new initiative expenditure. Of the remaining 48 new initiatives, 47 are considered minor projects (which are discussed further in Section 4.3.1) and there is one efficiency project.

We have addressed some of the new initiatives in our consideration of generic business items in Section 0 including the following:

- New employee expenditure (considered as part of labour)
- Impact of the carbon tax (considered as part of electricity)
- Hardship GSL
- Defined Benefits superannuation costs.

4.3.1 Therefore we have not made any further adjustments to these items in this section.

4.3.2 Minor new initiative items

Of Wannon Water's 72 new initiatives, 47 of these can be considered of a minor nature. These initiatives total $2.0m or 10% of total new initiative expenditure in WP3. In our draft

report, we removed the $2.0m expenditure associated with all 47 projects. For this final report, we have allowed expenditure on projects that were defined as 'operating projects' (representing 17 and $0.750m of the minor projects). This is because Wannon had already removed expenditure associated with 'operating projects' from 2013-14 to 2017-18 BAU and considered them as 'new initiatives' rather than BAU expenditure.

We consider that the remaining expenditure on minor projects (30 projects worth $1.153m) can adequately be dealt with within the normal ups and downs of ongoing expenditure. We note (from our analysis of Wannon Water's natural accounts) that there have been some expenditure items in the 2011-12 baseline year that were significantly higher than previous years. For example, consultant costs ($1.463m or 42% increase from 2010-11), which included preliminary investigations for capital works, Konongwootong Management Plan and IT strategy development and leadership program, all of which are not continuing.

Naturally there are other items that have increased and those that have decreased in the natural accounts, however the above increases provide substantial capacity within BAU to finance these smaller new initiatives identified by Wannon Water, without the need for additional expenditure.

Therefore we recommend a reduction to Wannon Water's operating expenditure for WP3 of $1.153m, to remove all additional expenditure associated with these 30 minor projects.

4.3.3 Konongwootong Master Plan Implementation

Wannon Water has proposed total expenditure in WP3 of $0.258m for the Konongwootong Master Plan Implementation which relates to expenditure on Konongwootong dam for activities to reduce public risk such as tree removal and improving access tracks. Subsequent to our Draft Report, Wannon Water submitted revised expenditure figures for Konongwootong dam of $0.137m. We have accepted this revised amount.

Therefore we recommend a reduction of $0.121m to operating expenditure for WP3.

4.3.4 Safe work training

Wannon Water has proposed new initiative expenditure in WP3 of $0.152m for safe work compliance training. This expenditure is the result of the introduction of the Safe Work Act which is scheduled for introduction in 2013 with 18 new codes of practice applying to Wannon Water. This Act will require Wannon Water to undertake procedural review of compliance and provide compliance training. The cost estimates consist of $0.025m per year in consultant costs to run the training and $0.005m in additional employee costs.

We note that Wannon Water spent $0.500m[1] in 2011-12 on training and conferences and has included an annual training budget of around $0.700m annually for WP3 within BAU expenditure, which we believe is a more than adequate budget to account for increases and decreases in training requirements. We also note that most other regional businesses have not proposed training expenditure in addition to BAU in their Water Plans with regard to these changes to the Safe Work Act but instead will absorb these costs.

Therefore we recommend a reduction of $0.152m to operating expenditure for WP3, to remove all additional expenditure associated with this training.

4.3.5 Recycled water system at the Warrnambool WRP

Wannon Water has proposed a total of $0.175m for WP3 for ongoing operating expenditure relating to a new recycled water system at the Warrnambool WRP. The system was implemented to treat recycled water that is used within sewage treatment process to a higher standard. The recycled water is used for spray down of filter belt process and presents an OH&S issue of employee exposure to aerosols containing pathogens created from the

[1] Figure taken from natural accounts information provided by Wannon Water

recycled water sprays. Employees have raised several incidents of itching of eyes and inhalation of aerosols from the spray mist.

Generally we consider the identification and response to OH&S incidents and concerns to be BAU. This particular case of unsafe practice does not reflect an additional obligation on the business, but rather is a new incident under an existing responsibility to maintain a safe working environment. We consider that all businesses will be presented with OH&S issues in the normal practice of running the business. However, given this is a material OH&S issue, we have accepted the additional expenditure in this case.

4.3.6 Summary of adjustments to new initiatives

Table 4-8 below provides a summary of the above discussion and adjustments to Wannon Water's new initiatives. We propose a downward adjustment of $1.43m in total for WP3. Note also that there have been some new initiatives that were included in Section 0, such as labour (covering new employees and superannuation guarantee increases), electricity (including the carbon tax), defined benefits and expenditure relating to the hardship GSL.

Table 4-8 Wannon Water new initiative expenditure for WP3 ($m, 01/01/2013)

Operating expenditure item	Water Plan forecast					
	2013-14	2014-15	2015-16	2016-17	2017-18	TOTAL WP3
Recommended adjustments						
Minor new initiatives	-0.198	-0.240	-0.231	-0.238	-0.245	-1.153
Konongwootong operating activities	-0.035	-0.017	-0.035	-0.017	-0.017	-0.121
Safe work compliance training	-0.030	-0.030	-0.030	-0.030	-0.030	-0.152
Total recommended adjustments	**-0.263**	**-0.288**	**-0.297**	**-0.286**	**-0.293**	**-1.427**

4.4 Summary of our recommendations - operating expenditure

We have recommended a total downward adjustment of $4.244m to Wannon Water's WP3 forecast controllable operating expenditure as per the table below.

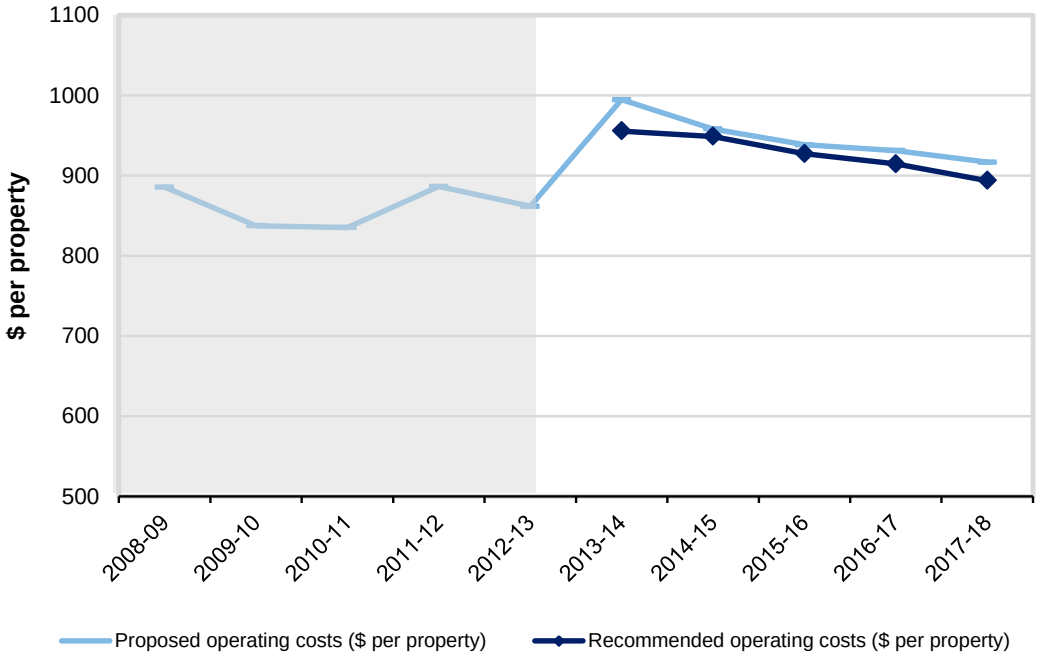
Table 4-9 Wannon Water forecast controllable operating expenditure and recommended adjustments ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Proposed controllable operating expenditure ($m)	36.553	41.471	40.372	39.960	40.042	39.810	**201.655**
Recommended adjustments							
Electricity		0.022	-0.129	-0.142	-0.333	-0.553	**-1.136**
Chemicals		-0.065	-0.109	-0.167	-0.217	-0.269	**-0.826**
Hardship GSL		-0.016	-0.016	-0.016	-0.016	-0.016	**-0.078**
Defined benefits		-1.314	0.140	0.136	0.132	0.129	**-0.777**
Minor new initiatives		-0.198	-0.240	-0.231	-0.238	-0.245	**-1.153**
Konongwootong operating activities		-0.035	-0.017	-0.035	-0.017	-0.017	**-0.121**
Safe work compliance training		-0.030	-0.030	-0.030	-0.030	-0.030	**-0.152**
Total recommended adjustments		-1.637	-0.402	-0.485	-0.719	-1.002	**-4.244**
Recommended operating expenditure		**39.835**	**39.970**	**39.475**	**39.322**	**38.808**	**197.411**

Notes: Controllable operating expenditure excludes licence fees, environmental contribution levy and bulk water costs.

The figure below compares our recommended operating expenditure for Wannon Water (on a per connection basis) with Wannon Water's proposal.

Figure 4-2 Wannon Water forecast controllable operating expenditure and recommended operating expenditure ($ per property 01/01/2013)



Performance against productivity hurdle

The ESC's Guidance Paper notes that the ESC will require all businesses to achieve a minimum of 1% per year productivity improvement on customer growth adjusted business as usual (BAU) operating expenditure for the WP3 period (the productivity hurdle).

We have interpreted BAU operating expenditure as being all operating expenditure other than expenditure that is the result of new or changed service outcomes, or new obligations imposed by Government or technical regulators.

In the case of Wannon Water, we have assessed the following increases in operating expenditure above the 2011-12 baseline as meeting this definition:

- Electricity
- Defined benefits superannuation contributions
- Intelligent Water Networks
- Implementation of the hardship GSL
- Maintenance of property service pipes
- Bulk metering verification program
- Operating expenditure that is required as a result of new capital expenditure projects (i.e. Portland and Hamilton plants)
- De-sludging costs.

The following table summarises the expenditure above the 2011-12 BAU for these items that we have assessed as meeting the ESC's requirements for prudency and efficiency.

Table 4-10 Prudent and efficient new initiatives and obligations expenditure above the 2011-12 baseline ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Electricity		0.512	0.593	0.642	0.639	0.648	3.035
Defined benefits		0.144	0.140	0.136	0.132	0.129	0.681
Intelligent Water Networks		0.050	0.050	0.050	0.050	0.050	0.250
Hardship GSL		0.037	0.037	0.037	0.037	0.037	0.186
Maintenance of property service pipes		0.412	0.412	0.412	0.412	0.412	2.061
Bulk metering verification program		0.043	0.043	0.043	0.043	0.043	0.213
Operating costs from new capital expenditure (Portland and Hamilton plants)		0.400	0.400	0.400	0.400	0.400	1.999
All sites desludge WRP lagoons		0.638	0.298	0.000	0.495	0.000	1.431
Total		**2.236**	**1.973**	**1.720**	**2.208**	**1.719**	**9.856**

Note: Electricity encompasses carbon price impacts.

Table 4-11 below calculates a "recommended BAU expenditure" using our total recommended operating expenditure less recommended expenditure on new or changed service outcomes, or new obligations imposed by Government or technical regulators above the BAU target. This amount is then compared with the growth and productivity adjusted BAU target to obtain a view on whether or not Wannon Water's operating expenditure, following our adjustments, meets the ESC's productivity hurdle.

Table 4-11 Productivity hurdle assessment ($m, 01/01/2013)

Operating expenditure item	Actual	Water Plan forecast					Total
	2011-12	2013-14	2014-15	2015-16	2016-17	2017-18	WP3
Recommended operating expenditure		39.835	39.970	39.475	39.322	38.808	197.411
Less prudent and efficient new initiatives expenditure		2.236	1.973	1.720	2.208	1.719	9.856
Recommended BAU expenditure		**37.599**	**37.997**	**37.755**	**37.115**	**37.090**	**187.555**
Adjusted BAU target	36.513	36.432	36.392	36.351	36.311	36.271	181.757
Amount above BAU target		1.167	1.605	1.404	0.804	0.819	5.798

As shown in the table, following our recommended adjustments, and accounting for expenditure above the BAU target that is the is result of new or changed service outcomes, or new obligations imposed by Government or technical regulators, Wannon Water does not meet the ESC's productivity hurdle. This is mainly due to increased expenditure on new initiatives. For Wannon Water to meet the productivity hurdle, a further reduction of $5.798m would be required.

5 Capital expenditure

This chapter of the report sets out our assessment of Wannon Water's capital expenditure proposal for WP3 including:

- An assessment of generic issues relevant to the overall prudency, efficiency and deliverability of the proposed capital expenditure program.
- A summary of major projects with a significant impact on the capital expenditure proposal (top ten by total expenditure) and assessment of each project
- A summary of our recommendations.

Our approach to assessing generic capital expenditure issues and project specific issues that are common to a number of businesses is set out in our *Overview* document.

5.1 Generic issues

In undertaking our review of Wannon Water's capital expenditure forecast, we have focussed on the major projects that comprise a significant proportion of the total capital expenditure forecast.

In doing so, we have also undertaken a high-level assessment of generic issues that may have an impact on the prudency, efficiency and deliverability of multiple projects or Wannon Water's capital expenditure program as whole.

5.1.1 Capital expenditure planning

Capital planning:

- Wannon Water has a focus on each regulatory period within each Project Investment Plan however lists of projects cover a total ten year period.
- Project Risk Assessment Guidelines define the assessment of risk for each project which must then be included in the Project Investment Plan and individual justifications for each project.
- Further long term planning is done through *Water Supply Demand Strategy 2012-2060* and *Sewerage Systems Management Plan*.

Asset management:

- Wannon Water's Asset Management Policy provides overarching framework and basis for effective asset management. Document dated 18 December 2009 but the next revision is due on 30 November 2012.
- Other key documents include Asset Management Strategy (16 March 2012 update of 2008 version) which outlines approach and directions to achieve Asset Management Policy goals.

5.1.2 Cost estimation and escalation

Wannon Water used consultants GHD to develop P5, P50 and P95 cost estimates for its largest 10 projects.

Description of method using @Risk:

- Concept or preliminary design estimates used to develop unit rates for line items
- Minimum and maximum contingency levels set, typically 20% below and 40-50% above unit rate

- Minimum and maximum unit rates developed using contingency levels
- @Risk analysis run to develop P50 cost estimate
- Difference between P50 and concept or preliminary design estimate calculated
- All line items inflated by % difference identified above to calculate P50 cost estimates for each line item.

Our assessment indicates that no cost escalation factors have been used in the development of capital cost estimates.

5.1.3 Deliverability of the capital expenditure program

Wannon Water proposes to invest $109.04m during the next Water Plan, which equates to an average annual capital expenditure of $21.8m. This is less than the actual average annual capital expenditure in the current regulatory period of $27.7m.

Wannon Water utilises a preferred engineering consultant to provide the majority of concept and detailed design services for capital projects.

Our assessment indicates that Wannon Water should not have issues delivering its capital program.

5.2 Major projects

Table 5-1 provides an overview of the top ten projects (by capital expenditure), showing the primary driver and forecast expenditure over the current and next regulatory period.

Table 5-1 Wannon Water top ten projects and forecast expenditure ($m, 01/01/2013)

Capital expenditure item	Primary Driver	Water Plan forecast expenditure						% of total
		2013-14	2014-15	2015-16	2016-17	2017-18	Total	
Heywood Water Reclamation Plant Irrigation Works	Compliance	0.000	0.000	0.227	4.573	0.000	4.800	4.4%
Hamilton Water Reclamation Plant additional winter storage and irrigation area	Compliance	0.000	0.247	0.000	3.523	0.000	3.770	3.5%
Casterton Water Treatment Plant Install Clarifier	Compliance	0.000	0.429	2.761	0.000	0.000	3.190	2.9%
Curdie Value bore construction	Level of Service	2.990	0.000	0.000	0.000	0.000	2.990	2.7%
Construct new bore at Wyatt St Portland	Level of Service	0.035	2.925	0.000	0.000	0.000	2.960	2.7%
Water Tower and Pump Station in Wangoom Rod Warrnambool	Growth	0.000	0.182	0.186	2.393	0.000	2.760	2.5%
Portland - Sewer Replacement / Refurbishment	Asset replacement / refurbishment	0.087	0.861	0.773	0.575	0.384	2.680	2.5%
Water Tower and Pump Station in Wollaston Rod Warrnambool	Growth	0.000	0.153	2.197	0.000	0.000	2.350	2.2%
Port Fairy - Sewer Replacement / Refurbishment	Asset replacement / refurbishment	0.041	0.423	0.535	0.623	0.668	2.290	2.1%
Cobden Water Reclamation Plant additional 70ML winter storage	Compliance	0.000	0.316	0.000	0.000	1.804	2.120	1.9%
Subtotal - Top 10 Projects		**3.153**	**5.536**	**6.679**	**11.686**	**2.856**	**29.910**	**27.4%**
Other large projects		4.266	8.075	3.427	3.639	5.073	24.480	22.5%
Other minor projects		13.471	11.589	11.534	7.545	10.510	54.650	50.1%
Total		**20.890**	**25.200**	**21.640**	**22.870**	**18.440**	**109.040**	
Proportion of annual expenditure		19%	23%	20%	21%	17%		

Notes: Figures in the table above represent original WP3 forecasts

5.3 Heywood, Hamilton and Cobden Water Reclamation Plant Irrigation Works

5.3.1 Business proposal

Wannon Water proposes to invest in expanded irrigation and storage works at the Heywood, Hamilton, and Cobden Water Reclamation Plants in WP3, at a total cost of $10.69m.

In addition to these three top 10 projects, a fourth project located at Casterton has also been considered at a cost of $1.83m. The Casterton project has the same driver and very similar works and was assessed with the other three projects in the supporting documentation provided.

The proposed works represent significant increases in storage capacity (up to 200%) and irrigation areas (up to 140%) for Heywood and Hamilton with lesser increases for Cobden and Casterton.

Key drivers

Wannon Water has advised that the key driver for this project is compliance with an existing regulatory obligation.

The primary justification for these projects is outlined in a water balance assessment report completed in July 2012 which uses EPA and Wannon Water computer model results to demonstrate additional storage and irrigation areas are required to satisfy EPA guidelines for discharges pursuant to an approval under Section 30A of the Environment Protection Act 1970 (Vic).[2]

Refer to Section 3.4 of the *Overview* document for further information on this regulatory obligation and our approach to assessment.

Options analysis and proposed costs

Options considered for these projects were limited to storage and irrigation options and tertiary treatment and disposal options, however the tertiary treatment options were not recommended due to the significant cost of treatment.

Cost estimates were prepared by GHD for each of the projects in the water balance assessment report, however Wannon Water has advised that these are preliminary costs only, include a contingency of 30% and have a stated accuracy of ±50%.[3]

A separate @Risk analysis was undertaken on the costs for these projects and P5, P50 and P95 estimates were developed.[4]

It is noted that the scheduling of expenditure in WP3 allows for additional work to be completed to reassess the optimal solution, including proposed inflow and infiltration investigation projects. Wannon Water has indicated that any capital savings arising from these investigations would help offset the cost of the investigations.

Proposed timing

An agreement between Wannon Water and the EPA saw these projects removed from WP2 to allow a focus on water security projects.[5]

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[2] GHD 2012a, *Sewerage Infiltration and Water Balance Assessment and Strategic Recommendations Report* completed in July 2012
[3] Ibid, Section 11 and Appendix E
[4] GHD 2012b, Wannon Capital Projects - @RISK Cost Estimates - Rev D PW adjustments.xlsx

Wannon Water advised that it has decided to "back-end" these projects to the last two years of WP3 to enable other innovative solutions to achieve compliance to be explored due to the high cost per property of the projects.[6] Additionally, Wannon Water's sewerage systems management plan indicates that these projects have "been placed towards the end of Water Plan 3 to allow alternatives to be considered and also to allow any I&I work to be completed and reassess the required sizing of the upgrade".[7]

5.3.2 Analysis and recommended adjustments

Drivers

We have reviewed the GHD Sewerage Infiltration and Water Balance Assessment and Strategic Recommendations Report and consider that the report provides an adequate justification for the proposed works as it clearly demonstrates the need for the works for compliance with existing EPA licence conditions. The EPA has also indicated strong support for the project and an expectation that Wannon Water will undertake works to ensure it meets its legislative obligations.

Options analysis and proposed costs

We note that some investigations proposed for WP3 may significantly change the project requirements and further work is yet to be undertaken by Wannon Water regarding identifying the optimal solution.

The project cost estimates appear to cover the key line items associated with this type of work however they are only preliminary estimates.

Proposed timing

These projects have been deferred from WP2 and are now scheduled for the back end of WP3 to allow for further investigations on the optimal solution. Whilst the EPA approved the deferral of the projects from WP2, it has strongly recommended that the works be fully completed within WP3.

Recommendation

There is some uncertainty over the preliminary cost of the projects and the optimal approach to meeting compliance requirements. Nevertheless, the need for the projects is clear. As a result, we do not recommend any adjustments to the proposed expenditure. The proposed and recommended expenditure is shown in Table 5-2 below.

Table 5-2 Proposed and Recommended Expenditure for Heywood, Hamilton, Cobden and Casterton Water Reclamation Plants Irrigation Works ($m, 01/01/2013)

		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Heywood Water Reclamation Plant Irrigation Works	Proposed	0.000	0.000	0.227	4.573	0.000	4.800
	Recommended	0.000	0.000	0.227	4.573	0.000	4.800
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Hamilton Water Reclamation Plant Irrigation Works	Proposed	0.000	0.247	0.000	3.523	0.000	3.770
	Recommended	0.000	0.247	0.000	3.523	0.000	3.770

[5] Wannon Water 2012, Water Plan 3 Consultation Report notes of meeting with EPA on 25 May 2012, pg 2
[6] ibid., pg 2
[7] Wannon Water 2012, Sewerage System Management Plan, September 2012, pg 86

		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Cobden Water Reclamation Plant Irrigation Works	Proposed	0.000	0.316	0.000	0.000	1.804	2.120
	Recommended	0.000	0.316	0.000	0.000	1.804	2.120
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Casterton Water Reclamation Plant Irrigation Works	Proposed	0.000	0.274	0.000	0.000	1.561	1.835
	Recommended	0.000	0.274	0.000	0.000	1.561	1.835
	Net change	0.000	0.000	0.000	0.000	0.000	0.000

5.4 Casterton Water Treatment Plant Install Clarifier

5.4.1 Business proposal

Wannon Water proposes to install a clarifier at the Casterton Water Treatment Plant to pre-treat raw water into the plant at a total cost of $3.19m.

Key Drivers

Wannon Water has advised that the key driver for this project is regulatory compliance with the Victorian Safe Drinking Water Guidelines 2005.

Raw water quality at the plant varies significantly and often contains high suspended solids resulting in water which is high in iron, true colour and turbidity potentially exceeding drinking water quality guidelines. This project is stage 2 of augmentations responding to water quality concerns with stage 1 works completed in WP2 responding to manganese issues. However, this project does not appear to be specifically designed to cater for the proposed Safe Drinking Water Guidelines 2015.

Options analysis

The proposed works for this project are defined in an options report completed in February 2011[8] and are required due to current and future suspended solids loads onto the existing filters being higher than the normal design values for this direct filtration plant. A number of options (eight in total) were considered with the preferred option selected on the basis of net present cost and reduced operator time.

Proposed Costs

The options report identifying the preferred option includes some preliminary cost estimates however these are specifically for options comparison and are not warranted by the consultant. The accuracy of the estimates is not expected to be better than ± 30% and includes a 30% contingency on contractor works and 30% contingency on design and project management costs.

A separate @Risk analysis[9] was undertaken on the costs for this project and P5, P50 and P95 estimates were developed.

[8] Ibid
[9] GHD 2012c, Wannon Capital Projects - @RISK Cost Estimates - Rev C PW adjustments.xlsx

Proposed Timing

The proposed works for this project are scheduled to commence in 2014-15 with completion in 2015-16. Detailed design and related works are scheduled to be completed in 2012-13.

5.4.2 Analysis and recommended adjustments

Drivers

Wannon Water has provided some details[10] on water quality at the Clear Water Storage however these results indicate that exceedence of the respective guidelines occurs rarely and did not occur in the most recent years shown in the water quality graphs provided. No additional recent water quality information has been provided.

Comments provided in the supporting documentation[11] also highlight the low frequency of events. No information on customer complaints (excluding manganese related complaints) has been provided to demonstrate current water quality issues.

Wannon Water referenced correspondence from the Department of Health indicating support for the project however this correspondence was undated and unattributed and has not been sighted.

Options analysis

Notwithstanding the uncertainty over the need for the project, we are reasonably satisfied with the options analysis undertaken and the selection of the preferred option.

Proposed costs

The costs cover the line items expected however they are very preliminary estimates. Given the proposed timing of the project it is expected that more significant design and costing work would have been completed however this was not provided. The current status of this project is therefore unclear.

Proposed timing

The current status of the project is unclear however there is sufficient time to complete investigations prior to construction commencing in 2015-16.

Recommendation

The current level of documentation provided for this project does not sufficiently demonstrate the need for, or the urgency of, the proposed works. Subject to the provision of supporting evidence, it is proposed that this project be removed from WP3. The proposed adjustment to forecast expenditure is shown in Table 5-3 below.

Table 5-3 Proposed and Recommended Expenditure for Casterton Water Treatment Plant Install Clarifier ($m, 01/01/2013)

Project		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Casterton WTP Clarifier	Proposed	0.000	0.429	2.761	0.000	0.000	3.190
	Recommended	0.000	0.000	0.000	0.000	0.000	0.000
	Net change	0.000	-0.429	-2.761	0.000	0.000	-3.190

[10] GHD 2011, Casterton WTP Pre-treatment Options, Options Report Rev 2, February 2011, Section 3
[11] Ibid, Table 4, pg 4

5.5 Curdie Vale bore construction

5.5.1 Business proposal

Wannon Water proposes to construct a new emergency supply bore at Curdie Vale at a total cost of $2.99m.

Key Driver

Wannon Water advises that the key driver for this project is the need to ensure continuity of supply during a wildfire event in the Otways. The existing bore is not used for water production but remains a potential alternative supply source for towns supplied by the South Otway Pipeline, should the primary source (Gellibrand River) in the Otway water supply system be affected.

Options Analysis

The proposed works for this project involve the development of a new production bore at the existing site and reuse of the existing bore as an observation bore with associated relining works. Existing pumping infrastructure at the site would be reused in the new production bore. This option was chosen as it was an optimal combination of other options considered.

Options considered included relining the existing bore and combinations of new production bore and observation bore options. The use of the existing Curdie Vale bore as is was not considered as the bore was determined to be at risk of failure in the near future and hence unreliable as an emergency supply.

Proposed Costs

The costs for the proposed works have been estimated by consultants GHD and represent preliminary cost estimates only for the purposes of comparing options and seeking funding through the Business Case. A contingency of 20% has been added to the capital costs.

The costs identified for the preferred option have not proceeded through a P5, P50 or P95 analysis. The option involving use of the existing bore was not costed as it was not considered an acceptable option.

Proposed Timing

The proposed works are scheduled to commence and be completed in 2013-2014. Wannon Water has stated that detailed design is currently underway in preparation for this commencement date.

5.5.2 Analysis and recommended adjustments

Drivers

Wannon Water states that the existing Curdie Vale bore is the primary back up supply for the South Otway Pipeline which supplies Warrnambool, Allansford and Koroit and as such cannot be decommissioned or run at a lower capacity.

Options analysis

The options assessed for this project are predicated on the statement that the existing bore cannot be used as is, however the condition of the bore was assessed in 2001 and more

recently in 2011.[12] The 2011 report found that overall, the bore is in reasonable condition for its age and remains open to total depth with these results unchanged from the 2001 condition assessment.[13] The report recommends that if the existing bore is to be used for production that pump testing be done to determine the capacity available from the bore and that more accurate testing be done to confirm the condition of the bore.[14]

The option to reline and reuse the existing bore however was excluded due to potential yields not meeting the full emergency supply requirements for towns supplied from the South Otway Pipeline. The only remaining option, therefore, is to replace the Curdie Vale bore.

There is also some apparent inconsistency with the Water Supply Demand Strategy[15] in regards to the discussion of emergency back-up supplies for the Otway system. The Strategy would benefit from a review and update to ensure consistency.

Proposed costs

The cost estimate for the preferred option covers the expected elements for this type of project.

Proposed timing

Wannon Water advises[16] that the Business Case for the project has been completed and details design of the works is underway, however specific evidence of this has not been sighted.

Recommendation

Whilst there is some uncertainty over the project and some inconsistency with the Water Supply Demand Strategy, we recognise the importance of the Curdie Vale bores to the South Otway Pipeline and to towns supplied from it. As such, we do not propose any adjustments to the requested expenditure. The proposed and recommended expenditure is shown in Table 5-4 below.

Table 5-4 Proposed and Recommended Expenditure for Curdie Vale Bore Construction ($m, 01/01/2013)

Project		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Curdie Vale Bore Construction	Proposed	2.990	0.000	0.000	0.000	0.000	2.990
	Recommended	2.990	0.000	0.000	0.000	0.000	2.990
	Net change	0.000	0.000	0.000	0.000	0.000	0.000

5.6 Construct new bore at Wyatt St Portland

5.6.1 Business proposal

Wannon Water proposes to construct a new emergency supply bore at Wyatt Street in Portland at a total cost of $2.96m.

[12] GHD 2011a, Report for Curdievale and Heywood Production Bores – Casing Condition Assessment, May 2011
[13] Ibid, pg 15-16
[14] Ibid, pg 21
[15] Wannon Water 2012, Water Supply Demand Strategy 2012-2060, 7 March 2012
[16] Wannon Water 2013, Submission on Draft Expenditure Review Report – Water Plan 3, Letter dated 25 January 2013

Key Driver

The key driver for this project is to ensure continuity of supply to Portland should the primary production bores fail due to seismic events or pump failure. The existing Wyatt St bore is used for occasional production purposes to supplement town water supply however it is considered an emergency backup water supply only.

Options Analysis

The proposed works involve the development of a new bore at the Wyatt St site and the decommissioning of the existing bore which has been assessed as being in poor condition[17].

A broad range of options were assessed and the supply options report identified that a new bore at the existing site was the optimal solution. Although the option comes at a high cost, a new bore delivers high yield and system security and can be installed within 4-6 months.

Proposed Costs

Preliminary cost estimates for the proposed works are included in the Portland supply options report[18], however they were prepared for water supply planning purposes and the comparison of planning options only and are quoted as accurate to ±40%.

An @Risk analysis was completed using these preliminary cost estimates.

Proposed Timing

The proposed works are scheduled to commence in 2013-14 with detailed design being undertaken followed in 2014-15 by commencement and completion of construction.

5.6.2 Analysis and recommended adjustments

Drivers

Generally, the Portland system is classified as being a very secure supply system[19] and none of the primary supporting documentation identifies or quantifies these stated risks nor detail any of the existing backup features that may already be in place (redundancy in the pumps or motors, or existing system storage).

The supply options report for Portland[20] states that a decommissioned Wyatt St bore will leave Portland reliant on the Bald Hill bores but does not seek to quantify the risk of not having this specific emergency backup supply or the actual risk of the Bald Hill bores failing.

The supply options[21] report, however, indicates that one production bore at Bald Hill would likely provide sufficient capacity to resolve any problems, that increasing capacity at the Bald Hill bores would provide a short term solution and that a new Wyatt Street bore would serve as a long term solution.

Wannon Water provided additional information in response to our Draft Report[22] however this information is not reflected in the supply options report and is inconsistent with the findings of the report discussed above.

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[17] GHD, 2010, Report for Wyatt St Bore Casing Condition Assessment, August 2010
[18] GHD 2011, op cit. pg 28
[19] Wannon Water 2012, Water Supply Demand Strategy 2012-2060, pg 62
[20] GHD, 2011, Groundwater Options for Contingency Planning for the Failure of the existing Portland Production Bores, May 2011
[21] Ibid, pg 26
[22] Wannon Water 2013, Submission on Draft Expenditure Review Report – Water Plan 3, Letter dated 25 January 2013

Options analysis

Whilst a broad options analysis was undertaken a key option missing was the do nothing option in which the Wyatt St bore is simply decommissioned.

Proposed costs

The proposed cost estimates, although preliminary, appear to cover the required items for this work.

Proposed timing

There is no recommended timing for the proposed works in the supporting documentation however they are identified as a long term contingency option[23].

Recommendation

The current supporting documentation does not present a clear case for whether the Wyatt Street bore is required as an emergency supply option. We therefore recommend that a detailed and independent risk assessment be undertaken to determine whether the cost of the project can be justified given the reduction in supply risk that will occur.

An allowance of 5% of the proposed capital expenditure has been made for this investigation in the first year of WP3. The proposed and recommended expenditure is shown in Table 5-5 below.

Table 5-5 Proposed and Recommended Expenditure for Construct New Bore at Wyatt St Portland ($m, 01/01/2013)

Project		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Wyatt St Bore Construction	Proposed	0.035	2.925	0.000	0.000	0.000	2.960
	Recommended	0.148	0.000	0.000	0.000	0.000	0.148
	Net change	0.113	-2.925	0.000	0.000	0.000	-2.812

5.7 Water Tower and Pump Station in Wangoom Road and Wollaston Road Warrnambool

5.7.1 Business proposal

Wannon Water proposes to construct elevated water towers, pump stations and associated infrastructure to support new growth areas in Wangoom Rd and Wollaston Rd, Warrnambool at a total cost of $5.11m.

Key Driver

The primary driver for these two projects is Growth to supply new residential and industrial growth areas in the North Eastern growth corridor (Wangoom Rd) and Northern growth corridor (Wollaston Rd). Current infrastructure is not able to support the ultimate demand in these areas.

[23] Ibid, pg 25

Options Analysis

Water supply models have been used to determine the current and future infrastructure options required to service these two development areas and have identified works required over WP3 as new elevated water towers supported by reserve low level tanks with pump stations and associated pipelines.

Proposed Costs

Costs for both projects are at a preliminary stage only with around 45% to 60% contingencies added and quoted accuracy to ±40%.

Proposed Timing

The proposed timing of both projects is subject to the actions of developers given Wannon Water's 'just-in-time' approach to construction. Wannon Water is consulted by the local council prior to the rezoning of land and undertakes regular monthly meetings with developers to ascertain the expected timing of developments.

Current timing is for Wangoom Rd to be completed by 2016-17 and Wollaston Rd to be completed by 2015-16.

5.7.2 Analysis and recommended adjustments

Recommendation

No expenditure adjustments proposed for these two projects. Proposed and recommended expenditure is shown in Table 5-6.

Table 5-6 Proposed and Recommended Expenditure for Water Tower and Pump Station in Wangoom Rd and Wollaston Rd Warrnambool ($m, 01/01/2013)

Project		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Wangoom Rd Water Tower and Pump Station	Proposed	0.000	0.182	0.186	2.393	0.000	2.760
	Recommended	0.000	0.182	0.186	2.393	0.000	2.760
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Wollaston Rd Water Tower and Pump Station	Proposed	0.000	0.153	2.197	0.000	0.000	2.350
	Recommended	0.000	0.153	2.197	0.000	0.000	2.350
	Net change	0.000	0.000	0.000	0.000	0.000	0.000

5.8 Portland and Port Fairy - Sewer Replacement / Refurbishment

5.8.1 Business proposal

Wannon Water proposes to replace or refurbish sewer mains in Port Fairy and Portland with a total proposed expenditure of $4.97m. Similar renewals works are also proposed at Warrnambool, Hamilton and Camperdown at a cost of around $2.68m.

Key Driver

The key driver for these works is Renewals for sewer pipelines in order to maintain service levels, minimise business risk, maintain system capacity, and comply with all relevant obligations.

Options Analysis

These works have been identified by Wannon Water using a predictive computer model developed by Moloney Asset Management Systems. The model uses standard asset data including construction date, expected asset life, asset deterioration rates, current asset condition and expected replacement cost to determine a general expenditure profile that theoretically covers the expected renewals over a set period.

Proposed Costs

The proposed costs for these two projects have been identified using predictive computer models calibrated to predicting the likely renewals requirements for sewer pipelines. Wannon Water has significantly reduced the total proposed expenditure for renewals across all categories including sewer mains. This reduction has come about through a combination of targeted reductions and through adjustment of renewal actions from asset replacement to asset refurbishment.

Proposed Timing

The proposed timing for specific works has not yet been identified however the renewals model used to determine the levels of expenditure required has identified allocations for each year of the water plan period.

5.8.2 Analysis and recommended adjustments

Recommendation

No expenditure adjustments proposed for these two projects. Proposed and recommended expenditure is shown in Table 5-7.

Table 5-7 Proposed and Recommended Expenditure for Portland and Port Fairy Sewer Replacement / Refurbishment ($m, 01/01/2013)

Project		2013-14	2014-15	2015-16	2016-17	2017-18	Total WP3
Portland	Proposed	0.087	0.861	0.773	0.575	0.384	2.680
	Recommended	0.087	0.861	0.773	0.575	0.384	2.680
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Port Fairy	Proposed	0.041	0.423	0.535	0.623	0.668	2.290
	Recommended	0.041	0.423	0.535	0.623	0.668	2.290
	Net change	0.000	0.000	0.000	0.000	0.000	0.000

5.9 Summary of our recommendations – capital expenditure

Our recommendations on adjustments to Wannon Water's capital expenditure forecast over WP3 are outlined below and in Table 5-8. We recommend:

- Expenditure on the Casterton Water Treatment Plant Install Clarifier be adjusted from $3.19m over 2 years to zero.
- Wyatt St Bore Construction expenditure be adjusted from $2.96m over 2 years to $0.1m.

Table 5-8 Wannon Water's forecast capital expenditure and recommended adjustments ($m, 01/01/2013)

Capital expenditure item		Water Plan forecast					Total WP3
		2013-14	2014-15	2015-16	2016-17	2017-18	
Heywood Water Reclamation Plant Irrigation Works	Proposed	0.000	0.000	0.227	4.573	0.000	4.800
	Recommended	0.000	0.000	0.227	4.573	0.000	4.800
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Hamilton Water Reclamation Plant Irrigation Works	Proposed	0.000	0.247	0.000	3.523	0.000	3.770
	Recommended	0.000	0.247	0.000	3.523	0.000	3.770
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Cobden Water Reclamation Plant Irrigation Works	Proposed	0.000	0.316	0.000	0.000	1.804	2.120
	Recommended	0.000	0.316	0.000	0.000	1.804	2.120
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Casterton Water Reclamation Plant Irrigation Works	Proposed	0.000	0.274	0.000	0.000	1.561	1.835
	Recommended	0.000	0.274	0.000	0.000	1.561	1.835
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Casterton WTP Clarifier	Proposed	0.000	0.429	2.761	0.000	0.000	3.190
	Recommended	0.000	0.000	0.000	0.000	0.000	0.000
	Net change	0.000	-0.429	-2.761	0.000	0.000	-3.190
Curdie Vale Bore Construction	Proposed	2.990	0.000	0.000	0.000	0.000	2.990
	Recommended	2.990	0.000	0.000	0.000	0.000	2.990
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Wyatt St Bore Construction	Proposed	0.035	2.925	0.000	0.000	0.000	2.960
	Recommended	0.148	0.000	0.000	0.000	0.000	0.148
	Net change	0.113	-2.925	0.000	0.000	0.000	-2.812
Wangoom Rd Water Tower and Pump Station	Proposed	0.000	0.182	0.186	2.393	0.000	2.760
	Recommended	0.000	0.182	0.186	2.393	0.000	2.760
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Wollaston Rd Water Tower and Pump Station	Proposed	0.000	0.153	2.197	0.000	0.000	2.350
	Recommended	0.000	0.153	2.197	0.000	0.000	2.350
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Portland	Proposed	0.087	0.861	0.773	0.575	0.384	2.680
	Recommended	0.087	0.861	0.773	0.575	0.384	2.680
	Net change	0.000	0.000	0.000	0.000	0.000	0.000
Port Fairy	Proposed	0.041	0.423	0.535	0.623	0.668	2.290
	Recommended	0.041	0.423	0.535	0.623	0.668	2.290

Capital expenditure item	Water Plan forecast					Total WP3
	2013-14	2014-15	2015-16	2016-17	2017-18	
Net change	0.000	0.000	0.000	0.000	0.000	0.000
Total proposed	20.887	25.200	21.643	22.875	18.438	109.044
Recommended capital expenditure	**21.000**	**21.846**	**18.883**	**22.875**	**18.438**	**103.042**
Recommended adjustments from proposed	0.113	-3.354	-2.761	0.000	0.000	-6.002

6 Limitation of our work

General use restriction

This Report is prepared solely for the internal use of the Essential Services Commission. This report is not intended to and should not be used or relied upon by anyone else and we accept no duty of care to any other person or entity. The report has been prepared for the purpose of the Essential Services Commission's review of Water Plans. You should not refer to or use our name or the advice for any other purpose.