Cedar Pocket Dam
Water Supply Scheme

Network Service Plan

Updated: 10 August 2012
1. Introduction

Review Context

The QCA has been directed by the Queensland Government to recommend irrigation prices for the Cedar Pocket Water Supply Scheme (the Scheme) for the four-year regulatory period 1 July 2013 to 30 June 2017. Prices are to recover the efficient operating, maintenance and administration costs, and an annuity to recover renewals and rehabilitation expenditure. This level of cost recovery is typically referred to as the lower bound (lower bound costs).

The QCA is required to provide a draft report including draft irrigation prices by 30 November 2012 and a final report with recommended price paths by April 2013.

The current irrigation prices were set when the Scheme was owned by SunWater, and commenced from 1 July 2006. The Scheme was transferred to Seqwater in 2008-09, along with the SunWater pricing arrangements. This is the first review of irrigation prices since the Scheme has been in Seqwater ownership.

This document is the Network Service Plan (NSP) for the Scheme. It sets out information relevant to the QCA’s review, including Seqwater’s expenditure proposals over the regulatory period and specific pricing proposals for the Scheme. This is an update to the NSPs first made in April, 2012 and incorporates changes foreshadowed in that original NSP, as well as other amendments. The most significant change results from updates to renewals balances and additional renewals expenditure to capture a meter replacement program (distinct from upgrades to improve accuracy to meet forthcoming national standards, which is outside the scope of this review).

Forecast operating expenditure includes both direct and non-direct expenditure and is based on operating expenditure in a representative base year (2012-13) escalated forward over each year of the regulatory period on the basis of predetermined escalation factors. The base year adopts the costs presented to the QCA for its review of Grid Service Charges for the 2012-13 year. The QCA has since published a draft report recommending Grid Service Charges for the 2012-13 year however a final report is yet to be released. While Seqwater would prefer to wait until the 2012-13 base year is finalised, the QCA has requested that updated Network Service Plans are provided before the 2012-13 GSCs are released.

Accordingly, Seqwater has not updated the operating costs for the 2012-13 year as final information is not yet available. However, Seqwater submits that the operating costs that form the 2012-13 base year should be updated to reflect the QCA’s final recommendations. This may affect both or either the direct costs, as well as the non-direct cost pool and the allocation of those costs.
Hence the operating costs in this NSP, along with the lower bound reference costs and reference tariffs should be considered interim and do not represent Seqwater’s final cost base. Notwithstanding this situation, lower bound costs for each WSS have been provided, with those costs allocated to different priority groups (medium and high) within the Scheme.

About Seqwater

Seqwater owns different types of water supply assets and service types, namely:

- **Storage assets** - Seqwater owns 26 dams and 48 weirs which provide bulk water storage services to a range of water entitlement holders in South East Queensland, including irrigators, local governments, industrial users and the SEQ Water Grid Manager (WGM);

- **Bulk distribution assets** - Seqwater also provides distribution system services to irrigators from pipelines and channel systems;

- **Water treatment assets** - Seqwater provides drinking water to the WGM from 46 water treatment plants;

- **A desalination plant** - provides bulk drinking water to the WGM;

- **An advanced recycled water scheme**, which provides treated recycled water to the WGM;

- **Groundwater** - Seqwater provides drinking water to the WGM from 14 groundwater bore fields.

Seqwater owns, manages and operates physical assets with a book value of $6.3 billion. Seqwater provides irrigation services to around 1,455 rural customers in seven water supply schemes.

Seqwater also owns unregulated assets such as its head office building at 240 Margaret Street, water entitlements held for trading in the Upper Mary Water Supply Scheme, and two hydro-electricity plants. No costs of these assets are attributed to regulated assets.

Seqwater’s total regulated revenue allowance for 2011-12 was $705M to $709M, of which some $3.3M relates to irrigation supplies. Of this $3.3M, some $1.9M is sourced directly from irrigation charges, with the balance sourced from a Community Service Obligation (CSO) payment.

**Scheme background and context**

The Scheme is regulated under the Mary Basin Resource Operations Plan (ROP) issued September 2011. Prior to this date, the scheme was regulated under the Interim Resource
Operations Licence (Upper Mary River Water Supply Scheme) issued in July 2008. A previous licence was granted to SunWater on 10 November 2000 for the Mary River Water Supply Scheme, which provided for three sub-schemes being the Mary Valley Water Supply Scheme, the Cedar Pocket Water Supply Scheme and the Lower Mary Water Supply Scheme. The 2008 IROL was issued as a result of the transfer of the Mary Valley Water Supply Scheme and the Cedar Pocket Water Supply Scheme from SunWater to the Queensland Bulk Water Supply Authority on 1 July 2008. The Mary Valley Water Supply Scheme is the subject of a separate Network Service Plan.

The Scheme consists of bulk water supply assets only. There are no distribution systems associated with the Scheme. All irrigators take their water supply directly from the natural water courses. Releases from the Dam are made manually.

The map in section 2 below presents an overview of the Scheme, including the locations of storages and monitoring/gauging stations.

**Customers served**

The Scheme supplies water to irrigation users.

Further details are set out in section 2 below.

**Asset base**

The asset base of the Scheme consists of bulk water storage assets. These assets are listed in section 2 below and details of individual assets can be found in Appendix A.

**Organisational resourcing arrangements**

Seqwater is well advanced in transitioning its resourcing arrangements from those inherited in July 2008. Key achievements include:

- replacing service level agreements with previous asset owners (e.g. Councils) with internal staff appointments;
- negotiating a single enterprise bargaining agreement (refer below) to standardise work conditions; and
- developing and refining the structure of the organisation and recruiting the necessary resources.

Seqwater has also substantially completed its procurement arrangements for external resources, including consultants and contractors. Seqwater continues to outsource many
maintenance activities for its assets, usually with local suppliers. Seqwater has recently
gone to market for a panel for maintenance services providers and is currently finalising the
awarding of contracts.

Seqwater inherited 14 different enterprise agreements which required 47 separate payroll
runs. Seqwater has since consolidated these into a single enterprise agreement, with a
single payroll.

The enterprise agreement process also provided for more standardised work hours and
overtime arrangements, and included the establishment of a 38 hour week.

The standardisation achieved through a single enterprise agreement has allowed more
streamlined systems to be implemented, reducing the implementation costs for the payroll
system and enabling a reduction in the number of staff required to administer the payroll
from seven to two.

Seqwater’s current enterprise agreement, which was certified on 2 November 2009, will
expire on 30 June 2012. Seqwater is now meeting with all unions in regards to a
replacement agreement.

**Key systems and processes**

Seqwater also inherited a diverse range of systems and business processes from previous
asset owners. Since 2008-09, Seqwater has given priority to developing its systems so that
they can support the business and enable more streamlined business processes.

Seqwater has completed a post implementation review across all modules of its Corporate
Information System (CIS). As a result, Seqwater is committed to a series of continuous
improvements for better business performance.

Seqwater is continuing with its program of end-to-end process reviews to identify
improvements and generate cost savings in performing its business support and related
activities.

**Asset management**

Asset management practice within Seqwater does not distinguish between irrigation and
non-irrigation assets. Assets are managed as a portfolio and not on an industry sector
basis.

Seqwater acquired the Scheme from SunWater Limited. While the physical assets were
transferred, much of the asset history was provided in a format not easily integrated into
Seqwater’s systems. The staff members who also transferred to Seqwater were mostly
operations rather than maintenance staff. This meant that there was a loss of corporate asset management knowledge.

Seqwater’s maintenance and renewals program is evolving and moving towards industry best practice. However, this process is resource-intensive and relies on a long history of quality, consistent asset information before reaching full maturity.

Seqwater’s maintenance tasks and associated expenditure follows two broad categories:

- Planned maintenance – which relates to regular maintenance items that arise from an annual maintenance schedule, as well as work that is added to the maintenance program as a result of new information or inspections carried out during the year.; and
- Unplanned maintenance – relating to maintenance that is made in reaction to events and where corrective work needs to be carried out quickly (eg for compliance or service reasons).

Seqwater uses the Asset Management module within CIS to plan and schedule asset maintenance work. Work orders are produced on the system for each parcel of work required to be performed to capture the costs of performing the work.

Renewals and refurbishments are determined through a strategic asset management process. This process and its outcomes are documented in Facility Asset Management Plans (FAMPs), which are being rolled out across all assets. Irrigation assets are currently not as advanced in this process as the high-priority water treatment plants.

**Procurement**

Seqwater complies with the State Procurement Policy (SPP). Policies, procedures and processes consistent with, and supporting, the requirements of the SPP have been developed and are in operation. Where possible, procurement processes are system based using the Supply Chain Module in Seqwater’s Corporate Information System (CIS).

Procurement activities are undertaken at all business sites.

Seqwater’s Procurement Team monitors and analyses a range of performance indicators to identify opportunities to improve performance and minimise costs.

Seqwater is currently reviewing its “procure to pay” process to streamline the procurement of services and goods, management of delivery and payment for services.

**Customer and Financial Management**

Customer information management including invoicing and accounts receivable operations for the Scheme are carried out from Seqwater’s Karalee office. Financial management
including financial reporting and accounts payable processing is centralised in Seqwater’s Finance group in the Margaret Street office. Accounts payable is carried out using the AP module in CIS.

**Insurance**

Seqwater’s portfolio of assets is insured with differing premium and deductible arrangements in place for bulk water and channel distribution systems. This requires specialist management of the insurances held, including management of claims and renewals and providing information to insurers and brokers.

Insurance premiums are obtained for a portfolio of Seqwater assets.

**2. Scheme details**

The Scheme was established following the construction of the Cedar Pocket Dam in 1985 to support irrigation for the local dairy industry.

Seqwater owns and operates the infrastructure in the Scheme under the authority of the ROP for the Mary Basin issued September 2011.

The water year runs from 1 July to 30 June each year.
Scheme map
Infrastructure details

The table below sets out the bulk water assets that comprise the scheme.

**Table 2-1. Bulk water assets**

<table>
<thead>
<tr>
<th>Assets</th>
<th>Cedar Pocket Dam</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dams</td>
<td>Cedar Pocket Dam</td>
</tr>
<tr>
<td>Weirs</td>
<td>Nil</td>
</tr>
<tr>
<td>Off-stream storages</td>
<td>Nil</td>
</tr>
<tr>
<td>Other bulk water assets</td>
<td>Downstream Measuring Weir, Customer meters</td>
</tr>
</tbody>
</table>

For details of the assets, see Appendix A.

Customers and water entitlements serviced

Cedar Pocket supplies water to 11 irrigation customers who hold 495ML of medium priority water access entitlements (WAE).

Water availability and use

The announced allocation determines the percentage of nominal WAE volume that is available in a water year (1 July to 30 June). However, it should be noted that under the ROP, when the Cedar Pocket Dam spills, customers can take up to 200% of their allocations.

The following table sets out the announced allocation over the past nine years.

**Table 2-2. Announced allocations (%)**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Medium</td>
<td>100</td>
<td>83-100</td>
<td>91-93</td>
<td>64-71</td>
<td>38-100</td>
<td>100</td>
<td>100</td>
<td>100</td>
<td>100</td>
</tr>
</tbody>
</table>

The current irrigation price paths adopted a use forecast at 40% of the nominal amount of WAE, equivalent to 198ML/annum or 50ML/quarter. This compares to actual use to date, as illustrated below.
Figure 2-1. Actual usage

![Graph showing usage of Cedar Pocket Dam from 2002 to 2011](image)

**Cedar Pocket Dam Usage 2002-2011**

**Average annual usage comparison of Medium Priority WAE**

The average annual usage comparison to MP forecast usage is set out in the table below:

<table>
<thead>
<tr>
<th>Description</th>
<th>Usage (ML/annum)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Forecast annual usage for 2006-11 price path</td>
<td>198 ML/annum</td>
</tr>
<tr>
<td>Average actual annual usage for 2006-11 price path</td>
<td>228 ML/annum</td>
</tr>
<tr>
<td>Average actual annual usage for 9 years to December 2011</td>
<td>255 ML/annum</td>
</tr>
</tbody>
</table>

**Temporary transfers**

Temporary transfers or seasonal water assignments are useful for meeting additional short-term water needs. Under these transfers or assignments, some or all of the water that may be taken under a water entitlement in any water year can be assigned to another person or place.

The transfer of a volume of water from the amount available under the entitlement may only be assigned after the announced allocation. The volume assigned is not affected by any increase in the announced allocation during the water year, the benefits of which go to the holder of the entitlement and not the person to whom the temporary transfer of water has been assigned.
The following table sets out the volumes of temporary transfers by year from 1 July 2008 to 31 March 2012.

### Table 2-4. Temporary transfers

<table>
<thead>
<tr>
<th>Year</th>
<th>2008-09</th>
<th>2009-10</th>
<th>2010-11</th>
<th>2011-12</th>
</tr>
</thead>
<tbody>
<tr>
<td>Volume in ML</td>
<td>10</td>
<td>10</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>

**Customer service standards**

The current service standards were established in consultation with customer representatives in 2001 and were carried across to Seqwater from SunWater Limited. Although it is not intended that service standards should undergo major change during the price path period, they are to be periodically reviewed on an as-needs basis such as in response to requests by customer representatives or by Seqwater. This NSP is based on the existing service standards continuing throughout the regulatory 4 year period.

The document “*Water Supply Arrangements and Service Targets*” for the Scheme is attached to this NSP in Appendix B. This document sets out the customer service standards for the Scheme.

**2006 lower bound costs**

The 2006 price review process conducted by SunWater with customer representatives established the lower bound cost for the scheme. These lower bound costs are:

- Operations and maintenance costs;
- Administration costs, including a share of overhead; and
- The cost of asset renewals, via a renewals annuity.

The lower bound cost recovery target for this Scheme is not available separately because it was calculated for the whole of the Mary River Water Supply Scheme as it existed at that time.

The lower bound cost tariff was established at $113.01 per megalitre (the sum of Part A and B charges) for the Scheme by the Tier 1 group in 2006 which translates to $141.36 per megalitre represented in 2012-13 dollars.
Current pricing arrangements

In the 2006-11 irrigation price review, the Upper Mary River Tier 2 group opted to retain the price cap arrangement in preference to a revenue cap. The Tier 2 group did not opt to take up a drought tariff option.

Prices were increased based on the Brisbane – All Groups Consumer Price Index (CPI) result for the 12 months to March each year for the duration of the 2006-11 irrigation price path and continuing beyond until the determination of the 2013-17 price path.

Leading into the 2006-11 price path, prices were below what was required to recover lower bound costs. For the 2006-11 prices path, prices for the Scheme did not reach lower bound cost recovery, and were supplemented by a CSO. A real increase of $10/ML over the 5-year period also applied to increase the level of cost recovery.

The Scheme has one nominated tariff group for 2013-14 to 2016-17 being Cedar Pocket Dam.

A two part tariff applied:

- Part A, a fixed charge payable per ML of nominal water entitlement (regardless of use); and
- Part B, which was a consumption charge.

The table below shows the prices for the scheme since 2006-07 to 2011-12 in real terms ($2005-6).

Table 2-5. Historical Prices – Cedar Pocket Dam (real, $2005-06)

<table>
<thead>
<tr>
<th>Year</th>
<th>Part A</th>
<th>Part B</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006/07</td>
<td>$9.28</td>
<td>$9.97</td>
<td>$10.25</td>
</tr>
<tr>
<td>2007/08</td>
<td>$9.17</td>
<td>$9.83</td>
<td>$10.00</td>
</tr>
<tr>
<td>2008/09</td>
<td>$11.39</td>
<td>$12.41</td>
<td>$13.83</td>
</tr>
<tr>
<td>2009/10</td>
<td>$12.67</td>
<td>$13.59</td>
<td>$13.59</td>
</tr>
<tr>
<td>2010/11</td>
<td>$12.67</td>
<td>$13.59</td>
<td>$13.59</td>
</tr>
</tbody>
</table>

The current tariffs for 2012-13 are:

- Part A - $15.68/ML; and
- Part B – $16.81/ML.
Renewals accounting and forecast ARR balance

A renewals annuity approach applies to the current price paths, and is to continue to apply in accordance with the Ministerial Referral Notice.

The renewals annuity approach requires an accounting system to monitor renewals income and expenditure, to monitor the status of the renewals account known as the Asset Renewals Reserve (ARR). This balance can be either positive or negative, and is incorporated into the calculation of the renewals annuity itself. Interest is applied to the balance, at the same rate used to determine the original renewals annuity.

In order to calculate lower bound costs from 2013-14, a projected closing ARR balance at 30 June, 2013 must be made. This balance is forecast to be a deficit balance of $33,643.

The following table shows the ARR balances from 2006-07 to 2012-13.

**Table 2-6. Cedar Pocket WSS ARR Balances**

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>$0</td>
<td>$-10,000</td>
<td>$-20,000</td>
<td>$-30,000</td>
<td>$-40,000</td>
<td>$-50,000</td>
<td>$-60,000</td>
<td>$-70,000</td>
</tr>
<tr>
<td>-$90,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$80,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$70,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$60,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$50,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$40,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$30,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$20,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>-$10,000</td>
<td></td>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>$0</td>
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<td></td>
</tr>
</tbody>
</table>

Seqwater engaged Indec to calculate the annuity balances. Indec performed the following steps:

- Obtained relevant data for the water supply schemes from SunWater dating back to 2001 when the existing annuity balances were established;

- Calculated a closing ARR balance on a total scheme basis as at 30 June 2006 for each scheme from the SunWater data set which calculated the irrigation only ARR Balances. Indec sought advice and guidance from SunWater to establish these balances;

- Established a closing balance at 30 June 2011 based on actual renewals expenditure and income data from SunWater and from Seqwater; and
• Forecast a closing total scheme balance at 30 June 2013 based on the budgeted renewals expenditure and irrigation income for the 2011-12 year and the estimated renewals income and expenditure for 2012-13.

In calculating the closing ARR balance, Indec:

• Obtained actual renewals expenditure from SunWater from 2000-01 to 2007-08 for the Scheme, and included actual expenditure following the transfer of the assets to Seqwater in the 2008-09 year for the period ending 2010-11. Renewals expenditure for 2011-12 is based on actual and forecast data and 2012-13 is a forecast only;

• Identified renewals expenditure from both capital and operating expenditure. This step was completed with the assistance of the Seqwater asset management engineers and respective scheme operators to identify renewals and rehabilitation expenditure on existing asset with a frequency of greater than 12 months;

• Renewals expenditure for the period 2008/09 to 2012/13 undertaken by Seqwater includes an allocation of overheads and indirect costs based on the SunWater average allocation rate for the period 2006/07 to 2007/08 of 28.6%;

• Obtained actual tariff revenue including CSOs for all customer sectors from SunWater for the period 2000/01 to 2007/08 inclusive;

• Obtained actual tariff revenue including CSOs from 2008/09 until 2010/11 sourced from Seqwater’s accounting system. A budget forecast and estimate was used for 2011/12 and 2012/13 respectively;

• Calculated the percentages of tariff revenues, including CSO, allocated to the ARR balance for the 2001 to 2006 period and the percentages for the 2006/07 to 2012/13 period. This allocation rate reflects the percentage of all customer sector renewals annuity to the total customer sector revenue target set for the 2007-11 irrigation price path. In the case of Cedar Pocket, there is only one customer sector being irrigators. The percentages for the 2005/06 year are based on the 2004/05 year due to a one year extension to the price path and the 2011/12 and 2012/13 years have been based on the percentages applicable for the 2010/11 year due to a two year price path extension. These are shown in tables 2-7 and 2-8 below;
Table 2-7. Share of Irrigation Revenues Applicable to the ARR (%)

<table>
<thead>
<tr>
<th>Water Supply Scheme</th>
<th>Tariff Group</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket</td>
<td>Cedar Pocket Dam</td>
<td>10.3</td>
<td>12.0</td>
<td>37.5</td>
<td>33.5</td>
<td>34.3</td>
<td>34.3</td>
</tr>
</tbody>
</table>

Table 2-8. Share of Irrigation Revenues Applicable to the ARR (%)

<table>
<thead>
<tr>
<th></th>
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<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket</td>
<td>Cedar Pocket Dam</td>
<td>34.0</td>
<td>49.6</td>
<td>49.5</td>
<td>50.2</td>
<td>49.2</td>
<td>49.2</td>
<td>49.2</td>
</tr>
</tbody>
</table>

- Applied interest to closing balances for the period 2006-07 to 2013-14 at the equivalent rate used to calculate the 2007-2011 price path annuities (9.69% nominal). No interest has been applied to balances between 2000-01 and 2005-06 based on advice from SunWater that the 2001-2006 price path made offsetting adjustments on the account that no interest would apply to ARR balances in that price path.

Table 2-9 below sets out irrigation renewals expenditure and revenue and the annual change applicable to the ARR for the financial years 2000-01 to 2005-06 and Table 2-10 sets out irrigation renewals expenditure and revenue and the annual change applicable to the ARR for the financial years 2006-07 to 2012-13:

Table 2-9. Annual Change in Irrigation ARR Balances ($Nominal) 2001 - 2006

<table>
<thead>
<tr>
<th>Tariff Group</th>
<th>Item</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket</td>
<td>Expenditure</td>
<td>(8,314)</td>
<td>(78,515)</td>
<td>-</td>
<td>(12,013)</td>
<td>(47,038)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>7,523</td>
<td>8,992</td>
<td>10,867</td>
<td>10,214</td>
<td>11,515</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Change</td>
<td>(791)</td>
<td>(69,523)</td>
<td>10,867</td>
<td>(1,799)</td>
<td>(35,523)</td>
<td>-</td>
</tr>
</tbody>
</table>

Table 2-10. Annual Change in Irrigation ARR Balances ($Nominal) 2007 - 2013

<table>
<thead>
<tr>
<th>Tariff Group</th>
<th>Item</th>
<th>2007</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
<th>2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket</td>
<td>Expenditure</td>
<td>-</td>
<td>(462)</td>
<td>(5,838)</td>
<td>(6,145)</td>
<td>-</td>
<td>(51,847)</td>
<td>-</td>
</tr>
<tr>
<td></td>
<td>Revenue</td>
<td>21,764</td>
<td>29,933</td>
<td>21,715</td>
<td>23,930</td>
<td>21,740</td>
<td>23,547</td>
<td>24,959</td>
</tr>
<tr>
<td></td>
<td>Change</td>
<td>21,764</td>
<td>29,471</td>
<td>15,877</td>
<td>17,785</td>
<td>21,740</td>
<td>(28,300)</td>
<td>24,959</td>
</tr>
</tbody>
</table>

The full Indec report is provided as Attachment 4 to Seqwater’s main submission.
3. Proposed lower bound costs and reference tariffs

The following provides a summary of Seqwater’s proposed lower bound costs for the scheme over the 1 July 2013 to 30 June 2017 forecast period. Lower bound costs include operating and renewals costs. None of the costs vary proportionally to water demand. That is, the short run marginal cost in this scheme is $0, and all costs are fixed.

In order to determine lower bound estimates for irrigation customers within the scheme, aggregate scheme costs are attributed to medium priority consistent with the QCA’s approach adopted for SunWater.

Operating costs

Operating activities for this scheme include service provision, compliance, recreation, and other supporting activities:

- Service provision relates to:
  - scheduling and releasing bulk water from storages, surveillance of water levels and flows in the river, and quarterly meter reading; and
  - customer service and account management.

- Compliance requirements relates to:
  - Requirements set out in the Resource Operations Plan (ROP) and Resource Operations Licence;
  - Dam safety obligations under the Water Act 2000;
  - Environmental management obligations to comply with the ROP and Environmental Protection Act 1994; and
  - Land management, workplace health and safety obligations and other reporting obligations.

- Recreation relates to the operation and maintenance of any recreation facilities in the Cedar Pocket scheme; and

- Other supporting activities cover a range of services including central procurement, human resources and legal services.

Operating cost forecasting approach

Seqwater has adopted an approach to forecasting whereby operating expenditure for schemes is derived for a representative base year (2012-13) and escalated forward over each year of the regulatory period on the basis of predetermined escalation factors.
The 2012-13 year was adopted as the base year as it provides the best and most current representation of the costs required to deliver Seqwater’s service standards and obligations during the regulatory period. Aggregate operating costs for 2012-13 (including costs associated with both grid and irrigation services but excluding costs associated with unregulated activities) were derived as part of Seqwater’s 2012-13 grid service charges submission to the QCA.¹ Seqwater has developed its 2012-13 budget on the basis of a zero base build-up, taking into account costs which could be reasonably anticipated at the time of budget development. In addition, the 2012-13 operating expenditure forecasts provided in the grid service charges submission have been reviewed by the QCA for prudency and efficiency.

Further details on the forecasting methodology are provided in the Irrigation Pricing submission provided to the QCA.

The following escalators have been applied to 2012-13 operating costs to derive forecasts for the regulatory period:

- direct labour, materials and contractors’ costs and repairs and maintenance were escalated at 4% per annum over the regulatory period; and

- ‘other’ direct costs and all non-direct costs were escalated at forecast CPI (2.5% per annum).

Details of the direct and non-direct operating expenditure forecasts for the Cedar Pocket scheme are provided below.

**Direct operating and maintenance costs**

Direct costs are those costs that have been budgeted at the individual asset level.

**Operations**

Operations relates to the day-to-day costs of delivering water and meeting compliance obligations. The primary activities relate to dam operations and group support.

Dam operations are the largest contributor to direct operating costs. Dam Operations aims to deliver best practice management of dams and water sources while being fully compliant and effective in operating, maintaining and monitoring its water source infrastructure.

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¹ Refer to Chapter 1.
Dam operations must meet the regulatory requirements under various Acts including those relating to Dam Safety, Flood Management, Resource Operating Plans, and providing sufficient water to meet standards of service.

Dam operations are relatively labour intensive and expenditure is driven by:

- providing efficient service to irrigation customers in terms of information and management and delivery of service;
- developing robust and acceptable systems to monitor water flows to manage water sources, floods and regulations;
- developing an effective and technically capable and resilient flood operations centre utilising systems of quality standards;
- improving data management to ensure compliance on a wide variety of water management areas;
- ensuring security and safety at our water sources is meeting regulatory and community standards; and
- developing system operating plans to ensure the efficiency and operation of dams, weirs, bores and other water sources.

Group support has responsibility for the development and delivery of recreation and catchment maintenance services for all operational assets. The team ensures that asset management plans, processes, systems and practices are implemented in accordance with relevant regulatory requirements. The costs associated with catchment management activities (for water quality outcomes) are excluded from the lower bound cost base for irrigation.

Seqwater has responsibility for the ongoing management and maintenance of recreation sites transferred from SunWater. The use of Seqwater assets for recreational purposes is secondary to Seqwater’s main function of water supply and treatment. However, recreation facilities must be managed in a sustainable and environmentally responsible manner to ensure that Seqwater’s core responsibilities and accountabilities are not adversely impacted.

Direct operations costs are presented in terms of the type of cost being labour; contractors and materials; and “other”.

- labour costs are derived on the basis of budgeted work in the scheme for 2012-13 and the related salary costs for routine activities. The costs represent all costs budgeted as employee costs for the scheme. In practice, a small proportion of this labour will be
used for maintenance activities.\textsuperscript{2} Consistent with the current Enterprise Bargaining Agreement for Seqwater and the recommendation of the QCA in its draft SunWater report, Seqwater has escalated internal labour costs at 4\% per annum for the regulatory period 2013-14 to 2016-17;

- contractors and materials costs for 2012-13 are based on the quantities required in the work instructions for the scheme. As per the QCA’s draft SunWater report, contractor and material costs have been escalated at 4\% per annum for the regulatory period; and

- “other” direct operating costs incorporate a range of expenses including plant and fleet hire, water quality monitoring expenses and fixed energy costs. These costs have been escalated at forecast CPI for the regulatory period.

Forecast operations costs are provided below.

\textbf{Table 3-1. Forecast direct operations costs ($000, Nominal)}

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Labour</td>
<td>46.1</td>
<td>47.9</td>
<td>49.9</td>
<td>51.9</td>
</tr>
<tr>
<td>Contractors and materials</td>
<td>3.1</td>
<td>3.2</td>
<td>3.4</td>
<td>3.5</td>
</tr>
<tr>
<td>Other</td>
<td>2.2</td>
<td>2.2</td>
<td>2.3</td>
<td>2.3</td>
</tr>
<tr>
<td>\textbf{TOTAL}</td>
<td>\textbf{51.4}</td>
<td>\textbf{53.4}</td>
<td>\textbf{55.5}</td>
<td>\textbf{57.7}</td>
</tr>
</tbody>
</table>

\textbf{Repairs and maintenance}

Repairs and maintenance is performed at the scheme in accordance with Seqwater’s maintenance system. This system identifies the maintenance requirements for each asset, and then sets out a schedule for maintenance over the year(s) for that asset. In addition, maintenance requirements are developed through Facilities Asset Management Plans and as a result of scheduled inspections.

There is also unplanned maintenance which is required in response to asset breakdown or failure, or where new information emerges about asset condition (e.g. via regular inspections). Expenditure on unplanned maintenance for 2012-13 is derived based on past experience.

\textsuperscript{2} Repairs and maintenance are budgeted as a separate line item, and exclude labour. Most maintenance work is delivered via contractors. Seqwater has sought to minimise the manipulation of data from its financial system when presenting information in this NSP and forecasting lower bound costs. While there are minor shortcomings in this approach, Seqwater does not believe there is a material impact on the pricing outcomes given the overall proportion of labour costs that might relate to future repairs and maintenance is small (on average, 3\% across all schemes).
Seqwater have set a target ratio of 71:29 planned maintenance to unplanned maintenance in 2012-13. This ratio has been applied for the forecast period.

Repairs and maintenance for 2012-13 has been escalated at 4% per annum over the regulatory period.

The table below presents a summary of forecast repairs and maintenance costs.

**Table 3-2. Forecast repairs and maintenance by expenditure type ($000, Nominal)**

<table>
<thead>
<tr>
<th>Type</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned</td>
<td>10.3</td>
<td>10.8</td>
<td>11.2</td>
<td>11.6</td>
</tr>
<tr>
<td>Unplanned</td>
<td>4.2</td>
<td>4.4</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14.6</td>
<td>15.1</td>
<td>15.7</td>
<td>16.4</td>
</tr>
</tbody>
</table>

**Dam safety inspections**

Routine dam safety inspections are carried out to identify and plan maintenance requirements and to provide information for management planning of water delivery assets. These costs are included in forecast operations expenditure.

In addition, more thorough periodic dam safety inspections are carried out on a 5 yearly basis. Costs associated with these inspections have been added to forecast direct operating expenditure in the year in which the expenditure is expected to be incurred. Forecast dam safety inspections expenditure is provided below.

**Table 3-3. Forecast dam safety inspections ($000, Nominal)**

<table>
<thead>
<tr>
<th>Dam</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>27.6</td>
</tr>
<tr>
<td>Total</td>
<td></td>
<td></td>
<td></td>
<td>27.6</td>
</tr>
</tbody>
</table>

These inspections are based on the dam safety compliance requirements for the dams and the cost estimates are based on actual historic cost of inspection.

The table below presents consolidated forecast repairs and maintenance costs for the Cedar Pocket scheme.
Table 3-4. Total repairs and maintenance forecast ($000, Nominal)

<table>
<thead>
<tr>
<th>Type</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Planned</td>
<td>10.3</td>
<td>10.8</td>
<td>11.2</td>
<td>11.6</td>
</tr>
<tr>
<td>Unplanned</td>
<td>4.2</td>
<td>4.4</td>
<td>4.6</td>
<td>4.7</td>
</tr>
<tr>
<td>Dam safety inspections</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>27.6</td>
</tr>
<tr>
<td>TOTAL</td>
<td>14.6</td>
<td>15.1</td>
<td>15.7</td>
<td>44.0</td>
</tr>
</tbody>
</table>

**Rates**

No rates are payable by the Cedar Pocket scheme.

**Metering**

Consistent with the Referral Notice to the QCA, capital expenditure (renewals) costs for meter upgrades to meet national metering standards have been excluded. Similarly, operating costs associated with complying with the new standards have not been included in the cost estimates. However, costs for normal meter refurbishments (like-for-like) and costs to address identified safety risks associated with meter locations have been included.

**Non-direct costs**

Non-direct costs are common costs which are not directly attributable to the operations and management of a specific scheme and include both indirect and overhead costs associated with the provision of corporate and other business services. In the absence of suitably disaggregated data at the project level, allocations of non-direct costs to renewals / capital expenditure were not examined. All non-direct costs were therefore allocated to operating expenditure only.

Non-direct costs for 2012-13 were derived at the aggregate level for all schemes and allocated to individual schemes based on the proportion of direct costs attributable to the individual scheme. These costs were then escalated forward to derive forecast non-direct costs for the regulatory period.

Non-direct costs are categorised by the type of expenditure:

- Water delivery includes non-direct costs associated with dam operations, infrastructure maintenance, environmental management and recreation and catchment maintenance services;
- Asset delivery costs are associated with project planning and managing the delivery of projects;
Corporate costs include business services, organisational development and the office of the CEO. These include costs associated with the provision of IT services, finance, procurement, legal and risk, governance and compliance activities; and

Other costs primarily reflect costs associated with the North Quay facilities and flood control centres.

As discussed, the Cedar Pocket scheme was allocated a portion of 2012-13 total business non-direct costs on the basis of direct costs attributable to the scheme. This estimate was escalated by CPI to derive forecasts for each year of the regulatory period.

Forecast non-direct operating costs are provided below.

<table>
<thead>
<tr>
<th>Table 3-5. Forecast non-direct operating cost ($000, Nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Type</strong></td>
</tr>
<tr>
<td>Water Delivery</td>
</tr>
<tr>
<td>Asset Delivery</td>
</tr>
<tr>
<td>Corporate</td>
</tr>
<tr>
<td>Other</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
</tr>
</tbody>
</table>

In addition to non-direct operating costs, Seqwater has allocated costs to the Cedar Pocket scheme associated with the use of non-infrastructure assets, insurance and working capital.

**Non-infrastructure assets**

The Cedar Pocket scheme utilises a range of non-infrastructure assets (buildings and plant and equipment). These assets are not included in the renewals expenditure forecasts. However, it is necessary for costs associated with the use of these assets to be attributed to the Scheme. Seqwater has used depreciation costs as a proxy for the cost associated with use of these assets. However, these depreciation costs are not captured for the WSS. Accordingly, aggregate non-infrastructure depreciation for 2012-13 has been allocated to facilities on the basis of direct costs and escalated forward over the forecast period.

The table below provides a breakdown of forecast non-infrastructure asset costs allocated to the Cedar Pocket scheme over the forecast period.

<table>
<thead>
<tr>
<th>Table 3-6. Forecast non-infrastructure operating cost ($000, Nominal)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Year</strong></td>
</tr>
<tr>
<td>Cost</td>
</tr>
</tbody>
</table>
Insurance

Seqwater’s annual insurance premium cost for 2012-13 is forecast at $6.96 million. The major components to the premium include industrial special risks, machinery breakdown, public liability, professional indemnity, contract works and directors and officers insurance.\(^3\)

Seqwater is in the process of placing insurances, and proposes to update this forecast once new premiums are set.

Seqwater has allocated its 2012-13 premium to the Cedar Pocket scheme using the replacement value of scheme assets. This value has been escalated by CPI to determine a premium for each year of the forecast period. The table below shows the forecast premiums for the scheme.

**Table 3-7. Forecast insurance cost ($000, Nominal)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>10.3</td>
<td>10.6</td>
<td>10.9</td>
<td>11.1</td>
</tr>
</tbody>
</table>

Working capital

The QCA has already adopted a methodology for calculating Seqwater’s working capital in Grid Service Charges. Seqwater has calculated the working capital allowance using this methodology and the values submitted to the QCA for 2012-13\(^4\), at $5.538M.

Seqwater has allocated a portion of this working capital allowance to the Cedar Pocket scheme on the basis of revenue attributable to the scheme. The 2012-13 working capital allowance has then been escalated by CPI to provide a forecast for each year of the regulatory period.

**Table 3-8. Forecast working capital ($000, Nominal)**

<table>
<thead>
<tr>
<th>Year</th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
</tbody>
</table>

Total operating costs for the forecast period are provided in the table below.

---

\(^3\) Seqwater also notes the QCA canvassed concerns raised by irrigators about the insurance costs attributable to irrigation services, and accepted SunWater’s proposed scope of insurances as reasonable (including professional indemnity). Refer to QCA (2011).pp 106-107

\(^4\) Seqwater (2012). p146
Table 3-9. Total operating cost forecast ($000, Nominal)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td>51.4</td>
<td>53.4</td>
<td>55.5</td>
<td>57.7</td>
</tr>
<tr>
<td>Repairs and</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>maintenance</td>
<td>14.6</td>
<td>15.1</td>
<td>15.7</td>
<td>16.4</td>
</tr>
<tr>
<td>Dam safety</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>27.6</td>
</tr>
<tr>
<td>Rates</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>Non-direct</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Operations</td>
<td>37.1</td>
<td>38.0</td>
<td>38.9</td>
<td>39.9</td>
</tr>
<tr>
<td>Non-infrastructure</td>
<td>3.1</td>
<td>3.2</td>
<td>3.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Insurance</td>
<td>10.3</td>
<td>10.6</td>
<td>10.9</td>
<td>11.1</td>
</tr>
<tr>
<td>Working capital</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
<td>1.0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>117.4</strong></td>
<td><strong>121.3</strong></td>
<td><strong>125.3</strong></td>
<td><strong>157.1</strong></td>
</tr>
</tbody>
</table>

Renewals

The renewals outlays for the irrigation schemes consist of the same cost elements as their operating costs, namely direct labour, materials and contractors' services, other direct costs (such as rates and land taxes) and miscellaneous administrative costs and non-direct (indirect and overhead) costs.

Seqwater has adopted the same rates for escalation of renewals expenditure as for operating expenditure.

Accordingly, renewal expenditure has been escalated for direct labour, materials and contractors costs at 4% per annum for the years 2013-14 to 2016-17 and forecast inflation thereafter for the remainder of the planning period. All other direct costs and non-direct costs are escalated at forecast inflation for both the regulatory period and the remainder of the planning period.

Inflation is forecast to increase at 2.5% per annum over the forecast period and beyond.

Renewals forecast

Seqwater has proposed a rolling 20 year renewals annuity, consistent with the approach adopted for SunWater’s irrigation pricing in the QCA’s draft report.

Seqwater has defined renewals as non-maintenance expenditure that is required to maintain the service capacity of the assets.
Seqwater has based its renewals forecast on the more significant and predictable renewals expenditure items. Seqwater has not attempted to include minor renewals projects (less than $10,000), or renewals on water treatment plants at recreation areas, or make any allowance or contingency for renewals expenditure arising from damage or changes in law. This approach has been adopted to focus the renewals forecasting effort on more material items of expenditure.

Seqwater identified renewals needs and the schedule of projects through a range of processes, including:

- the existing Facility Asset Management Plans (FAMPs);
- the existing asset maintenance program;
- reports from site safety inspections and dam safety management program; and
- advice from operators.

Seqwater then evaluated potential projects against criticality and other criteria, and conducted workshops with local staff as well as site inspections to validate and adjust the scope and timing of projects. In many cases, Seqwater has revised the timing of major renewals jobs to a later time where there was not sufficient evidence that the asset required renewal, or renewal of the asset could be deferred at an acceptable risk of failing to meet service standards or compliance obligations.

Forecast renewals expenditure for the regulatory period is provided below.

**Table 3-10. Forecast renewals expenditure to 2016-17 ($2012-13, $000)**

<table>
<thead>
<tr>
<th></th>
<th>2013-14</th>
<th>2014-15</th>
<th>2015-16</th>
<th>2016-17</th>
</tr>
</thead>
<tbody>
<tr>
<td>Renewals expenditure</td>
<td>7</td>
<td>25.0</td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

This excludes any dam safety or NWI meter upgrade expenditure, in accordance with the Referral Notice. However, costs for normal meter refurbishments (like-for-like) and costs to address identified safety risks associated with meter locations have been included.

The figure below shows the long term renewals profile over a 24 year period.
A list of projects included in the Annuity and that come under at least one of the following categories are outlined in the table below:

- scheduled between 2013-14 and 2016-17 financial years and having a project value greater than the average project value for that period; and
- a project that has an impact on the annuity of greater than 10%.

### Table 3-11. Major renewals projects (Real, $2012-13)

<table>
<thead>
<tr>
<th>Asset</th>
<th>Description of Work</th>
<th>Timing of Work</th>
<th>Project Value $'000</th>
<th>Significance*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket Dam</td>
<td>Repair of drainage on right hand embankment</td>
<td>2014-15</td>
<td>18</td>
<td>HAV/IA</td>
</tr>
<tr>
<td>Cedar Pocket Dam</td>
<td>Replacement of electrical reticulation to valves</td>
<td>2019-20</td>
<td>27</td>
<td>IA</td>
</tr>
<tr>
<td>Cedar Pocket Dam</td>
<td>Renewal of telemetry assets</td>
<td>2020-21</td>
<td>34</td>
<td>IA</td>
</tr>
<tr>
<td>Cedar Pocket Dam</td>
<td>Renewal of electricity supply assets</td>
<td>2025-26</td>
<td>30</td>
<td>IA</td>
</tr>
</tbody>
</table>
Total Lower Bound Costs

The total lower bound costs for the Cedar Pocket Dam scheme are set out in the table below.

**Table 3-12. Total Lower Bound Costs ($000, Nominal)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct operations</td>
<td>51.4</td>
<td>53.4</td>
<td>55.5</td>
<td>85.3</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>14.6</td>
<td>15.1</td>
<td>15.7</td>
<td>16.4</td>
</tr>
<tr>
<td>Non-direct opex*</td>
<td>51.5</td>
<td>52.8</td>
<td>54.1</td>
<td>55.4</td>
</tr>
<tr>
<td>Renewals annuity</td>
<td>18.9</td>
<td>19.0</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>136.3</strong></td>
<td><strong>140.3</strong></td>
<td><strong>144.4</strong></td>
<td><strong>176.2</strong></td>
</tr>
</tbody>
</table>

* Incorporates operations, non-infrastructure costs, insurance and working capital.

Cost allocation to medium priority

The Cedar Pocket Dam scheme consists of medium priority water access entitlements only. Consequently, all scheme costs are attributable to medium priority customers.

**Table 3-13. Total lower bound costs allocated to medium priority ($000, Nominal)**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Direct operations</td>
<td>51.4</td>
<td>53.4</td>
<td>55.5</td>
<td>85.3</td>
</tr>
<tr>
<td>Repairs and maintenance</td>
<td>14.6</td>
<td>15.1</td>
<td>15.7</td>
<td>16.4</td>
</tr>
<tr>
<td>Non-direct opex*</td>
<td>51.5</td>
<td>52.8</td>
<td>54.1</td>
<td>55.4</td>
</tr>
<tr>
<td>Renewals annuity</td>
<td>18.9</td>
<td>19.0</td>
<td>19.1</td>
<td>19.1</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>136.3</strong></td>
<td><strong>140.3</strong></td>
<td><strong>144.4</strong></td>
<td><strong>176.2</strong></td>
</tr>
</tbody>
</table>

* Incorporates operations, non-infrastructure costs, insurance and working capital.

Lower bound reference tariffs

Tariff groups

The Referral Notice requires the QCA to adopt the tariff groups as proposed in Seqwater’s NSPs.
Seqwater proposes the current tariff groupings continue for the Scheme. That is, a single tariff group will continue to apply.

**Tariff structure**

A two part tariff structure currently applies, with a Part A charge levied per ML of customer WAE, and a Part B charge levied against metered water use.

As discussed, Seqwater considers that all costs in the scheme are fixed. Accordingly, Seqwater proposes to apply a single Part A tariff.

**Lower bound reference tariffs**

Medium priority lower bound reference tariffs for Cedar Pocket Dam irrigation customers are provided below.

| Table 3-14. Cedar Pocket Dam lower bound reference tariffs ($/ML Nominal) |
|---------------------------------------------------|-------------------|-------------------|-------------------|-------------------|
| Fixed component based on WAE                      | A 288.60           | 295.82             | 303.21             | 310.79             |
| Variable component based on usage                 | B -                | -                  | -                  | -                  |

The tariffs required for Cedar Pocket Dam irrigation customers to achieve lower bound costs are significantly above tariffs currently applied.

**Price Path**

Seqwater has calculated that the equivalent fixed charge for 2012-13 prices in the scheme is $22.40. Accordingly, current prices remain well below the lower bound cost recovery target.

The Referral Notice requires the QCA to apply real increases at a pace consistent with the 2006-11 price path period, until the lower bound reference tariffs are reached. For the 2006-11 price paths, the general approach was:

- a minimal increase in the first year of the 5-year price path;
- a maximum increase of $10/ML over the 5 year period; and
- a maximum increase of $2.50/annum over the last four years of the price path.

---

In Cedar Pocket Dam WSS, a $2.50/ML increase was adopted in the middle 3 years of the price path, and smaller increase in the first and last year. The total real increase over the five years was $10/ML.

Supporting documentation

- Irrigation Infrastructure Renewal Projections - 2013-14 to 2046-47 - Cedar Pocket Tariff Group
## Appendix A – Asset details

### Part 2 Cedar Pocket Water Supply Scheme

**Table 1** Cedar Pocket Dam on Deep Creek at AMTD 25.2 km

<table>
<thead>
<tr>
<th>Description of water infrastructure</th>
<th>Concrete gravity dam with earthfill embankment on eastern abutment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Full supply level</td>
<td>EL 101.07 m AHD</td>
</tr>
</tbody>
</table>

**Storage capacity**

| Full supply volume                    | 730 megalitres |
| Minimum operating volume              | 16 megalitres  |
| Storage curvatures                    | A1-78061       |

**Spillway arrangement**

<table>
<thead>
<tr>
<th>Description of works</th>
<th>The spillway consists of a 50 metre wide concrete gravity wall, including a 10 metre wide cut-out section and two 20 metre wide overflow sections on either side of the cut-out.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Levels</td>
<td>Cut-out section at EL 101.07 m AHD, Overflow sections at EL 101.37 m AHD</td>
</tr>
<tr>
<td>Spillway width</td>
<td>Cut-out section—10 m, Overflow sections—20 m each</td>
</tr>
<tr>
<td>Discharge characteristics</td>
<td>Maximum discharge—approximately 410 cumecs</td>
</tr>
</tbody>
</table>

**River inlet/outlet works**

<table>
<thead>
<tr>
<th>Description of works</th>
<th>A single 450 mm diameter pipe reduced to a 300 mm pipe, controlled by two gate valves operated from the outlet house</th>
</tr>
</thead>
<tbody>
<tr>
<td>Inlet</td>
<td>Single level inlet works consists of a single bellmouth 450 mm diameter pipe</td>
</tr>
<tr>
<td>Close to flow levels</td>
<td>EL 93.26 m AHD</td>
</tr>
<tr>
<td>Discharge characteristics</td>
<td>Not available at the time of plan release</td>
</tr>
</tbody>
</table>

**Fish transfer system**

| Description of works | None installed |

**Table 2** Watercourses used for distribution—Cedar Pocket Water Supply Scheme

<table>
<thead>
<tr>
<th>Name</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Deep Creek</td>
<td>Deep Creek from AMTD—10.2 km to and including the impoundment of Cedar Pocket Dam</td>
</tr>
</tbody>
</table>

**Table 3** Storage operating level—Cedar Pocket Water Supply Scheme

<table>
<thead>
<tr>
<th>Storage</th>
<th>Minimum operating level (m AHD)</th>
<th>Full supply level (m AHD)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cedar Pocket Dam</td>
<td>93.26</td>
<td>101.07</td>
</tr>
</tbody>
</table>

**Table 4** Maximum allowable use volumes—Cedar Pocket Water Supply Scheme

<table>
<thead>
<tr>
<th>Zone</th>
<th>Maximum allowable water use volume (megalitres)</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPE51</td>
<td>1010</td>
</tr>
</tbody>
</table>
Appendix B – Customer service standards

MARY RIVER WATER SUPPLY SCHEME

UPPER MARY (PIE CREEK – CEDAR POCKET DAM – MARY RIVER)

Water Supply Arrangements

This is referred to as Seqwater Distribution Rules in the Channel/Pipeline contract; and Seqwater Rules in the River/Groundwater contract.

To manage the water delivery to our customers, arrangements for the taking of water in the Scheme have been discussed with the Irrigator Advisory Committee and are outlined below. These arrangements are aimed at achieving the efficient delivery of water to customers in the Scheme that best meets their needs.

Pie Creek

Taking Water from the Scheme

In the Mary River Water Supply Scheme (Pie Creek), customers must place water orders by using the telephone ordering system. In order to best manage water demand, customers are required to order at least 48 hours in advance and to draw water on a continuous 24 hour basis.

To place an order, customers are required to phone the following numbers:

5484 5106 or Mobile 0409 059 229

Note: All water orders must be received by 6.00am, any orders/changes advised after this time will be registered the following day.

The automated ordering systems have a pre-set travel time for the period of time it takes for water to move along the Mary River depending on the location of the customer’s offtake.

Water must be taken in accordance with the order and must not exceed the ordered volume. The water ordering system assists Seqwater to delivery water to customers in an efficient and timely way, and enables customers to plan and manage their water use. Customers who take without ordering may reduce Seqwater’s ability to supply customers who have ordered according to the above requirements.

Furthermore, customers who order water and fail to take it increase the system’s distribution losses, which could result in Seqwater having to limit supplies to all customers later in the water year.

Distribution of water during times of peak demand, roster periods or restrictions may be required in accordance with the Access conditions.
Water Supply Arrangements and Service Targets

Access Conditions (Working Supply Rates/Roster)

This is referred to as Access Conditions in the Channel/Pipeline contract.

Working Supply Flow Rates have been determined for each outlet. Adherence to Working Supply Flow Rates and rosters means that all customers can access supplies in a managed way that is consistent with the design principle of the scheme. However, Working Supply Flow Rates and associated rosters cannot provide continuous access to supplies.

All customers must adhere to Working Supply Flow Rates to share channel capacity during periods when demand for water exceeds the system’s capacity to deliver. The duty Operations Officer will inform customers verbally if and when restrictions apply. During this period, compliance with rosters and Working supply Flow Rates is required.

Failure to adhere to a Working supply Flow Rate and roster impacts on other customers and is in breach of your contract.

Working Supply Flow Rates and associated rosters have been determined for each outlet and distributed to customers. If you do not have a record of your Working supply Flow Rate or the Roster please contact the Seqwater Regional Office in Karalee.

Supply Rate Control

On-farm flow rate must not be regulated through the use of Seqwater’s gate-valve installed upstream of the meter. For on farm flow regulation customers must install an approved valve downstream of the meter outlet.

Customers must ensure that the flow rate at which water is taken, remains within the meter’s operating range. Taking of water at flow rates above or below the meter’s operating range is not permitted. If a meter installation is no longer suitable for your irrigation practices, please discuss replacing the installation with the Dam Supervisor.

Rain Shutdown

Customers must notify the duty Operations Officer as soon as possible of any rain event that substantially lessens their water requirements.

To conserve water, the duty Operations Officer may shutdown the system when there is widespread general rain.
Cedar Pocket Dam

**Taking Water from the Scheme**

In the Mary River Water supply Scheme (Cedar Pocket Dam), customers must place water orders using the telephone ordering system. In order to best manage water demand, customers are required to order 48 hours in advance and to draw water on a continuous 24 hour basis. To place an order, customers are required to phone the following numbers:

5484 5106 or Mobile 0409 630 312

**Note:** All water orders must be received by 5.00am. any orders/changes advised after this time will be registered the following day.

The automated ordering systems have a pre-set travel time for the period of time it takes for water to move along the Mary River depending on the location of the customer’s offtake.

Water must be taken in accordance with the order and must not exceed the ordered volume. The water ordering system assists Seqwater to delivery water to customers in an efficient and timely way, and enables customers to plan and manage their water use. Customers who take without ordering may reduce Seqwater’s ability to supply customers who have ordered according to the above requirements.

Furthermore, customers who order water and fail to take it increase the system’s distribution losses, which could result in Seqwater having to limit supplies to all customers later in the water year.

Distribution of water during times of peak demand, roster periods or restrictions may be required in accordance with the Access Conditions.

**Access to Storage**

Storage is currently operated in the following nominal operating range:

Cedar Pocket Dam – 7.7 metres below Full Supply Level (FSL)

This range may change in the future if required; for example, under Seqwater’s interim Resource Operations Licence (IROL) and for other licence changes. Customers will be informed if such a change occurs.

Customers should note that they are responsible for locating and maintaining pumps to take water.

**Changes to Customer’s Pumping Arrangements**

Customers must obtain approval from both Seqwater and the Department of Environment and Resource Management or any other approvals necessary, before proceeding with any changes to their pumps, including changing size/capacity of the pump. Customers are advised to contact Seqwater to clarify any requirements before lodging applications to the Department of environment and Resource Management.
Water Supply Arrangements and Service Targets

Rain Shutdown

To conserve water, the duty Operations Officer may shutdown the system when there is widespread general rain.

Mary River

Taking Water from the Scheme

In the Upper Mary River Water Supply Scheme customers must place water orders using the telephone ordering system. In order to best manage water demand, customers are required to order 48 hours in advance and to draw water on a continuous 24 hour basis.

To place an order, customers are required to phone the following numbers:

5484 5106 or Mobile 0409 059 229

Note: All water orders must be received by 6.00am. Any orders/changes advised after this time will be registered the following day.

The automated ordering systems have a pre-set travel time for the period of time it takes for water to move along the Mary River depending on the location of the customer’s offtake.

Water must be taken in accordance with the order and must not exceed the ordered volume. The water ordering system assists Seqwater to deliver water to customers in an efficient and timely way, and enables customers to plan and manage their water use. Customers who take without ordering may reduce Seqwater’s ability to supply customers who have ordered according to the above requirements.

Furthermore, customers who order water and fail to take it increase the system’s distribution losses, which could result in Seqwater having to limit supplies to all customers later in the water year.

Distribution of water during times of peak demand, roster period or restrictions may be required in accordance with the Access Conditions.

Water Harvesting

Water harvesting is announced and charged for the Department of Environment and Resource Management. Any enquiries with regard to water harvesting should be directed to your local office of the Department of environment and Resource management. Department of Environment and Resource Management will inform Seqwater of readings to that Seqwater can record this use as water harvesting.

If no meter readings are received from Department of Environment and Resource Management then all water taken will be treated as Announced Allocation.
Water Supply Arrangements and Service Targets

Changes to Customers’ Pumping Arrangements

Customers must obtain approval from both Seqwater and the Department of Environment and Resource Management or any other approvals necessary before proceeding with any changes to their pumps, including changing size/capacity of the pump. Customers are advised to contact Seqwater to clarify any requirements before lodging applications to the Department of Environment and Resource Management.

Pie Creek – Cedar Pocket – Mary River (Upper Mary)

Changes to the volume or location for taking water

Channel

Customers wishing to:

- Nominate a different location for taking water in the channel system (including a temporary transfer or combining two or more delivery points); or
- Transfer water outside the channel system to another location on the river

River

Customers wishing to:

- Have multiple delivery points; or
- Transfer water to another customer

Must first obtain Seqwater’s approval. For their own benefit, customers should obtain Seqwater’s approval before finalising any dealings with another party (eg a temporary transfer).

Seqwater may require operational and other issues to be resolved before granting its approval. These will be discussed with customers during the application and approval process.

Application forms are available from the Seqwater Regional Office in Karalee.

Stopping or restricting supply

Seqwater may suspend or restrict supply in a number of circumstances, including:

- during maintenance of Seqwater’s assets;
- if supply could cause Seqwater to break the law;
- during a peak demand period, when rosters or rations may apply:
Water Supply Arrangements and Service Targets

- when the demand for water is so small it is impractical to supply it;
- infrastructure limitations which make delivery impractical;
- When there is a need to make special releases to maximise efficiency at times of limited supply;
- or
- during rain shutdown.

In the event that Seqwater restricts or suspends supplies, customers should make arrangements for on farm water storage to provide their ongoing water requirements during interruptions.

Credit Water

Credit Water enables customers to take streamflows that are below water harvesting thresholds, but would otherwise not contribute to storage in the scheme. Seqwater is able to provide this product to its customers in lieu of announced allocation under certain circumstances.

During defined streamflow and other circumstances, Seqwater may announce that Credit Water is available in the scheme or to a defined part of the scheme. Customers wishing to take credit water must telephone, email or fax to Seqwater their start meter readings so the water taken can be recorded as credit water.

At the end of the Credit Water event, Seqwater will announce via local radio and/or newspaper that Credit Water has ended. Customers must telephone, email or fax their end meter readings within two business days of this announcement.

Water charges

Water taken as credit water attracts the normal consumption charge. There are no other charges associated with credit water.

Maximum volume taken as Credit Water

Customers’ combined water use as credit water and allocation water cannot exceed the customers’ total nominal water allocation amount.

Customers are responsible for monitoring their water use under both Credit Water and allocation water against their interim water allocation amount.

Customers can obtain specific information on the use of Credit Water by contacting the Karalee Regional Office.

General
Water Supply Arrangements and Service Targets

Complaints and Dispute Resolution

Seqwater’s aim is to resolve problems and complaints quickly and effectively. Where a customer has a concern that is not able to be resolved, customers can choose to initiate a formal dispute resolution process by writing to the Regional Manager.

If through discussions, resolution cannot be reached either party may request the commencement of negotiations in good faith on a dispute resolution procedure, other than litigation or arbitration. If agreement is reached to proceed to the next phase, independent mediation services of the Disputes Resolution Centres of Queensland can be used.

Billing Arrangements

Invoices are sent quarterly with the exception of minimum charge invoices, which are sent annually and all invoices must be paid within 30 days. Payments are allocated to the customer’s oldest debt first, unless an invoice is in dispute.

Notices

Correspondence should be sent to the Karalee Regional Office as detailed below.

Seqwater

P O Box 2437

North Ipswich Qld 4306

Facsimile: 3884 5312

Email:

Communication – Contact Arrangements

The Karalee Regional Office has staff available for enquiries and business transactions (water supply, billing, temporary transfers, etc) Monday to Friday – Phone: 1800 077 005 or 3432 7001.

It is of great assistance if customers can provide an oﬀtake number when reporting supply problems. Oﬀtake numbers are recorded on quarterly water statements and or may be located on metal tags physically attached to meter installations.

In the event of an emergency or to report a fault, the duty Water Officer can be contacted by phoning 5484 5106 or Mobile 0409 059 229.

Further information about Seqwater can be obtained from our website:

www.seqwater.com.au

SERVICE TARGETS
Water Supply Arrangements and Service Targets

As described under clause 3 of the standard contract:

We are committed to publishing service targets and to reporting to customers on our performance against the targets. Following discussion and consultation with the Irrigator Advisory Committee, this document contains service targets that have been set for the Mary River Water supply Scheme – Upper Mary (Pie Creek – Cedar Pocket Dam – Mary River).

Planned Shutdowns

Planned shutdowns have been included as a target and Seqwater recognises that the following are important service issues for you:

- That you will be notified about a shutdown so that you can plan ahead;
- The timing of the shutdown should suit most customers;
- The duration of the shutdown should minimise the impact on customers, while enabling Seqwater to perform maintenance on the scheme.

**Definition:** A Planned shutdowns occurs when a customer’s supply is interrupted or restricted due to the performance of work that is planned in advance.

Planned Shutdowns - Timing

<table>
<thead>
<tr>
<th>Delivery Type</th>
<th>Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel &amp; River</td>
<td>The timing of all planned shutdowns will be set following consultation with the Irrigator Advisory Committee (for a shutdown affecting a large part of the scheme) or customer groups or individuals (for shutdowns effecting small areas).</td>
<td></td>
</tr>
</tbody>
</table>

Planned Shutdowns – Duration

<table>
<thead>
<tr>
<th>Delivery Type</th>
<th>Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel &amp; River</td>
<td>Seqwater will complete all planned shutdowns within the period notified to customers (unless later varied by agreement with the groups originally consulted with), unless something occurs that is beyond Seqwater’s control, such as adverse weather conditions.</td>
<td></td>
</tr>
</tbody>
</table>

Planned Shutdowns – Notice
## Water Supply Arrangements and Service Targets

<table>
<thead>
<tr>
<th>Delivery Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
</table>
| **Channel & River**   | For shutdowns planned to exceed 2 weeks, at 8 weeks written notice by letter will be provided to each customer affected by the annual shutdown.  
For shutdowns planned to exceed 3 days, at least 2 weeks written notice by letter, fax, telephone, or verbal advice will be provided to each customer affected by the shutdown.  
For shutdowns planned to be less than 3 days, at least 5 days notice will be provided at least verbally to each customer affected.  
Each notice will state the start date, and anticipated shutdown duration.  
A courtesy reminder will be placed in the local newspaper one week before the planned shutdowns commence. |

### Unplanned Shutdown

**Unplanned shutdowns** have been included as a target and Seqwater recognises that the information provided to you about an interruption and the period of time taken to resume supply are important to you.

**Definition:** An Unplanned Shutdown is an unforeseen or not planned mechanical or operational failure of Seqwater’s water delivery infrastructure that stops or restricts the supply of water to a customer for more than 2 hours (including emergency repairs). It does not include events that are beyond Seqwater’s control (eg. power failure or storm) and does not include interruptions to supply caused by errors in estimating water demand and releases, or people taking water without authorisation.

#### Unplanned Shutdown – Duration

<table>
<thead>
<tr>
<th>Delivery Service Type</th>
<th>Service Target</th>
</tr>
</thead>
</table>
| **Channel & River**   | Unplanned Shutdowns will be fixed so that at least partial supply can be resumed to those customers requiring water within:  
- 48 hours of Seqwater being notified of the event.  
Some events may interrupt supply greater than the above standard and are excluded from these targets. Seqwater will publish these events from time to time. |

### Unplanned Shutdown – Notice
## Water Supply Arrangements and Service Targets

<table>
<thead>
<tr>
<th>Delivery Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel &amp; River</td>
<td>Seqwater will notify all affected customers requiring water verbally or by telephone, radio announcement or fax of the likely duration of the interruption to supply within 24 hours of learning of the event, or by the end of the first business day following the event, whichever is the earlier.</td>
</tr>
</tbody>
</table>

### Unplanned Shutdown – Meter Repairs

<table>
<thead>
<tr>
<th>Delivery Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channel &amp; River</td>
<td>Faults causing restrictions to supply will be repaired within one working day of Seqwater being notified.</td>
</tr>
</tbody>
</table>

### Total Frequency of Interruption to Supply

#### Frequency of Interruptions to Supply

<table>
<thead>
<tr>
<th>Delivery Type</th>
<th>Service Type</th>
<th>Scheme Target</th>
</tr>
</thead>
<tbody>
<tr>
<td>River</td>
<td></td>
<td>No customer will experience more than six planned or unplanned interruptions per water year (as defined above).</td>
</tr>
</tbody>
</table>

*This includes other events described as Events of Force Majeure in your contract.*

### Complaints

Seqwater will provide an initial response to all complaints within five working days of receiving a complaint by the customer:

- in writing;
- by telephone to a Business Centre

Seqwater will either resolve a customer’s complaint, or provide a written response providing reasons why the complaint has not or cannot be resolved within 21 days of receiving the complaint.
Water Supply Arrangements and Service Targets

Customer Obligations

The Customer principal obligations are set out in clause 4 of the Standard Contract.

Warning to Customers

In particular Customers should note that a customer must not take more than the customer’s Maximum Delivery Volume as allowed by the Customer’s Standard Contract without first obtaining Seqwater’s approval. If a Customer exceeds the Customer’s Maximum Delivery Volume, the Customer may also be in contravention of the Water Act 2000. Seqwater may direct the Customer not to take any water. Depending on the circumstances of the breach, the Customer is not automatically entitled to forward draw on the following year’s water entitlements, if any, and is therefore not entitled to take water until Seqwater is satisfied that the breach has been remedied.