Engineering and Commercial Infrastructure - Water Services

16 April 2016 to 13 May 2016
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OVERVIEW

This report is for Water Services activities for April and May 2016. Please note that references to the April/May reporting period covers the period 16 April 2016 to 13 May 2016. Significant items in this period include:

- A campaign to promote the myh20 website commenced at the beginning on May. This campaign includes testimonials from customers who have had a positive experience.
- myh20 registrations have been on the increase with 7,374 residents registered. The goal was 10,000 registrations by 30 June 2016.
- Agreements for the provision of MiWater and myh20 software as a service has been entered into with; Grampians Wimmera Mallee Water Corporation, Victoria and Goldenfields Water County Council, NSW.
- Officers from Water Services attended the OzWater’ 16 conference in Melbourne from 10-12 May 2016
- Water Services has won the Digital Innovation Award in Local Government category for its Transforming a Water Business. David Brooker presented to the national judging panel in Canberra on May 10 in a bid to win the major overall award.
- The Director General, Department of Energy and Water Supply visited Mackay Regional Council to see the innovative projects that have been implemented in Water Services
- The Whitsunday, Isaac, Mackay (WIM) Water Alliance held a quarterly meeting in Mackay on 12th May, to discuss collaboration opportunities

Director Engineering and Commercial Infrastructure
1.1. Incident Statistics
The incident statistic details a summary of the Water Services safety incident performance. Water Services aspires to achieve zero harm with a stretch target of zero injuries.

<table>
<thead>
<tr>
<th>No. of Incidents</th>
<th>Lost Time Injuries</th>
<th>Safety Incidents</th>
</tr>
</thead>
<tbody>
<tr>
<td>May-16</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Jun-16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Jul-15</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Aug-15</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Sep-15</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>Oct-15</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Nov-15</td>
<td>3</td>
<td></td>
</tr>
<tr>
<td>Dec-15</td>
<td>4</td>
<td></td>
</tr>
<tr>
<td>Jan-16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Feb-16</td>
<td>2</td>
<td></td>
</tr>
<tr>
<td>Mar-16</td>
<td>1</td>
<td></td>
</tr>
<tr>
<td>Apr-16</td>
<td>2</td>
<td></td>
</tr>
</tbody>
</table>

Data at 30 April 2016

4 incidents being No lost time injuries:
- 2 x being hit by moving objects
- 1 x Bite
- 1 x Near Miss by non staff member being drunk on work site

1.2. Preventative Actions
To achieve improved safety performance a range of improvement initiatives are undertaken on a monthly basis. The following figure tracks the improvement process through implementation of the SafePlan Monthly Action Plans (MAPs) and the hazard inspections.

For the month of April, 7 Hazard Inspections were scheduled. 1 outstanding MAP from previous month has been completed. MAP’s completed in April is at 98%. A number of Hazard Inspections were completed late due to resource issues.

Data is at 30 April 2016
2.1. Water Operating Revenue Less Expenditure
The following shows the actual, budget and forecast Earnings before Interest, Taxes and Amortization (EBITA) based on cash accounting for the 2015/2016 financial year. The saw tooth nature of the graph is reflective of the timing of water revenue received. The capital revenue has been excluded from this graph.

![Graph showing actual, budget, and projected water revenue less expenditure for 2015/2016.]

Water Fund is $2.5M in surplus. Income is up by $493K with an underspend of $1.3M in Goods & Services and underspend of $790K in Employee Costs. The annual surplus is projected to be $1.8M.

Financial data is up to April 2016.

2.2. Accrued Water Operating Revenue Less Expenditure
The following shows the estimation of the accrued revenue less expenditure. The capital revenue has been excluded.

![Graph showing accrual-based actuals and budget for water revenue less expenditure for 2015/2016.]

On accrual basis, water actuals YTD are in surplus of budget by $2.07M. The annual surplus is projected to be $1.8M.

Financial data is up to April 2016.
2.3. **Wastewater Operating Revenue Less Expenditure**

The following shows the actual, budget and forecast EBITA based on cash accounting for the 2015/2016 financial year. The saw tooth nature of the graph is reflective of the timing of water revenue received. The capital revenue has been excluded from this graph.

![Graph showing actual, budget, and projected EBITA for wastewater operating revenue less expenditure.](image)

Sewage Fund is $3.15M in surplus. Income is up by $1070K with an underspend of $1.97M in Goods & Services and underspend of $267K in Employee Costs. The annual surplus is projected to be $2.25M.

Financial data is up to April 2016.

2.4. **Accrued Wastewater Operating Revenue less Expenditure**

The following shows the estimation of the accrued revenue less expenditure. The capital revenue has been excluded.

![Graph showing actual and budget for accrued wastewater operating revenue less expenditure.](image)

On an accrual basis, sewer actuals YTD are surplus of budget by $1.7M and annual surplus is projected to be $2.25M.

Financial data is up to April 2016.
2.5. **Capital Expenditure Performance**

The following trend provides a high level overview of the capital expenditure to monitor forecast expenditure against actual expenditure. The forecast expenditure profile is based on the project delivery schedule within Water Services.

![Capital expenditure graph]

Capital expenditure actuals resulted in a 66% spend of Budget. Including committals 85% of the total budget is spent. Full year expect to be 77% spent, with savings of approximately 10% and delivery slippage making up the remainder of 13%

**CLIENT SERVICES**

3.1. **Requests**

This graph details the client requests received and recorded via pathways that relate to the Water Business. The target is to have 90% of all client requests closed at any one point in time.

![Client requests graph]

91.88% of Client Requests completed in April 2016

Data available to end
April 2016
3.2. Request Types
The following chart displays a summary of the client request types received for the month.

A reduction in sewer blockage/spills in the reporting period but a slight increase in Water Leak Service and Water Leak Main requests this month.

Data is for April 2016.

3.3. Plumbing Applications
In accordance with the Plumbing and Drainage Act a plumbing application is required for all new plumbing installations or modifications to existing plumbing. A plumbing application must be lodged to Local Government. Water Services has a regulatory time frame of 20 business days to assess a plumbing application. An internal target of 5 business days has been set for all residential plumbing applications.

Plumbing application numbers remain constant with the previous two months however are below the preceding twelve month average.

Inspection numbers remain constant.

Data is for the period from 16 April 2016 to 13 May 2016.
3.4. **Trade Waste Approvals**

The program for undertaking trade waste assessment and licensing of all applicable businesses that discharge trade waste is ongoing. As part of the Trade Waste Assessment process a temporary Trade Waste Approval is put in place while the formal approval process is undertaken. The table below summarises the number of Trade Waste Approvals for the Mackay Region.

<table>
<thead>
<tr>
<th></th>
<th>Total Approved Businesses</th>
<th>Temporary Approvals In Place</th>
<th>New Approved Businesses for the Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mackay South</td>
<td>717</td>
<td>39</td>
<td>5</td>
</tr>
<tr>
<td>Mackay North</td>
<td>66</td>
<td>3</td>
<td>1</td>
</tr>
<tr>
<td>Sarina</td>
<td>57</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Mirani/Marian</td>
<td>29</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>869</strong></td>
<td><strong>42</strong></td>
<td><strong>6</strong></td>
</tr>
</tbody>
</table>

A reduction in the number of temporary approvals, noted in the reporting period. 6 new businesses were identified for the month.

3.5. **Annual Trade Waste Activity**

Annual targets are set for the Trade Waste team with respect to licensing Trade Waste Businesses. The target has been set at 250 new licensed businesses and audits completed by June 2016. The following graph shows the Actual Approvals, Temporary Approvals and Audits achieved and the number of the target remaining.

- **Target Trade Waste Approvals & Audits Completed**
  - **YTD Approvals**: 163
  - **Remaining Approvals**: 42
  - **YTD Audits**: 150
  - **Remaining Audits**: 98

Trade Waste meter reading were completed this period reducing total number of outstanding audits. 6 Approvals issued and 4 Audits conducted.

250 combined Approvals and Audits is the target for FY 2015/2016

*Data is for the period from 16 April 2016 to 13 May 2016*
3.6. **Building Over Adjacent Sewers**

Building over Adjacent Sewer applications are lodged where the construction of a structure is proposed within close proximity of a sewer main. The application is assessed in accordance with Councils building over and adjacent to sewer policy. In accordance with the policy, Building Over Sewer Applications are assessed within 20 business days. Future reporting will include performance against turnaround time targets.

![Graph showing BOAS Applications from May 2015 to May 2016]

There were no BOAS referrals received for the period however there are still a number of enquiries fielded and information provided on infrastructure locations.

Data is for the period from 16 April 2016 to 13 May 2016

3.7. **Scientific and Analytical Services**

Scientific and Analytical Services provides laboratory analysis in accordance with National Association of Testing Authorities (NATA) Standards to both Mackay Regional Council and external clients. A summary of the laboratory activities are detailed below.

![Graph showing Test Performed and Samples Analysed from May 2015 to May 2016]

The number of tests performed have increased and the number of samples analysed have decreased slightly.

Data is available to end of April 2016 only
3.8. Community Engagement

This section monitors Water Services engagement on the services provided. The following chart shows the number of media releases, media updates and the number of people that were reached by the Media Releases on Facebook.

The following chart shows the number of likes and positive comments, the number of neutral comments and the number of negative comments received on Facebook from Media Releases and Media updates for Water Services.

50 of the 58 likes on Facebook were in relation to Council's innovation recognised with national awards.

Data is for the period from 16 April 2016 to 13 May 2016.

The media release was for Water interruption to Seaforth.

Data is for the period from 16 April 2016 to 13 May 2016.
The following chart shows the cumulative number of myh2o registrations for the reporting period:

There were 150 myh2o registrations during the April - May reporting period. Unlikely to reach the 10,000 target for this financial year.

ASSET MANAGEMENT

4.1. Surface Water Raw Water Storage Capacities

Water Services sources water from a combination of surface water and groundwater sources. With the exception of Middle Creek Dam the storage facilities are owned and operated by SunWater. Middle Creek Dam is under Council’s control. The water stored in each of the storages is detailed below.

Dumbleton, Marian and Mirani Weirs are full. Middle Creek Dam is at full capacity.
4.2. **Annual Water Consumption vs Allocation by Source**

Water Services has a water allocation or water license for each water source. The water allocation and year to date water consumption for each of the water sources is detailed below.

<table>
<thead>
<tr>
<th>Source</th>
<th>Water Volume (ML)</th>
<th>Water consumption</th>
<th>Water Treatment</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marian Weir</td>
<td>472</td>
<td>60%</td>
<td>103%</td>
<td>Working to lodge an application to transfer allocation from Marian Weir</td>
</tr>
<tr>
<td>Gargett Bores</td>
<td>47</td>
<td>60%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Finch Hatton Bore</td>
<td>26</td>
<td>46%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Armstrong Beach Bore</td>
<td>64</td>
<td>35%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Koumala Bores</td>
<td>9</td>
<td>35%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Bally Keel Bore</td>
<td>18</td>
<td>15%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Eton Bores</td>
<td>40</td>
<td>62%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Proserpine River</td>
<td>212</td>
<td>2700%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Bloomsbury Bore</td>
<td>1</td>
<td>22%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Marwood Bores</td>
<td>43</td>
<td>595%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Marian Bores</td>
<td>27</td>
<td>95%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Mirani Bores</td>
<td>8</td>
<td>100%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Sarina Bores</td>
<td>31</td>
<td>300%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Plane Creek</td>
<td>104</td>
<td>236%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Nebo Rd Bores</td>
<td>316</td>
<td>390%</td>
<td>103%</td>
<td></td>
</tr>
<tr>
<td>Dumbleton</td>
<td>10,138</td>
<td>16000%</td>
<td>103%</td>
<td></td>
</tr>
</tbody>
</table>

Water consumption at Marian Weir is at 103% of the annual allocation. Water Treatment are working to lodge an application to transfer allocation from Dumbleton Weir to Marian Weir. Water consumption for Eton Bores and Dumbleton Weir is close to 65% of the annual allocation. Water consumption (YTD) for all other assets is at less than 57% the annual allocation.

Data is as at 30 April 2016

4.3. **Water Consumption by Locality**

Water Services supplies water to both residential and commercial water clients throughout the Mackay Region. The average water consumption in each of the three major community centres is detailed below. The water consumption is presented as litres per equivalent population per day. This graph provides a summary of water consumption including commercial water use.

Data is as at end April 2016

- Water consumption for Mackay, Mirani and Sarina increased slightly from March 2016 but is lower compared to the same time in 2015.
4.4. Significant Projects

Water Services undertakes a range of projects across the water business. Projects take the form of Capital Projects, Planning Studies and investigations. Information for the significant projects in Water Services is provided in the table below and was current as at 15 April 2016. Significant Projects are assessed on the following criteria: Dollar Amount, Risk and/or Community Interest

<table>
<thead>
<tr>
<th>Council Project Management Phases</th>
<th>Indicators</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Planning (Plan)</td>
<td></td>
</tr>
<tr>
<td>2. Design (Des)</td>
<td></td>
</tr>
<tr>
<td>3. Procurement (Proc)</td>
<td></td>
</tr>
<tr>
<td>4. Construction (Con)</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Project</th>
<th>Phase</th>
<th>Phase % Completion</th>
<th>Budget</th>
<th>Time</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mt Bassett Cemetery Rd WMR</td>
<td>Con</td>
<td>95%</td>
<td>🟦</td>
<td>🟦</td>
<td>The new main has been commissioned with all services now being connected to it. There is a final disconnection of the old main outstanding, where it connects to the trunk main in Harbour Rd. This disconnection is expected to be completed in May. Overall the project was completed slightly behind schedule and budget.</td>
</tr>
<tr>
<td>Mirani PTA</td>
<td>Con</td>
<td>90%</td>
<td>🟦</td>
<td>🟦</td>
<td>The integrated PTA and ATF system has been put through a 3 day test using water as part of the Commissioning process in preparation for cutting over onto raw sewage. In general, the test was successful, though there are a number of items outstanding which must be completed before the Performance Period can commence. Roadworks and fencing has been completed. Revised Operation and Maintenance Documents have been received and are being reviewed. Operator Training is expected to be undertaken in May. Raw sewage cutover expected late May. The project is two weeks behind program.</td>
</tr>
<tr>
<td>Water and Sewerage Network Telemetry Upgrades</td>
<td>Con</td>
<td>70%</td>
<td>🟦</td>
<td>🟦</td>
<td>Clear SCADA programming is continuing, with installation and commissioning programmed for late May. The Contractor upgrading the network telemetry has completed 8 out of 13 packages, with the remaining 5 packages of work more than 70% complete. Ergon works at Alligator Creek will delay this component of the works. The project is slightly over budget with works scheduled for 16/17 being undertaken together with current contract.</td>
</tr>
<tr>
<td>Sewerage Network Refurbishments (Relining and Manholes)</td>
<td>Con</td>
<td>80%</td>
<td>🟦</td>
<td>🟦</td>
<td>Manhole Inspection works for access restricted properties and buried Manholes with CCTV in progress for completion in June’16. Contract documentation for Manhole Relining completed and currently being reviewed, the procurement timeline is behind schedule.</td>
</tr>
<tr>
<td>Water Meter Replacements, AMR retrofits &amp; Water Services Replacement</td>
<td>Con</td>
<td>95%</td>
<td>🟦</td>
<td>🟦</td>
<td>Domestic &amp; Commercial Water Meter Replacements completed. Additional AMR’s for retrofitting have been identified. Water Services Replacements completed.</td>
</tr>
<tr>
<td>Project</td>
<td>Phase</td>
<td>Phase % Completion</td>
<td>Budget</td>
<td>Time</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>-------</td>
<td>--------------------</td>
<td>--------</td>
<td>------</td>
<td>------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Sewage Pump Station Resilience Upgrades</td>
<td>Des</td>
<td>95%</td>
<td>🟢</td>
<td>🟢</td>
<td>Detailed design of 42 Sewage Pump Station sites and preparation including review of tender documents nearly completed, tender advertisement proposed for the 21 May 2016</td>
</tr>
<tr>
<td>Sewer Gravity Main - McCready Creek SPS to Symons Farm SPS</td>
<td>Con</td>
<td>50%</td>
<td>🟢</td>
<td>🟢</td>
<td>Contractor Doval Construction have been constructing the sewer gravity main since end of March and works progressing well despite a number of days lost due to rain delays. Completion is expected in July 2016 weather permitting</td>
</tr>
<tr>
<td>Cape Hillsborough Water Main Replacement</td>
<td>Con</td>
<td>25%</td>
<td>🟢</td>
<td>🟢</td>
<td>Day Labour construction crews have mobilised to Cape Hillsborough and have commenced construction of the water main, starting in the Smalley's Beach Road section. Cape Hillsborough has a tank replenishment scheme which is serviced by a 63mm pipe.</td>
</tr>
<tr>
<td>Marian Sewerage Pump Station Upgrades</td>
<td>Con</td>
<td>100%</td>
<td>🟢</td>
<td>🟢</td>
<td>Contract Works Practical Completion was achieved on 8 December 2015. Contract is now in Defects Liability Stage until December 2016.</td>
</tr>
<tr>
<td>Middle Creek Dam Safety Upgrades</td>
<td>Con</td>
<td>100%</td>
<td>🟢</td>
<td>🟢</td>
<td>Contract Works Practical Completion was achieved on 9 February 2016. Contract is now under Defects Liability period ending February 2017.</td>
</tr>
</tbody>
</table>
5.1. Drinking Water Compliance

Safe Water supplies are provided in accordance with the requirements of the *Water Supply Safety and Reliability Act* and are measured against the *Australian Drinking Water Quality Guidelines*. Drinking Water samples are taken at the outlet of Water Treatment Plants and within the reticulation network. A summary of the performance is detailed below.

**Health Parameter Test Results**

- E.coli was detected at Two sites Kolijo Reticulation and Ball Bay Reservoir.
- Additional testing in Kolijo found no other detections. Control measures were implemented at Ball Bay reservoir.

This data is reported 1 month in arrears and due to regulatory reporting requirements is reported by calendar month.

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**Aesthetic Parameter Test Results**

- Andergrove & Aspley way and several Sarina sites have recorded pH levels above recommended level of 8.5 and Eton & Koumala have exceeded the recommended hardness level. Assetic parameters measure the taste and scaling nature of the water. A number of results have slightly exceeded recommended levels, but within the anticipated target range.

This data is reported 1 month in arrears and due to regulatory reporting requirements is reported by calendar month.
5.2. Wastewater Compliance

The discharges from wastewater treatment facilities are regulated by Development Approvals issued by the Department of Environment and Resource Management. The licence requirements differ based on the time the Development Approval was issued and the receiving environment associated with any discharges.

All Wastewater tests over this period were compliant.

Results are to end of April 2016 due to statutory reporting requirements.

9 new devices were registered this month.

Data is for 16 April 2016 to 13 May 2016 by Council.

No of Devices Registered/Cancelled

Tested by Council

Monthly Devices Registered Devices Cancelled Tested By Council

Wastewater Test Results

Tests Conducted


Samples Tested Non Compliant tests

All Wastewater tests over this period were compliant.

Results are to end of April 2016 due to statutory reporting requirements.

9 new devices were registered this month.

Data is for 16 April 2016 to 13 May 2016 by Council.

No of Devices Registered/Cancelled

Tested by Council

Monthly Devices Registered Devices Cancelled Tested By Council