Adopted Report

of the

Gold Coast Water and Waste Committee Meeting

held on

Wednesday 15 February 2017

at

2 pm

City of Gold Coast Council Chambers
135 Bundall Road
Surfers Paradise
# Index 731
## Adopted Report
### Gold Coast Water and Waste Committee Meeting
#### Wednesday 15 February 2017

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<td>GCWW</td>
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<td>Gold Coast Water and Waste Committee Action List and Forward Planning Schedule</td>
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<td>GCWW</td>
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<td>8</td>
<td>Gold Coast Water and Waste Annual Register of Council Directions</td>
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### General Business

| 4    | GCWW    | CM787/790/06/01(P1) | 32   | Pacific Pines Boulevard Water Tower Artwork Project |

### Closed Session

| 5    | GCWW    | CM787/790/06/01(P1) | 34   | Cobaki Lakes Development |

**KEY:**
- OCEO - Office of the Chief Executive Officer
- CI - City Infrastructure
- CS - Community Services
- EDMP - Economic Development & Major Projects
- GCWW - Gold Coast Water & Waste
- OS - Organisational Services
- PE - Planning & Environment
ADOPTION BY COUNCIL 21 FEBRUARY 2017

ADOPTION OF THE GOLD COAST WATER & WASTE COMMITTEE REPORT

RESOLUTION     G17.0221.016     moved Cr Taylor     seconded Cr Boulton

That the Report of the Gold Coast Water & Waste Committee’s Recommendations of Wednesday, 15 February 2017, numbered WW17.0215.001 to WW17.0215.005, be adopted with the exception of:-

Recommendation Numbers WW17.0215.004 and WW17.0215.005 which were specifically resolved.

CARRIED UNANIMOUSLY

ATTENDANCE

Cr P Taylor (Chairperson) (absent from meeting 2.19pm to 2.21pm)
Cr K Boulton (Chairperson for meeting from 2.19pm to 2.21pm)
Cr R La Castra
Cr PJ Young
Cr G Tozer
Cr PC Young
Cr G O’Neill

Cr W Owen-Jones (Visitor)

Mr P Heaton   Director Gold Coast Water and Waste
Mr C Owen     Acting Manager Customer Engagement
Ms S Lee      Coordinator Asset Renewals and Improvements Planning

PRESENTATIONS
## GOLD COAST WATER AND WASTE COMMITTEE ACTION LIST AND FORWARD PLANNING SCHEDULE

<table>
<thead>
<tr>
<th>Proposed Date</th>
<th>Subject</th>
<th>Action Officers</th>
<th>Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>March 2017</td>
<td>Alternate billing options for water and sewerage utility charges</td>
<td>Anthony Ottaway</td>
<td>That the Committee notes the verbal presentation from the Director Gold Coast Water and requests a detailed report be prepared to address alternative billing options for water and sewerage.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation: WW16.0601.004</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>March 2017</td>
<td>2017 Forward Plan for bill insert themes/topics</td>
<td>Carley Freeman</td>
<td>That a communication strategy be developed with regards to future quarterly billing inserts that focuses on initiatives that will assist customers.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation: CIW16.0225.007</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>April 2017</td>
<td>Class A+ Recycled Water Network Supply</td>
<td>Alistair Greenwood</td>
<td>That a further update will be provided on the status of the project in the first quarter of 2017.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation: WW16.1205.006</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation: WW16.0720.005</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>July 2017</td>
<td>Introduction of Charging for Class C Recycled Water</td>
<td>Kevin Page</td>
<td>Council notes that a detailed plan and program for the potential upgrade, development and charging arrangements for all recycled water customers will be brought back to Council in early to mid-2017.</td>
</tr>
<tr>
<td></td>
<td><strong>Recommendation: WW16.0817.003</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## GOLD COAST WATER AND WASTE COMMITTEE ACTION LIST AND FORWARD PLANNING SCHEDULE

**CM787/788/06/01(P1)**

<table>
<thead>
<tr>
<th>Proposed Date</th>
<th>Subject</th>
<th>Action Officers</th>
<th>Action</th>
</tr>
</thead>
</table>
| To be confirmed | Metering and Leakage  
**Recommendation: WW16.0720.004** | Scott Eade | Council notes that further consideration is being given to residential meter location and other issues to support ongoing development of Council’s Concealed Leakage Remission Policy, which will be brought to Council at a later date. |
| To be confirmed | Request for permanent water supply for Cobaki Estate development  
**Recommendation: EWT14.1204.008** | Kathy Baker | That a report be brought back to Council before any final agreement is entered into. The outcome must be in the best interests of the rate payers of the City of Gold Coast. |
| To be confirmed | Extension of the Green Waste Collection Area  
**Recommendation: WW16.0817.005** | Mairead Lenihan | 2. That the residential green waste collection service is continued within Urban Areas with consideration for expansion to City Wide residential green waste collection deferred for consideration subject to the following:  
   a) The number of rural residential properties in the designated waste collection area registering interest in the green waste collection service reaches 1,385 properties or at least 10 per cent of rural residential properties; and  
   b) The number of green waste collection services and the number of rural residential properties in the designated waste collection area that register interest in a service, reaches a combined total of 25,001.  
3. That the Director Gold Coast Water provides communication materials for the use of Councillors for the purpose of promoting the service and the preparation of advertising within future rates and water notices. |
**ITEM 1 (Continued)**

**GOLD COAST WATER AND WASTE COMMITTEE ACTION LIST AND FORWARD PLANNING SCHEDULE**

**CM787/788/06/01(P1)**

<table>
<thead>
<tr>
<th>Proposed Date</th>
<th>Subject</th>
<th>Action Officers</th>
<th>Action</th>
</tr>
</thead>
</table>
| **To be confirmed** | Overview of Measures to Mitigate the Impact of Plastic Waste on the Marine Environment  
**Recommendation: WW16.1109.005** | Joshua Evans | 1. That Council undertake a marine debris data analysis of the materials collected through the City’s canal cleaning program. The results of this analysis will determine the following:  
   a) Whether a targeted public awareness through education is likely to be effective;  
   b) Identification of the number of additional Stormwater Quality Improvement Devices required to be retrofitted into the existing stormwater network.  
   c) Improve the collaboration of volunteer groups to ensure their efforts are effective in reducing marine debris.  
3. That consideration at a more appropriate time is given to the provision of a green waste collection service to all residents to reduce the impact of illegal dumping of green waste (which comprises of over 70% of collected materials) into the City’s Canals.  
4. That a Litter and Illegal Dumping Management Plan is developed by Environmental Health, Compliance and Lifeguard Services (in accordance with the Solid Waste Strategy 2024).  
5. That Council investigate feasibility of a further roll-out of drinking water refill stations to reduce the need for residents and visitors to purchase bottled water and the resulting litter. |
ITEM 1 (Continued)
GOLD COAST WATER AND WASTE COMMITTEE ACTION LIST AND FORWARD PLANNING SCHEDULE
CM787/788/06/01(P1)

RECOMMENDATION

It is recommended that Council resolve as follows:
That the Action List and Forward Planning Schedule for Gold Coast Water and Waste Committee be noted.

Authorised by:
Paul Heaton
Director Gold Coast Water and Waste

COMMITTEE RECOMMENDATION  WW17.0215.001
moved Cr Tozer   seconded Cr PJ Young

That the Action List and Forward Planning Schedule for Gold Coast Water and Waste Committee be noted.

CARRIED
ITEM 2
GOLD COAST WATER AND WASTE
ANNUAL REGISTER OF COUNCIL DIRECTIONS
WSS1125/1227/02(P1)


“That Gold Coast Water establish a standing item on the Water Services Committee Agenda which is a register (and thus an agreed record) of any “directions” that Council gives Gold Coast Water for reporting in the annual operations report.”

That is: - a resolution that goes against or substantially modifies the recommendations of the Officers and;
- has a (or potential to have a) material/commercial impact on the business unit.

<table>
<thead>
<tr>
<th>Council Meeting</th>
<th>Council Resolution</th>
<th>Description</th>
<th>2016-17 Progressive</th>
</tr>
</thead>
</table>
| 686             | G14.0916.004       | That the adopted infrastructure charges are adjusted so that there is a 100% discount for family accommodation dwellings of 100m² GFA or less for any approvals issued on or after 1 July 2014 through the remainder of this Council’s term. Permanent changes to Adopted Infrastructure Charges Resolution (AICR):
1. Existing building: no infrastructure charges levied for any change in non-residential land use (ongoing).
2. Expansion: for non-residential land uses, up to an additional 50 per cent of GFA or a maximum of 500m², whichever is the lower, will be exempt from infrastructure charges (ongoing).
3. Family accommodation: no charge for family accommodation dwellings of 100m² GFA or less. Family accommodation dwellings greater than 100m² GFA will be charged at 40 per cent of the relevant AICR charge (ongoing).
4. Not-for-profit community groups: rebates for the water and wastewater networks will be restored, following the return of responsibility to the City (ongoing). |
|                 |                    |             | $181,612            |
ITEM 2 (Continued)
GOLD COAST WATER AND WASTE ANNUAL REGISTER OF COUNCIL DIRECTIONS
WSS1125/1227/02(P1)

RECOMMENDATION

It is recommended that Council resolve as follows:

That the Gold Coast Water and Waste Annual Register of Council Directions be noted.

Authorised by:
Paul Heaton
Director Gold Coast Water and Waste

iSPOT#43956542

COMMITTEE RECOMMENDATION WW17.0215.002
moved Cr Tozer seconded Cr PJ Young

That the Gold Coast Water and Waste Annual Register of Council Directions be noted.

CARRIED
ITEM 3 GOLD COAST WATER AND WASTE
ASSET CONDITION AND INFRASTRUCTURE RENEWAL REQUIREMENT
LG343/1045/13/01(P1)
Attachment 1 – Condition Rating Descriptions (#60446443)
Attachment 2 – Sewerage Asset Management Plan Summary (#60483826)
Attachment 3 – Water Supply Asset Management Plan Summary (#60483790)
Attachment 4 – Waste Management Asset Management Plan Summary (#60483859)
Attachment 5 – Condition of Sewerage Assets (#60342409)
Attachment 6 – Condition of Water Supply Assets (#60379462)
Attachment 7 – Condition of Waste Management Assets (#60381109)
Attachment 8 - Reconciliation of final FY2017-18 renewals budget (Feb 3) with FY2017-18 Water and Sewerage AMPs (#60490454)

1 BASIS FOR CONFIDENTIALITY
Not Applicable.

2 EXECUTIVE SUMMARY
Not Applicable.

3 PURPOSE OF REPORT
The purpose of this report is to provide an overview of asset condition and infrastructure renewal requirements for sewerage, water supply and waste management assets.

4 PREVIOUS RESOLUTIONS
G16.0624.002
3. That in January/February 2017, prior to 2017-18 budget deliberations, Standing Committees review Asset Management Plans for relevant categories of infrastructure, with particular emphasis on assets in ‘poor’ and ‘very poor’ condition and proposed renewal works.

5 DISCUSSION
Background
Infrastructure asset management is taking a systematic approach to manage infrastructure assets through all lifecycle phases. This involves applying a combination of engineering, financial and other technical practices to the management of infrastructure: costs; opportunities; risks; and performance.

Consistent with legislative trends across Australia, the Queensland Local Government Act (2009) has requirements for Councillors to develop and adopt long-term asset management plans. While legislation has been one driver of asset management planning, it is important to recognise that it is good management practice to utilise these techniques to sustainably manage infrastructure assets, which is an essential component of financial sustainability.
ITEM 3 (Continued)
ASSET CONDITION AND INFRASTRUCTURE RENEWAL REQUIREMENT
LG343/1045/13/01(P1)

Current Situation and Goals
Asset Management Plans for the infrastructure assets are updated annually as part of the planning and budget process. The annual updates include revised infrastructure renewal requirements based on analysis of recent (and historic) condition and asset performance data (asset reliability and availability).

The outputs of the Asset Management Plans are later summarised into the Total Asset Management Plan and presented to Council for adoption in conjunction with adoption of the annual budget.

The Requirement for Asset Condition Assessments
Condition assessments are a key component of infrastructure asset management and underpin asset management planning, asset revaluations and asset risk management. Our goal is to ensure we have the requisite condition information available to inform the renewals and replacement decision-making processes.

When developing work programs to undertake condition assessments, consideration is given to benefit/cost and there are a number of factors that influence the prioritisation and frequency of condition assessments, such as asset criticality/profile, age, projected degradation rates, environment, utilisation, location, etc. Although an accurate appraisal of asset condition is important, it is not necessarily prudent or practical to physically assess the condition of all infrastructure assets. Low criticality assets or those with short service lives are simply ‘run to failure’ without a requirement to assess condition during their service life.

Physical condition information is also collected by operators and maintainers during ongoing routine interactions with the assets and this data is used to supplement and keep current data collected in formal condition assessment programs. All condition data is uploaded as soon as practicable into the SAP ERP system.

Asset Condition Rating Descriptions
The condition profile of assets in the Asset Management Plans is represented using the ratings of: Very Good, Good, Fair, Poor and Very Poor.

For a description of each of the condition ratings refer Attachment 1, for example:

- Poor condition refers to assets that have a number of minor defects and/or some major defects i.e. the functionality of the assets is reduced. Assets in poor condition may require renewal of minor or major components.
- Very poor condition refers to assets that have a number of major defects or have physically failed i.e. the functionality of the asset is substantially reduced or the asset is not functional. Assets in very poor condition require component or complete renewal or need to be disposed.
ITEM 3 (Continued)
ASSET CONDITION AND INFRASTRUCTURE RENEWAL REQUIREMENT
LG343/1045/13/01(P1)

Asset Deterioration

Generally asset condition deteriorates as assets progress through their lifecycle and in turn maintenance costs often increase as assets age. The rate of asset deterioration depends on a number of factors, including:

- Useful life – assets with shorter useful lives deteriorate faster than long life assets
- Environment – assets in harsher environments deteriorate faster
- Utilisation – assets with high utilisation deteriorate faster.

There are many types of assets that should not be ‘run to failure’ i.e. not be allowed to progress into very poor condition. For example, infrastructure that supports critical services and/or has significant consequences of failure (such as a water rechlorination unit) may require component or complete renewal prior to a functional failure occurring.

Asset Condition Profile

For condition profiles refer to the following ‘AMPs on a Page’:

- Attachment 2 – Sewerage
- Attachment 3 – Water Supply
- Attachment 4 – Waste Management

The condition profiles illustrate that Water Supply, Sewerage and Waste Management are mostly in Very Good, Good and Fair condition. There are a small percentage of assets in Poor and Very Poor condition which is expected as assets progress through their lifecycle.

Asset Condition Comparative Data

Comparative data on asset condition has been obtained from the source below and compared to relevant condition data in the Asset Management Plans:


<table>
<thead>
<tr>
<th>Condition Rating</th>
<th>National Average (water and sewerage only)</th>
<th>City of Gold Coast</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Sewerage</td>
</tr>
<tr>
<td>1 &amp; 2 - Very Good &amp; Good</td>
<td>66%</td>
<td>79%</td>
</tr>
<tr>
<td>3 - Fair</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td>4 &amp; 5 – Poor &amp; Very Poor</td>
<td>12%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Note:
- National average figures are for Local Government managed water and wastewater.
- The City of Gold Coast numbers are rounded from the 2017-18 Asset Management Plans.
- No comparative data is available for waste management.

The above information clearly illustrates that the City’s sewerage, water, and waste management assets are in a comparatively healthy state.
Infrastructure Renewal Requirements

Asset condition data underpins asset management planning. In particular it is used to determine the short term asset renewal requirements along with forecasting renewal requirements for the medium to longer term.

The infrastructure renewal requirements for 2017-18 stated in the updated Asset Management Plans are:

- $26.4 million Sewerage
- $12.3 million Water Supply
- $0.73 million Waste Management

The figures above differ from the predicted 2017-18 renewal requirement (in today’s dollars) from last year’s Total Asset Management Plan and this difference is explained in the table below and in Attachments 5, 6 and 7.

<table>
<thead>
<tr>
<th>AMP</th>
<th>Movement</th>
<th>Comments on Updated Renewal Requirement*</th>
</tr>
</thead>
</table>
| Sewerage                | +$5.6 million | + $1.6 million for maintenance hole renewals driven by accelerated sewer maintenance hole condition assessment program.  
                           |           | + $1 million bringing forward some sewer renewals in response to findings from condition assessments (including GC2018 risk mitigation and preparations).  
                           |           | + $3 million to catch-up on renewal of older non-compliant and technically obsolete switchboards.              |
| Water Supply            | +$2.2 million | + $2.2 million for water main replacement program with a significantly increased focus on hydrant renewals. |
| Waste Management        | -$0.79 million | Waste expenditure for renewals has reduced due to a major project moving from capex to opex. |

[* refer to Attachments 5, 6 and 7 for further details]

For details of forecast renewal requirements in future years refer to Attachments 2, 3 and 4.

**Assets in Poor and Very Poor Condition as a % of total asset replacement cost**

<table>
<thead>
<tr>
<th>Assets</th>
<th>Condition 4 &amp; 5 as % of total asset replacement cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage Treatment Plant (STP)</td>
<td>0.87%</td>
</tr>
<tr>
<td>Sewer non-pressure pipes</td>
<td>0.75%</td>
</tr>
<tr>
<td>Sewer pressure pipes</td>
<td>0.64%</td>
</tr>
<tr>
<td>Sewerage Pumping Stations (SPS)</td>
<td>0.63%</td>
</tr>
<tr>
<td>Sewer maintenance holes</td>
<td>0.54%</td>
</tr>
<tr>
<td>Recycled water mains</td>
<td>0.07%</td>
</tr>
<tr>
<td>Water mains</td>
<td>5.33%</td>
</tr>
<tr>
<td>Water reservoirs</td>
<td>0.3%</td>
</tr>
<tr>
<td>Water Pumping Stations (WPS)</td>
<td>0.08%</td>
</tr>
<tr>
<td>Fleet and plant</td>
<td>2.98%</td>
</tr>
<tr>
<td>Roads</td>
<td>0.46%</td>
</tr>
<tr>
<td>Buildings</td>
<td>0.18%</td>
</tr>
<tr>
<td>Site improvements</td>
<td>1.26%</td>
</tr>
</tbody>
</table>
Details of specific renewals projects to return these assets to an acceptable condition are provided in Attachments 5, 6 and 7.

It should be noted that the annual renewals budget planning process for the Gold Coast Water and Waste (GCWW) AMPs is completed in late December to achieve corporate timelines for the finalisation and sign-off of the documents prior to the end of the calendar year. In keeping with previous years, there have been some minor adjustments made to water supply and sewerage renewals budgets following the final GCWW management budget review workshops in late January 2017. These reductions in project budgets have been made to accommodate deliverability improvements and further efficiencies identified for the financial year 2017-18 renewals works program by the GCWW management team during the January budget review process.

A $43k reduction in the Waste Management FY2017-18 renewals budget is also shown in Attachment 8, which is attributable to a minor shift in the procurement plan for roll-on roll-off bins.

A detailed reconciliation of these changes is provided in Attachment 8.

6 ALIGNMENT TO CORPORATE PLAN, CORPORATE STRATEGIES AND OPERATIONAL PLAN

Supporting delivery of the Gold Coast 2020, as follows:

B. We manage the city responsibly

Key Program of Work: Manage the maintenance, renewal and delivery of infrastructure for the city through the Total Asset Management Plan and the forward Capital Works Program.

7 COMMONWEALTH GAMES IMPACT

The effective management of the City’s existing infrastructure assets is critical to the success of the Commonwealth Games.

8 FUNDING AND RESSOURCING REQUIREMENTS

This report does not discuss sources of funding for infrastructure renewal or prioritisation and approval of budget submissions which are matters for budget deliberations via the Special Budget Committee.

9 RISK MANAGEMENT

There is the following corporate risk related to asset management:

\[\text{CR000425} \quad \text{Asset Management maturity below industry level resulting in sub-optimal management of the life-cycle and costs for infrastructure assets.}\]

In the last six years there has been substantial improvement in the City’s asset management maturity. The further advancement of asset management planning is a key mitigation of this corporate risk, in particular: improving the integrity of renewal forecasts (through collection of additional condition data and a more advanced renewals planning tool); further analysis of risk exposures; and the ongoing updating of Asset Management Plans.
ITEM 3 (Continued)
ASSET CONDITION AND INFRASTRUCTURE RENEWAL REQUIREMENT
LG343/1045/13/01(P1)

10 STATUTORY MATTERS
Statutory requirements for Asset Management Plans are detailed in:

- Queensland Local Government Act (2009), Section 104
- Local Government Regulation 2012, Sections 167 and 168
- The South East Queensland Water (Distribution and Retail Restructuring) Act 2009

11 COUNCIL POLICIES
On 19 June, 2015 Council approved the Asset Management Policy that:

- sets out Council's strategic intent for asset management;
- defines the roles and responsibilities for asset management; and
- provides a set of guiding principles to inform asset management decision making.

This report does not result in any changes to the above policy.

12 DELEGATIONS
Not Applicable.

13 COORDINATION & CONSULTATION

<table>
<thead>
<tr>
<th>Name and/or Title of the Stakeholder Consulted</th>
<th>Directorate or Organisation</th>
<th>Is the Stakeholder Satisfied With Content of Report and Recommendations (Yes/No) (comment as appropriate)</th>
</tr>
</thead>
<tbody>
<tr>
<td>J McCabe, Chief Operating Officer</td>
<td>OCEO</td>
<td>Yes</td>
</tr>
</tbody>
</table>

14 STAKEHOLDER IMPACTS
Not Applicable.

15 TIMING
The outputs of the Asset Management Plans will be summarised into the Total Asset Management Plan and presented to Council for adoption in conjunction with adoption of the annual budget.

16 CONCLUSION
Sewerage, Water Supply and Waste Management assets are mostly in Very Good, Good or Fair condition. There are a small percentage of assets in poor condition which is expected as assets progress through their lifecycle. Continuing to invest in infrastructure renewal to the required extent is essential to ensure the sustainability of the infrastructure base.
ITEM 3 (Continued)
ASSET CONDITION AND INFRASTRUCTURE RENEWAL REQUIREMENT
LG343/1045/13/01(P1)

17 RECOMMENDATION

It is recommended that Council resolves as follows:

That the Asset Condition and Infrastructure Renewal Requirement for Gold Coast Water and Waste be noted.

Authors: Marc Avery
Executive Coordinator Asset Investment Planning
Gold Coast Water and Waste

Authorised by: Paul Heaton
Director Gold Coast Water and Waste

Andrew Llewellyn
Manager Corporate Asset Management
Office of CEO
3 February 2017

TRACKS REF: 59638243

COMMITTEE RECOMMENDATION  WW17.0215.003
moved Cr Tozer  seconded Cr PC Young

That the Asset Condition and Infrastructure Renewal Requirement for Gold Coast Water and Waste be noted.

CARRIED
### Attachment 1 - Condition Rating Descriptions

<table>
<thead>
<tr>
<th>Condition Rating Scheme</th>
<th>Previous Total AMPs</th>
<th>Total AMP 2016-17</th>
<th>5 Point Rating</th>
<th>Generic Indicators of Asset Condition</th>
<th>Maintenance / Renewal Action</th>
</tr>
</thead>
<tbody>
<tr>
<td>Good</td>
<td>Very Good</td>
<td>1</td>
<td>Asset is new or as new Asset has no defects</td>
<td>No additional maintenance required No renewal required</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Good</td>
<td>2</td>
<td>Asset is fully functional Only minor signs of wear &amp; tear</td>
<td>Minor additional maintenance may be required No renewal required</td>
<td></td>
</tr>
<tr>
<td>Fair</td>
<td>Fair</td>
<td>3</td>
<td>Asset is functional Obvious signs of some deterioration</td>
<td>Ongoing maintenance required Renewal of minor components may be required</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>Poor</td>
<td>4</td>
<td>Asset functionality is reduced Number of minor defects and/or some major defects Increased risk of service interruptions</td>
<td>Substantial ongoing maintenance required Renewal of minor and/or major components may be required</td>
<td></td>
</tr>
<tr>
<td>Poor</td>
<td>Very Poor</td>
<td>5</td>
<td>Asset functionality substantially reduced or not functional Significant number of major defects or asset has failed Substantially increased risk of service interruptions or service interruption has occurred</td>
<td>Renewal of major components or complete asset required or Asset requires disposal</td>
<td></td>
</tr>
</tbody>
</table>

**Note:** The 5 point condition rating scheme is generally used for undertaking condition assessments and is used in the individual Asset Management Plans.
A.3 Sewerage

Summary

<table>
<thead>
<tr>
<th>Asset Group</th>
<th>Unit</th>
<th>Qty</th>
<th>Replacement Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gravity Mainstems</td>
<td>km</td>
<td>2.62</td>
<td>$765,108,000</td>
</tr>
<tr>
<td>Pump Stands</td>
<td>km</td>
<td>3.78</td>
<td>$432,670,000</td>
</tr>
<tr>
<td>Recycled Water Pipes</td>
<td>km</td>
<td>1.1</td>
<td>$224,940,000</td>
</tr>
<tr>
<td>Stormwater Pumps Stations</td>
<td>each</td>
<td>959</td>
<td>$2,088,700,000</td>
</tr>
<tr>
<td>Sewerage Treatment Plants</td>
<td>each</td>
<td>4</td>
<td>$805,100,000</td>
</tr>
<tr>
<td>Other Associated Water Assets</td>
<td>each</td>
<td>4</td>
<td>$7,980,000</td>
</tr>
<tr>
<td>Tanker Filming Stations</td>
<td>each</td>
<td>10</td>
<td>$840,000</td>
</tr>
<tr>
<td>Recycled Water Treatment Plant</td>
<td>each</td>
<td>1</td>
<td>$25,130,000</td>
</tr>
</tbody>
</table>

**TOTAL** $5,393,130,000

Condition

- **Very Good:** 66%
- **Good:** 26%
- **Fair:** 8%
- **Poor:** 0%

- **Very Poor:** 0%

Lifecyle Management Issues

- **Asset Condition & Risk:** The majority of sewerage assets are in Very Good condition.
- **Condition Monitoring:** Condition assessments have estimated that 8% of the sewerage assets are in Poor or Fair condition. These assets are being prioritised for repair, condition monitoring and/or renewal.

Management & Operational Issues:

- The current network planning approach for asset identification, including the calculation of lifecycles, is a simplified process due to the lack of suitable software solutions.

Asset Management Imporvements:

- Work is in progress to implement an experienced Planning Team (software).

End of Life Renewal Requirements for 2017-18 Include:

- Sewer Pressure Main Renewals, 2017-2018: $4.6m, 2017-2018 to 2020-2027: $38.1m
- Replacement of aging and poor performing sewerage, lining assets, considering (M&E), mechanical and electrical (2017-2018 $4.4m, 2017-2018: $4.4m, 2017-2018 to 2020-2027: $4.4m)
- Sewer Pressure Main Renewals, 2017-2018: $1.1m, 2017-2018 to 2020-2027: $38.1m
- Sewer Pressure Main Renewals, 2017-2018: $1.1m, 2017-2018 to 2020-2027: $38.1m
- Sewer Pressure Main Renewals, 2017-2018: $1.1m, 2017-2018 to 2020-2027: $38.1m
- OAM sewer Main Renewals, 2017-2018: $1.1m, 2017-2018 to 2020-2027: $38.1m
- OAM sewer Main Renewals, 2017-2018: $1.1m, 2017-2018 to 2020-2027: $38.1m

End of Life Renewal Renewal for 2017-18 to 2026-27 Include:

- Required Renewal: $25,130,000
  - 2018-19
  - 2019-20
  - 2020-21
  - 2021-22
  - 2022-23
  - 2023-24
  - 2024-25
  - 2025-26
  - 2026-27

Expenditure $000

- Required Renewal: $25,130,000
### Lifecycle Management Issues

**Asset Condition & Risk:**
- The majority of the water supply assets are in Very Good, Good or Fair condition.
- Condition modeling and condition assessment have estimated that 60% of the water supply assets are in poor or very poor condition. This includes assets of recent condition assessments that identified these significant quantities of water meters are nearing or at the end of life.

**Management & Operational Issues:**
- The current renewal planning approach for risk prioritization, including the calculation of likelihood and consequence of failure scores is a labor intensive process due to the lack of suitable software solutions.

**Asset Management Improvements:**
- Possible software program for prioritizing for an Infrastructure Renewal Planning Tool (software).
- Potential for software program to facilitate the benefit and costs to retain in a life cycle view for the SAP system and the IWS system.
- Obtain training for staff in using dollar entry model for data storage for failure management and maintenance activities undertaken.
- Continue to investigate more automated condition assessment techniques.

### End of Life Renewal Requirements for 2017-18 include:
- Water/Reef Protection Program 2017-2018 $3.0m 2017-2018 to 2020-2021 total $3.0m
- Water/Water Replenishment Program 2017-2018 $1.0m 2017-2018 to 2020-2021 total $1.0m
- Water/Water Replenishment Program 2017-2018 $1.0m 2017-2018 to 2020-2021 total $1.0m
- Basin Renewals 2013-2014 $0.5m 2013-2014 to 2019-2020 total $0.5m
- Water/Water Replenishment Program 2017-2018 $4.0m 2017-2018 to 2020-2021 total $4.0m
- Addendum to Southport 25kgs water main renewal 2017-2018 $0.25m 2017-2018 to 2020-2021 total $0.25m

### End of Life Renewal Renewal for 2017-18 to 2020-21 include:

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Required Renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-18</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2018-19</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2019-20</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2020-21</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Year</th>
<th>Expenditure</th>
<th>Required Renewal</th>
</tr>
</thead>
<tbody>
<tr>
<td>2017-18</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2018-19</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2019-20</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
<tr>
<td>2020-21</td>
<td>$2.5k</td>
<td>$2.5k</td>
</tr>
</tbody>
</table>
A.9 Waste Management

Summary

<table>
<thead>
<tr>
<th>Asset Group</th>
<th>Units</th>
<th>Qty</th>
<th>Replacement Cost ($)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Waste Management Site Treatment</td>
<td>1</td>
<td>1,956</td>
<td>$174,850</td>
</tr>
<tr>
<td>Site Drainage</td>
<td>m</td>
<td>2,234</td>
<td>$55,462,000</td>
</tr>
<tr>
<td>Buildings and sheds</td>
<td>each</td>
<td>12</td>
<td>$11,000,000</td>
</tr>
<tr>
<td>Plant and Equipment</td>
<td>=</td>
<td></td>
<td>$11,204,000</td>
</tr>
<tr>
<td>Roads including Access Ways</td>
<td>=</td>
<td></td>
<td>$12,710,000</td>
</tr>
<tr>
<td>Waste Management Site Improvements</td>
<td>=</td>
<td></td>
<td>$12,004,000</td>
</tr>
<tr>
<td>TOTAL</td>
<td></td>
<td></td>
<td>$396,500</td>
</tr>
</tbody>
</table>

Condition

- Waste Management Site Treatment: 100% - 100% - 100%
- Site Drainage: 100% - 100% - 100%
- Buildings and sheds: 27% - 26% - 33% - 31% - 30% - 29%
- Plant and Equipment: 21% - 26% - 33% - 31% - 30% - 29%
- Roads including Access Ways: 43% - 43% - 43% - 43%
- Waste Management Site Improvements: 22% - 52% - 30%

Lifecycle Management Issues

Asset Condition & Risk:
- A majority of Waste Management assets are in Very Good, Good condition.
- There are currently 4 minor buildings, 1 each in poor and fair condition. The future of these is currently being assessed.
- Age-based modelling indicates that Plant and Equipment under-condition assets indicate four major value competitors. Very poor condition assets indicate another competitor and a mobile recycling unit. The conduction of these assets will be verified prior to renewal planning.
- Further condition assessment and more detailed network planning may identify additional funding requirements.

Management & Operational Issues:
- Funding uplift - 10% per year, which means diverting waste from landfill by increasing recycling and positive usage of other initiatives such as alternative waste technologies.
- Funding a current underlay for the development of a new facility at Coomera. This facility will result in an increased operational cost for the waste management portfolio.

Asset Management Improvements:
- A management of condition assets will better inform network planning activities.
- A development of an integrated framework is required to support the transition from reactive maintenance to a more proactive approach.
- Further review the renewal funding requirements for the future 10-year period.

End of Life Renewal Requirements for 2017-18 include:
- Funding for landfill infrastructure renewal works as determined by GWAM Asset Management Plan and emergency works 2017-2018 $250k, 2018-2019 to 2026-2027 total $13.4m
- Funding for transfer station infrastructure renewal works as determined by GWAM Asset Management Plan 2017-2018 $76k, 2017-2018 to 2026-2027 total $47.7m

End of Life Renewal Renewal for 2017-18 to 2026-2027 include:

- Required Renewal:
  - 2017-18: $79k
  - 2018-19: $79k
  - 2019-20: $79k
  - 2020-21: $79k
  - 2021-22: $79k
  - 2022-23: $79k
  - 2023-24: $79k
  - 2024-25: $79k
  - 2025-26: $79k
  - 2026-27: $79k
Attachment 5 - Condition of Sewerage Assets

As at 30 June 2016, the City of Gold Coast’s sewerage asset portfolio had a total replacement value of $3.39 billion. The majority of this infrastructure is considered to be in very good, good or fair condition.

A small percentage of sewerage assets have been identified as being in either poor condition or very poor condition (rating scores of 4 or 5 respectively). Deterioration of condition and performance is to be expected as assets progress through their lifecycle. Poor and very poor condition assets have been identified through assessment methods including:

- field condition inspections
- performance history trends
- condition modelling for renewals planning.

Replacement of these poor and very poor condition assets correlates to 3.51% of the total replacement cost of the asset base or the equivalent of $119.19 million (a reduction of 0.21%, or $5.61m, on figures reported for 30 June 2015). The replacement costs for sewerage asset types are detailed in the table below:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Gross Replacement Cost ($'m)</th>
<th>Replacement Cost for Condition Score 4 and 5 Assets ($'m)</th>
<th>Asset Type Replacement Cost as a % of Total Replacement Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewage Treatment Plant</td>
<td>490.72</td>
<td>29.44</td>
<td>0.87</td>
</tr>
<tr>
<td>Sewerage Non-Pressure Pipes</td>
<td>1,767.11</td>
<td>25.75</td>
<td>0.75</td>
</tr>
<tr>
<td>Sewerage Pressure Pipes</td>
<td>432.67</td>
<td>21.63</td>
<td>0.64</td>
</tr>
<tr>
<td>Sewer Pump Stations</td>
<td>237.96</td>
<td>21.42</td>
<td>0.63</td>
</tr>
<tr>
<td>Maintenance Holes</td>
<td>228.57</td>
<td>18.29</td>
<td>0.54</td>
</tr>
<tr>
<td>Recycled Water Mains</td>
<td>226.36</td>
<td>2.26</td>
<td>0.07</td>
</tr>
<tr>
<td>Other Recycled Water Assets</td>
<td>7.93</td>
<td>0.40</td>
<td>0.01</td>
</tr>
<tr>
<td><strong>Total Replacement Cost</strong></td>
<td><strong>3391.32</strong></td>
<td><strong>119.19</strong></td>
<td><strong>3.51</strong></td>
</tr>
</tbody>
</table>

Details of each of the major asset types within this table are as follows:

1. **Sewage Treatment Plants**

Poor and very poor condition Sewage Treatment Plant (STP) assets constitute the largest portion of the assets by replacement cost (0.87%). The majority of this relates to the mechanical, electrical and civil components.

A prioritised list of these assets has been incorporated into renewal projects for delivery over the 2017-18 and 2018-19 financial years. The projects associated with treatment plant renewals include:

- 71132 - Sewerage Treatment Plant Asset Renewals & Refurbishments Program
- 71083 - Sewerage Treatment Plant Process Tank Refurbishment
- 71094 – Sewerage Treatment Plant Switchboard Replacement
2. **Sewer Non-Pressure Pipes**

Sewer non-pressure pipes that have condition scores of 4 or 5 comprise 0.75% of the total replacement cost of assets. These assets were identified via CCTV inspection and modelled analysis methods. Modelled results will be prioritised for verification in the 2018-19 condition inspection programs.

The assets confirmed as being condition score 4 or 5, via field inspection (CCTV), have been scheduled onto the future ten year capex pipe relining program:

- 71309 - UAS Gravity Sewer Reline Rectification Phase 2
- 71128 – Sewer Non-Pressure Mains Renewals Program

3. **Sewer Pressure Pipes**

Sewer pressure pipes with condition scores of 4 and 5 make up 0.64% of the total replacement costs. These pipes have been identified through a combination of performance history (breaks), ultrasonic testing of pipe wall thickness, CCTV and a modelled analysis process. Recently identified condition issues with sewer pressure mains near Currumbin Sanctuary and in Broadbeach over a waterway are included in the following project:

- GW265 – Sewer Pressure Main Renewals 2017-18

Those poor condition assets not currently scheduled for renewal have been earmarked to have their performance closely monitored during the 2017-18 and 2018-19 financial years, in order to verify the timing of their renewal.

4. **Sewerage Pumping Stations**

Sewerage Pumping Stations (SPS) that are in poor/very poor condition contribute 0.63% of the total replacement cost of assets. The majority of these assets include:

- pumps
- switchboards
- vehicle access provisions
- buildings.

The poor and very poor condition assets in these facilities have been identified through field inspections, performance history data or modelled using asset age and technical obsolescence of component parts. All of these assets have been scheduled for replacement or renewal in the future ten year capex renewals programs:

- 71294 - Sewerage Pumping Station Mechanical and Electrical Major Renewals
- 71130 – Sewerage Pumping Statin Asset Renewals & Refurbishments Program
- 71155 - Fall from heights prevention Sewerage Pumping Station

5. **Sewer Maintenance Holes**

The majority of sewer maintenance holes flagged as potentially being in poor/very poor condition were identified via physical structural and safety assessments and renewals modelling (0.54% of the total replacement cost of the asset base). Assets deemed to be in poor or very poor condition have been prioritised in the 2017-18 condition assessment program:

- Maintenance Hole Condition Assessment 2017-18
Field condition assessments validate the modelled condition scores and confirm, or not, the need for renewal of these assets and the timing of the intervention. Those assets that have been validated as being in poor condition through field condition inspection are scheduled onto the future renewals or refurbishment program:

- 71127 - Sewer Maintenance Hole Rehabilitation Program

6. **Recycled Water Mains**

Poor and very poor condition recycled water main assets contribute 0.07% of total replacement costs. Four recycled water main assets have been identified for further investigation and / or renewal.
Attachment 6 - Condition of Water Supply Assets

As at 30 June 2016, the City of Gold Coast’s water supply asset portfolio had a total replacement value of over $2.2 billion. Of this infrastructure, the vast majority is considered to be in very good, good or fair condition.

There are, however, a small percentage of assets, that have been identified as being in either a poor condition (rating 4) or very poor condition (rating 5), which is expected as assets progress through their lifecycle. These poor and very poor condition assets have been identified through a number of different assessment methods including: field condition inspections, performance history trends and desktop analysis processes.

For the Water Supply asset portfolio this correlates to 5.97% of the total replacement cost of the asset base, or $134.52 million. The composition of these poor and very poor condition assets for the Water Supply asset portfolio is detailed in the Table below:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Gross Replacement Cost ($’m)</th>
<th>Replacement Cost for Condition Score 4 and 5 Assets ($’m)</th>
<th>Asset Type Replacement Cost as a %age of Total Replacement Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Potable Water Mains</td>
<td>2000.62</td>
<td>120.04</td>
<td>5.33%</td>
</tr>
<tr>
<td>Class A+ Mains</td>
<td>89.21</td>
<td>0.00</td>
<td>0.00%</td>
</tr>
<tr>
<td>Reservoirs</td>
<td>114.18</td>
<td>6.85</td>
<td>0.30%</td>
</tr>
<tr>
<td>Potable and Class A+ Water Pump Stations</td>
<td>20.57</td>
<td>1.85</td>
<td>0.08%</td>
</tr>
<tr>
<td>Water Meters</td>
<td>27.78</td>
<td>5.78</td>
<td>0.26%</td>
</tr>
<tr>
<td>Total Replacement Cost</td>
<td>2252.36</td>
<td>134.52</td>
<td>5.97%</td>
</tr>
</tbody>
</table>

Details of each of the major asset types within this table are as follows:

1. Water Mains (Potable and Class A+)

Poor/very poor condition water main assets constitute the largest portion of the value of the total water asset replacement cost (5.33%). The majority of these assets have long useful lives (i.e. a range of 60-90 years).

Comprehensive condition data based on the findings of physical measurement and observation is currently unavailable for much of the City’s water main network. This is due to the operational difficulties and costs involved in conducting detailed internal and external inspections on pressure pipes such as potable water mains in congested urban utility corridors. Non-destructive condition assessment technologies continue to evolve, and GCWW is in the process of evaluating and trialling emerging technologies, sometimes in cooperation with other water authorities globally. Currently GCWW has identified a small portion of the water main assets on the basis of criticality and previous performance history information of leaks and/or minor breaks for inclusion in the condition assessment program. Condition assessment techniques are selected which are appropriate to the assets’ location and duty. Some assessment techniques require water shut-offs and the removal of a section of pipe for laboratory destructive testing and an estimation of remaining life.
Assets have been prioritised for replacement or further inspection whenever actual condition or performance history data exists which indicates a potential risk to service continuity. The Tallebudgera Connection Road water main replacement across Tallebudgera Creek is a good example of water main renewals currently underway on high criticality mains as a result of observed condition and performance history.

However, the majority of water main assets that have been flagged as potentially being in poor/very poor condition have been categorised as such using desktop analysis methods. Under this analysis method the attributes of pipe age, pipe material and pipe diameter are used to derive an overall condition rating. Those pressure pipe assets that are identified as being in poor or very poor condition via this desktop analysis process are prioritised as follows:

- 300mm diameter or greater pipes – have been included on the condition inspection program for the 2017-18 and 2018-19 financial years in order to validate, or otherwise, the need for asset renewal.
- Pipes with a diameter of less than 300mm – are flagged for monitoring of asset performance during 2017-18, for verification of any renewal requirements for the 2018-19 financial year.

Each year the risk-prioritised list of mains for replacement is further validated using an appraisal of all available information on previous failures prior to final sign-off for inclusion in the pressure main renewals program. It can also be the case that a third party interaction with the piped assets or an unforeseen network failure will give rise to a reappraisal of risk mitigation priorities and a resetting of the scope for pipe renewals during the delivery of the annual replacement program. Pipes that are ‘bumped’ from the bottom of the annual renewals list for these reasons are simply shifted to the top of the list of next year’s replacement scope.

An accelerated condition inspection program for the water hydrant assets is also currently underway. This information is providing verification of any condition-related issues with the hydrants and providing additional information on the condition of the water mains they are connected to. The hydrant condition data is also being recorded into SAP and factored back into the future condition profiling of the water mains asset class.

2. Water Reservoirs

An extensive roof inspection program has been undertaken to mitigate the risk of water contamination from poor condition roof / gutters on reservoirs. Water reservoir assets in poor condition make up only 0.3% of the total replacement cost of water assets. These assets have been identified through a combination of structural condition assessments and age-based desktop analysis.

The majority of the poor/very poor condition value relating to reservoirs is associated with a small number of reservoir roof structures which will not reach their intended design lives due to design issues (e.g. inappropriate materials or structural configurations). Those sites have been validated through comprehensive internal and external physical inspections and these have been prioritised for replacement or renewal under the reservoir roof replacement program. For the remaining poor/very poor condition reservoir assets, the ratings have been derived through desktop analysis. As such, these assets have been prioritised for physical inspection to verify their actual condition.

Projects 71287 and 71303 are budgeted for FY17-18 to complete renewal requirements on reservoir roofs.
3. **Water Pumping Stations**

Water Pumping Stations (WPS) that are in poor/very poor condition have contributed 0.08% of the total replacement cost of assets. The majority of these assets relate to components with shorter useful lives (electrical assets - 15 years and mechanical assets - 20 years), with a small portion relating to civil structures at the sites.

The specific assets that have been flagged as being of a poor/very poor condition have been identified through field inspection, performance history data, asset age, technical obsolescence and/or the lack of availability of replacement parts. All of these assets have been scheduled onto the future ten year capex renewals programs (71124).

4. **Water Meters**

Water meter assets that are in poor/very poor condition have contributed 0.26% of the total replacement cost of water assets. The condition of water meter assets is determined by condition modelling and cohort testing. Testing of water meters in service has concluded that RMC / Reliance meters are in very poor condition and need to be replaced. This expenditure is accounted for with the Water Meter Replacement Program 71136.
Attachment 7 - Condition of Waste Assets

As at 30 June 2016, the City of Gold Coast’s waste management asset portfolio had a total replacement value of over $302 million (inclusive of land). The majority of this infrastructure is considered to be in very good, good or fair condition.

A small percentage of waste assets have been identified as being in either poor condition or very poor condition (rating scores of 4 or 5 respectively). Deterioration of condition and performance is to be expected as assets progress through their lifecycle. Poor and very poor condition assets have been identified through assessment methods including:

- Field condition inspections
- Performance history trends
- Condition modelling for renewals planning

Replacement of these poor and very poor condition assets correlates to 4.88% of the total replacement cost of the asset base or the equivalent of $4.03 million. The replacement costs for waste asset types are detailed in the table below:

<table>
<thead>
<tr>
<th>Asset Type</th>
<th>Gross Replacement Cost ($'m)</th>
<th>Replacement Cost for Condition Score 4 and 5 Assets ($'m)</th>
<th>Asset Type Replacement Cost as a % of Total Replacement Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fleet and Plant (excluding Wheelie Bins $4.9m)</td>
<td>$7.35</td>
<td>$2.46</td>
<td>2.98%</td>
</tr>
<tr>
<td>Drainage</td>
<td>$6.50</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Roads</td>
<td>$12.70</td>
<td>$0.38</td>
<td>0.46%</td>
</tr>
<tr>
<td>Buildings</td>
<td>$3.80</td>
<td>$0.15</td>
<td>0.18%</td>
</tr>
<tr>
<td>Pathways</td>
<td>$0.17</td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Site Improvements</td>
<td>$52.10</td>
<td>$1.04</td>
<td>1.26%</td>
</tr>
<tr>
<td><strong>Total Replacement Cost</strong>*</td>
<td><strong>$82.60</strong></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Note: The Non-Current Asset Accounting Policy states that land parcels are not subject to depreciation. As such, the “Land” replacement value reported in the Waste AMP ($219m) has been excluded here.

The numbers for this table are derived from the Waste Asset Management Plan section 2.2 Asset Summary and 2.4 Asset Condition. Details of each of the major asset types within this table are as follows:

1. **Landfills**

Landfill poor and very poor assets have been graded by age-based condition modelling. Further assessment will be scheduled to verify these condition scores. The main asset types with poor and very poor condition scores comprise:

- Fleet and plant assets which have a comparatively low replacement cost.
- The majority of road assets in poor condition.
- Low value building assets in mostly poor condition.
- Site improvement poor condition assets.
The project associated with landfill renewals is:

- 30262 – Landfill Minor Renewals

2. Transfer Stations

Transfer Station poor and very poor assets have been graded by age-based condition modelling. Further assessment will be scheduled to verify these condition scores. The main asset types with poor and very poor condition scores comprise:

- Some high value fleet and plant asset in very poor condition. These have the largest proportion of the overall replacement cost.
- A small proportion of road assets in poor condition.
- Building assets in mostly very poor condition.
- Site improvement poor and very poor condition assets.

The projects associated with transfer station renewals are:

- 30523 – Transfer Stations Renewals and Emergent Works
- 30382 – Replacement of Ro-Ro bins
## Attachment 8 – Reconciliation of final FY2017-18 renewals budget (3 February 2017) with FY2017-18 Water, Sewerage and Waste Management AMPs (19 December 2016)

### WATER

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Water Mains</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Per the 10 Year Plan (AMP)</strong></td>
<td><strong>Proposed</strong></td>
<td><strong>Variance</strong></td>
</tr>
<tr>
<td>Water Main Replacement Program</td>
<td>1,000,000</td>
<td>1,100,000</td>
</tr>
<tr>
<td>Water Assets Minor Civil Works</td>
<td>900,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Water Service Replacements</td>
<td>600,000</td>
<td>650,000</td>
</tr>
<tr>
<td>Asset Conflicts</td>
<td>1,000,000</td>
<td>500,000</td>
</tr>
<tr>
<td>Hydrant and Valve Replacement</td>
<td>2,500,000</td>
<td>2,500,000</td>
</tr>
<tr>
<td>Molendinar to Sthprt 965 main</td>
<td>500,000</td>
<td>500,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>6,500,000</td>
<td>5,750,000</td>
</tr>
<tr>
<td>Reservoirs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Reservoir Asset Renewals &amp; Refurb</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td>Reservoir Priority Roof</td>
<td>650,000</td>
<td>575,000</td>
</tr>
<tr>
<td>Reservoir Roof Refurb 16-17</td>
<td>660,000</td>
<td>470,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>1,560,000</td>
<td>1,295,000</td>
</tr>
<tr>
<td><strong>Other</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Per the 10 Year Plan (AMP)</td>
<td>Proposed</td>
<td>Variance</td>
</tr>
<tr>
<td>WPS Asset Renewals &amp; Refurb</td>
<td>450,000</td>
<td>125,000</td>
</tr>
<tr>
<td>WPS Mech and Elec Renewals Program</td>
<td>-</td>
<td>150,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>450,000</td>
<td>275,000</td>
</tr>
<tr>
<td>Water Meter Replacement Program</td>
<td>3,800,000</td>
<td>3,600,000</td>
</tr>
<tr>
<td>Water SCADA Upgrade Program</td>
<td>-</td>
<td>0</td>
</tr>
<tr>
<td><strong>Water Grand Total</strong></td>
<td>12,310,000</td>
<td>10,920,000</td>
</tr>
</tbody>
</table>
## Sewer

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>STP Asset Renewals &amp; Refurb Program (unallocated)</td>
<td>2,500,000</td>
<td>0</td>
</tr>
<tr>
<td>STP Minor Mech Elec Renewals</td>
<td>-</td>
<td>1,000,000</td>
</tr>
<tr>
<td>STP Minor Civil Renewals</td>
<td>-</td>
<td>850,000</td>
</tr>
<tr>
<td>STP Switchboards Replacement (90%)</td>
<td>1,004,400</td>
<td>1,159,200</td>
</tr>
<tr>
<td>STP Process Tank Refurb (2013-16) (90%)</td>
<td>900,000</td>
<td>900,000</td>
</tr>
<tr>
<td>Elanora STP Digester A and Sludge Heater Refurb (60%)</td>
<td>810,000</td>
<td>810,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>5,214,400</td>
<td>4,719,200</td>
</tr>
</tbody>
</table>

## SPS Renewals

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPS Asset Renewals &amp; Refurb Program</td>
<td>4,400,000</td>
<td>0</td>
</tr>
<tr>
<td>SPS Civil Renewals</td>
<td>-</td>
<td>800,000</td>
</tr>
<tr>
<td>SPS Mech Elec Renewals</td>
<td>-</td>
<td>850,000</td>
</tr>
<tr>
<td>SPS Switchboard Renewals 2017-19</td>
<td>-</td>
<td>2,000,000</td>
</tr>
<tr>
<td>CO13 Coomera Vacuum PS</td>
<td>-</td>
<td>484,000</td>
</tr>
<tr>
<td>SPS Mech Elec Major Renewals</td>
<td>3,600,000</td>
<td>3,600,000</td>
</tr>
<tr>
<td>SPS Fall From Heights (80%)</td>
<td>1,424,000</td>
<td>1,424,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>9,424,000</td>
<td>9,158,000</td>
</tr>
</tbody>
</table>

## Non Pressure Main Renewals

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Non Pressure Mains Renewals</td>
<td>4,600,000</td>
<td>4,000,000</td>
</tr>
<tr>
<td>CWG Sewer Non Pressure Mains Renewals</td>
<td>-</td>
<td>1,080,000</td>
</tr>
<tr>
<td>UAS Reline Rectification</td>
<td>-</td>
<td>900,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>4,600,000</td>
<td>5,980,000</td>
</tr>
</tbody>
</table>

## Pressure Main Renewals

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Pressure Mains Renewals</td>
<td>3,300,000</td>
<td>750,000</td>
</tr>
<tr>
<td>Sewer Minor Civil Works</td>
<td>-</td>
<td>900,000</td>
</tr>
<tr>
<td>Sewer Asset Conflict</td>
<td>-</td>
<td>250,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>3,300,000</td>
<td>1,900,000</td>
</tr>
</tbody>
</table>

## Maintenance Holes Renewals

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sewer Maintenance Hole Rehabilitation Program</td>
<td>3,200,000</td>
<td>3,200,000</td>
</tr>
<tr>
<td>CWG Sewer Maintenance Hole Rehabilitation Program</td>
<td>-</td>
<td>1,178,000</td>
</tr>
<tr>
<td><strong>Sub Total</strong></td>
<td>3,200,000</td>
<td>4,378,000</td>
</tr>
</tbody>
</table>

## Other

<table>
<thead>
<tr>
<th>Per the 10 Year Plan (AMP)</th>
<th>Proposed 2017-18</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Effluent Main Renewals Program</td>
<td>400,000</td>
<td>400,000</td>
</tr>
<tr>
<td>STP SCADA Upgrade</td>
<td>250,000</td>
<td>250,000</td>
</tr>
<tr>
<td><strong>Sewer Grand Total</strong></td>
<td>26,388,400</td>
<td>26,785,200</td>
</tr>
</tbody>
</table>
## Waste Management

### Per the 10 Year Plan (AMP) | Proposed | Variance
--- | --- | ---
**End of Life Renewal Driven**
30262 – Landfill Minor Renewals | 495,000 | 495,000 | 0
30382 – Purchase of new RORO bins | 385,000 | 342,000 | (43,000)
30523 – Waste Recycling Centres Renewal and Emergent Work | 460,000 | 460,000 | 0
**Total** | **1,340,000** | **1,297,000** | **(43,000)**

### Per the 10 Year Plan (AMP) | Proposed | Variance
--- | --- | ---
**New and Upgrade Driven**
30115 – Coomera Waste and Recycling Centre D&C | 9,654,500 | 200,000 | (9,454,500)
30386 – Reedy Creek Extension / Development | 262,500 | 262,500 | 0
31087 – Landfill Property Development | 3,000,000 | 3,000,000 | 0
GW212 – Stapylton Landfill Main Access Upgrade | 200,000 | 0 | (200,000)
TBC01 – Reedy Creek Ext / Dev Landfill Cell 3 | 500,000 | 500,000 | 0
**Total** | **13,617,000** | **3,962,500** | **(9,654,500)**
ITEM 4 GENERAL BUSINESS
PACIFIC PINES BOULEVARD WATER TOWER ARTWORK PROJECT
CM787/790/06/01(P1)

Committee Recommendation Adopted at Council 21 February 2017

COMMITTEE RECOMMENDATION WW17.0215.004
moved Cr PJ Young seconded Cr Tozer

That Council approve $10,000 from Division 5 LAW for Pacific Pines Boulevard Water Tower artwork project.

CARRIED

ADOPTED AT COUNCIL 21 FEBRUARY 2017
RESOLUTION G17.0221.015 moved Cr Gates seconded Cr PJ Young

That Committee Recommendation WW17.0215.004 be adopted as printed which reads as follows:-

That Council approve $10,000 from Division 5 LAW for Pacific Pines Boulevard Water Tower artwork project.

CARRIED UNANIMOUSLY
CLOSED SESSION
LOCAL GOVERNMENT ACT 2009 AND SUPPORTING REGULATIONS

PROCEDURAL MOTION
moved Cr Taylor  seconded Cr PC Young

That the Committee move into Closed Session pursuant to section 275(1) of the *Local Government Regulation 2012*, for the consideration of the following item/s for the reason/s shown:-

<table>
<thead>
<tr>
<th>Item</th>
<th>Subject</th>
<th>Reason</th>
</tr>
</thead>
<tbody>
<tr>
<td>5</td>
<td>COBAKI LAKES DEVELOPMENT</td>
<td>Commercial reasons and benefit to the City</td>
</tr>
</tbody>
</table>

CARRIED

PROCEDURAL MOTION
moved Cr Tozer  seconded Cr La Castra

That the Committee move into Open Session.

CARRIED

Following resumption into Open Session, Recommendation No. **WW17.0215.005** was moved and carried as shown on the following page.
ITEM 5  GENERAL BUSINESS
COBAKI LAKES DEVELOPMENT
CM787/790/06/01(P1)

Committee Recommendation Adopted at Council 21 February 2017

COMMITTEE RECOMMENDATION    WW17.0215.005
moved Cr O’Neill    seconded Cr La Castra

The City notes that negotiations with Leda Manorstead Pty Ltd further to resolution G14.1212.006, have not produced an agreement on terms satisfactory to the City. Accordingly the City notes that this matter is at an end and withdraws endorsement for the Director Gold Coast Water and Waste to engage further with Leda Manorstead Pty Ltd in relation to the supply of recycled and drinking water to the Cobaki Estate development.

CARRIED

ADOPTED AT COUNCIL 21 FEBRUARY 2017
RESOLUTION    G17.0221.014    moved Cr Taylor    seconded Cr Crichlow

That Committee Recommendation WW17.0215.005 be adopted as printed which reads as follows:-

The City notes that negotiations with Leda Manorstead Pty Ltd further to resolution G14.1212.006, have not produced an agreement on terms satisfactory to the City. Accordingly the City notes that this matter is at an end and withdraws endorsement for the Director Gold Coast Water and Waste to engage further with Leda Manorstead Pty Ltd in relation to the supply of recycled and drinking water to the Cobaki Estate development.

CARRIED

There being no further business the meeting closed at 2.31pm.
These Pages

Numbered 1 to 35

Constitute The Adopted Report Of The Meeting

Of The Gold Coast Water and Waste Committee

Held Wednesday 15 February 2017