Logan City Council

Paper for DCEO Approval

Logan Water Alliance
Work Package 7638
Chambers Flat Road Pump Station to Marsden Wastewater Conveyance – Approval of TOC Report

28 July 2014
Contents

1. Purpose of Paper ..................................................................................................................3
2. Project Background ..............................................................................................................3
3. Project Driver .....................................................................................................................3
4. Project Deliverables ...........................................................................................................3
  4.1 Project Scope and Deliverables ........................................................................................3
5. Target Outturn Cost ............................................................................................................4
6. Economic and Regulatory Requirements ..........................................................................4
  6.1 Capital Expenditure Requirements .................................................................................4
  6.2 Prudent Expenditure ......................................................................................................5
  6.3 Efficient Expenditure ......................................................................................................5
7. Budget Provision ................................................................................................................5
8. Recommendation ..............................................................................................................6
Attachment A ..........................................................................................................................7
  Work Package 7638 TOC Report - ALG 481 ......................................................................7
Attachment B ..........................................................................................................................8
  Project Brief ......................................................................................................................8
1. **Purpose of Paper**

The purpose of this paper is to seek approval from the DCEO - Road and Water Infrastructure for the Logan Water Alliance (LWA) to proceed with the delivery of Work Package 7638 - Chambers Flat Road Pump Station to Marsden Wastewater Conveyance at a total estimated cost of $16,677,304 exclusive of GST.

2. **Project Background**

The adopted wastewater management strategy identifies the Chambers Flat Road pump station as a key asset in the provision of sewerage services across a wide area of the City. The existing Chambers Flat Road pump station and rising main service a local catchment of approximately 12,000 equivalent persons (EP) in the suburbs of Crestmead and Logan Reserve. The existing assets do not have sufficient capacity to cater for the catchment area and hence augmentation works are required.

Work Package 7638 includes Stage 1 of the strategy (medium term) and will see Chambers Flat Road pump station conveying flows through the Logan North trunk wastewater network (Kingston Trunk Main) from suburbs including Crestmead, Logan Reserve, Chambers Flat, Yarrabilba, Logan Village, and the Park Ridge Major Development Area (MDA). Flows will then be conveyed through Alfred Street pump station and the new Alfred Street rising main. As a result of completion of this project, the network will have capacity for approximately 40,000 EP.

Stage 2 of the adopted servicing strategy will be implemented once the 40,000 EP capacity has been exceeded well into the future.

3. **Project Driver**

This project is the third and final part of the Logan Village to Kingston Wastewater Conveyance upgrade to cater for growth in the catchment. Significant growth is projected over the next 50 years, with short term growth in the catchment showing a rise from approximately 12,000 EP in 2011 to 25,000 EP in 2016, an increase of over 100%. Additionally, implementation of this project defers and reduces capital expenditure of approximately $100m to beyond 2026.

4. **Project Deliverables**

4.1 **Project Scope and Deliverables**

This project includes project management, design, procurement, delivery and commissioning of the Chambers Flat Road Pump Station to Marsden Wastewater Conveyance Project.

The project will deliver the following:

- A new pump station adjacent to the existing Chambers Flat Road pump station with pumping capacity of 611 L/s (40,608 EP). The new pump station also includes access roads, a new electrical switchboard, lifting equipment and odour control unit.
• A new rising main, approximately 1.7 km in length from the new pump station to the discharge manhole at the junction of Browns Plains Road and Bluegum Drive

• A pressurised gravity sewer, approximately 1.3 km in length from the junction of Browns Plains Road and Bluegum Drive, traversing Blackbean Street before joining the existing network within JJ Smith Park.

• A reticulation manhole (DN2400 mm) connection to the existing network within JJ Smith Park.

• A new gravity main, DN1200 RCP (HDPE lined) and approximately 200 m in length, upstream of the Chambers Flat Road pump station. This main has been sized and designed to receive flows from the Logan Village, Yarrabilba, Logan Reserve, Chambers Flat, and future Crestmead trunk main from the Park Ridge MDA and provide emergency storage for the local catchment.

• New interconnecting gravity mains ranging from DN150 to DN450 to connect the existing assets to the new infrastructure.

• Generator and transformer (power) conduits, cabling, and controls upgrades at new pump station site.

• Decommissioning of all existing infrastructure that is being replaced. This includes the removal of existing equipment, electrical switchboards and the backfilling of the existing valve chamber and pump station wet well.

The duration of the construction works for this project is approximately 12 months.

5. Target Outturn Cost

The Target Outturn Cost (TOC) is the LWA's determination of costs to design, construct, commission and handover the new asset to Logan City Council. The TOC has been prepared from competitively bid quotations from the market.

The TOC and Project Fee for Work Package 7638 - Chambers Flat Road Pump Station to Marsden Wastewater Conveyance is $16,677,304 exclusive of GST.

The TOC for the project has undergone a review by an independent estimator.

The TOC for Work Package 7638 was endorsed by the LWA Alliance Leadership Group on 25 July 2014.

6. Economic and Regulatory Requirements

6.1 Capital Expenditure Requirements

Logan City Council, as a Water Service Provider under State Legislation, is subject to Queensland Competition Authority (QCA) Price Regulation. The QCA regulation states that for capital expenditure to be included in the Regulated Asset Base (RAB), which is used as the basis for pricing determination (Maximum Allowable Revenue), it must demonstrate prudency and efficiency. A summary of this assessment is presented below.
6.2 **Prudent Expenditure**

This project is considered prudent as it meets a number of key criteria as follows:

- **Growth** – to cater for growth in the Chambers Flat Pump Station catchment.

6.3 **Efficient Expenditure**

From an efficiency perspective this project meets the following assessment criteria:

- **Scope of works** - the preferred options were determined through 'Value for money' multi-criteria selection processes.

- **Standard of work** - the standard of works will conform to all regulatory and industry practice, codes and manuals.

- **Costs** - The TOC will include direct costs that are based on LWA's first principle estimate and prices obtained from LWA's preferred subcontractors.

7. **Budget Provision**

The total budget provision for approval is made up of the following components:

<table>
<thead>
<tr>
<th>Component</th>
<th>Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>Project TOC</td>
<td>$15,246,144</td>
</tr>
<tr>
<td>Project Fee</td>
<td>$1,431,160</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>$16,677,304</strong></td>
</tr>
</tbody>
</table>

These costs are exclusive of GST.

This Project has been included in the 2014/15 Logan City Council Capital Works budget.
8. **Recommendation**

It is recommended that:

The Deputy CEO - Road and Water Infrastructure approve for the Logan Water Alliance to proceed with the delivery of Work Package 7638 - Chambers Flat Road Pump Station to Marsden Wastewater Conveyance at a total estimated cost of $16,677,304 exclusive of GST.

__________________  Date: _______________
Rajindar Singh  
Water Infrastructure Delivery Program Leader

__________________  Date: _______________
Sandy Veeren  
Supported / Not Supported  
Acting Water Infrastructure Manager

__________________  Date: _______________
Silvio Trinca  
Approved / Not Approved  
Deputy CEO  
Road and Water Infrastructure
Attachment A

Work Package 7638 TOC Report - ALG 481
Attachment B

Project Brief