Logan City Council

DCEO Paper for Approval

Logan Water Alliance
Scope and Budget Adjustment - SPS108
Rising Main Connection to Alfred Street to Loganholme Rising Main - WP7626-001

3 April 2013
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1. **Purpose of Paper**

The purpose of this paper is to seek approval from the DCEO Road & Water Infrastructure for the Logan Water Alliance (LWA) to adjust the Scope and Budget for the SPS108 Rising Main Connection to Alfred Street to Loganholme Rising Main project. It is proposed to increase the approved budget by $27,017 exclusive of GST.

The adjustment results in a revised total budget of $51,389,934 exclusive of GST. This total includes Owner’s Risk and Contingency.

2. **Project Background**

Logan Water Alliance is currently preparing the detailed planning for augmentations to wastewater assets in the SPS108 wastewater catchment in order to deal with hydraulic capacity issues. The Design Opportunity and Risk (DOAR) workshop identified several issues with the preferred option recommended within the Planning Report entitled "Wastewater Pump Station SPS108 (formerly WA21) Rising Main Augmentation - Detailed Planning". The most important issue identified was the risk associated with the construction and maintenance of manholes and gravity sewer within Queensland Rail land.

Following the DOAR, a new strategy was identified, comprising the injection of SPS108 flows into the proposed OD1200 MSCL Alfred Street to Loganholme Rising Main. The proposed rising main alignment is half the length of the strategy recommended in the Planning Report.

In order to allow for possible future connection of the Logan East Catchment to the Alfred Street to Loganholme Rising Main, the pipeline design was modified to incorporate a DN450 branch connection, complete with DN450 sluice valve and blank flange, in the vicinity of the Tansey Park Oval (Chainage 3795, Stage 1).

**Scope Change Summary**

Additional costs associated with this Scope Change are summarised below:

<table>
<thead>
<tr>
<th>Description</th>
<th>Cost</th>
<th>Fee</th>
<th>Total</th>
</tr>
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<tbody>
<tr>
<td>Design costs (10 hrs Design Manager @ $114/hr, 6 hrs Drafting @ $90/hr)</td>
<td>$1,680</td>
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<td>$278</td>
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<td><strong>Total Scope Changes</strong></td>
<td><strong>$24,055</strong></td>
<td><strong>$2,962</strong></td>
<td><strong>$27,017</strong></td>
</tr>
</tbody>
</table>
3. Task Budget Adjustment

<table>
<thead>
<tr>
<th>Project</th>
<th>Approved TOC (including Fee)</th>
<th>Requested Budget Adjustment (Direct Cost + Fee)</th>
<th>Revised TOC (including Fee)</th>
<th>Owners Risk &amp; Contingency Provisions</th>
<th>Total Project Budget</th>
</tr>
</thead>
<tbody>
<tr>
<td>WP7626-001</td>
<td>$48,912,717</td>
<td>$27,017</td>
<td>$48,939,734</td>
<td>$2,450,000</td>
<td>$51,389,734</td>
</tr>
</tbody>
</table>

4. Budget

The budget estimate for this task includes the following components:

- Approved TOC (including Fee) $48,912,717
- Requested Adjustment (including Fee) $27,017
- Revised TOC (including Fee) $48,939,734
- Owner's Risk & Contingency $2,450,000
- **Total Project Budget** $51,389,734

All costs are exclusive of GST.

Owner's Risks are those costed risks that Logan Water has opted to manage outside of the TOC to avoid the costs (under the pain/gain share provisions) associated with low probability risks.

5. Recommendation

It is recommended that:

The Deputy CEO - Road & Water Infrastructure approve the adjustment of $27,017 (exclusive of GST) to the Alfred Street to Loganholme Rising Main Project (WP7626-001) to allow for the construction of a connection to the future SPS108 Rising Main.

The revised total budget is $51,389,734 exclusive of GST.

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Rajindar Singh  
Water Infrastructure Delivery Program Leader  
Date: 10/4/2013

Tony Goodhew  
Water Infrastructure Manager  
Date: 11/4/13

Silvio Trinca  
Deputy CEO  
Road & Water Infrastructure  
Date: 15/4/13

Document No: 8312600  
10/04/2013
Attachment A

Project Change Request
Project Change Request

Project Details

<table>
<thead>
<tr>
<th>Project Number</th>
<th>Project Title</th>
<th>Approval Document Number</th>
<th>Date Approved</th>
<th>Change Request Number</th>
<th>Date Submitted</th>
<th>Previous Change Request Numbers</th>
<th>Date Approved</th>
<th>Document Author</th>
<th>Contact Number</th>
<th>Nature of Change</th>
</tr>
</thead>
<tbody>
<tr>
<td>RA003</td>
<td>Alfred Street to Loganholme WPCC Rising Main Augmentation</td>
<td>DM# 7856344</td>
<td>3 July 2012</td>
<td>1</td>
<td>3 April 2013</td>
<td>N/A</td>
<td>N/A</td>
<td>M Thomsen</td>
<td>3412 4866</td>
<td>Scope</td>
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</table>

Comments
The Paper for Approval for the Logan Water Alliance Work Package 26 was approved on the 3 July 2012 by the DCEO Road and Water Infrastructure (DM#7856344).

A scope and budget adjustment is proposed for the inclusion of additional works relating to a new branch connection for SPS108 catchment.

This Change Request has been prepared as an update to the approved Prudence and Efficiency Test attached to the original approval dated 3 July 2012 and is to be read in conjunction with that document and subsequent approvals.

Investigation

Description of Requested Change
Logan Water Alliance is currently preparing the detailed planning for augmentations to wastewater assets in the SPS108 wastewater catchment in order to deal with hydraulic capacity issues. The DOAR workshop identified several issues with the preferred option recommended within the Planning Report entitled "Wastewater Pump Station SPS108 (formerly WA21) Rising Main Augmentation - Detailed Planning". The most important issue identified was the risk associated with the construction and maintenance of manholes and gravity sewer within Queensland Rail land.

Following the DOAR, a new strategy was identified, comprising the injection of SPS108 flows into the proposed OD1200 MSCL Alfred Street to Loganholme Rising Main. The proposed rising main alignment is half the length of the strategy recommended in the Planning Report.

In order to allow for possible future connection of the Logan East Catchment to the Alfred Street to Loganholme Rising Main, the pipeline design was modified to incorporate a DN450 branch connection, complete with DN450 sluice valve and blank flange, in the vicinity of the Tansey Park Oval (Chainage 3795, Stage 1).

A length of ball and socket MSCL pipe has been modified to incorporate the DN450 branch, and the DN450 valve and blank flange procured.

Change Drivers
- Efficiency
- Growth
- Improvement

Benefits of Change
- Improved efficiency and cost benefits in design and delivery of the proposed wastewater infrastructure
Required Changes

**Scope Adjustment**
The following Scope Adjustments are proposed:
- The design and project management
- The construction of an additional DN450 branch and associated DN450 valve and blank flange to connect SPS108 catchment into the Alfred Street to Loganholme Rising Main.

**Schedule Adjustment**
No time extension is requested for this scope change

**Budget Adjustment**
An addition $27,017 is requested to complete the above stated scope adjustments.

<table>
<thead>
<tr>
<th>Description</th>
<th>Current Budget</th>
<th>Proposed Budget</th>
<th>Variance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Approved Budget</td>
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<td>$51,362,717</td>
<td>$0</td>
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<tr>
<td>Design Costs</td>
<td>2,293</td>
<td>2,293</td>
<td></td>
</tr>
<tr>
<td>Delivery Team Cost</td>
<td>1,459</td>
<td>1,459</td>
<td></td>
</tr>
<tr>
<td>Material Costs</td>
<td>19,127</td>
<td>19,127</td>
<td></td>
</tr>
<tr>
<td>Transportation of pipe for branch modification</td>
<td>1,211</td>
<td>1,211</td>
<td></td>
</tr>
<tr>
<td>Installation of branch, valve &amp; blank flange</td>
<td>2,927</td>
<td>2,927</td>
<td></td>
</tr>
<tr>
<td><strong>Totals</strong></td>
<td><strong>$51,362,717</strong></td>
<td><strong>$51,389,734</strong></td>
<td><strong>$27,017</strong></td>
</tr>
</tbody>
</table>

**Quality and Risk Adjustments**
N/A

**List of Attachments/Supporting Information**
Appendix A:
LCC_DOCS-#7856344-Scanned signed DCEO Approval Memo - Alfred St to Loganholme WWTP Rising Main Augmentation

Appendix B:
LCC_DOCS-#8312306-ALG Paper #325 - WP 7626 Scope Change for SPS108 Rising Main Connection to Alfred ST to Loganholme Rising Main

Document Number: B314327
Managers Approval

Maria Thomsen
Capital Program Development Coordinator

Date

Rajindar Singh
Water Infrastructure Delivery Program Leader

Date

Supported/Not Supported

Tony Goodhew
Water Infrastructure Manager

Date

Endorsed/Not Endorsed

Document Number: 8314327
Appendix A:
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Appendix B:
LCC_DOCS-#8312306-ALG Paper #325 - WP 7626 Scope Change for SPS108 Rising Main Connection to Alfred ST to Loganholme Rising Main
To
ALG

From
APMT

Subject
WP7626-001: SPS108 Rising Main Connection to Alfred Street to Loganholme Rising Main – Scope Change

Date
22 March 2013

Ref
ALG-325

Paper Presented for Approval
Author: Colin Bryce

1. Purpose
The purpose of this paper is to request an increase in the TOC for Work Package 7626: Alfred Street Pump Station to Loganholme Wastewater Treatment Plant (WWTP) Rising Main Augmentation as a result of a Scope Change for the installation of a proposed DN450 branch for possible future connection from the Logan East Catchment.

1. Previous ALG Papers relating to this Work Package
The following papers were approved by the ALG

<table>
<thead>
<tr>
<th>Paper</th>
<th>Subject</th>
<th>Outcome</th>
<th>Approved Date</th>
</tr>
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<tbody>
<tr>
<td>ALG-247</td>
<td>Project TOC Report</td>
<td>Approval of Work Package TOC Report and Budget to a value of $48,912,717</td>
<td>05.07.2012</td>
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2. Background
Logan Water Alliance is currently preparing the detailed planning for augmentations to wastewater assets in the SPS108 wastewater catchment in order to deal with hydraulic capacity issues. The DOAR workshop identified several issues with the preferred option recommended within the Planning Report entitled “Wastewater Pump Station SPS108 (formerly WA21) Rising Main Augmentation – Detailed Planning” (Task No. 90-11-71). The most important issue identified was the risk associated with the construction and maintenance of manholes and gravity sewer within Queensland Rail land.

Following the DOAR, a new strategy was identified, comprising the injection of SPS108 flows into the proposed OD1200 MSCL Alfred Street to Loganholme Rising Main. The proposed rising main alignment is half the length of the strategy recommended in the Planning Report.

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A length of ball-and-socket MSCL pipe has been modified to incorporate the DN450 branch, and the DN450 valve and blank flange procured. Costs for the additional construction activities associated with the design change have been forwarded by the Work Package 26 pipelaying subcontractor.

The APMT considers this change to be a Scope Change. Approval is sought for the additional costs associated with this. These are summarised in Section 3.

3. Scope Change Summary

Additional costs associated with this Scope Change are summarised below:

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4. Recommendation

The APMT recommends that the ALG approve the following:

<table>
<thead>
<tr>
<th>Item</th>
<th>Current Amount</th>
<th>Change this Paper</th>
<th>Revised Amount</th>
</tr>
</thead>
<tbody>
<tr>
<td>TOC</td>
<td>$44,073,900</td>
<td>$24,055</td>
<td>$44,097,955</td>
</tr>
<tr>
<td>Fee</td>
<td>$4,838,817</td>
<td>$2,962</td>
<td>$4,841,779</td>
</tr>
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The values shown above are exclusive of GST.

No time extension is requested for this Scope Change.

David Fullerton
Alliance Manager

Tony Goodhew
Water Infrastructure Manager