

Quarterly Progress Report No. 7



Project Name	Lane City Reservoir Project
TWDB Contract	1400011761
Reporting Period	June 1, 2016 to August 31, 2016 (TWDB 4Q2016)
From:	John S. McLeod, P.E., Project Manager
To	Matthew Webb/TWDB
Date:	October 19, 2016

Summary

Overall construction of the Lane City Reservoir project is progressing as planned. Substantial completion remains unchanged at September 8, 2018. Unusually high rainfall and river levels during the reporting period have hampered some construction efforts but the contractor has adjusted work schedules to recover lost time.

Construction of grant reimbursable items (river outfall, wave wall, and chimney drain) continue to progress well. A summary of work completed during the period is presented below:

- River Outfall. River levels subsided during mid-July allowing the contractor to restart construction of the temporary sheet pile cofferdam in the river. Steel pipe segments ranging in diameter from 108" to 60" were delivered to the job site. Permanent sheet pile for the outfall structure was installed along the river bank.
- Wave wall. A significant wave wall milestone was achieved with the approval of the wave wall fabrication submittal and fabrication of a test batch of wave wall segments. Contractor estimates 3,445 wave wall segments are required for the project. Fabricator estimates a year of production based on a production rate of 60 wall segments per month.
- Chimney Drain. Contractor has perfected the equipment and process necessary for construction of the 4-ft wide chimney drain. Developing the process was a collaborative effort to meet both the engineer's technical requirements and the cost constraints of the contractor.

This status report will also accompany LCRA's reimbursement request for \$723,430.00 related to the construction of the River Outfall facility.

1. Work Completed During the Quarter

Table 1 summarizes work activities and accomplishments made during the reporting period. Note: The "(P)" indicates a photograph of the item is presented at the end of the report.

Table 1
Summary of Work Completed During Reporting Period

Scope Item	Description
Task 1 - Regulatory Considerations	<ul style="list-style-type: none"> • None. Task is complete
Task 2 - Construction	<ul style="list-style-type: none"> • <u>River Outfall</u> <ul style="list-style-type: none"> ○ Contractor completed sheetpile cofferdam for river outfall construction. (P) ○ Steel pipe delivered to site and stored. (P) • <u>Chimney Drain/Embankment</u> <ul style="list-style-type: none"> ○ Finalized equipment and placement process for chimney drain. ○ Construction of chimney drain with embankment construction.(P) • <u>Wave Wall</u> <ul style="list-style-type: none"> ○ Wave wall fabrication submittal approved. LCRA and engineer toured fabrication site and storage yard. ○ Fabricator completed a test run of wave wall segments. (P) ○ Inspected fabricators QC laboratory facilities. ○ Production begins on the fabrication of 3,445 wave wall segments. • Technical Review Board inspected construction work • Executed TWDB Contract Amendment No. 1 to account for change to the construction schedule presented in the grant proposal.
Task 3 - Post Construction Documentation and Lessons Learned	<ul style="list-style-type: none"> • Completed draft of a Table of Contents for the Lane City Case Study Report. • Began cataloging construction photos and inspection reports to support report preparation.
Task 4 - Outreach and Public Communication	<ul style="list-style-type: none"> • Submitted an abstract to present at the Texas Water 2017 conference April 10 – 13th.

2. Work Planned for Next Quarter

Table 2 summarizes work activities planned for the next quarter.

Table 2
Summary Work Planned for Next Quarter

Scope Item	Work Planned
Task 1 - Regulatory Considerations	<ul style="list-style-type: none"> • None. Task is complete
Task 2 - Construction	<ul style="list-style-type: none"> • <u>River Outfall</u>

Scope Item	Work Planned
	<ul style="list-style-type: none"> ○ Complete excavation for river outfall pipe. ○ Install permanent sheetpile for the in-river stilling well. • <u>Chimney Drain</u> <ul style="list-style-type: none"> ○ Continue building chimney drain. • <u>Wave Wall</u> <ul style="list-style-type: none"> ○ Complete fabrication of approximately 180 wall segments.
Task 3 - Post Construction Documentation and Lessons Learned	<ul style="list-style-type: none"> • Submit report table of contents and list of figures and tables to TWDB for review and comment.
Task 4 - Outreach and Public Communication	<ul style="list-style-type: none"> • Submit proposed list of conferences/presentations for TWDB review. • Receive acceptance/rejection notification on Texas Water 2017 abstract.

3. Budget Status

Table 3 presents a summary of budgeted vs. actual for the 3 areas of work.

**Table 3
Summary of Budget and Expenditures**

Item	Budget		Expenditures		TWDB Remaining Contribution
	Total Construction ¹	TWDB Contribution	Construction Paid to Date ²	TWDB Contribution to Date ³	
River Outfall	\$3,979,976	\$723,430	\$1,502,743	\$723,430	\$0
Chimney Drain ⁴	\$5,052,170	\$1,085,144	\$297,119	\$0	\$1,085,144
Wave Wall	\$3,848,167	\$602,858	\$0	\$0	\$602,858
Total	\$12,880,313	\$2,411,432	\$1,799,862	\$	\$1,688,002

¹Total construction budget is based on a construction contract with Phillips & Jordan (PJ) executed on Nov. 19, 2015. Construction budgets are based on contractor's baseline Schedule of Values.
²Total paid by LCRA to PJ for each Item.
³Includes current reimbursement request
⁴Contractor's estimated chimney drain cost component of embankment construction.

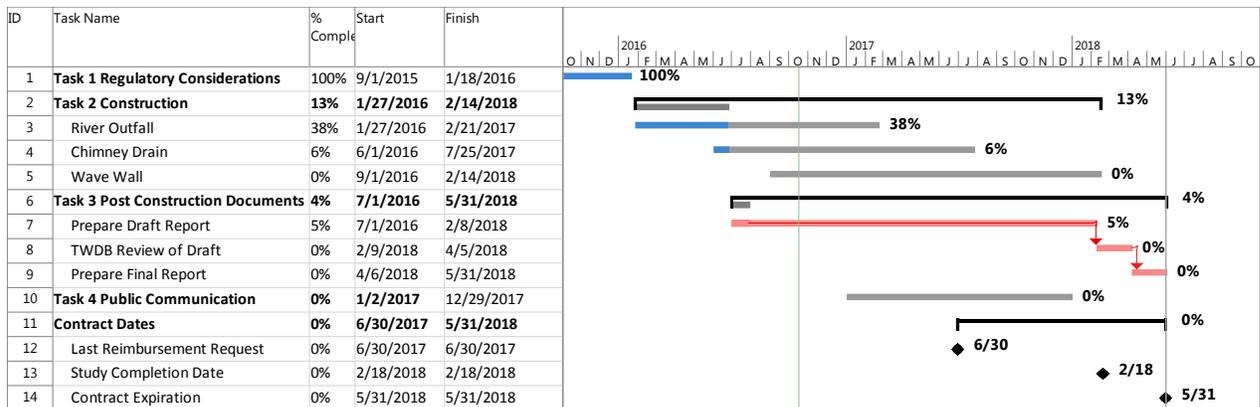
4. Construction Status and Project Schedule

The status of Lane City Reservoir construction as of August 31, 2016 is summarized in the Table 5 below:

**Table 5
Construction Status**

Component	% Complete	Comments
Overall Project	28 %	Substantial completion for the project is Sept. 8, 2018, based on a Nov. 18, 2015 notice to proceed and a 1020 calendar day construction contract with Phillips & Jordan Inc. This contract includes construction of all 3 components included in the TWDB grant.
River Outfall	38%	Contractor has completed temporary cofferdam in the river. Pipe materials have been delivered to the site.
Chimney Drain	6%	Contractor has completed approximately 32,900 lineal feet of the estimated 560,366 lineal feet (106 miles) of chimney drain.
Wave Wall	0%	Contractor has begun fabrication but none delivered to the site. Expect deliveries to begin next period.

An overview of the project schedule for the construction of the grant components, delivery of the Task 3 construction report, and the Task 4 Public Communication tasks are presented below. Additionally, the schedule reflects the Contract completion dates included in Amendment No. 1 of the grant contract with TWDB.



5. Local Participation

Table 6 summarizes the local expenditures by the general contractor. Local expenditures not account for approximately 10% of total expenditures for the construction component of the Lane City Reservoir Project.

Table 6
Local Participation Status

Local Subcontracts	Totals
• Wharton County	\$ 188,115
• Matagorda County	\$ 511,092
• Colorado County	\$ 2,501,060
Total Local Subcontracts	\$ 3,200,267
Local Labor (all counties)	\$ 1,722,505
Total Local Expenditures	\$ 4,922,772
Total Construction Expenditures	\$ 47,228,272
Local Participation %	10.4%
% Goal	15%

6. Risks and Concerns

None identified.

7. Photographs

**River Outfall 108”
Pipe, 2016.04.14**



**River Outfall 84”
Pipe, 2016.04.14**



**River Outfall
Temporary
Cofferdam & Pipe
Piling Layout,
2016.07.25**



**River Outfall
Permanent Sheet
Piles, 2016.08.04**



**River Outfall
Installing Permanent
Sheet Piles,
2016.08.09**



**Chimney Drain,
Typical 4-ft Wide
Section
2016.07.14**



**Chimney Drain,
Approximate Station
252+00
2016.10.04**



**Wave Wall
Production Form
2016.07.22**



**Completed Wave
Wall segment
2016.07.29**

