

**Maumee Watershed Conservancy District
Hancock County Flood Diversion**

**MONTHLY PROGRESS REPORT #2
FOR STANTEC CONSULTING SERVICES INC.**

Period Covered:

1-October-2016 thru 4-November-2016

Submitted by:

**Stantec Consulting Services Inc.
4540 Heatherdowns Boulevard, Suite A
Toledo, Ohio 43614**

**Telephone: (419) 380-8910
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I. Invoice Summary and Project Financial Status

- Invoice Number 1119928 totaling \$284,400.00 is submitted for consideration.
- To-date 32.2% of the total authorized funds have been invoiced.
- The above invoice includes three (3) subconsultant invoices. Invoices from Stormwater Engineering (\$2,437.50), Bockrath & Associates (\$15,971.25) and Applied Weather (\$8,256.00) are attached for your records.

II. Major Issues and Decisions

Data Collection & Analysis

- Soil borings are complete and locations have been surveyed.
 - Laboratory testing of the borings is underway.
 - Laboratory results anticipated by 11/11.
 - Draft Geotechnical report anticipated by 11/18.
- Finalizing conversion of the existing hydraulic model to unsteady-state and applying refinements to the model including bridge geometry and ineffective flow areas.
 - Updated area between Blanchard and Lye to a 2-Dimension grid.
 - Updated model to reflect field survey cross sections.
- Completed development of a refined hydrologic model and calibration review of hydrology.
- Continuing development of new precipitation model.
 - Our subconsultant, Applied Weather Associates (AWA) is completing analysis of 45-50 storm events.
- Faucett is providing an Economics Impact Analysis report to update the BCR
 - Draft anticipated the week of 11/7 for review.
- A meeting has been scheduled with ODOT D1 in Lima on 11/14 to discuss bridge design efforts and Environmental Documentation requirements.
- Proposal for aerial survey is under way. Anticipated flight schedule is November.

Concept Refinement

- Completed first internal design charrette on 10/18.
 - Refine existing alternatives for further analysis on costs/benefits.
- Additional alternatives identified and awaiting model conversion to complete.
 - Storage on the Blanchard River further evaluated downstream and upstream of Mt. Blanchard.
 - Bridges at TR139 and TR140 on Blanchard evaluated.
 - Storage options on Lye Creek under evaluation.
- Further analysis and refinements being made for alternatives including:
 - Refined modification of proposed channel to convey larger flows.
 - Extension of diversion channel connection to Lye and Blanchard parallel to SR 15.
 - Removal of low-head dams and riffle structures within City of Findlay.
 - Stream widening & channel modifications within the City of Findlay.
 - HTRW documentation under review
 - Upstream detention (SR15)
 - Widening of existing RR bridge opening considered.
 - Lye Creek cutoff levee.

- Preparing for second internal design charrette on 11/11.
- Cost Curves and Impacts/Benefits table underway
- Began drafting Proof of Concept report.

Permitting

- Pre-Application meeting and site tour with USACE and OEPA completed on 10/6.
- Field activities including Wetland delineation work completed on 11/3. Mussel surveys, processing of results and reporting commenced. No time for these efforts are included within this invoice.
- Coordination underway with Mannik & Smith Group (MSG) and SHPO for Section 106 assistance.
 - Met with SHPO on 10/24 in Columbus
 - Local meeting for property owner consultation tentatively scheduled for the week of 11/14.

III. Schedule

Task	Proposed Timeline	Current Status	Anticipated Timeline
A. Data Collection & Analysis			
A.1 – Update Hydraulic Modeling, H&H Data Collection & Analysis	9/9/2016	Complete	N/A
A.2 – Economics Impact Analysis	9/30/2016	Complete	N/A
A.3 – Geotechnical Borings	10/28/2016	Testing Underway	11/11/16
A.4 – Surveying	9/23/2016	X-Secs Complete	N/A
A.5 – Pre-Permitting, Mussel Recon, Cultural	10/28/2016	Complete	11/4/16
A.6 – Transportation	9/30/2016	Underway / Behind schedule	11/30/16
A.7 – Precipitation Modeling	10/31/2016	Underway / Behind schedule	11/30/16
B. - Concept Refinement			
B.1 – Project Adjustments & Improvements	10/14/2016	Underway / Exploring alternative solutions	12/31/16
B.2 – Model Refinement	10/14/2016	Nearly complete / Behind schedule	11/11/16
B.3 – Estimating & BCR Analysis	10/14/2016	Underway / Behind Schedule	11/30/16
B.4 – Permitting Coordination	10/31/2016	Underway	11/30/16
B.5 – Report & Presentation	10/31/2016	Under Development	TBD

Respectfully Submitted

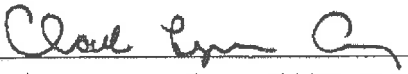
STANTEC CONSULTING SERVICES INC.



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APPROVAL OF PAYMENT:

On behalf of the Maumee Watershed Conservancy District and in accordance with the Memorandum of Agreement, I hereby recommend payment in favor of Stantec Consulting Services Inc. by the Hancock County Commissioners in the amount of \$ 284,400.00.


Clark Lynn Army, General Manager

11/8/16
Date