

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

***MONTHLY PROGRESS REPORT #8
FOR STANTEC CONSULTING SERVICES INC.***

Period Covered:

8-April-2017 thru 9-June-2017

Submitted by:

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

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I. Invoice Summary and Project Financial Status

- Invoice Number 1211615 totaling \$140,600.00 for the Phase 2 Proof of Concept efforts is submitted for consideration. The above invoice includes subconsultant invoices. Invoices from Applied Weather Associates (\$15,000.00), Jack Faucett Associates (\$46,035.00) and Hart (\$8,636.89) are attached for your records.
- A second invoice, Invoice Number 1212302 totaling \$38,353.27, for the authorized Supplemental Services related to field investigations for permitting and aerial survey, is also submitted for consideration. This invoice includes time and expense applied by Stantec staff, as well as subconsultant invoices from Bockrath & Associates Engineering and Surveying, LLC (\$21,800.00) and Mannik & Smith Group (\$1,224.75).
- A third invoice, Invoice Number 1212305 totaling \$84,129.19 for the initial stages of preliminary engineering related to the proposed Hydraulic Improvements. This invoice includes time applied by Stantec staff as well as subconsultant invoices from Bockrath & Associates Engineering and Surveying, LLC (\$11,330.00), Mannik & Smith Group (\$8,702.75) and TTL Associates Inc. (\$2,985.00).
- To-date approximately 87.3% of the total authorized funds for the Program have been invoiced.

II. Major Issues and Decisions

Data Collection & Analysis

- QA and finalization for the "typical storm" event based upon additional radar data processed by Applied Weather Associates (AWA).
- AWA reviewed radar data available from the 2007 rain event and two other moderate-sized rain events to extract more refined information related to hydrology and enable further calibration of the models. The additional information has been integrated into the modeling.
- The invoices included from Jack Faucett Associates (Faucett) reflect their prior efforts for review and update of the BCR for the proposed program of improvements. These invoices were not recorded within our system for the most recent prior invoicing issued in April.
- Continued coordination with HART for the addition of documents to Program webpage (www.hancockcountyflooding.com) to reflect local presentations held in April and May.

Concept Refinement

- Integrated additional rainfall data acquired in the Data Collection efforts into the HEC-HMS and HEC-RAS modeling.
- Developed a range of exhibits and handouts for local presentations of the Proof of Concept report that we held on April 25th and 26th, as well as May 24th within Hancock County.
- Attended the MWCD Annual Meeting in Defiance on May 5th and provided a presentation of findings related to the proposed Hydraulic Improvements within the City of Findlay.

Permitting

- Continued coordination with Mannik & Smith Group (MSG) for Section 106 consultation with SHPO.
- MSG and Stantec staff collaborated for refinement of formal work plan for permit coordination to follow the steps necessary to provide permitting for the preferred alternative/recommended plan once selected.
- A local permitting pre-application coordination meeting was held in Findlay on May 9th with the U.S. Army Corps of Engineers (USACE) Permitting Section and Ohio EPA to discuss the anticipated permitting processes for the Hydraulic Improvements.

- Completed an on-site review, including identification of wetland areas for further investigation and delineation within the detailed design of the proposed hydraulic improvements.

Aerial & Ground-Based Survey

- Bockrath continued coordination with Kucera for processing of aerial mapping of the watershed. The significant costs associated with the invoicing from Bockrath reflects the efforts of Kucera (\$21,800) in completing the processing. Stantec staff have also engaged in review of the initial information provided by Kucera.
- Bockrath began efforts related to the boundary and topographic surveys for the proposed hydraulic improvements. The boundary survey is complete and the vast majority of the topographic survey outside of the river is complete. Additional efforts within the river will need to be undertaken when river levels are safe for such work.

Hydraulic Improvements Preliminary Engineering

- Field efforts related to geomorphic assessments of the low-head dams within the river were completed in May and are with Stantec staff for post-processing.
- Field efforts for soil borings were completed in May. Anticipated areas of fill and general debris were identified and logged. A report of the geotechnical study should be completed by the end of June.
- Completed review of available prior environmental investigations and studies and conducted a coordination meeting with the Ohio EPA Division of Environmental and Remedial Response (DERR). Some portions of the proposed project site for the hydraulic improvements are former brownfields and coordination is required for permits to excavate within these areas.
- Continued contact with the Norfolk-Southern RR regarding recommended bridge modifications. Additional follow-up will be on-going for the next several months, including development of preliminary figures and a narrative to allow the RR to provide an estimate for the cost of the anticipated cooperative agreement.

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	Complete	N/A
A.4 – Surveying	9/23/2016	Complete	N/A
A.5 – Pre-Permitting, Mussel Recon, Cultural	10/28/2016	Complete	N/A
A.6 – Transportation	9/30/2016	Complete	N/A
A.7 – Precipitation Modeling	10/31/2016	Complete	N/A
B. - Concept Refinement			
B.1 – Project Adjustments & Improvements	10/14/2016	Complete	N/A
B.2 – Model Refinement	10/14/2016	Complete	N/A

Task	Proposed Timeline	Current Status	Anticipated Timeline
B.3 – Estimating & BCR Analysis	10/14/2016	Complete	N/A
B.4 – Permitting Coordination	10/31/2016	Complete	N/A
B.5 – Report & Presentation	10/31/2016	Complete	N/A
C – Supplemental #1			
C.1 – Wetland Delineation & Habitat Assessment	1/31/2017	Field Work and Report Complete for Diversion Channel	N/A
C.2 – Archaeological Survey	1/31/2017	Field Work and Report for Diversion Channel Complete for areas East of I75	N/A
C.3 – Aerial Surveying	12/31/2016	Aerial Imagery Complete; Processing Nearly Complete	7/31/2017
D – Hydraulic Improvements			
D.1 – Site Assessment & Survey	7/31/2017	Field work nearly complete for Geotech & Surveys;	7/31/2017
D.2 – Cultural and Historic Resources	12/31/2017	Coordination with SHPO, USACE and OEPA On-Going	12/31/2017
D.3 – Program Management	On-Going	On-Going	On-Going

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

\$ 263,082.46.

Clark Lynn Army, General Manager

Date