



November 11, 2011

Ohio Department of Natural Resources  
Division of Water  
c/o Mr. Keith Banachowski, P.E.  
Dam Safety Engineering Program  
2045 Morse Road, Building B-2  
Columbus, OH 43229-6693

**RE: Sippo Creek Reservoir Dam  
City of Massillon, Stark County  
Hydrologic and Hydraulic Report  
File Number 0614-012**

Dear Mr. Banachowski:

URS Corporation (URS) is pleased to submit this Hydrologic and Hydraulic Report for the Sippo Creek Reservoir Dam for the City of Massillon. This submittal reflects the City of Massillon's request that URS provide services to develop a design discharge for the dam and to bring the dam into compliance with ODNR regulations.

URS has performed the requested analyses and report, which is attached. URS will provide a feasibility study, based on the design discharge once it is approved. There is no tentative start of construction date.

- The current inflow design discharge is the Probable Maximum Flood, which was determined by URS to be 31,970 cfs.
- Based on our analyses, the current High Hazard Classification does not appear to be the appropriate classification.
- It is URS's opinion that the correct classification for the dam is Hazard Class II.
- An Emergency Action Plan and an Operation, Inspection and Maintenance Manual will be provided once the project is completed.
- URS requests that the Dam be reclassified to a Hazard Class II Dam and that the design discharge be the 0.5 PMF, which URS has determined to be 11,457 cfs.

URS Corporation appreciates the opportunity to present our conclusions to ODNR, on behalf of the City of Massillon, regarding this project. If there are any questions about the Hydrologic and Hydraulic Report, please contact Michael Shore at 216-622-2400. I look forward to your prompt response.

URS Corporation  
1375 Euclid Ave., Suite 600  
Cleveland, OH 44115-1808  
Tel: 216.622.2400  
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Mr. Keith Banachowski, P.E.  
November 11, 2011  
Page 2 of 2

Very truly yours,

*URS Corporation*

Keith Mast, P.E.  
Vice President

Michael Shore, C.F.M.  
Senior Hydrologist

cc:

Keith A. Dylewski, PE – City of Massillon Engineer  
Kenneth S. Kaminski, CPRP - Parks and Recreation Director  
Mike T. Damian, PG – URS Project Manager  
file 13814498

## **ATTACHMENTS**

The items listed below are attached to and made a part of this submittal. They contain the Hydrologic and Hydraulic Report, figures, calculations, background information, model output and analyses used in this study.

### **Sippo Creek Reservoir Dam H&H Report**

#### **Figures, Tables, and Charts**

#### **Appendix 1: HydroCAD Output**

#### **Appendix 2: HEC-RAS Output**

#### **Appendix 3: Dam Failure Parameter Spreadsheets and HydroCAD Dam Failure Analysis**

#### **Appendix 4: Information Sheets (Lincoln Way Culvert, Sippo Pressure Conduit)**

#### **Appendix 5: FEMA FIS Information**