

Proposed Work Plan

Tasks to Complete City's Scope of Services

The City's RFP defined a scope of work for SWIPP development which captures the MDEQ SWIPP guidelines, and other elements which the City correctly believes are required for a successful SWIPP. CDM Smith has prepared the following project tasks and the attached fee proposal accordingly. This section describes the four tasks proposed by the CDM Smith team to successfully complete the City's scope of work. Task 1 represents the minimum work required to meet MDEQ SWIPP guidelines, while Tasks 2 – 4 identify additional efforts which combine to make for a more successful, ongoing, and sustained SWIPP.

Task 1. SWIPP Development for Meeting MDEQ Guidelines

Objective

Assemble a Regional Surface Water Intake Protection Team and prepare the Source Water Intake Protection Plan according to MDEQ guidelines. Plan, organize, facilitate, and document up to three stakeholder meetings.

Approach

Following a project kickoff meeting with City staff, CDM Smith will assemble a Regional Surface Water Intake Protection Team (**Task 1.A**) and facilitate an Intake Team kickoff meeting within 1 month of Notice to Proceed. Up to two additional intake team meetings will be facilitated (**Task 1.B**), depending on project schedule.

The required elements listed in *Section 2.1, Project Need and Objective*, will be captured in the SWIPP report, as well as **Basic Information about Ann Arbor's Water Supply and Surface Water Intake**: Existing service area, community location and population served, treatment plant, intake configuration and capacity, operations, related findings and recommendations from the Ann Arbor Natural Features, and local program goals for the SWIPP. The MDEQ SWIPP guidance document contains the following seven elements to be captured in the SWIPP document:

1. **Task 1.C: Roles and Duties of Government Units and Water Supply Agencies**

Government units within the source water area will be described, from the State of Michigan as the regulatory authority over drinking water, to the local county Sheriffs and their role in emergency response. A SWIPP team will be formed for the Barton Pond intake. The following specific information will be included:

- Identification of people, local county or state agencies, public water supply agencies, etc. that have significant responsibilities for carrying out the SWIPP
- Brief description of the roles and responsibilities for each person or agency
- Intergovernmental agreements, memoranda or ordinances which set forth procedures or responsibilities related to SWIPP

- Agency, person or team responsible for the periodic update of the local SWIPP
 - Schedule for the quarterly meetings of the SWIPP teams
2. ***Task 1.D: Delineation of Source Water Protection Area***
Designate a source water protection area for the Barton Pond intake based on the MDEQ delineation methodology. The following specific information will be included:
- Map that shows or describes the area that contributes source water to the intake as described in the source water assessment completed by the MDEQ and the USGS in 2004
 - Watershed boundaries and or surface water runoff patterns
 - Storm water drainage system and facilities, including storm water basins if relevant to the SWIPP
3. ***Task 1.E: Conduct a Contaminant Source Inventory***
Identify potential sources of contamination within the source water protection area for the Barton Pond intake. Significant major potential sources plus representative types of other potential sources will be included:
- Record searches to identify potential sources of contamination and activities that have a potential to impact the surface water source
 - Record searches to identify historical, present, and future trending land uses that have a potential to impact the surface water source
 - Map which displays potential sources of contamination to the Barton Pond intake
 - Description of the process used to identify potential sources of contamination
4. ***Task 1.F: Management Strategy Activities***
Identify management approaches for protection of source water, including but not limited to education and regulatory approaches. Examples of local management program approaches and specific aspects to be addressed include:
- Incorporation of SWIPP into updates to the Natural Features Management Plan
 - Description of the local management program for the SWIPP
 - Continued development and evolution of BMPs that reduce the risk of surface water contamination
 - Zoning ordinance provisions for SWIPP, and incorporation into regional land use planning
 - Facility inspection or hazardous material surveys
 - Information to businesses concerning state and county requirements

- Environmental permits checklist for new businesses
 - Strategic monitoring within the SWIPP area
 - Inter-agency coordination and communication
 - Other SWIPP elements developed by the local agency
 - Identification of partnerships or agreements with county or state agencies which will help implement the local SWIPP
 - Timetable for management plan implementation
5. ***Task 1.G: Contingency Plan and Emergency Response Protocol Activities***
 Develop a contingency plan and emergency response protocol for the Source Water Protection Area, including the following contingencies:
- Response protocol for a hazardous substance spill or other emergency
 - Emergency and alternative drinking water supplies
 - Policies and procedures related to water supply replacement
6. ***Task 1.H: New Source Activities***
 Describe general procedures to be used if a new source is developed in the future, including:
- Assuring proper siting of new water sources to minimize potential contamination
 - General procedure that would be employed if a new source was developed
 - Proposed method for incorporating new sources into SWIPP
7. ***Task 1.J: Public Participation Encouragement***
 CDM Smith will recommend methods to involve and educate the public during the SWIPP planning and implementation. Traditional approaches involve public education vehicles such as newspaper articles, school presentations, and hosting information related to source water protection on City websites.

Deliverables

Within one month of notice to proceed, CDM Smith will outline the Ann Arbor SWIPP project plan and receive Ann Arbor staff comment before preparation of the SWIPP document commences. Draft and final SWIPP reports following the above MDEQ guidelines will be prepared (***Task 1.K***).

Task 2. Additional Evaluations

Objective

Exceed minimum MDEQ SWIPP guidelines to include peer utility SWIPP surveys, opinions of probable cost, and water quality monitoring evaluations.

Approach

Three important elements in the City's Scope of Work are intended to better define existing conditions, through data and information collection, which will be used to better inform the SWIPP development process.

Task 2.A: Peer Utility Survey

The CDM Smith team will review up to 5 other mid-western water utilities which have riverine intakes and which have developed intake protection plans, or have similar efforts encapsulated in other planning programs. The peer set will be reviewed with respect to comparability, risk environment, and actions taken or planned. A memorandum of the investigation findings will be provided to the City within six weeks of Notice to Proceed (***Task 2.B***).

Task 2.C: Opinion of Probable Cost for SWIPP Implementation

The CDM Smith will analyze potential direct and operational costs associated with SWIPP implementation. Potential cost items associated with SWIPP implementation include:

- *Incident response training*
- *Communication planning and cross-agency coordination*
- *Expansion of water quality testing parameters*
- *Telemetered early warning system for improved incident response*
- *Increases in ongoing public education and outreach*
- *Future updates to the SWIPP*

Task 2.D: Water Quality Monitoring Evaluation

CDM Smith will evaluate current City of Ann Arbor monitoring equipment, technology, and protocols, current and potentially pending regulatory reporting requirements, and other potential priority water quality constituents of concern with respect to SWIPP implementation planning. In addition, a telemetered early warning system for improved incident response will be evaluated. Existing technology for the transfer and archiving of existing and potential future water quality datasets will be investigated for applicability to the City of Ann Arbor. Also included will be a review of historical bathymetric surveys for of Barton Pond and a cursory sedimentation evaluation.

Deliverables

Investigations, technical memoranda, and findings associated with this task will be submitted to the City and included by appendix to the SWIPP as appropriate.