



**Department of Environmental Quality  
Water Bureau  
Drinking Water and Environmental Health Section**

**Guidance for Surface Water Intake Protection Program (SWIPP)**

Since the source water assessments (SWA) have been completed, the state is developing guidance for communities for development of a Surface Water Intake Protection Program (SWIPP). Michigan has a wellhead protection (WHP) program that has been approved by the USEPA. Since this would be the protection program for a system that is supplied with groundwater, it is logical to develop protection programs for surface water systems with the same logic. A SWIPP should have the same basic seven elements that a WHP program has. These are:

- Defining roles and duties of government units and water supply agencies.
- Designating a source water protection area for each water supply source based on the state's defined source water area.
- Identifying potential contaminant sources within each source water protection area.
- Utilizing management approaches for protection of source water, including but not limited to education and regulatory approaches.
- Creating contingency plans for public water supply sources including the location of alternate drinking water sources.
- Assuring proper siting on new water sources to minimize potential contamination.
- Encouraging public participation.

This guidance document is intended to assist communities with surface water systems in developing an approvable SWIPP. Communities may add other items as appropriate, and are encouraged to submit a work plan for review before proceeding with development of their SWIPP.

Program Elements

Basic information about the water supply system and community

- \_Community location and population
- \_Present service area (geographic area and population served)
- \_System capacity
- \_Local program goals for SWIPP

## Defining roles and duties of government units and water supply agencies

- \_ Identification of all people, local, county, or state agencies, or public water supply agencies that have significant responsibilities for carrying out the local 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 and/or team responsible for the periodic update of the local SWIPP
- \_ Schedule for quarterly meetings of SWIPP team

## Designating a source water protection area for each water supply source based on the state's defined source water area

- \_ Map that shows or describes the area that contributes water to your source. This is described in your source water assessment that was completed by the state. This will be very site specific and may be very general for some systems. i.e. a Great Lake source extending far into the lake versus an inland river intake with a defined watershed (Use of a U.S. Geological Survey quadrangle map as a base is recommended).
- \_ Small watershed boundaries and/or surface water runoff patterns, if appropriate for SWIPP
- \_ Storm water drainage system and facilities, including storm water basins if relevant to the SWIPP

## Identifying potential sources of contamination within the SWP area

NOTE: This will take some judgment since there may be numerous potential contamination sources. It may be necessary to describe them both specifically for significant ones and generally for those that are relatively common. For example; there are numerous underground tanks, but fewer large industrial complexes.

- \_ Record searches to identify potential sources of contamination and land uses that have a potential to impact the surface water source
- \_ General surveys to identify potential sources of contamination and land uses that have a potential to impact the surface water source
- \_ Record searches to identify historical land uses that have a potential

- to impact the surface water source
- \_Map which displays potential sources of contamination within the SWIPP
- \_Description of the process used to identify potential sources of contamination, including the sources of information
- \_Comprehensive listing of potential sources of contamination within the SWIPP area

Utilizing management approaches for protection of source water, including but not limited to education and regulatory approaches

- \_Description of the local management program for SWIPP. Examples of local management program elements include:
  - Zoning ordinance provisions for SWIPP
  - Facility inspection or hazardous material survey program
  - 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
  - Development and implementation of best management practices that reduce the risk of surface water contamination
  - On-site inspections for the purpose of improving facility management of potential sources of contamination
  - Incorporation of SWIPP into a municipality's master plan or other regional land use planning program
- \_Timetable for management plan implementation

Creating contingency plans for public water supply sources including the location of alternative drinking water sources

- \_Plans for how the community would deal with a major threat to the intake.
- \_Response protocol in the event of a hazardous substance spill or other emergency
- \_Emergency water supplies (bottled, bulk, etc.)
- \_Policies and procedures related to water supply replacement

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

Encouraging public participation

\_Description of the methods used to involve and educate the public during the SWIPP planning and implementation process. Examples include:

- Local meetings
- Newsletters
- Newspaper articles
- School presentations
- Brochures
- Website
- SWP signage
- Hazardous waste collection activities
- Other \_\_\_\_\_

This is general guidance and each program will be site specific. It is suggested the community develop a draft outline for review before any detailed SWIPP is developed.