

## **SOURCE WATER PROTECTION**

### **A Joint Position Statement of the Michigan Section AWWA and the Michigan Water Environment Association**

Protection of Michigan's surface and ground water resources is of paramount concern to members of the Michigan Section of the American Water Works Association (MSAWWA) and the Michigan Water Environment Association (MWEA); a member association of the Water Environment Federation (WEF). The mission of the MWEA is to be the recognized authority on and advocate for preserving, restoring and enhancing Michigan's water resources. MSAWWA pursues the knowledge, skills and technology necessary for public water suppliers to produce a safe, adequate and reliable supply of drinking water. Both associations are dedicated to protecting Michigan's waters with members supporting public involvement through awareness, willingness to support clean water activities, and promoting public health and public confidence.

Michigan is blessed with an abundance of surface and ground waters, which provide sources of drinking water for our 10 million residents and many visitors. These waters also represent an important component of the Michigan economy and are critical to agricultural, commercial, industrial and recreational users. Since the Clean Water Act (CWA) in 1972 and the 1980 Comprehensive Environmental Response, Compensation and Liability Act (CERCLA or Superfund) became effective, federal, state and local governmental agencies have worked in concert to improve the quality of our water resources. Michigan's environmental legislation, the Natural Resources and Environmental Protection Act, P.A. 451 of 1994, as amended, has complemented these efforts. While these programs have been successful in improving water quality, they are not specifically directed at protecting our sources of public drinking water.

The 1986 amendments to the federal Safe Drinking Water Act (SDWA) established criteria for state wellhead protection (WHP) programs. Michigan's approved WHP program encourages our public ground water supply communities to define wellhead protection areas, conduct contaminant source inventories and manage the resource. The 1996 amendments to the SDWA require states to develop a source water assessment program (SWAP) for all public drinking water sources by defining source water areas, inventorying potential contaminant sources and determining source susceptibility. Public involvement is an important component of the SWAP and a necessary element to protect our sources of public drinking water.

Source water protection (SWP) is one of many multiple barriers or safeguards available to a water supplier to protect public health. SWP has also been referred to as drinking water contamination prevention. Just as proper intake and/or well construction and isolation, treatment redundancy, monitoring, effective operation and maintenance, operator training and cross connection control provide protective public health barriers, so does SWP. SWP and WHP are synonymous for our ground water supplies. It is the intent of this position statement to further support WHP programs for our community, ground water supplies and encourage SWP for our surface water sources of public drinking water.

The MSAWWA and MWEA recommend that communities using surface water sources adopt SWP programs utilizing elements similar to the state defined WHP programs. These seven elements include:

- defining roles and duties of government units and water supply agencies;
- delineating 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 supplies;
- assuring proper siting of new water sources to minimize potential contamination; and
- encouraging public participation.

These elements have been applied successfully in WHP programs, and translate directly to SWP. The associations believe that a program of this kind is necessary for protection of local drinking water sources. We do not believe that local efforts by themselves are likely to be sufficient. Although surface and ground waters intermix in the hydrologic cycle, contaminants can be transported much more quickly in surface water than in ground water, and over much greater distances. Responsibility for protection of source water extends far upstream of affected public water supply sources and their local, state, and national boundaries. For these reasons, protection of surface water requires a wider sharing of responsibilities among government units than is typically necessary for WHP. For a SWP program to be effective for surface water supplies, the following issues should be addressed:

- Involvement of and commitment by government units throughout the watershed;
- the appropriate source water protection area for a SWP program may encompass an entire watershed, and many potential contaminant sources within that watershed;
- management approaches on a watershed scale may require state, national, or international involvement; and
- public participation must include planning and pollution prevention by residents living upstream of the public water supply source.

Federal initiatives recognized as affirming SWP programs include CWA 319 projects, the Clean Water Action Plan, which includes a federal interagency SWP agreement, CWA Phase II Storm Water Rules and the Conservation Reserve Enhancement Program. State programs complementing SWP include Clean Michigan Initiative bond projects, WHP grants, flammable/combustible liquids storage requirements and environmental stewardship for agricultural communities. At the local level, SWP is instituted through WHP programs and watershed management plans plus efforts such as hazardous material training, zoning, local ordinances, abandoned well management, illicit connection programs, storm water treatment, street and catch basin cleaning plus public education.

It is also important that state and local authorities work together to accurately assess source water susceptibility through the Michigan SWAP to assure limited SWP resources are directed towards concerns identified in the source water assessment. Since assessment criteria involve dynamic, changing parameters, source water assessments should be periodically updated to prioritize additional SWP activities.

The MSAWWA and MWEA membership support federal efforts for the continued development of a National Source Water Contamination Prevention Strategy, integrated state WHP and SWP programs and local efforts to institute SWP activities. Both associations encourage other organizations and local units of government to recognize SWP as an integral component of environmental protection programs and to work together to prevent the contamination of drinking water sources through interagency cooperation.

*Approved by MWEA Executive Committee September 6, 2001*

*Approved by Michigan Section AWWA Board of Trustees, September 11, 2001*