

THE KANSAS APPROACH TO WATER QUALITY

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Kansas Water Office

STATUTORY CHARGE

A comprehensive approach to water quality includes components of protection, improvement and remediation. The Water Resources Planning Act (K.S.A. 82a-901 *et seq*) provides the statutory basis for addressing water quality issues in the *Kansas Water Plan*. “Protection and improvement of the quality of the water supplies of the state” and “prevention of the pollution of the water supplies of the state” are long-range goals of the state for management, conservation and development of the waters of the state.

Statutory policies for achieving these goals include:

- a. The achievement of the primary drinking water standards promulgated by the secretary of health and environment pursuant to K.S.A. 65-171m, and amendments thereto;
- b. The maintenance of the surface waters of the state within the water quality standards adopted by the secretary of health and environment as provided by K.S.A. 65-164 to 65-171t, inclusive and amendments thereto;
- c. The protection of the quality of the groundwaters of the state as provided by the Kansas groundwater exploration and protection act and other acts relating thereto.

The Water Resources Planning Act also contains considerations in the development of the *Kansas Water Plan*, which includes the public health, and welfare of the people of the state, safeguards to public health, aquatic and animal life and the interrelationship of ground water and surface water supplies.

SURFACE WATER QUALITY STANDARDS

The Kansas Surface Water Quality Standards , established by the Kansas Department of Health and Environment, (K.A.R. 28-16-28b *et seq*) provide specific water quality goals for surface

waters in the state. The designated uses of the surface waters are defined within the standards. These designated use categories are: 1) agricultural water supply, 2) aquatic life support, 3) domestic water supply, 4) food procurement, 5) ground water recharge, 6) industrial water supply, and 7) recreation. The surface water quality standards that apply to a specific body of water vary according to the water’s designated use(s), with the most protective standards applying if there is more than one designated use.

If a designated use for a specific water body is contested, such as if a river designated for secondary (non-contact) recreation might support primary (contact) recreation, then a Use Attainability Analysis could be conducted. Contesting a water’s designated use could occur at the federal (Environmental Protection Agency), state, or local levels. A standard protocol has been developed for use by whoever conducts the Use Attainability Analysis. A single Use Attainability Analysis may cost several thousand dollars to conduct.

TOTAL MAXIMUM DAILY LOADS

Surface water quality monitoring is conducted to assess the level of pollutants in the water. If monitoring indicates that a river segment or other water body is consistently violating water quality standards, the water is deemed water quality impaired. Water bodies not meeting water quality standards for their designated use(s) are identified on the 303(d) list. This requires establishment of the total maximum daily load (TMDL). The TMDL sets the maximum amount of pollution that a specific water body can receive without violating the surface water quality standards. The TMDLs provide a tool to target and reduce point and nonpoint pollution sources. Kansas is currently establishing TMDLs for all impaired river segments and lakes within a major river basin, with every basin having the TMDLs established by the year 2003. The *Kansas Water Plan* is used as the primary vehicle for public input into the setting of TMDLs and the priority for implementation.

IMPLEMENTATION OF TMDLS

Since resources for implementation of actions to achieve TMDLs are finite, a priority is established for each. The specific TMDLs are slated as high, medium, or low priority. For the first five years, TMDLs with high priority will have state programs and resources directed at corrective action to bring about improvement in water quality. Implementation of TMDLs with medium priority will be deferred until the sixth year, after a review and re-evaluation of implementing those TMDLs. Low priority TMDLs will continue to have data collected on those impaired streams and lakes and will have their status re-evaluated as part of the process of developing the 303(d) list in 2006. Should they continue to be impaired, the low and medium priority TMDLs will be reviewed and upgraded, if necessary, as medium or high priority for implementation. There is the possibility that certain low priority TMDLs will be removed from the next 303(d) list.

A component of setting the TMDL is to quantify the cost of implementing best management practices and technical assistance to address the impairments. The State Conservation Commission prepares a "needs inventory" to estimate costs associated with reducing nonpoint source pollution contributions.

The *Kansas Water Plan* identifies programs to be targeted at the high priority TMDL areas for implementation. There are regulatory means to address and control point source pollution. Implementation for reducing nonpoint source pollution will follow the Governor's Water Quality Initiative approach, begun by Governor Bill Graves in October, 1995. The Initiative approach is based on voluntary local and landowner action encouraged through educational and incentive programs. Programs provide technical and financial assistance, monitoring and evaluation.

Should voluntary local participation significantly lag below expectations over the next five years, or monitoring indicate lack of progress in improving water quality conditions from those seen over 1987-1999, the state may employ more stringent regulatory actions on nonpoint source contributors in the watershed in order to meet the water quality endpoint of the TMDL. The state has the authority to impose conditions on activities with a significant potential to pollute the waters of the state under K.S.A. 65-171d. If overall water quality conditions in the watershed deteriorate, a Critical Water Quality Management Area (K.A.R. 28-16-70) may be proposed for the watershed.

UNIFIED WATERSHED ASSESSMENT

Watershed based planning was pioneered in the State of Kansas. This approach identifies the relationships that exist between surface water and ground water and land uses. Drinking water sources and sensitive natural resources such as wetlands are identified and effective ways to control polluted runoff, as well as point sources, of pollution are considered in this approach. All the watersheds in the state have been classified through the Unified Watershed Assessment, an action item from the Clean Water Action Plan (1998), which charts the course toward fulfilling the Federal Clean Water Act. The Assessment was based on a variety of water quality and natural resource conditions, and economic, social and environmental justice. Each watershed was classified into one of four categories: Category I - watersheds in need of restoration; Category II - watersheds in need of protection; Category III - watersheds with pristine or sensitive aquatic system conditions on lands administered by federal, state, or tribal governments; and Category IV - watersheds for which there is insufficient data to make an accurate classification. Out of the 92 watersheds in Kansas, 71 are classified as Category I, 9 as Category II, none as Category III, and 12 as Category IV. Each of the 71 Category I watersheds are also assigned a watershed restoration priority score based on such items as the total Maximum Daily Load schedule, the implementation of local nonpoint source pollution Management Plan, the severity of water quality impairment and sedimentation rate. This priority score is indicated on the Unified Watershed Assessment maps contained in the Basin Sections where Total Maximum Daily Loads have not been set.

ADDITIONAL INFORMATION

Further information on this subject or on many other *Kansas Water Plan* related programs can be obtained from: Kansas Water Office, 901 S. Kansas Avenue, Topeka, KS 66612-1249, phone (785-296-3185), toll free (888-KAN-WATER) or check our WEB site at www.kwo.org.