Appendix 10-6

Extracted Content for
Ohio-Kentucky-Indiana Regional Council of Governments in

Attachment C from the 1993 State WQM Plan Certification
Priority and Implementation Program Process (PIPP)

OKI

Plan Element
MUNICIPAL AND INDUSTRIAL WASTE TREATMENT 130.6(c)(3)

WQM Plan Content

The Comprehensive Water Quality Report for Fourmile Creek (City of Oxford, Great Miami River Basin) and the Comprehensive Water Quality Report for the Great Miami River (Dayton to the Ohio River) were completed by Ohio EPA during 1982 for selected point source dischargers in the subbasin. The CWQR, integrating biological assessments, wasteload modeling, and economic assessments, makes recommendations regarding stream use designations and effluent limitations.

The Comprehensive Water Quality Report for the Great Miami River (Dayton to the Ohio River) and the Comprehensive Water Quality Report for the East Fork Little Miami River Basin (New Vienna, Lynchburg, St. Martin, Fayetteville; Brown County-Lake Lorelei, Williamsburg, Bethel, Clermont County-Amelia, Batavia), prepared by Ohio EPA, address existing industrial wastewater treatment needs.

The locations of continuous and intermittent point sources are identified in the basin chapters. Continuous point source discharge locations, including both municipal and industrial are shown on Plate XI-1 and on the more recent 1984 "Primary Sewerage System Map" prepared by OKI. The 1983 Public and Semi-Public Wastewater Treatment Plant Inventory also contains updated information on point source discharges, (locations, ownership, design capacities, and NPDES permit status). Municipal wasteloads are presented in the basin chapters along with estimates of loads from all major sources. Industrial wasteloads, final NPDES requirements, and some recommendations for industrial wasteload reductions based on water quality assessment are also identified in the basin chapters. Population projections for FPAs and incorporated places are presented in "Attachment 30" of OKI's report The Population Element of the WQM Program, 1973-1980. To reflect the results of the 1980 Census, the State revised county projections and OKI revised projections accordingly for FPAs and minor civil divisions, which are provided in the 1984 WQM Plan Update report. The Methodology for Small Area Population Projections.

Recommendations for decommissioning, upgrading, expanding, and constructing municipal wastewater treatment plants are presented for each FPA in Chapter XI, are shown graphically in Plate XI-1, and are indicated in the recommended wasteload allocations in the basin chapters. Treatment needs for 24 FPAs are further analyzed in separate reports that were developed by OKI as "preliminary facility plans". Treatment needs in the form of specific improvement projects are listed in the 1984 report, FY 84 Construction Grant Activity for the OKI Region, which identifies projects that are one the States's priority list but outside its funding range, and also identifies FPAs for which projects have never been considered a funding priority. OKI then conducted related Facility Planning Area Evaluations for two small communities in Butler County (Millville and McGonigle) where federal funding assistance is unlikely in the foreseeable future; reports of the same name review these two areas' existing problems and present control recommendations alternatives.

Pollution problems associated with the lack of adequate sewage treatment facilities were identified and alternatives studies for two communities in An Assessment of the Wastewater Treatment Needs of the Hunter Area in Warren County, Ohio (1986) and An Assessment of the Wastewater Treatment Needs of Kings Mills in Warren County, Ohio (1986). Updates to the WQM Plan included assessments of wastewater treatment capabilities and needs in Status of Wastewater Treatment Plants .1 MGD or Greater in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1987) and Status of Wastewater Treatment in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1990). Water Service Areas Maps for Butler, Clermont, Hamilton, and Warren Counties, Ohio (1987) delineated areas with and without water service, identified agencies providing service, and areas of ground water or surface water use by water suppliers.

Comments

Updates and refinements to treatment plant data, population distribution within FPAs, land use, or other data needed for water quality planning or pollution control should be developed as needed. Recommendations for municipal treatment plants and wasteload allocations should be reviewed and updated to reflect changing population projections, land use, water quality standards, and other base data. FPAs for which construction is recommended, but which have not yet received federal funding, need to be assessed to determine their current needs, treatment alternatives and funding options. An inventory of industrial dischargers needs to be updated and maintained. Industrial wasteloads have not been projected, nor have industrial pretreatment and sludge management arrangements been studied. Studies of the latter could include both inventorying existing levels of industrial waste and projecting its level into the future.

Plan Element
NONPOINT SOURCE MANAGEMENT AND CONTROL 130.6(c)(4)

WQM Plan Content

The Regional Water Quality Management Plan describes existing and projected land uses, and estimates urban and rural runoff loads by drainage area and their water quality impacts in the basin chapters. Nonpoint source control alternatives, recommendations and costs are also presented in the basin chapters. Rural acreage needing treatment to reduce soil loss to allowable levels are estimated by type of land use by drainage area. (1977) Additional assessments of rural sources of pollution, with an emphasis on local conservation agency perspectives and prioritization of problem areas, are provided in OKI's 1979 reports on Ranking of Agriculture Nonpoint Source Problem Areas and Turtle Creek Project Area, Warren County: Application for Rural Clean Water Programs, and in OKI's 1983 report on Priority Areas for Rural Nonpoint Source Control. A "plan of action" for four of these priority watersheds, identifying specific problems and control procedures, is contained within individual Nonpoint Source Profile reports for Seven Mile Creek; Reeders Run; Moores Fork; and Poplar Creek, prepared by OKI in 1984. Profile information on nonpoint source problems in suburban area is developed in OKI's 1983 report, Assessing Water Pollution Controls for Sharon Woods Lake. Management techniques for both urban and rural nonpoint sources are described in Chapter V. Recommendations for agricultural best management practices are further refined in the Section "Control Source Problems" in OKI's report on 1979 Continuing Water Quality Management Planning. The management resources of local conservation agencies are inventoried in the same 1979 report in the section "Assess Agricultural Agencies." More current information on the management resources of these agencies is provided in the 1984 report, Assessing Local Agricultural Implementation of Nonpoint Source Control Measures. Financial resources for rural nonpoint source control are discussed in another 1984 report, Agricultural Stabilization and Conservation in Southwest Ohio. To support control of erosion from construction processes, alternative control measures and a model ordinance are discussed in OKI's 1978 report, Guide to Controlling Sediment from Construction Activities. The 1984 report, Rural Erosion Control Programs, documents the efforts of rural governments in southwestern Ohio to use ordinances for reducing construction-related sediment. Managerial and technical alternatives for reducing pollution from on-site systems are discussed in OKI's 1978 report On-Site Wastewater Treatment Systems. Existing management of on-site systems is assessed in the 1984 report, Evaluating On-Site Wastewater Treatment Programs: A Survey of County Health Agencies, which also summarizes local health official's perspectives on the strengths and weaknesses of their on-site management activities. Control alternatives, recommendations and cost estimates are developed for both storm and combined sewer systems in the basin chapters, and loads are quantified. Procedures and data used to estimate pollutant loads are described in a series of five Urban Runoff Control summaries, prepared by OKI in 1983 and 1984.

Onsite wastewater treatment status and needs are described in Onsite Wastewater Treatment and Disposal Systems in Warren County, Ohio (1986), and Assessment of Onsite Wastewater Treatment Systems in Clermont County, Ohio (1987). Soils unsuitable for onsite septic systems in unsewered areas were delineated on Maps of Soil Suitability for Onsite Septic Tank-Leach Field Wastewater Treatment Systems in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1987).

Watershed investigations of nonpoint source pollution contributions to streams have been documented in Seven Mile Creek - Target Water Body Profile (1986). Data from the Ohio Nonpoint Source Assessment were used to create a Stream Database for Butler, Clermont, Hamilton, and Warren Counties, Ohio (1987) and Watershed Maps (1989). The condition of Winton Lake was documented in Winton Lake - An Analysis of Pollution Sources (1986) and Phase I Study of Winton Lake in Hamilton County, Ohio (1989). The Homeowners Conservation Guide (1990) educates property owners on an array of topics related to nonpoint source pollution. The Stonelick Lake watershed was also examined in Stonelick lake - An Analysis of Pollution Sources (1986) and Watershed Investigation Into Water Pollution Sources of Stonelick Lake, Clermont County, Ohio and Addendum (1991). Nonpoint source Pollution: A Decision Makers' Guide (1992) addresses nonpoint sources at the grassroots level and includes a map showing the State's nonpoint source designation of watersheds in Butler, clermont, hamilton and Warren County.

Comments

None

Plan Element
MANAGEMENT AGENCIES 130.6(c)(5)

WQM Plan Content

FPA revisions are described in formal amendments adopted since the plan's publication, and included in OKI's 1984 report, Water Quality Management Plan Update. These revisions are also shown on a "Primary Sewerage System Map" prepared by OKI in 1984. All agencies with managerial responsibilities for water pollution control are identified in Chapter XII of the original plan, which includes descriptions of agency responsibilities. Arrangements for coordinating water quality management and planning are described in more detail in OKI's 1984 Water Quality Management (WQM) Update report. The 1984 WQM update report (covering the period from June, 1977 to October, 1983) and 1985 WQM update summary (covering the period from November, 1983 to September, 1985) summarize OKI work undertaken to update, refine and supplement the WQM plan, and are intended to provide convenient reference documents for management agencies and other more recent WQM updates were prepared for the periods including October 1985 through July 1989, August 1989 through November 1990 through March 1992.

Comments

Future changes to FPA boundaries need to be documented through formal plan amendments. DMAs must be supported in their efforts to implement plan recommendations, a process requiring coordination with and assistance to wastewater treatment management agencies, agricultural conservation agencies, health departments, and other agencies or organizations as appropriate. The plan will be amended through formal processes, and plan updates should be informed of WQM progress through information provided to the media. Efforts will be made to obtain State certification and U.S. EPA approval of the plan.

Plan Element
IMPLEMENTATION MEASURES 130.6(c)(6)

WQM Plan Content

The statutory basis, revenue sources and authorities of regulatory agencies, the responsibilities of all agencies with water quality management roles and recommendations for legislation with regulatory provisions are presented in Chapter XII. The implementation statements signed by designated management agencies and OKI's 1979 report on A process for Water Quality Management provide additional information. Permit numbers for point sources are identified in the basin chapters of the original Plan (the permits identify the dates by which discharge requirements are to be met). The 1983 OKI report, Public and Semi-Public Wastewater Treatment Plan Inventory, contains more current information on the permit status of point sources, and lists their permit numbers when available. Control alternatives for all types of sources were assessed for their environmental impacts in the basin chapters of the original Plan. Additional assessment was prepared in OKI's 1977 report, Environmental Assessment of the Regional Water Quality Management Plan. General physical characteristics are described in Chapter II and the basin chapters.

The report Inventory of OKI's Water Quality Management Projects (1990) summarized reports and projects and described how each product has been used since its development.

Water Quality Management Plan Update Summaries-Ohio summarized pertinent reports and data developed after the WQM plan's publication in the period from October, 1985 to July, 1989, August 1989 through November 1990 and November 1990 through March 1992.

Comments

The local implications of federal and State legislation developed since Plan publication in 1977 should be determined, as they relate to resources and time tables for implementing WQM plan recommendations. Updated information pertinent to tracking Plan implementation should be gathered and assessed, including data indicative of the timing of implementation measures (e.g., NPDES permits, construction of wastewater treatment facilities), the regulatory authority for implementing Plan recommendations, and implementation costs. Environmental assessment may be needed if revisions are developed for control recommendations or if additional assessments are prepared for control alternatives. Awareness of control needs and support of control measures need to be maintained through coordination with local implementing agencies, public educations, and consultation with local government officials.

A review of plan recommendations and implementation status should be conducted.

Plan Element
DREDGE OR FILL PROGRAMS 130.6(c)(7)

WQM Plan Content

None

Comments

None

Plan Element
BASIN PLANS 130.6(c)(8)

WQM Plan Content

None

Comments

None

Plan Element
GROUND WATER 130.6(c)(9)

WQM Plan Content

Residual Waste disposal practices, alternatives and types of potential problems are discussed in OKI's 1978 report on Land Application of Residual Solids from Wastewater Treatment Plants. The 1984 report Field Testing a Method for Projecting Wastewater Treatment Residuals outlines a general methodology for estimating current and future quantities of sludge and describes how the method was refined and validated.

Planning for ground water protection began in 1988 with Petition for Sole Source Aquifer Designation of the Great Miami Buried Valley Aquifer System in Butler, Clermont, Hamilton, and Warren Counties, Ohio. Subsequent to the petition A Planning Framework to Protect and Manage Ground Water in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1989) established a mechanism for coordination of future planning efforts in the region. Planning efforts were further enhanced in Methodology for Mapping Land Use Over the Aquifer in Butler, Clermont, Hamilton and Warren Counties,. Ohio (1989), Recommendations Report for a Ground Water Resources Information Management System for Southwestern Ohio (1989) and Status of Ground Water Management Efforts in Butler, Clermont, Hamilton and Warren Counties, Ohio (1992).

Data on threats to ground water were researched and presented on several reports including: Potential Sources of Groundwater Pollution in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1988), The Status of Groundwater Monitoring in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1988), Survey of Industrial Groundwater Usage and Data (1990), Selected Data for the Great Miami Buried Valley Aquifer System in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1990), and Index of Potential pollution Sources of Groundwater Pollution in Butler, Clermont, Hamilton, and Warren Counties, Ohio (1992).

Comments

To support the implementation of the State's Ground Water Strategy and Wellhead Protection Program, public water supply wellfields and ground water recharge areas need to be delineated and well field protection plans need to be developed. In addition, regional protection and management plans are needed for aquifer systems shared by local governments--particularly those aquifers most vulnerable to contamination. This work would include preparation of detailed aquifer and well field maps; examination of land uses, especially in critical ground water recharge areas, evaluation of local land use controls and regulations used to protect ground water quality and quantity; and development of ground water protection and management plans.

Ground water protection strategies need to be developed for the aquifers in OKI's area. Local DMAs and other governmental units must be made aware of the need for protecting the aquifer. OKI should be a leader in developing an initiative for planning ground water protection. Industrial withdrawals of ground water should also be assessed along with municipal withdrawals for impact on the aquifer. Local ground water problem areas and sources of contamination need to be identified. A sole source aquifer petition for OKI's region is being developed.

OKI documents included by reference in the 2006 State WQM Plan update extracted from 1993 State WQM Plan Certification, Attachment 3

Plan Element
TOTAL MAXIMUM DAILY LOADS 130.69(c)(1)

WQM Plan Content

The Comprehensive Water Quality Report for Fourmile Creek (City of Oxford, Great Miami River Basin) prepared by Ohio EPA and the Comprehensive Water Quality Report for the Great Miami River (Dayton to the Ohio River), prepared by Ohio EPA, address TMDLs for their study areas. (1984) The Comprehensive Water Quality Report for the East Fork Little Miami River Basin (New Vienna, Lynchburg, St. Martin, Fayetteville, Brown County Lake Lorelei, Williamsburg, Bethel, Clermont County-Amelia, Batavia), also prepared by Ohio EPA, addresses TMDLs in the study area. (1987)

Existing and recommended (year 2000) loads for each point source are listed in the basin chapter. Annual total loads by stream segment are also presented in the basin chapters. The methodologies for developing load estimates are described in Chapter IV of the OKI WQMP.

Comments

Preparation of TMDLs and WQBEL's is a State responsibility.

The Ohio EPA's revisions to point source allocations need to be made available for local review to determine their pollutant implications for WQMP recommendations, and the recommendations should be modified accordingly as warranted. (For example, Plan recommendations for the Great Miami River Basin have not been re-examined in light of Ohio EPA's 1982 Comprehensive Water Quality Report for the Great Miami River. For future revisions to point source allocations, as in the Little Miami River Basin, OKI could assist the State by compiling updated base data on land use, demographics, and discharge points, and by tabulating and mapping this information and estimating future capacities of discharge points.

Plan Element
EFFLUENT LIMITATIONS 130.6(c)(2)

WQM Plan Content
The Comprehensive Water Quality Report for Fourmile Creek (Great Miami River Basin) and the Comprehensive Water Quality Report for the Great Miami River (Dayton to the Ohio River) include an assessment of existing and potential water quality problems as well as an evaluation of stream use classifications.

The State's 1975 Water Quality Standards were used as a basis for planning described in Chapter IV. Chapter IV also, describes the significance and source of pollutants for which standards were developed. Drainage areas and major basins are shown in Plat II-3. Water quality conditions and assessments of the major streams and their major tributaries are provided in the basin chapters, including estimates of pollution loads from major sources in each segment. OEPA's Comprehensive Water Quality Report for the Great Miami River provides additional assessment. OKI's 1975 report Biological Assessment provides additional data useful for assessing water quality conditions. Stream segment classifications are recommended for major tributaries in the basin chapters and for minor tributaries in the "Segment Classifications" section of OKI's report on 1979 Continuing Water Quality Management Planning. Stream segments and monitoring stations are identified in the basin chapters, and more recent information on sources of water quality data is provided in OKI's 1983 report, Status of Water Quality Monitoring. The Comprehensive Water Quality Report for the East Fork Little Miami River Basin (New Vienna, Lynchburg, St. Martin, Fayetteville, Brown County-Lake Lorelei, Williamsburg, Bethel, Clermont County-Amelia, Batavia) was completed in 1987.

Comments

Water quality assessments need to be revised and refined to account for changes in the availability of water quality data, modeling procedures, population distribution and water quality standards. In areas with significant water quality problems, additional assessment is needed to expand plan recommendations. In addition, some potential sources of water pollution, such as abandoned and operating waste disposal sites, have not been assessed. Segment classifications need to be revised based on new water quality data and assessments. State and areawide agencies need to improve coordination in sharing interrelated information and providing for local review.