

Issues, Problems and Opportunities

Environmental conditions establish the parameters within which a region's economy develops. Land, air, and water are not separate elements of the environment. Rather, they form the foundation that supports a diversity of activities at the same time as they establish the limits of each activity. In recent years, the dual nature of this relationship has become clearer. Physical resources, which once seemed inexhaustible, have been shown to be limited.

Within the OKI region, environmental limits have been revealed in various ways, among them polluted air and water, increasing problems with waste disposal, and excessive soil erosion. Like all urbanized areas, this region must now measure growth not only in terms of economic benefits, but also in terms of what demands it makes on the ability of the environment to sustain those economic benefits. How much land will be absorbed? How much energy will be utilized? How much waste will be generated? How will waste disposal affect our air and water supplies? These questions can and must be answered in advance. Growth must be planned if the physical environment is to continue to support the quality of life to which we are accustomed.

Program Goals

Restore and maintain the region's air quality, water quality, and land resources so that they are not hazardous to health and so that they meet all applicable local, state, and national standards. Through proper planning, these objectives may be realized in a manner that would enable the OKI region to maintain a viable economy.

Provide for comprehensive environmental quality analysis and planning which considers the inter-relationships among water quality, air quality, and land management.

Consider environmental issues and implications in investment of financial resources, i.e., the most cost-effective way of providing public facilities and/or services that are publicly acceptable.

Encourage the preservation of the historical heritage of the region.

Encourage the preservation of ecologically sensitive areas such as wetlands, stream banks, flood plains, erodible hills, steep slopes, prime agricultural lands, and groundwater recharge areas.

Promote regional cooperation as a way of achieving a sound strategy for using and preserving our natural/environmental resources.

Encourage the initiation of new or modified local government arrangements to better achieve environmental quality and other environmental objectives.

Ensure that environmental planning is coordinated with other plans and regional objectives.

Promote public involvement in achieving environmental quality and public accountability on the part of agencies charged with serving environmental quality needs.

710.1 - LOCAL WATER QUALITY ACTIVITIES

Objective

To undertake water quality planning activities in Ohio, Kentucky and Indiana, as appropriate and as resources permit.

Methodologies

- 1) Continue to support watershed activities in Ohio, Northern Kentucky, and Dearborn County as requested and as resources permit. These activities may include participating in technical advisory groups, facilitating meetings, arranging for presentations, tours, and canoe outings, participating in public involvement efforts; and identifying technical and fiscal resources to implement various improvement projects.
- 2) Continue to provide support for the OKI Groundwater Committee, a forum for groundwater management of sole source aquifer systems that provide more than two-thirds of a million people with drinking water and water for commercial, industrial, agricultural and recreational purposes, and to help local governments meet state and federal groundwater mandates.
- 3) OKI will continue to refine the base information and recommendations in the OKI Regional Water Quality Management Plan for non-Ohio portions of the region, as appropriate.

Products

- 1) Collateral materials for Ohio, Northern Kentucky, and Dearborn County watershed management activities, which may include education and outreach materials, fact sheets, and articles in stakeholder newsletters. (as appropriate)
- 2) Meeting notices, agendas, summaries, and related correspondence. (as appropriate)
- 3) Updated base information and recommendations for the OKI Regional Water Quality Management Plan. (as appropriate)

710.2 - GREAT MIAMI DRINKING WATER PROTECTION PROJECT

Methodologies

OKI received a \$69,000 planning category grant from the U.S. EPA under Section 319 of the federal Clean Water Act. Nine project partners will help OKI improve drinking water source protection in the lower Great Miami River watershed.

- 1) Formulate plans and draft ordinances improve drinking water source protection in the lower Great Miami River watershed.
- 2) Compile data and build public support for improved drinking water source protection in the lower Great Miami River watershed.

Products

- 1) Documentation of a drinking water source protection plan, a plan to enhance the Groundwater Consortium's protection program, and a draft ordinance for the Village of New Miami (3/07)
- 2) Install two monitoring wells in New Miami's drinking water protection area; documentation of inventories, maps and reports of potential sources of water pollution along the Great Miami River and major tributaries between New Miami and Colerain Township; educational materials and events (3/07)

710.3 - MILL CREEK HEADWATERS PROJECT

Methodologies

OKI received a \$498,010 implementation category grant from the U.S. EPA under Section 319 of the federal Clean Water Act. A dozen project partners will help OKI implement recommendations in both the Mill Creek Total Maximum Daily Load (TMDL) Report and the Upper Mill Creek Watershed Action Plan.

- 1) Reduce nonpoint-source pollution from nutrient loadings, organic enrichment and habitat alteration along the upper Mill Creek and East Fork Mill Creek in West Chester Township
- 2) Establish an education and activities program for property owners, homeowners associations and agricultural landowners about ways to reduce water pollution
- 3) Establish a monitoring program at five or more sites to evaluate the effectiveness of implementing selected best management practices

Products

- 1) At least 4,000 feet of stabilized stream bank; at least 2,000 feet of restored riparian corridor; at least 5 acres of restored floodplain with wetland enhancements (6/07)
- 2) Educational brochure, CD, videotape, and website/newsletter articles; Educational events: field day tours, and stream cleanups (12/07)
- 3) Quality Assurance Project Plan and a monitoring report (9/08)

710.4 - GREAT MIAMI RUNOFF REDUCTION PROJECT

Methodologies

OKI received a \$65,000 grant from the Miami Conservancy District (MCD) for two activities that aim to protect the Great Miami River. The project, called the Great Miami Runoff Reduction Project, focuses on two systems: "rain gardens" and pervious parking spaces. (Rain gardens receive storm water which is absorbed into the gardens' soil and by the gardens' native plants and vegetation.)

- 1) OKI and project partners will design and construct pervious parking spaces and rain gardens in a new park in the Big Bend of the Great Miami River in Colerain Township, Hamilton County.

Products

- 1) Pervious parking spaces and rain gardens in a new park in Colerain Township, Hamilton County. (4/07)

710.6 - WATER QUALITY PROGRAM

Objective

To assess, manage, and protect surface water and groundwater resources in view of regional growth and development and the resultant increased demand.

Previous Work

OKI published the Regional Water Quality Management Plan in 1977 in accordance with federal and state requirements. Since then, OKI has published numerous supplemental reports, collected additional information, and refined plan recommendations. OKI's Executive Committee has adopted several resolutions amending the plan where local needs have warranted a change in facility planning boundaries or management agency designations. OKI has provided local governments and their consultants with data and information including population and land use information, reviewed grant applications for consistency with the plan, informed the public of major activities and assisted local implementation of plan recommendations. Since 1983, OKI has executed several contracts with the Ohio EPA, one contract with the Kentucky Natural Resources and Environmental Protection Cabinet (KNREPC), and four contracts with the Indiana Department of Environment Management (IDEM) as part of its water quality management (WQM) planning program, using funds provided by Section 205(j)/604b of the Clean Water Act. The numerous projects completed through FY 2005 have contributed to a long-term comprehensive data base for the region's water resources. Since FY 1988, OKI has been involved in groundwater planning for the four Ohio counties of Butler, Clermont, Hamilton, and Warren. Other recent initiatives have been related to watershed management, water service areas, non-point source pollution, and public education on water quality issues.

Methodologies

- 1) OKI will continue to refine the base information and recommendations in the OKI Regional Water Quality Management Plan. As part of these activities, OKI is heightening awareness of water quality issues through public education, and its involvement in groundwater projects and watershed initiatives.
- 2) For its Ohio counties, OKI's current contract with OEPA extends through CY05.
- 3) As in the past, OKI will continue to negotiate with OEPA, KNREPC, IDEM, and other state agencies and provide technical assistance to local agencies, as appropriate.

Products

- 1) Water quality public awareness outreach activities. (as appropriate)
- 2) For OEPA, specific products as negotiated in CY06.
- 3) Other Products in response to regional needs and appropriate funding sources. (as appropriate)

720.1 – MOBILE SOURCE EMISSIONS PLANNING

Objective

To ensure that OKI's Transportation Plan and Program contribute to the region's attainment and maintenance of national air quality standards.

Previous Work

OKI has coordinated the process of developing local revisions to the air quality State Implementation Plans (SIPs) of Ohio and Kentucky, in cooperation with the Ohio Environmental Protection Agency and the KY Environmental and Public Protection Cabinet. OKI has provided the state agencies with mobile source emissions data, used in the development of air quality SIP revisions. Kentucky's SIP was last revised in 2005 to account for the elimination of the vehicle emissions testing program. Ohio's SIP revision to eliminate the E-Check program and begin a low RVP gasoline program was submitted in February 2006. Both states will need to further revise their SIPs in 2007 to address recent changes to federal air quality standards for ozone and particulate matter.

OKI's three Kentucky counties, four Ohio counties and a portion of Dearborn County Indiana have been designated as a nonattainment area for ozone and fine particulates. As a nonattainment area, the region's transportation plans, programs, and projects must conform to the applicable (SIPs) and cannot cause new air quality violations, increase the severity or frequency of violations, or delay attainment. Under provisions of the Clean Air Act Amendments (CAAA), OKI has performed the regional conformity analysis for the region's transportation plans and programs, most recently for the amendment to the OKI 2030 Regional Transportation Plan in February 2006.

Methodologies

- 1) Staff will confer with OKI technical and policy committees, as appropriate, to obtain their involvement in addressing air quality planning issues. OKI will continue to coordinate with federal, state and local air quality and transportation agencies on SIP revisions and air quality planning issues including but not limited to conformity determinations. As appropriate, OKI will review current state and federal legislation and regulations and will provide technical information, current data and implementation status information. OKI staff will attend and participate in pertinent meetings, workshops and conferences where specific local environmental problems, statewide environmental issues and evolving federal requirements are addressed. OKI will perform and document conformity analyses as required under the CAAA and based upon criteria outlined in the U.S. Environmental Protection Agency's (USEPA) Transportation Conformity Rule (40 CFR Part 93). OKI's Travel Demand Model and the USEPA's latest emissions software will be used to generate the necessary traffic volumes, speed and emission factors. OKI's model will to be modified, as needed, to utilize the latest EPA emissions program and to incorporate the latest planning assumptions.
- 2) Staff will evaluate the potential air quality and energy benefits of potential CMAQ and STP funded projects using the OKI travel demand model as well as FHWA and EPA accepted off-model methodologies.

Products

- 1) Ongoing coordination and consultation with OKI's Executive Committee and Intermodal Coordinating Committees and with federal, state and local agencies regarding air quality

issues, including conformity analysis, documentation of Plan and TIP updates and amendments. Staff will provide travel and mobile source emission data to support SIP revisions prompted by changes in local emission control programs and federal standards for ozone and particulate matter (8-hr & PM2.5).

- 2) Quantification of the air quality and energy benefits of candidate projects for STP or CMAQ funding as required.