EFFLUENT LIMITATIONS 130.6(c)(2)

Area(s) Addressed	WQM Plan Content	COMMENTS
All	The State developed and adopted revised Water Quality Standards in 1990. These revisions included changes to numerical and narrative water quality criteria, mixing zone restrictions, variance conditions, beneficial use definitions, and use designations for specific waterbodies in the State. Numerical criteria were added that address human health protection, biological criteria and whole effluent toxicity criteria. Water Quality Standards revisions were adopted in 1991 and 1992 to update use designations for specific waterbodies in the State. Water Quality Standards are implemented in NPDES permits through the development of Water Quality Based Effluent Limit (WQBEL) reports. All water quality based issues are addressed in the WQBEL reports. These reports include stream use information, discussion of the permitted entity's influence on chemical and biological water quality, water quality based chemical-specific and whole effluent recommendations and supporting information. The Ohio EPA - Division of Water Pollution Control (DWPC) utilizes various rules, requirements, policies and procedures in developing effluent limits for wastewater dischargers. Limits are developed based upon application of federal rules (i.e. BAT, BPT, secondary treatment, etc.), Ohio water quality standards, antibacksliding, as well as various agency policies and procedures. The limits developed by each of these procedures are then compared and the most stringent utilized as the permissible discharge level expressed by the NPDES Permit. Once the discharge levels are determined, the Agency then evaluates if the permit levels are attainable by the permittee. If not attainable, the Ohio EPA can then give the entity a compliance schedule which may require construction and/or improved operations, etc. to achieve the permitted levels. Such a compliance schedule can be incorporated in either an NPDES Permit, Director's Final Findings and Orders or some other administrative order and typically incorporates an interim set of limits which can currently be met. Compliance schedules typically do not extend past a three year period.	Effluent limitations will be developed for additional segments identified during segment assessment and classification (ongoing). Biological assessments, wasteload modeling and economic assessments, will be completed on an annual basis. NPDES permits will be revised to reflect recommended limits. WQBEL reports assist in the development of permit limits for an entity. Stream use designations, factors evaluated in developing WQBEL recommended limits, an assessment of the risk associated with water quality based parameters and supporting material (Biomonitoring Permit Language, WLA Values) are provided in these reports. Because of the importance of evaluating water quality when issuing wastewater discharge permits, Ohio EPA has adopted a process to re-issue all wastewater permits within specific drainage basins or watersheds within the same year. The basis for the regulation of wastewater discharges is the National Pollutant Discharge Elimination System (NPDES), under which permits cannot be issued for longer than five years. Ohio EPA's current schedule for renewal of permits was developed without regard to a geographic or watershed framework, and makes the collection and evaluation of monitoring data inefficient or impossible given resource restraints. Watersheds within each of Ohio EPA's district offices will be divided so that approximately one-fifth of the NPDES permits will be reviewed each year. This will result in renewal of all NPDES permits over a five-year period. The process of switching from the present permit renewal system to the new watershed approach will require adjustments to the expiration dates of NPDES permits. U.S. EPA Region V will allow the adjustments because it concurs with the value of the watershed approach. Some

Section 305(b) of the Clean Water Act requires each state to submit a biennial report to U.S. EPA describing the quality of the nation's waters. Ohio EPA's 305(b) report was submitted in summer 1992. Accomplishing this task requires the compilation, computerization, and integration of chemical, physical, and biological information for lakes, streams, rivers, and groundwater from numerous sources. This report includes: 1) an analysis of the extent to which the Ohio's surface and ground waters provide for healthy and viable aquatic communities, recreation, water supply, and fish and wildlife that are virtually free from contaminants at concentrations of concern; 2) an analysis of the extent to which previously impaired waters have improved; 3) identification of water bodies where additional actions are needed ("long" and "medium" lists of impaired water bodies as required by U.S. EPA [1991] and Section 304[1] of the Clean Water Act); 4) geographic portrayals of the major surface water problems throughout the state; 5) an estimate of the economic expenditures for water pollution abatement; 6) a description of the quality of Ohio's inland lakes, ponds, reservoirs, and Lake Erie; 7) a description of the nature and extent of nonpoint sources of pollution; 8) a brief history of water pollution and surface water degradation in Ohio; 9) the first complete description of Ohio's fish tissue contaminant monitoring efforts and a preliminary analysis of the contaminant database; and 10) recommendations for possible adjustments in specific water resource management areas.

A carefully conceived monitoring approach, that includes cost-effective biosurveys integrated with other assessment tools (i.e. chemical, toxicological), can ensure that all sources are objectively judged on the basis of environmental results rather than prescriptive, administrative goals (i.e. "bean counting") for achieving water resource improvements. This approach relies on direct evidence of the attainment or non-attainment of water resource integrity and is a fundamentally more accurate portrayal of environmental conditions. This also ensures that pollution abatement dollars will be invested where needed the most. In fact, the monitoring data collected over the past 12 years by Ohio EPA strongly indicates that increased efforts are needed to protect stream, river, and lake habitats (particularly riparian zones and lake shorelines) and better control the impacts of suburban dischargers will be given short-term permits (one to three years) with the present discharge limits. Others will have their permits renewed early. (See Map 2 for counties and years targeted in the basin approach)

developments through better up front planning. This is becoming particularly evident as the impacts caused principally by conventional chemical agents (i.e oxygen demanding wastes, ammonia, some metals and toxics) are beginning to abate. However, efforts to control nutrients, habitat degradation, and sedimentation leave substantial room for improvement.

Ashtabula/Grand

The Comprehensive Water Quality Report for Cowles Creek, and Coffee Creek, Ashtabula County (Austinburg, Geneva) includes an assessment of existing and potential water quality problems as well as an evaluation of stream use classifications. (1984)

The Biological Community Status of the Lower Ashtabula River and Harbor Within the Area of Concern (AOC), Ashtabula County, Ohio TSD includes present day effects of pollution on the biological communities of the Ashtabula River in an effort to develop numerical values to be used in a Natural Resource Damage Assessment (NRDA).

NPDES permits have been issued for 20 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Central Ohio River Tributaries

The Comprehensive Water Quality Report for Cross Creek/Yellow Creek (Winterville, Richmond) includes an assessment of selected point source discharges in the subbasin. (1987)

NPDES permits have been issued for 18 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Great Miami

WLAs for significant dischargers were prepared for ten WQL segments and loads projected for twenty years. (1982) The Comprehensive Water Quality Report for Nettle Creek, Mad River (St. Paris) included an assessment of selected point source dischargers in the subbasin. (1984) The Comprehensive Water Quality Report for the East Fork Whitewater River, (New Paris) and the Comprehensive Water Quality Report for the South Fork Great Miami River (Belle Center) were completed in 1985. The Comprehensive Water Quality Report for Blue Jacket Creek)(Bellefontaine) was completed in 1987.

The Macroinvertebrate Evaluation of Kiata Creek (July, 1989) TSD qualitatively collected macroinvertebrate samples from two locations on Kiata Creek in order to provide information for the use designation of Kiata Creek.

The 1990 Biological and Water Quality study of the Stillwater River Basin (Darke, Miami and Montgomery Counties, Ohio) and Trend Assessment: 1982 to 1990 (May, 1991) TSD objectives were to monitor and assess potential impacts from point and nonpoint source pollution. Evaluate existing aquatic life use designations. Provide support for WQBEL reports for the Englewood and Greenville Wastewater Treatment Plant NPDES permits. Evaluate the current aquatic life attainment status of existing and recommended aquatic life use designations and characterize the quality of surface waters within the basin and determine if ambient conditions have improved since 1982 with the implementation of additional pollution control strategies within the Stillwater River basin.

Impacts of Interceptor Sewer Line Maintenance (Hamilton and Clermont Counties, Ohio)(May, 1992) TSD objectives were to 1) determine the spatial and temporal extent of any environmental damage caused by past interceptor sewer line construction activities in the small, headwater streams (i.e.<20 sq. mi. drainage area) of the study area; 2) evaluate other environmental impacts including combined sewer overflows, point source discharges, and intensive urbanization, and determine the respective roles of each in the aquatic life use attainment status of each stream evaluated; 3) evaluate the risk posed to the Taylor Creek subbasin by the proposed construction of interceptor sewers utilizing the design submitted to Ohio EPA for PTI approval in 1989 and 1990; and 4) evaluate the appropriateness of existing aquatic life use designations and recommend use designations for streams that are presently in the Ohio Water Quality Standards (WQS;OAC 3745-1).

NPDES permits have been issued for 50 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Hocking

In 1982, WLAs for significant dischargers were prepared for four

	Water Quality Limited (WQL) segments and loads projected for twenty years. The Comprehensive Water Quality Report for the Upper Hocking River Basin (Lancaster, Amanda, New Lexington, Junction City, Bremen, Sugar Grove) included an assessment of selected point source discharges in the subbasin. (1985) NPDES permits have been issued for 4 publically and industrially owned treatment works (over 1 mgd) within the planning area.
Huron/Vermillion	In 1982, WLAs for significant dischargers were prepared for six WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for Rattlesnake Creek/Huron River (Norwalk, Milan, Imperial Clevite) included an assessment of selected point source discharges in the subbasin. (1987) NPDES permits have been issued for 5 publically and industrially owned treatment works (over 1 mgd) within the planning area.
Little Beaver	In 1982, WLAs for significant dischargers were prepared for twelve WQL segments and loads projected for twenty years. NPDES permits have been issued for 2 publically and industrially owned treatment works (over 1 mgd) within the planning area.
Little Miami/Southwest Ohio Tributaries	In 1982, WLAs for significant dischargers were prepared for six WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for Little Beaver Creek, (Montgomery County Eastern Region WWTP) included an assessment of selected point source discharges in the subbasin. (1985) The Comprehensive Water Quality Report for East Fork Little Miami River Basin (New Vienna, Lynchburg, St. Martin, Fayetteville, Brown County-Lake Lorelei, Williamsburg, Bethel, Clermont County-Amelia, Batavia), was compiled in 1987. The Biological and Habitat Investigation of Greater Cincinnati Area Streams: The Impacts of Interceptor Sewer Line Maintenance (Hamilton and Clermont Counties, Ohio)(May, 1992) TSD objectives were to 1) determine the spatial and temporal extent of any

environmental damage caused by past interceptor sewer line construction activities in the small, headwater streams (i.e.<20 sq. mi. drainage area) of the study area; 2) evaluate other environmental impacts including combined sewer overflows, point source discharges, and intensive urbanization, and determine the respective roles of each in the aquatic life use attainment status of each stream evaluated; 3) evaluate the risk posed to the Taylor Creek subbasin by the proposed construction of interceptor sewers utilizing the design submitted to Ohio EPA for PTI approval in 1989 and 1990; and 4) evaluate the appropriateness of existing aquatic life use designations and recommend use designations for streams that are presently not listed in the Ohio Water Quality Standards (WQS;OAC 3745-1).

NPDES permits have been issued for 23 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Maumee/Portage

In 1982, WLAs for significant dischargers were prepared for twenty-two WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for Kopp Creek and Wierth Ditch, St. Mary's River Subbasin, Auglaize County (New Bremen) and the Comprehensive Water Quality Report for Yellow Creek and Brush Creek (Leipsic) were certified in 1984 for selected point source dischargers in the subbasin. The Comprehensive Water Quality Report for North Turkeyfoot Creek (Wauseon) and the Comprehensive Water Quality Report for Muddy Creek (Lindsay, Hessville) were completed in 1985. The Comprehensive Water Quality Report for the Tiffin River (Bryan) and the Comprehensive Water Quality Report for the Upper Blanchard River (Findlay, Arlington, Dunkirk, Forest, Mt. Blanchard, Mt. Cory, Rawson) were completed in 1987.

The TSD A Summary of the 1989 Biological and Water Quality Survey of the Ottawa River, Allen and Putnam Counties, Ohio and Changes since 1985 (July 1990) objectives were to summarize the data, assess the current use attainment in the Ottawa River, and evaluate potential biological impacts in the Ottawa River from the BP America Refinery 001 discharge. This assessment will provide technical support for the forthcoming BP Refinery WQBEL Report and the current dissolved

oxygen (DO) study.

The 1989 Biological and Water Quality Study of the Blanchard River near Findlay, Ohio and Comparison of Results: 1983 to 1989(1987-1992) TSD objectives were to monitor and assess the chemical water quality and biological communities in the Blanchard River upstream and downstream from combined sewer overflows (CSOs) and the upgraded Findlay WWTP. Determine the current attainment status of the aquatic life use designation, Warmwater Habitat. Compare 1983 and 1989 biological and chemical results to determine if ambient conditions in the Blanchard River have changed downstream from the CSOs and upgraded Findlay WWTP.

NPDES permits have been issued for 38 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Muskingum

The Comprehensive Water Quality Report for the Rocky Fork of the Mohican River Subbasin (Mansfield) was certified in 1984 for selected point source dischargers in the subbasin. The Comprehensive Water Quality Report for Killbuck Creek (Wooster, Apple Creek, Hillcrest, Shreve, Millersburg, Killbuck) and the Comprehensive Water Quality Report for the Licking River (Utica, Pataskala, Hebron, heath, Newark, Millersport) were completed in 1987.

The Biological and Water Quality Study of the Black Fork Mohican River Richland County, Ohio (1990) TSD objectives were to evaluate effects of effluent discharges from the Ohio Steel Tube WWTP, which discharges into Tuby Run at about RM 0.6, and the Shelby WWTP, which discharges into Black Fork Mohican River at RM 50.1.

The Investigations of Biological Communities and Toxic Impacts in Sugar Creek and Selected Tributaries (Dover Chemical Company, Dover, Ohio (July 1992) TSD objectives were to monitor and assess fish and macroinvertebrate communities to determine possible impacts on the biota in streams in the vicinity of Dover Chemical. Assess physical habitat conditions in Sugar Creek, Goettge Run and Brandywine Creek. Establish background biological conditions for use in an assessment of potential risks from bioconcentration and

biomagnification of chemicals of concern.

NPDES permits have been issued for 101 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Ohio River

The TSD A 1989 Night Electrofishing Survey of the Ohio River Mainstem (280.8 to 442.5)(May, 1990) objectives were to: 1) establish 17 sites in the Meldahl and Greenup Dam pools and collect data on the distribution, relative abundance, biomass, and health of fishes in the Ohio River; 2) provide ongoing developmental method data to help determine: what distance of shoreline needs to be sampled, what kind of data variability occurs between sites longitudinally in a pool, and do mainstem shorelines close to backwater tributaries support better fish assemblages than shorelines away from backwaters; 3. provide data for an environmental assessment; and 4) study the feasibility and desirability of this method as a long-term monitoring technique for Ohio River mainstem fish communities.

The TSD A 1990 Night Electrofishing Survey of the Upper Ohio River Mainstem (RM 40.5 to 270.8) and Recommendations for a Long-term Monitoring Program (February, 1991) objectives were to: 1) establish 17 sites in the upper Ohio River and collect baseline data on the distribution, relative abundance, biomass, and health of mainstem fishes; 2) provide data for ongoing method development and attempt to determine if mainstem catches vary with distance sampled, time fished, water temperature, water clarity, habitat quality, distance downstream from dams, or proximity to a backwater tributary; 3) provide baseline data for environmental assessments; and 4) develop a shorewide, long-term monitoring program for Ohio River mainstem fish assemblages.

Rocky

NPDES permits have been issued for 8 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Sandusky

In 1982, WLAs for significant dischargers were prepared for six WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for the Lower Sandusky River Basin (Tiffin) was certified in 1984 for selected point source dischargers in the subbasin.

The Biological and Water Quality Study of the Sandusky River and Selected Tributaries Crawford, Wyandot and Seneca counties, Ohio (1987-1992) TSD objectives were to monitor and assess chemical/physical water quality and biological communities in the Sandusky River to determine the degree to which WWTPs for the Cities of Bucyrus, Upper Sandusky and Tiffin were affecting the stream. Assess impacts due to nonpoint source runoff and habitat alteration. Determine the attainment status of current aquatic life use designations and analyze long term trends in chemical, physical and biological results to determine how ambient conditions have changed in the Sandusky River following improvements to the WWTPs.

NPDES permits have been issued for 17 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Scioto

In 1982, WLAs for the significant dischargers were prepared for thirty-seven WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for Bokes Creek, Upper Scioto River Basin (West Mansfield) and the Comprehensive Water Quality Report for Big Darby Subbasin (Plain City) were certified in 1984 for selected point source dischargers in the subbasin. The Comprehensive Water Quality Report for Upper Big Walnut Creek (Marengo, Sunbury, Galena) was completed in 1985. The Comprehensive Water Quality Report for Upper Scioto River (McGuffy, Kenton, Occidental Chemical, Rockwell International, Wilco Inc.), the Comprehensive Water Quality Report for Whetstone Creek (Mt. Gilead, Cardington), the Comprehensive Water Quality Report for Central Scioto River (Columbus-Jackson Pike WWTP) and the Comprehensive Water Quality Report for Walnut Creek (Baltimore, Gaylord Container Corporation, Canal Winchester, Fairfield County Mingo Estates, Reynolds Metals, Pickerington, Ashville, South Bloomfield) were completed in 1987.

The Biological and Water Quality Survey of the Olentangy River, Delaware and Franklin Counties, Ohio (1990) TSD objectives were to evaluate the appropriateness of the assigned aquatic life use for the river and to document effects of point and nonpoint influences on the river resource.

The Biological Evaluation of Paint Creek near Greenfield, Ohio (December, 1990) TSD objectives were to provide WQBEL support for the Greenfield WWTP. The previous WQBEL support for the Washington Court House WWTP (1989 Paint Creek Biological and Water Quality Survey) should also be referenced for a biological evaluation of Paint Creek.

NPDES permits have been issued for 46 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Southeast Ohio River Tributaries

The Comprehensive Water Quality Report for Elk Fork, Raccoon Creek Subbasin (McArthur) includes an assessment of existing and potential water quality problems, an evaluation of stream use classifications, as well as an assessment of selected point source dischargers in the subbasin. (1984) The Comprehensive Water Quality Report for Little Raccoon Creek (Wellston North WWTP and Wellston South WWTP) was completed in 1985.

The Biological and Water Quality Study of the Southeast Ohio River Tributaries Scioto, Lawrence, Gallia, Jackson, Vinton, Meigs and Washington Counties, Ohio (June, 1991) TSD objectives were to evaluate existing aquatic life use designations. Evaluate biological and water quality impacts to Meadow Run and Little Raccoon Creek from the Jenos and Wellston WWTPs. Evaluate biological and water quality impacts to Kyger Creek from the American Electric Power (AEP) Gavin power plant ash pond on Stingy Run and the Ohio Valley Electric Company (OVEC) Kyger Creek power plant ash pond.

NPDES permits have been issued for 29 publically and industrially owned treatment works (over 1 mgd) within the planning area.

Wabash

In 1982, WLAs for significant dischargers were prepared for five WQL segments and loads projected for twenty years. The Comprehensive Water Quality Report for Beaver Creek (Celina) included an assessment of selected point source dischargers in the subbasin. (1987)

NPDES permits have been issued for 3 publically and industrially owned treatment works (over 1 mgd) within the planning area.

EFFLUENT LIMITATIONS 130.6(c)(2)

EDATA	The Comprehensive Water Quality Report for Silver/Eagle Creek (Garrettsville, Hiram), and the Comprehensive Water Quality Report for the Mahoning River (Youngstown, Warren, Niles, Girard, Campbell, Struthers, McDonald, Lowellsville, Thomas Steel Strip, Copperweld Steel, Republic Steel-Warren and Youngstown, LTV Steel, Ohio Edison-Niles, Mosquito Creek, Meander Creek, Boardman) was completed in 1983-1989. The Comprehensive Water Quality Report for Yankee Creek (Brookfield Township WWTP, Hubbard WWTP) was completed in 1987.	
MVRPC	The Comprehensive Water Quality Report for Bear Creek (Great Miami River Basin) and Comprehensive Water Quality Report for the Great Miami River (Dayton to the Ohio River, River Mile 92.5-0.9) include an assessment of existing and potential water quality problems as well as an evaluation of stream use classifications. The Comprehensive Water Quality Report for the Stillwater River (Ansonia, Versailles, Bradford, Greenville, Arcanum, W. Milton, Englewood, Union) was completed in 1987.	
	An assessment of surface and ground water quality is contained in the WQMP. It includes a review of Ohio's Water Quality Standards and a summary of existing water quality based upon available studies. These include the CWQR for the Lower Great Miami River (Ohio EPA, 1982). There is not systematic method through which MVRPC obtains surface and ground water quality data on a regular basis.	Develop a method for imputing information and data on water quality, TMDLs, WQBELs, WLAs, Water Quality Standards, stream use classifications, discharger locations and monitoring station locations on a continuing basis as part of an overall WQ data base management system consistent with Ohio EPA's data base management system. This data then can be incorporated into the Plan as required to provide the base-line information against which pollution abatement strategies contained in the Plan for surface and ground water are designed. Continuing WQ assessments will be completed in future projects that are directly related to other WQMP elements; therefore, this element is fully certified.
	The boundaries of the Miami Valley Areawide Water Quality Management Plan (WQM), as set forth in the WQMP, encompasses Montgomery, Greene, Miami, Darke and Preble counties. Water Quality Management Area and Facility Planning Areas (FPA) boundaries also are delineated.	The WQMP is maintained to reflect changes in FPA boundaries, stream use classifications, and locations of dischargers and monitoring stations annually, as reported, or as resources allow.
	Stream use classifications (water quality and effluent limited segments)	Incorporate revised Ohio Water Quality Standards into Miami Valley's

	are mapped. Significant industrial and municipal discharges are located, as are fixed monitoring stations.	WQMP in annual plan update following standards availability. Preparation of Ohio's Water Quality Standards are the responsibility of Ohio EPA.
NEFCO	The Comprehensive Water Quality Report for the Little Chippewa Creek, Tuscarawas River Subbasin (Muskingum River Basin) and Comprehensive Water Quality Report for Silver and Eagle Creeks (Mahoning River Basin) include an assessment of existing and potential water quality problems as well as an evaluation of stream use classifications. Assessments of water quality, including description of existing point source and nonpoint source pollution, are included in Volume II of the Clean Water Plan for each of the ten (10) watersheds in the Ohio River Basin portion of the NEFCO area. Each of the assessments includes descriptions of gauging stations and recorded flows at each station. Stream segment designations are shown in Volume II. Recommendations for monitoring and assessment for each watershed are included in the watershed assessments and in the Technical Program recommendations in Volumes I and II. Water quality conditions and assessments of the Cuyahoga and Chagrin Rivers and their major tributaries also are included in Volume II. A summary of NOACA's "Analysis of Stream Habitats" is included in Volume II. Each of the assessments in Volume II includes assessments of point and nonpoint source pollution, as well as descriptions of gauging stations and recorded flows at each station. Recommendations for monitoring and assessment for each watershed are included in the Rivers and Waterways and Technical Program sections of Volume I.	Baseline water quality needs to be documented in streams whose headwaters originate within the Ohio River basin portion of the NEFCO area (Nimishillen Creek, Sugar Creek, Mahoning River, West Branch Mahoning River and Eagle Creek). In consultation with Ohio EPA, NOACA and/or EDATA, baseline water quality needs to be documented in streams whose headwaters originate largely within the NEFCO area (Chippewa Creek, Tuscarawas River, Sandy Creek, Killbuck Creek and Muddy Fork Mohican River). Baseline water quality also needs to be documented, in consultation with NOACA and Ohio EPA, in streams whose headwaters originate within the Lake Erie portion of the NEFCO area (Chagrin River, Little Cuyahoga River, Congress Lake Outlet, Tinkers Creek, Brandywine Creek, Mud Brook, Yellow Creek and Furnace Run). Boundary monitoring stations need to be established or revised for Chippewa Creek, Tuscarawas River (Lower), Sandy Creek, Nimishillen Creek, Killbuck Creek, Chagrin River and Cuyahoga River. Strategies to ensure local funding for monitoring stations need to be reviewed and/or devised to ensure that local funds are available. Information regarding reductions in point source and nonpoint source loadings needs to be assessed on a regular basis in order to monitor changes in water quality over time. The water quality functions of important wetlands in the four counties should be assessed.
NOACA	A review of Ohio EPA water quality standards (1978) was prepared during the plan development phase NOACA WQM Technical Appendix A01, Water Quality Standards in the NOACA 208 Area, 1978. Water Quality Standards for the State of Ohio are contained in the State WQMP.	Incorporate into Plan revised Water Quality Standards for the Chagrin, Cuyahoga, Grand, Black and Rocky River systems.
	A water quality assessment baseline is provided in the initial NOACA Water Quality Management Plan Volume 2: Introduction and Technical Analysis (1978). The initial planning effort also developed	NOACA is providing support to the Cuyahoga River Remedial Action Plan and the Black River Remedial Action Plan which when completed can provide a basis for updating Water Quality Standards Use

specialized reports pertaining to various aspects of water quality assessment including an evaluation of overall water quality monitoring programs in the planning area NOACA WQM Technical Appendix A04, Water Quality Monitoring in the NOACA 208 Area, 1978, an analysis of historical precipitation data in the planning area NOACA WQM Technical Appendix A08, Precipitation Data and Analysis for Northeast Ohio, 1978, an evaluation of alternative water quality index schemes NOACA WQM Technical Appendix A19, Water Quality Index, 1978, a study of the feasibility of using water supply intakes to monitor Lake Erie water quality NOACA WQM Technical Appendix A22, Feasibility of Using Water Intakes to Monitor Lake Erie; Program Update: Analysis of Variance, 1981, an evaluation of areawide water quality conditions NOACA WQM Technical Appendix A25, Current Water Quality in the NOACA 208 Planning Area, 1979, an area survey of benthic invertebrates NOACA WQM Technical Appendix A30, Survey of Benthic Invertebrates in the NOACA 208 Planning Area, 1979, an area survey of fish and fish habitats NOACA WQM Technical Appendix A21, Analysis of Stream Habitats, Vol. I, 1978; Analysis of Stream Habitats, Vol. II and NOACA WQM Technical Appendix A37, Analysis of Stream Habitats; Program Update: The Community Degradation Value (CDV) as a Planning Tool, 1981, a bibliography of water quality studies relating to area water bodies NOACA WQM Technical Appendix A36, Bibliography of Water Quality Data for Northeast Ohio, 1979, an inventory of small lakes in the area NOACA WQM Technical Appendix A29, Computer Process for the Inventory of Small Lakes in the NOACA Area, 1979 and trophic assessments of selected area small lakes NOACA WQM Technical Appendix A06, Trophic Assessment of Ten Publicly-Owned Northeast Ohio Lakes; Program Update: Willoughby Retention Basin; Wellington Reservoir; Strawberry Pond, 1981, and a water quality biological assessment of the Mentor Marsh in Lake County NOACA WQM Technical Appendix A49, Mentor Marsh, Lake County, Ohio: Historical/Data and Current Baseline Conditions, July, 1982. An overview of the NOACA water quality technical program, including water quality assessment, is provided in the introduction to NOACA WQM Technical Appendix A35, Catalog of Technical Products, 1981.

OKI

The Comprehensive Water Quality Report for Fourmile Creek (Great Designations. The NOACA Water Quality Subcommittee reviews Water Quality Standards Use Designation changes proposed by the Ohio EPA on area streams and the Board recommends action to Ohio EPA. NOACA staff will continue to update the water Quality Trends Report on a basin by basin basis.

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.

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.

TMACOG

Water Quality Testing Course for High School Teachers Participating in a High School Water Quality Monitoring Project; August, 1991. Describes the steps followed in organizing and implementing the project. Complete course outline includes overview of water quality problems and detailed water testing instructions.