

DECISION DOCUMENT FOR THE APPROVAL OF OHIO'S SUBMISSION OF THE STATE'S INTEGRATED REPORT WITH RESPECT TO SECTION 303(d) OF THE CLEAN WATER ACT (CATEGORY 5 WATERS)

U.S. EPA has conducted a complete review of Ohio's 2006 Section 303(d) list and supporting documentation and information, and based upon this review U.S. EPA has determined that Ohio's list of assessment units (AU's) still requiring total maximum daily loads (TMDLs) meets the requirements of Section 303(d) of the Clean Water Act (CWA or Act), and U.S. EPA's implementing regulations. Therefore, U.S. EPA hereby approves Ohio's 2006 Section 303(d) list. Ohio's list of AUs still requiring TMDLs appears in Category 5 of the Ohio 2006 Integrated Water Quality Monitoring and Assessment Report (Integrated Report), and U.S. EPA's approval extends only to the AUs in Category 5 of the Integrated Report (IR). The statutory and regulatory requirements, and U.S. EPA's review of Ohio's compliance with each requirement, are described in detail below.

I. Statutory and Regulatory Background

Identification of Water Quality Limited Segments (WQLSs) for Inclusion on Section 303(d) List

Section 303(d)(1) of the Act directs states to identify those waters within its jurisdiction for which effluent limitations required by Section 301(b)(1)(A) and (B) are not stringent enough to implement any applicable water quality standards, and to establish a priority ranking for such waters, taking into account the severity of the pollution and the uses to be made of such waters. The Section 303(d) listing requirement applies to waters impaired by point and/or nonpoint sources, pursuant to U.S. EPA's long-standing interpretation of Section 303(d).

U.S. EPA regulations provide that states do not need to list waters where the following controls are adequate to implement applicable standards: (1) technology-based effluent limitations required by the Act; (2) more stringent effluent limitations required by state or local authority; and (3) other pollution control requirement required by state, local, or federal authority, as found in 40 C.F.R. §130.7(b)(1).

Consideration of Existing and Readily Available Water Quality-Related Data and Information

In developing Section 303(d) lists, states are required to assemble and evaluate all existing and readily available water quality-related data and information, including, at a minimum, consideration of existing and readily available data and information about the following categories of water: (1) waters identified as partially meeting or not meeting designated uses, or

as threatened, in the state's most recent Section 305(b) report; (2) waters for which dilution calculations or predictive models indicate nonattainment of applicable standards; (3) waters for which quality problems have been reported by government agencies, members of the public, or academic institutions; and (4) waters identified as impaired or threatened in a nonpoint assessment submitted to U.S. EPA under Section 319 of the Act (40 C.F.R. §130.7(b)(5)). In addition to these minimum categories, states are required to consider any other data and information that is existing and readily available. U.S. EPA's 1991 Guidance for Water Quality-Based Decisions (1991 Guidance), describes categories of water quality-related data and information that may be existing and readily available. While states are required to evaluate all existing and readily available water quality-related data and information, states may decide to rely or not rely on particular data or information in determining whether to list particular waters.

In addition to requiring states to assemble and evaluate all existing and readily available water quality-related data and information, U.S. EPA regulations require states to include as part of their submissions to U.S. EPA documentation to support decisions to rely or not rely on particular data and information and decisions to list or not list waters. 40 C.F.R. §130.7(b)(6) states that such documentation needs to include, at a minimum, the following information: (1) a description of the methodology used to develop the list; (2) a description of the data and information used to identify waters; and (3) any other reasonable information required by the Region.

Priority Ranking

U.S. EPA regulations also codify and interpret the requirements in Section 303(d)(1)(A) of the Act that states establish a priority ranking for listed waters. 40 C.F.R. §130.7(b)(4) requires states to prioritize waters on their Section 303(d) lists for TMDL development, and also to identify those AUs targeted for TMDL development in the next two years. In prioritizing and targeting waters, states must, at a minimum take into account the severity of the pollution and the uses to be made of such waters. As long as these factors are taken into account, the Act provides that states establish priorities. States may consider other factors relevant to prioritizing waters for TMDL development, including immediate programmatic needs, vulnerability of particular waters as aquatic habitats, recreational, economic and aesthetic importance of particular waters, degree of public interest and support, and state or national policies and priorities found in 57 Fed. Reg. 334040, 33045 (July 24, 1992) and U.S. EPA's 1991 Guidance.

Identification of Waters and Consideration of Existing and Readily Available Water Quality-Related Data and Information

The 303(d) list is Appendix D.2 of the 2006 Integrated Report, and is in compliance with Section 303(d) of the Act and 40 C.F.R. §130.7. U.S. EPA has reviewed Ohio's description of the data and information it considered, its methodology for identifying waters, and considered any other relevant information including information the State submitted in response to requests for additional information. U.S. EPA concludes that the State of Ohio properly assembled and

evaluated all existing and readily available data and information, including data and information relating to the categories of waters specified in 40 C.F.R. § 130.7(b)(5). In addition, the State provided its rationale for not relying on particular existing and readily available water quality-related data and information as a basis for listing waters. Two waters were listed in the draft 2006 IR as Category 4B, defined as having control measures that would result in achieving WQS. Upon reviewing the draft, U.S. EPA suggested that these waters, Ohio River tributaries and Todd Creek, be listed in Category 5 and be added to the 303(d) list. Ohio EPA concurred with this recommendation by e-mail dated April 25, 2006 (see Administrative Record).

U.S. EPA has also determined that the State properly listed waters with nonpoint sources causing or expected to cause impairment, consistent with Section 303(d) of the Act and U.S. EPA guidance. Section 303(d) lists are to include all water quality limited segments (WQLSs) still needing TMDLs, regardless of whether the source of the impairment is a point and/or nonpoint source. U.S. EPA's long-standing interpretation is that Section 303(d) applies to waters impacted by point and/or nonpoint sources. In *Pronsolino v. Marcus*, the Ninth Circuit Court of Appeals held that Section 303(d) of the CWA authorizes U.S. EPA to identify and establish total maximum daily loads for waters impaired by nonpoint sources.¹

Section 4.2 of the 2006 IR discusses the sources of existing and readily available data. Ohio EPA's own data is a primary source for the 2006 IR. To determine impairments using the human health based water quality criteria, Ohio EPA used fish tissue contaminant data found in the Fish Tissue Contaminant Database. For Recreational Use, Ohio EPA used its own data and bacteria data from NPDES permittees, health departments, and the Northeast Ohio Regional Sewer Districts (NEORS). Nine NPDES entities who submitted data for the 2004 IR from monthly operating reports (MORs) were again contacted and one entity responded; the data had already been acquired through the Ohio Department of Health (ODH). For Aquatic Life Use, the OEPA used its own data and data from the Ohio Department of Natural Resources - Division of Wildlife, Midwest Biodiversity Institute (MBI), Center for Applied Bioassessment and Biocriteria (CABB), Northeast Ohio Regional Sewer District, Miami University, and Ohio Northern University. These entities either have received intensive training and certification from Ohio EPA or are well-versed in Ohio EPA field and laboratory protocols.

In 2003, Ohio passed a credible data law (ORC 6111.50 to 6111.56), that establishes requirements for the use of external data. That law requires the Director of Ohio EPA to adopt rules that would, among other things, require that data be collected by a qualified data collector and be compliant with the specifications of "level 3 credible data," in order to be used for listing waters under Section 303(d). Those rules, effective March 24, 2006, are located at Chapter 3745-4 of the Ohio Administrative Code (OAC). Therefore, Ohio EPA did not seek new outside sources of data (other than bacteria data from those parties who provided data for the 2004 IR). Ohio EPA may conduct a more active and defined solicitation for external data when it prepares the 2008 IR.

¹Pronsolino et al. v. Natri et. al., 291 F. 3d 1123 (9th Cir, 2002); see also U.S. EPA's 1991 Guidance; and National Clarifying Guidance for 1998 Section 303(d) Lists, August 27, 1997.

II. Analysis of Ohio's Submission

Listing Methodology and Reporting

U.S. EPA issued guidance for integrating the development and submission of 2002 Section 305(b) water quality reports and Section 303(d) lists of impaired waters in U.S. EPA's 2002 Integrated Water Quality Monitoring and Assessment Report Guidance, November 19, 2001 (2001 Guidance). The 2001 Guidance was superseded by U.S. EPA's Guidance for 2004 Assessment, Listing and Reporting Requirements Pursuant to Sections 303(d) and 305(b) of the Clean Water Act, July 21, 2003 (2003 Guidance). The 2003 Guidance recommends that states develop an integrated report of the quality of their waters by placing all waters into one of five assessment categories. On August 12, 2005, the 2006 Integrated Report Guidance (2006 IRG) became available (USEPA 2005). Ohio followed the approach set out in the 2006 IRG. The waterbodies in Category 5 constitute the State's Section 303(d) list.

As part of its ongoing monitoring and assessment program, the State developed a five-year rotating basin plan that divides the State into 25 areas each comprised of a group of subbasins within major river basins. Ohio EPA estimates that under the current funding levels monitoring takes more than 10 years to complete throughout the State. After the State completes the monitoring in one of the assessment areas, it collects the data and assesses the biological, chemical, and physical condition of the AU. The State uses an 11-digit hydrologic unit code (HUC) as part of its assessment methodology. The principal AUs within the State are divided into the following units: 331 HUCs with a median size of 130 mi²; 23 large river units each with drainage of at least 500 mi²; 16 AUs on the mainstem of the Ohio River; and three AUs that incorporate the near shore of Lake Erie. Additional information is given on streams draining between 50 and 500 square miles in this IR for the first time.

Ohio EPA's water quality reporting and listing methodology focuses on watersheds by assessing and listing AUs, which include multiple segments. After an AU is defined the data are collected and analyzed to determine whether the AU is supporting, partially supporting, or not supporting the designated uses within the AU. Each AU is then placed in one of the five assessment categories described in the 2001 Guidance. Biological sampling is conducted extensively throughout the State to determine each AU's status for aquatic life use. Chemical and physical sampling is also conducted as part of the assessment process. Ohio has an extensive data base on aquatic life use. The State has been collecting data for aquatic life use for over 20 years.

The status and reporting category for each of the 331 HUCs are listed in Appendix D.1.1 to the Integrated Report, and the status and reporting category for the 23 large river units are listed in Appendix D.1.2 of the Integrated Report. For the near shore of Lake Erie (i.e., within 100 meters of the shoreline), the Integrated Report includes three AUs (i.e., Western Basin Shoreline, Islands Shoreline, and Central Basin Shoreline), that are listed in Appendix D.1.3 of the

Integrated Report. The three Lake Erie AUs correspond to the adjacent HUCs along the shoreline.

Section 2.2 of the 2006 IR states that in the early 1990's, Ohio established a goal of reaching the designated aquatic life use in 80% of Ohio's streams by 2010. Originally the goal was based on stream miles, but as the program and methodology evolved, the focus became more on watersheds than stream miles, so it became more difficult to communicate current conditions and trends in watershed units. An alternative is presented in the 2006 IR that identifies the subset of perennial stream and river miles that drain watersheds of 50 square miles or greater, as a method to communicate the conditions of the watersheds using stream and river names readily recognized by the public. Table 2-2 in the 2006 IR is a list of principal streams and large rivers by major Ohio watershed. Table 2-3 below is taken from the 2006 IR and is a summary of progress toward the 80% by 2010 Aquatic Life Use goal using the alternate measure.

Other major differences between the 2004 IR and the 2006 IR are: 1) the proposed Assessment Methodology and Standards for Protection of the Public Drinking Water Supply Beneficial Use (Section 4.3.1 and Appendix C); 2) a more comprehensive review of environmental and financial assistance (Section 3.2); and 3) a revised methodology for direct comparison of fish tissue contaminant data to the human health criteria rather than to fish consumption advisories for determining impairment status (Section 4.2). A discussion of the major differences between the 2004 IR and 2006 IR is found throughout the body of this document.

The 2006 IR also includes a discussion of progress towards fulfilling the requirements of the 2004 Consent Decree in *National Wildlife Federation et al. v United States Environmental Protection Agency, et al.*, (Case No. C2-01-1052). Under that Consent Decree Ohio EPA was required to conduct assessments in 50 AUs, and to establish TMDLs in 50 AUs by September 30, 2007. In March 2005, Ohio EPA reported the completion of assessments in a total of 100 AUs, fulfilling that requirement, and completed TMDLs in 36 AUs. In February 2006, Ohio EPA reported completion of assessments in 119 AUs, and completed TMDLs in 48 AUs, fulfilling 96% of the requirement to establish TMDLs in 50 AUs.

Table 2-3. Progress towards the 80% by 2010 Aquatic Life Use goal over the last three Integrated Report assessment cycles¹			
Integrated Report Statistics	2002 (1991-2000)	2004 (1993-2002)	2006 (1995-2004)
<i>Watershed Assessment Units (WAUs): 331 Total</i>			
WAUs Assessed (% of Total)	224 (68%)	225 (68%)	212 (64%)
No. Sites Assessed	3272	3620	3761
WAU Goal Status (Average Ohio WAU Score)			
Full Attainment Score	46.6	48.3	52.6
<i>Large River Assessment Units (LRAUs): 23 Rivers / 1286 Miles (miles defined as those draining >500 mi² watersheds)</i>			
LRAUs Assessed (% of Total)	22 (96%)	21 (91%)	17 (74%)
No. Sites Assessed	422	425	374
Miles Assessed (% of Total)	905 (70%)	918 (71%)	873 (68%)
LRAU Goal Status (% Monitored Miles in Full Attainment)			
% Full Attainment	62.5	64.0	76.8
<i>Principal Streams and Large Rivers: 254 Rivers and Streams / 5750 Miles (miles defined as those draining >50 mi² watersheds)</i>			
No. Sites Assessed	1444	1445	1311
Miles Assessed (% of Total)	3921 (68%)	3781 (66%)	3625 (63%)
Goal Status (% Monitored Miles in Full Attainment)			
% Full Attainment	55.2	57.6	63.1

¹ Using the current construct based on the Watershed Assessment Unit statewide average full attainment score and the Large River Assessment Unit percentage of assessed miles in full attainment, and the alternative measurement of goal progress using the percentage of miles in full attainment for Principal Streams and Large Rivers.

Ohio River Listing

The 16 AUs associated with the main stem of the Ohio River are assessed by the Ohio River Sanitation Commission (ORSANCO), which reports its findings in a Section 305(b) report. ORSANCO is an interstate agency charged with abating existing pollution in the Ohio River Basin and preventing future degradation of its waters. ORSANCO was established in 1948 through the signing of the Ohio River Valley Water Sanitation Compact by representatives of the eight member states. Through this Compact, ORSANCO has been given authority to develop the

Section 305(b) report for the Ohio River. Ohio participates in the ORSANCO workgroup to promote consistency between 305(b) reporting and 303(d) listing. In the past, Ohio EPA has narratively incorporated ORSANCO's listing of impaired waters into its Integrated Report for those portions of the Ohio River located within the State of Ohio. Section 4.7 of the 2006 IR states that the ORSANCO has listed the impaired segments of the Ohio River in its Section 305(b) report, and that Ohio EPA defers to that list of impaired segments found in the *Biennial Assessment of Ohio River Water Quality Conditions, 2004-2005* (ORSANCO 2006). Ohio incorporates these by reference into its 303(d) list. In Section 6.2.1 of the 2006 IR, Ohio EPA states that because ORSANCO has taken the lead in assessing and establishing TMDLs for the main stem of the Ohio River, these waters are given a low priority for Ohio EPA-initiated action.

Table 8-10 on the following page identifies the impaired segments of the main stem of the Ohio River located within the State of Ohio.²

Lake Erie Listings

The 2006 Integrated Report assesses the aquatic life use status of the Lake Erie shoreline in three assessment units: western basin nearshore, central basin nearshore, and islands. Section 4.6.5 describes the methodology used to assess these three AUs, and describes the "nearshore" as being within 100 meters of the shoreline. The term "lacustrary" is used in the 2006 Integrated Report to specify the zone where Lake Erie water levels have intruded into tributary river channels, and includes Maumee and Sandusky Bays. The aquatic life use status of a lacustrary is included in the assessment of the tributary river.

Ohio used narrative standards to determine aquatic life use impairments for the nearshore and lacustrary zones. In 1997, Ohio completed *Development of Biological Indices Using Macroinvertebrates in Ohio Nearshore Waters, Harbors, and Lacustraries of Lake Erie in Order to Evaluate Water Quality*. In 1999, Ohio produced *Biological Monitoring and an Index of Biotic Integrity for Lake Erie's Nearshore Waters*. The data in these documents provide a foundation to establish numeric biocriteria for aquatic life in the Lake Erie AUs. Fish community data, which best represent current conditions along the Lake Erie nearshore zones, were evaluated against the numeric biocriteria for aquatic life use established in those studies. It has been determined that there is 2.4% full attainment for aquatic life use in the Western Basin, 50% around the Islands, and 26% in the Central Basin, as shown in Appendix E.4, Lake Erie Assessment Unit Results. Table 5-11 of the 2006 IR indicates that overall 19.4% of the sites assessed for the three Lake Erie AUs are in full attainment for aquatic life use. Section 6.2.1 states that the three Lake Erie AUs are assigned the priority of the appropriate surrounding or contiguous watershed assessment unit.

² See Table 8-10, page 29 of *Biennial Assessment of the Ohio River Water Quality Conditions, 2004-2005* (ORSANCO 2006).

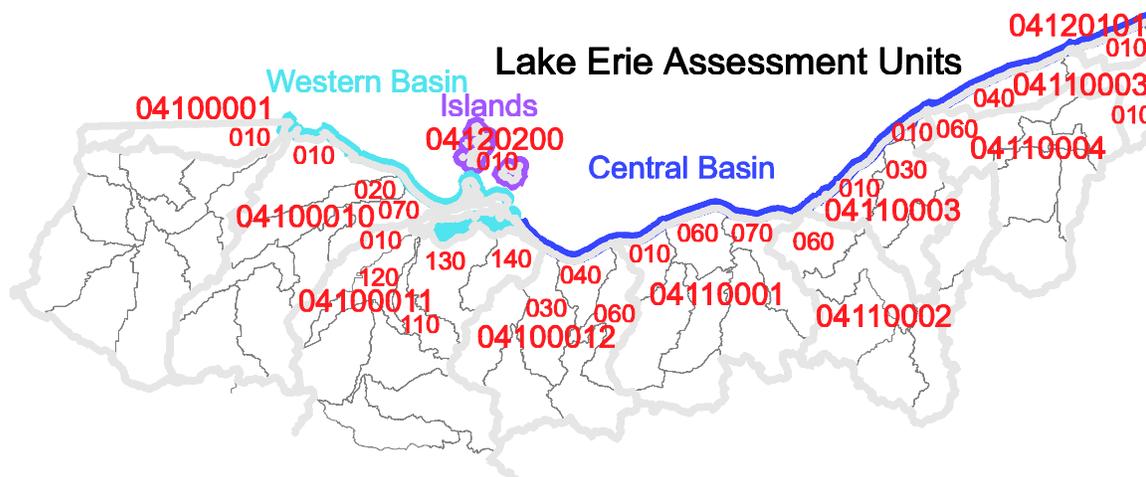
Table 8-10: 2004 Ohio River Integrated Assessment

Waterbody ID/ Assessment Unit	States	River Miles	Total Miles in Waterbody	Warm Water Aquatic Life Use Support	Public Water Supply Use Support	Contact Recreation Use Support	Fish Consumption Use Support
OWNB 01	PA	0.0 - 6.2	6.2	1	5 (0-4.0)	5	5*
OWNB 02	PA	6.2 - 13.3	7.1	1	1	5	5*
OWNB 03	PA	13.3 - 25.4	12.1	1	1	5	5*
OWNB 04	PA	25.4 - 31.7	6.3	1	1	5	5*
OWNB 05	PA	31.7 - 40.2	8.5	1	1	5	5*
OWNB 06	OH-WV	40.2 - 54.4	14.2	1	1	5	5*
OWNB 07	OH-WV	54.5 - 84.2	29.8	1	1	5	5*
OWNB 08	OH-WV	84.2 - 126.4	42.2	1	5 (90.0-93.0)	5	5*
OWNB 09	OH-WV	126.4 - 161.7	35.3	1	1	5	5*
OWNB 10	OH-WV	161.7 - 172.2	10.5	3 (166.7-172.2)	5	5 (161.7-172.2)	5*
OWNB 11	OH-WV	172.2 - 203.9	31.7	3 (172.2-174.2)	1	5 (172.2-183.5)	5*
OWNB 12	OH-WV	203.9 - 237.5	33.6	1	1	1	5*
OWNB 13	OH-WV	237.5 - 265.7	28.2	5 (260.3-262.1)	1	5 (250.4-255.5)	4b
OWNB 14	OH-WV	265.7 - 279.2	13.5	1	1	1	4a
OWNB 15	OH-WV	279.2 - 317.1	37.9	1	1	5 (302-317.1)	4a
OWNB 16	OH-KY	317.1 - 341.0	23.9	3 (319.5-322.6)	1	5 (317.1-341.0)	5
OWNB 17	OH-KY	341.0 - 356.5	15.5	1	1	5 (341.0-356.5)	5
OWNB 18	OH-KY	356.5 - 436.2	79.7	3 (357.5-396.7, 398-418.7)	1	5 (356.5-395.1)	5
OWNB 19	OH-KY	436.2 - 464.1	27.9	3 (459.7-463.3)	1	5 (462.6-464.1)	5
OWNB 20	OH-KY	464.1 - 470.2	6.1	1	1	5	5
OWNB 21	OH-KY	470.2 - 491.1	20.9	1	1	5	5
OWNB 22	IN-KY	491.1 - 531.5	40.4	1	1	5 (491.1-496)	5
OWNB 23	IN-KY	531.5 - 545.8	14.3	1	1	5 (531.5-538.5)	5
OWNB 24	IN-KY	545.8 - 606.8	61.0	1	1	5 (553.6-567.6)	5
OWNB 25	IN-KY	606.8 - 629.9	23.1	1	5 (615.0-629.9)	5 (606.8-609.7, 617.6-629.9)	5
OWNB 26	IN-KY	629.9 - 720.7	90.8	3 (684.5-689.8, 676.2-700)	1	3	5
OWNB 27	IN-KY	720.7 - 776.1	55.4	3 (731.5-757.5), 5 (730.2-731.5)	1	3	5
OWNB 28	IN-KY	776.1 - 794.2	8.1	1	1	3	5
OWNB 29	IN-KY	794.2 - 846.0	51.8	3 (798.4-832.3), 5 (798.1-798.4)	1	5 (791.5-797.3)	5
OWNB 30	IN-KY	846.0 - 848.0	2	1	1	3	5
OWNB 31	IL-KY	848.0 - 918.5	70.5	1	1	3	5
OWNB 32	IL-KY	918.5 - 920.4	1.9	1	1	3	5
OWNB 33	IL-KY	920.4 - 934.5	14.1	1	1	3	5
OWNB 34	IL-KY	934.5 - 981.0	46.5	3 (934.5-939.8, 960.3-976.8, 976.1-981), 4C (939.8-941.1, 976.8-978.1)	1	3	5

- 1: Attaining the water quality standard.
 - 2: Attaining some of the designated uses; and insufficient or no data and information is available to determine if the remaining uses are attained.
 - 3: Insufficient or no data and information to determine if designated use is attained.
 - 4: Impaired for one or more designated uses but does not require the development of a TMDL.
 - 4A: TMDL has been completed.
 - 4B: Other pollution control requirements are reasonably expected to result in the attainment of the water quality standard in the near future.
 - 4C: Impairment is not caused by a pollutant.
 - 5: The water quality standard is not attained. The assessment unit is impaired for one or more designated uses by a pollutant(s), and requires a TMDL.
- * A TMDL for PCBs has been completed and approved for these waterbodies; a Dioxin TMDL is still needed.
** TMDLs for PCBs and dioxin has been completed and approved for these waterbodies.

Attainment of recreational water quality standards for the three Lake Erie AUs was based upon examination of *E. coli* data provided by the Ohio Department of Health. Data from the past five recreation seasons (2001-2005) was used to track the number of days over the sampling period that five consecutive samples within a 30 day period exceeded the geometric mean of the *E. coli* criterion of 126 (see Table 5-6). The Western and Central Basin AUs (21 beaches) are in non-attainment, while the Lake Erie Islands AU (2 beaches) is in full attainment. A noteworthy change in 2006 for beach advisories is that beginning with the 2006 recreational season, Ohio will use the single sample maximum *E. coli* criteria for beaches of 235 to comply with the federal BEACH Act rule.

Table 1 lists the impairments and schedule for TMDL development and monitoring for the three Lake Erie AUs. A map follows which delineates the AUs into the nearshore categories of western basin, central basin and islands as submitted by Ohio EPA to U.S. EPA (February 2003). A schedule for TMDL development may not indicate all pollutants. Ohio develops watershed TMDLs for the limiting pollutant; in some cases developing a TMDL for one pollutant will address all or some of the remaining impairments.



(OEPA, February 2003)

Table 1
Western Basin

AU (HUC)	Segment Identification	Cause/Impairments	Schedule TMDL/Monitoring
04100010-010	Lake Erie Tribs (East of Maumee River to West of Toussaint River)	Unknown toxicity, Nutrients, Siltation, Flow alteration, Other Habitat Alterations, Oil and Grease	2010 TMDL 2008 monitoring
04100010-020	Toussaint Creek	Other habitat alterations	2006 TMDL 2018 monitoring
04100010-070	Portage River (downstream Sugar Creek to mouth); Lake Erie Tribs west of Marblehead	Siltation, Organic Enrichment/DO	2010 TMDL 2008 monitoring
04100011-010	Muddy Creek; Lake Erie trib (Muddy Creek to Marblehead)	Category 3	2009 monitoring
04100011-110	Green Creek	bacteria	2011 TMDL 2009 monitoring
04100011-120	Sandusky River (downstream Wolf Creek to mouth);excluding Green Creek and Sandusky R mainstem	Category 3	2009 monitoring
04100011-130	Lake Erie Tribs (East of Green Creek to west of Mills Creek)	Organic Enrichment/DO, Other Habitat alterations	2016 TMDL 2014 monitoring
04100011-140	Lake Erie Tribs (West of Mills Creek to East Sawmill Creek)	Organic Enrichment/DO, Other Habitat alterations	2016 TMDL 2014 monitoring

Central Basin

AU (HUC)	Segment Identification	Causes/Impairments	Schedule TMDL/Monitoring
04100012-060	Vermillion River (upstream E Br to mouth)	bacteria	2006 TMDL 2021 monitoring
04110001-010	Lake Erie Tribs (E. of Vermillion R to W of Black R)	bacteria	2013 TMDL 2011 monitoring
04110001-060	West Branch Rocky River	Unknown Toxicity, Unionized Ammonia, Nutrients, Siltation, Organic Enrichment/DO, Other Habitat alterations	2006 TMDL 2021 monitoring
04110001-070	Rocky River; Ebr Rocky R; Lake Erie Tribs (W of Porter Cr to W of Cuyahoga R.)	Unionized Ammonia, Chlorine, Siltation, Organic Enrichment/DO, Flow Alteration, Other Habitat Alterations	2006 TMDL 2021 monitoring
04110003-010	Lake Erie tribs(E of Cuyahoga R to W of Grand R) excluding Chagrin R	Organic Enrichment/ DO, Flow Alteration	2016 TMDL 2014 monitoring
04110003-030	Chagrin River (ds Aurora Br to mouth)	Cause unknown, Organic Enrichment/ DO, Flow Alteration, Other Habitat Alterations	2007 TMDL 2019 monitoring
04110003-040	Lake Erie trib (E of Grand R to W of Ashtabula R)	Cause Unknown, Nutrients, Organic Enrichment/DO, Flow Alteration, Other Habitat Alterations	2016 TMDL 2014 monitoring
04110004-010	Grand River (hw to ds Swine Creek)	Fish consumption	2011 TMDL 2009 monitoring
04110004-060	Grand River (ds Mill Cr to mouth); excluding Grant R. Mainstem	Cause Unknown, Organic Enrichment/DO	2006 TMDL 2019 monitoring
04120101-010	Conneaut Creek; Lake Erie Tribs (E. of Ashtabula R to W of Conneaut Cr)	Cause Unknown, Priority Organics, Metals, Other Habitat Alterations	2016 TMDL 2014 monitoring

Islands

AU (HUC)	Segment Identification	Causes/Impairment	Schedule TMDL/Monitoring
04120200-010	Lake Erie Islands	Category 3	2009 monitoring

Water Quality Standards

Ohio water quality standards have two distinct elements: designated uses, and numerical or narrative criteria designed to protect and measure attainment of the uses (OAC 3745-1-07(A)). Ohio EPA assigns each water body a use designation, and a water body may have one or more use designations. Each water body in the State is assigned an aquatic life habitat use designation, and may also be assigned a water supply use designation and/or one recreational use designation (OAC 3745-1-07(A)(1)). Ohio has six tiers (Table 4-1 on the following page taken from the IR) in its aquatic life use designation system (OAC 3745-1-07(B)(1)), and three categories for both the recreational and water supply use designations. In addition, the Ohio Administrative Code contains statewide chemical-specific criteria for the support of use designations (OAC 3745-1-07(A)(2)).

Aquatic life use: Ohio's standards contain numeric biological criteria that describe the expected biological performance of Ohio's wadeable and boatable rivers and streams. Ohio EPA uses the numeric biological criteria to interpret the data generated when a biological assessment of a stream is conducted (OAC 3745-1-07(A)(6)). Through a use attainability analysis, a given stream reach may be assigned an appropriate aquatic life use. Biological sampling is conducted to establish attainment status. Although chemical and physical data are also collected as part of Ohio EPA's comprehensive watershed evaluations, the performance of the fish and macroinvertebrate communities against three indices is used to determine attainment status.

Section 3.1.1 states that each year Ohio EPA conducts biosurveys in 20-25 Watershed and Large River Units with an aggregate total of 400-450 sampling sites. The data collected during the biosurveys are evaluated and used to develop a biological and water quality report. This information forms the basis for the list of waters impaired for aquatic life use for purposes of Section 303(d) listings. As part of the assessment process, Ohio has a Stream Regionalization Project to select reference, or least impacted sites, in each of Ohio's five ecoregions. Based on the results of this effort ecoregion-specific biocriteria were developed. For a sampling site to be classified as being in full attainment it must meet the relevant criteria of all three indices, the Index of Biotic Integrity (IBI), the Modified Index of Well-being (MIWb), and the Invertebrate Community Index (ICI) (OEPA 1999). An AU is determined to be in partial attainment if only one criterion is not achieved, while non-attainment results when all biological scores are less than the criteria or if very poor scores are attributed to either fish or macroinvertebrate communities. These biocriteria are codified in Ohio's water quality standards (OAC 3746-1-07, Table 7-16).

Public water supply: Ohio's water quality standards state that Ohio may also designate a water body for water supply use (OAC 3745-1-07(A)(1)). Ohio has three water supply uses: public, agricultural, and industrial. A public water supply is a water that with conventional treatment will be suitable for human intake and meet federal regulations for drinking water (OAC 3745-1-07(B)(3)(a)).

New in the 2006 IR, Section 4.3.1 begins the discussion of Drinking Water Use, and a draft methodology for review is found in Appendix C of the 2006 IR. Section 4.3.1.1 summarizes the Public Drinking Water Supply Methodology, with nitrate, pesticides, other contaminants, and *Cryptosporidium* being the core indicators for chemical water quality criteria. These are established water quality criteria, and later efforts will incorporate additional indicators. Ohio states that source water quality will be assessed through comparison of instream and applicable treated water quality data to numeric chemical water quality criteria for the core indicators. The numeric water quality criteria correspond to the treatment standards established by the SDWA or were adopted from U.S. EPA's 304(a) recommended water quality criteria. Criteria will apply as average concentrations except for nitrate (which will use a maximum value). Algae and taste and odor will be considered as supplemental indicators. Following assessment, the water will be

Table 4-1. Ohio's beneficial use designations		
Beneficial Use Category	Key Attributes, or why a water would be designated in the category	Evaluation status in 2006 Integrated Report
<i>Categories for the protection of aquatic life</i>		
Coldwater Habitat	native cold water or cool water species; put-and-take trout stocking	Assessed on case by case basis
Seasonal Salmonid Habitat	supports lake run steelhead trout fisheries	No direct assessment, streams assessed as EWH or WWH
Exceptional Warmwater Habitat	unique and diverse assemblage of fish and invertebrates	64% of the Watershed Assessment Units and 74% of the Large River Assessment Units fully assessed using direct comparisons of fish and macroinvertebrate community index scores to the biocriteria in Ohio's WQS; sources and causes of impairment were assessed using biological indicators and water chemistry data
Warmwater Habitat (WWH)	typical assemblages of fish and invertebrates	
Modified Warmwater Habitat	tolerant assemblages of fish and macroinvertebrates; irretrievable condition precludes WWH	
Limited Resource Waters	fish and macroinvertebrates severely limited by physical habitat or other irretrievable condition	Assessed on case by case basis
<i>Categories for the protection of recreational activities</i>		
Bathing Waters	Lake Erie (entire lake); for inland waters bathing beach with lifeguard/bath house	Lake Erie public beaches fully evaluated; no inland waters evaluated
Primary Contact Recreation	water depth allows full body immersion	44% of the assessment units assessed using percentile rankings of fecal coliform counts
Secondary Contact Recreation	water depth prevents full body immersion	Not assessed
<i>Categories for the protection of water supplies</i>		
Public Water Supply	waters within 500 yards of all public water supply surface water intakes	Method proposed, with example project, see Section 4.3.1
Agricultural Water Supply	water used, or potentially used, for livestock watering and/or irrigation	Not assessed
Industrial Water Supply	water used for industrial purposes	Not assessed

assessed as impaired, in full attainment, or put on a “watch list”, i.e., targeted for additional monitoring and assessment. Appendix C goes into more detail regarding the methodology, including source water sampling and water supply intake sampling, compliance and violation history, and integration of waters into the listing process. The table on the next page, from the 2006 IR, summarizes Public Drinking Water Supply Impairment Determination.

Recreation: Ohio water quality standards state that Ohio may also designate a water body for recreational use (OAC 3745-1-07(A)(1)). Under the Ohio Administrative Code, recreational designations are in effect from May to mid-October (OAC 3745-1-07(B)(4)). The methodology used in 2004 continues to be used in 2006. The table (p. 14, bathing/primary contact) is part of the 2006 IR in Section 4.5.1, and summarizes the linkage between the methodology and Ohio's water quality standards. The geometric mean E. coli content shall not exceed 126 per 100 ml on not less than five samples within a thirty day period and shall not exceed 235 per 100 ml in more

than ten per cent of the samples taken during any thirty-day period. The geometric mean fecal coliform content shall not exceed 1,000 per 100 ml on not less than five samples in the thirty day period and shall not exceed 2,000 per 100 ml in more than ten per cent of the samples taken during any thirty-day period.

Public Drinking Water Supply Impairment Determination <i>Applies to in-stream ambient and treated water quality data for the most recent five year period.</i>	
Indicator	Impaired Conditions
Nitrate	<input type="checkbox"/> Two or more excursions ¹ above the WQ criteria within the 5 year period
Pesticides	<input type="checkbox"/> Annual average exceeds WQ criteria
Other Contaminants	<input type="checkbox"/> Annual average exceeds WQ criteria
<i>Cryptosporidium</i>	<input type="checkbox"/> Annual average exceeds WQ criteria (1.0 oocysts/L)
Indicator	Full Attainment Conditions
Nitrate	<input type="checkbox"/> No more than one excursion ¹ above the WQ criteria within the 5 year period
Pesticides	<input type="checkbox"/> Annual average does not exceed the WQ criteria
Other Contaminants	<input type="checkbox"/> Annual average does not exceed the WQ criteria
<i>Cryptosporidium</i>	<input type="checkbox"/> Annual average does not exceed the WQ criterion
Indicator	"Watch List" Conditions <i>Source waters targeted for additional monitoring and assessment</i>
Nitrate	<input type="checkbox"/> Maximum instantaneous value > 8 mg/L (80% of WQ criterion)
Pesticides	<input type="checkbox"/> Running quarterly average \geq WQ criteria <input type="checkbox"/> Maximum instantaneous value \geq 4x WQ criteria
Other Contaminants	<input type="checkbox"/> Maximum instantaneous value \geq WQ criteria
<i>Cryptosporidium</i>	<input type="checkbox"/> Annual average \geq 0.075 oocysts/L

¹ Excursions must be at least 30 days apart in order to capture separate or extended source water quality events.

WQ Criteria - Water Quality Criteria defined in OAC Chapter 3745-1 established to protect in-stream water quality for the PWS beneficial use (Human health- Drinking Water)

In Section 4.5.3, recreational use evaluation of rivers and streams are discussed. Data were from Ohio EPA and ambient monitoring collected by point source dischargers, from STORET and SWIMS databases. Approximately 30,550 fecal coliform bacteria records were used in the analysis. Statistical analysis performed were the geometric mean, median, 75th percentile, and 90th percentile of the fecal coliform data. The recreational use was determined by comparing the 75th percentile to the Ohio geometric mean fecal coliform criterion of 1,000 and 90th percentile was compared to the single sample maximum criterion of 2,000. Impairment was determined when either percentile exceeded the criterion. A minimum of three sampling locations within the AU and 15 measurements were required to make an assessment determination; the resultant impairments for recreational use, and comparisons of previous years, are shown in Tables 5-8 and 5-9.

Bathing Waters		
Indicator	Criterion (Table 7-13, OAC 3745-1-07)	Assessment Method
<i>E. coli</i>	geometric mean <i>E. coli</i> content (either MPN or MF), based on not less than five samples within a thirty-day period, shall not exceed 126 per 100 ml and <i>E. coli</i> content (either MPN or MF) shall not exceed 235 per 100 ml in more than ten per cent of the samples taken during any thirty-day period	Lake Erie beach data was extensive enough to allow direct comparisons of geometric mean to the water quality criteria of 126; running geometric means calculated to arrive at the number of days in recreational season above the criterion; threshold of 10 days above criterion considered impairment of bathing water use. Comparisons to the single sample maximum criteria included for informational purposes, as well as information for individual beaches
Primary Contact		
Indicator	Criterion (Table 7-13, OAC 3745-1-07)	Assessment Method
Fecal coliform	geometric mean fecal coliform content (either MPN or MF), based on not less than five samples within a thirty-day period, shall not exceed 1,000 per 100 ml and fecal coliform content (either MPN or MF) shall not exceed 2,000 per 100 ml in more than ten per cent of the samples taken during any thirty-day period	Statewide data on rivers and streams was not extensive enough to allow direct comparison of geometric mean to the water quality criterion of 1000; data pooled from all sources over period of record was used; thresholds used for impairment of primary contact use were 75 th percentile compared to 1000 and 90 th percentile compared to 2000.

Table 5-8. Overall differences in the assessment of recreation use attainment, 2002 to 2006

	2002 Report		2004 Report		2006 report	
	Number	Percentage	Number	Percentage	Number	Percentage
Total AUs	354	100	354	100	354	100
Assessed	56	16	166	47	154	43
Attaining Recreation Use	10	18	56	33	57	37
Impaired Recreation Use	46	82	110	67	97	63
Not Assessed	298	84	188	53	200	57

Table 5-9. Assessment units listed as impaired for recreation use in 2004 and found to be in attainment in the 2006 report

Assessment Unit	Description	2004 Results			2006 Results		
		# sites/ # samples	Percentile values		# sites/ # samples	Percentile values	
			75 th	90 th		75 th	90 th
04100003 030	St. Joseph River (East/West Branches to downstream Bear Creek)	3/79	920	2500	3/69	670	1860
04100010 060	Portage River (downstream North Branch to downstream Sugar Creek)	4/152	1300	2600	5/98	578	1030
04100011 001	Sandusky River (downstream Tymochtee Creek to the mouth)	11/228	560	2130	11/185	360	1687
04110001 060	West Branch Rocky River	9/124	823	2340	9/136	830	1950
04110001 070	Rocky River, East Branch Rocky River and Lake Erie tributaries (West of Porter Creek to West of the Cuyahoga River)	21/933	1175	3416	21/738	420	1400
04110002 050	Cuyahoga River (downstream Brandywine Creek to downstream Tinkers Creek; excluding mainstem)	27/ 841	900	2800	7/491	790	2000
05030101 070	Middle Fork Little Beaver Creek	32/250	660	2000 ¹	4/159	502	1653
05030106 010	Ohio River Tributaries (downstream Cross Creek to downstream Short Creek)	5/118	639	2590	4/82	779	1980
05040001 010	Tuscarawas River (headwaters to downstream Wolf Creek)	26/206	1100	2650	27/287	820	1800
05060001 220	Big Darby Creek (downstream Little Darby Creek to the mouth)	29/323	638	2080	27/235	593	1790
05080001 001	Great Miami River (downstream Tawawa Creek to the mouth)	18/1052	920	2800	14/925	693	2000
05080002 060	Sevenmile Creek	25/227	805	2560	38 / 283	650	1492

¹ The 90th percentile fecal coliform result was 2000 (the cut off value for attainment vs. non-attainment). Ohio EPA District staff familiar with conditions in the watershed were consulted to arrive at the decision to call the assessment unit impaired for recreation use.

Figure 4-3 in the 2006 IR shows the 23 Lake Erie beaches tested by the Ohio health departments during the recreational season. Bacteria data collected by state and local health agencies to advise the public on the risk of waterborne illness were included in the analysis. Section 4.5.2 discusses the methodology Ohio EPA used for the 2006 IR to determine use attainment for the Lake Erie beaches. For the 2006 IR, each of the 23 beaches was analyzed to determine the percentage of recreational days during which the geometric mean water criteria of 126/100 ml was exceeded. Starting in 2006, recommendations to post a beach advisory will be based upon the single sample maximum E. coli criteria of 235/100 ml which will trigger the advisory. Section 5.2.1 of the 2006 IR states that this change in posting advisories is being made to comply with the federal BEACH Act rule, which became effective on December 16, 2004.

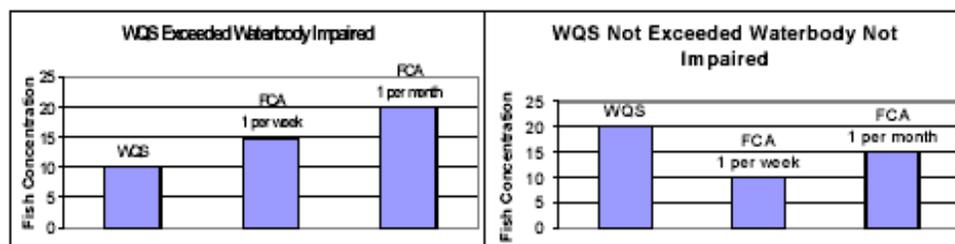
Wetlands: In 1998, Ohio established wetland water quality standards. These standards include provisions for wetland use designation, narrative criteria, numeric criteria for dischargers to wetlands, and antidegradation. All wetlands receive the “wetlands” use designation under OAC 3745-1-53. Narrative criteria have been codified which protect the functional and recreational aspects of designated wetlands. A rule package, including wetland numeric biological criteria is under review. Ohio states in the 2006 IR that as the rules are proposed, criteria will be established as benchmarks for attainment of tiered, ecoregion-specific wetland use system. The ecological integrity will be evaluated using vascular plants and/or amphibians. Further, a probabilistic and targeted evaluation of wetland quality in several watershed assessment units was utilized in the study of the Cuyahoga River watershed and it is anticipated that this format will be used for other watershed scale assessments.

Inland lakes and reservoirs: Assessment of lakes began in 1989 with a Clean Water Act Section 314 grant that evaluated 52 lakes. Eighty-nine more were evaluated through 1995. In 1996, 447 public lakes were presented in a 305(b) report. As part of that report, lake evaluations used the Lake Condition Index (LCI), which characterizes overall lake health to assess beneficial use status. From 1996 to the present, Ohio EPA has monitored 53 lakes, but LCI scores have not been calculated. When the lakes were assessed, some of those lakes which were categorized as “threatened” in the 1990’s may not presently qualify as threatened nor for listing, because the lakes were not evaluated with the current guidance and regulations used to characterize and assess for listing purposes. Further, under the Ohio Credible Data Law, Ohio limits the use of some of the data collected in the early 1990s, which could disqualify some of the lakes for listing. Ohio EPA hoped to include lakes in this reporting cycle, but due to limited resources Ohio EPA was not able to complete LCI scores and was therefore unable to include inland lakes and reservoirs for this IR.

Fish Contaminant Data: For the 2006 IR, Ohio EPA developed a new listing methodology to list waters for impairments to human health water quality standards for exposure to contaminated flesh of sport fish, also called the “non-drinking water human health criterion.” The new methodology is presented in Section 4.4 of the 2006 IR, and is explained in greater detail in Appendix A. Under the new methodology waters are listed based upon fish tissue data, rather than fish consumption advisories (FCAs). In the past, including the 2004 IR, FCAs were used for impaired listing. The FCAs should still be considered with regard to the human consumption of fish. As stated in the 2006 IR, “[t]he purpose of [the non-drinking water human health criterion] is to ensure levels of a chemical in water do not bioaccumulate in fish to levels harmful to people who catch and eat the fish.” 2006 IR, Section 4.4.1 at 48. However, waters with a FCA may or may not be listed; Section 4.4.2 and Appendix A.3 of the 2006 IR describes the rationale and evaluation method for putting waters on the 303(d) list and further describes when a water may be on the list even if there is no FCA, and vice versa. The bottom line is the thresholds used for determining IR categories are based on water quality standards for human health and the fish contaminant data, not consumption advisories. All of Appendix A, Supplemental Information on the Use of Fish Tissue Data, is new in the 2006 IR.

Ohio's WQS regulations do not describe human consumption of sport fish as an explicit element of aquatic life protection. However, the WQS do include human health criteria that are applicable to all surface waters of the State. For Ohio, a FCA is determined based on the quantity of chemical in fish tissue, such as micrograms of chemical per kilogram of fish tissue ($\mu\text{g}/\text{kg}$). WQS, on the other hand, are expressed as the quantity of chemical in water, such as micrograms of chemical per liter of water ($\mu\text{g}/\text{l}$). The information used to calculate the human health non-drinking WQS criterion can be used to calculate a maximum safe fish concentration. That specific fish concentration value can then be directly compared to the FCA program values to determine whether the advisory is less or more protective than the WQS criterion. Figure 6-2 illustrates the methodology for FCAs as described more fully in Section 4.4.2.

Figure 6-2. Illustration of the relationship among the water quality standard (WQS) values, the values that trigger issuance of fish consumption advisories (FCAs) and the resulting decision regarding waterbody impairment associated with an FCA.



Basin / Parameter	Fish concentration on which the WQS is based ¹	Range of fish concentrations triggering an "eat no more than one meal per week" advisory	Range of fish concentrations triggering an "eat no more than one meal per month" advisory
Lake Erie / PCB	23 $\mu\text{g}/\text{kg}$	50 - 220 $\mu\text{g}/\text{kg}$	221 - 1,000 $\mu\text{g}/\text{kg}$
Ohio River / PCB	54 $\mu\text{g}/\text{kg}$	50 - 220 $\mu\text{g}/\text{kg}$	221 - 1,000 $\mu\text{g}/\text{kg}$
Lake Erie / mercury	350 $\mu\text{g}/\text{kg}$	50 - 220 $\mu\text{g}/\text{kg}$	221 - 1,000 $\mu\text{g}/\text{kg}$
Ohio River / mercury	1,000 $\mu\text{g}/\text{kg}$	50 - 220 $\mu\text{g}/\text{kg}$	221 - 1,000 $\mu\text{g}/\text{kg}$
Lake Erie / lead ²	2,000 $\mu\text{g}/\text{kg}$	86 - 371 $\mu\text{g}/\text{kg}$	372 - 1,609 $\mu\text{g}/\text{kg}$
Lake Erie / hexachlorobenzene	29 $\mu\text{g}/\text{kg}$	800 - 3,499 $\mu\text{g}/\text{kg}$	3,500 - 15,099 $\mu\text{g}/\text{kg}$
Ohio River / hexachlorobenzene	67 $\mu\text{g}/\text{kg}$	800 - 3,499 $\mu\text{g}/\text{kg}$	3,500 - 15,099 $\mu\text{g}/\text{kg}$

values	advisory is less protective than WQS criterion, WQS exceeded, water body impaired
values	advisory may be more, or less, protective than WQS criterion
values	advisory is more protective than WQS criterion, WQS not exceeded, no impairment from FCA

¹ See Appendix A.1 for an explanation of how these concentrations were calculated.

² There is no Ohio human health non-drinking water criterion for lead in the Ohio River basin.

Removal of Waters from the 303(d) List

The State has also demonstrated good cause for not including certain waters that were previously listed on Ohio's 2004 303(d) list. These previously listed waters are in Tables 6-3 and 6-4 of the Integrated Report. As provided in 40 C.F.R. § 130.7(b)(6)(iv), U.S. EPA requested that the State demonstrate good cause for not including these waters on its 2006 Section 303(d) list. There are 20 AUs removed from the 2004 Section 303(d) list. The State lists two reasons for the delisting: new data available (3 AUs), and approval of TMDLs by U.S. EPA (17 AUs).

-Waters Meeting Water Quality Standards

The State's decision not to include three AUs, the Ohio River tributaries (downstream Cross Creek to downstream Short Creek), Clear Creek, and Sevenmile Creek, on its 2006 Section 303(d) list is consistent with EPA regulations at 40 CFR 130.7(b)(6)(iv). These waters were identified on the State's 2004 Section 303(d) list. Under 40 CFR 130.7(b)(6)(iv), States are not required to list if they meet water quality standards based on more recent data.

-Waters Removed Based on TMDL Approval

The State's decision not to include 17 AUs, shown in Table 6-4 of the IR submittal, on its 2006 Section 303(d) list is consistent with EPA regulations at 40 CFR 130.7(b)(6)(iv). These waters were identified on the State's 2004 Section 303(d) list. Under 40 CFR 130.7(b)(6)(iv), States are not required to list if all impairments are addressed in the approved TMDL.

Waters Subject to Other Pollution Control Requirements Stringent Enough to Implement any Water Quality Standards, 40 CFR 130.7(b)(1)(iii)

Under 40 C.F.R. 130.7(b)(1), States are not required to list WQLSs still requiring TMDLs where effluent limitations required by the CWA, more stringent effluent limitations required by State or local authority, or other pollution control requirements required by State, local, or federal authority, are stringent enough to implement applicable water quality standards. The regulation does not specify the time frame in which these various requirements must implement applicable water quality standards to support a State's decision not to list particular waters.

Section 3.2 of the 2006 IR states that in State Fiscal Year 2005 more than \$592.3 million was awarded to the State from the Water Pollution Control Loan Fund (WPCLF), the highest annual total. The fund exceeded the \$3.6 billion for total loans since October, 1989. This fund financed implementation of 71 municipal wastewater treatment projects. Nonpoint source pollution is addressed through the Water Resource Restoration Sponsor Program (WRRSP). The WRRSP financed 12 projects for over \$21 million to protect and restore stream and wetland aquatic habitats. Other significant funding and loan programs are also discussed in this Section of the IR.

Monitoring should be scheduled for these waters to verify that the water quality standard is attained as expected in a reasonable time frame. Where standards will not be attained through implementation of the requirements listed in 40 C.F.R. 130.7(b)(1) in a reasonable time, it is appropriate for the water to remain on the Section 303(d) list to ensure that implementation of the required controls and progress towards compliance with applicable standards is tracked. If it is determined that the water is, in fact, meeting applicable standards when the next Section 303(d) list is developed, it would be appropriate for the State to remove the water from the list at that time.

Public Participation and Comments on Listing Decisions

The State's public participation process for the 2006 IR has been extensive. In December, 2005, a mailing was sent to nine outside parties who had responded to the 2004 IR solicitation for bacteria data (See Section 4.2 and Appendix B.2 of the 2006 IR). In January, 2006, the State continued its public participation by posting an announcement of its draft of the 2006 IR available to the public prominently on its website (See Appendix B.3 of the 2006 IR). The formal comment period for the 2006 IR ran from January 20, 2006 to February 20, 2006. A public information session was held at Ohio EPA's offices in Columbus on February 8, 2006. The Notice is included in the 2006 IR at Appendix B.4. Public comments received and Ohio EPA's responses are included at Appendix B.5.

During the public comment period the State received comments, including comments that expressed concern that all data were not assessed and that certain waterbodies should be included or removed from the 303(d) list. The State responded to all of the public comments and addressed its decisions to not consider certain data, or list certain waterbodies on its 2006 Section 303(d) list. Some of the comments resulted in changes to the text in the final IR. The State has demonstrated, to U.S. EPA's satisfaction, good cause for its listing decisions in the 2006 Section 303(d) list at Appendix B.1 from the external advisory group, recommending points related to monitoring and data, priority setting, and public involvement.

Priority Ranking and Targeting

U.S. EPA also reviewed the State's priority ranking of listed waters for TMDL development, and concludes that the State properly took into account the severity of pollution and the uses to be made of such waters, as well as other relevant factors such as status of recreation use, and the status of aquatic life. For inland lakes and near shore of Lake Erie (including Maumee Bay) the waterbodies were assigned the same priority as the surrounding contiguous 11 digit HUC. Ohio gave the open waters of Lake Erie and the Ohio River a low priority.

For the remaining waters on Category 5 of the Integrated Report the State used a point system to determine the priority ranking of the AUs. Ohio EPA developed a point system totaling a maximum of 13 possible points (1 being the lowest priority and 13 being the highest). The maximum point distribution was 12. The points were distributed as follows, and can be found in Section 6.2 of the 2006 IR.

7 points given to any AU where a Recreation Use was identified;
3 points given to any AU that had a 40 to 79 score in the determination for the Aquatic Life Use;
2 points given to any AU that had a 80 to 90 score in the determination for the Aquatic Life Use;
1 point given to any AU that had a 0 to 39 score in the determination for the Aquatic Life Use;
1 point given to any AU where over half of the Aquatic Life Use "non-attainment" is "partial";
1 point given to any AU with a fish consumption advisory; and 1 point given to any AU where recent data, sufficient to proceed with a TMDL, are available.

In addition, U.S. EPA reviewed the State's identification of WQLSs targeted for TMDL development in the next two years, and concludes that the targeted waters are appropriate for TMDL development in this time frame. Ohio considered various factors in developing both the long term and short term schedule.

Ohio builds on programmatic strengths in monitoring, modeling, permitting, and nonpoint source incentives to develop an integrated approach to TMDLs that aligns program goals and resources efficiently. Ohio also has an active stakeholder process for developing TMDLs. Ohio works on collecting data through the five year rotating basin plans. Ohio has estimated it will take ten years to complete monitoring in the State. Each AU is assigned to one of the next two monitoring cycles using the following criteria: Ohio EPA's five-year Basin Monitoring Strategy; time since most recent assessment; distribution of work effort among Ohio EPA district offices; and TMDL schedule. Ohio has generated its long-term TMDL schedule based on the following criteria: existing commitments; priority ranking; presence of a funded watershed coordinator who can assist with TMDL activities; and distribution of work effort among Ohio EPA's five districts.

Table 6-6 in Section 6.4.3 of the 2006 IR is the short-term schedule for TMDL Development and is hereby incorporated by reference. It includes five AUs with TMDLs pending, 16 AUs for TMDL completion in 2006, 28 AUs for 2007, and 19 AUs for 2008.

Long term schedule

U.S. EPA has received Ohio's long-term schedule for TMDL development for all waters on the State's 2006 Integrated Report for Category 5 waters (Appendix D.3). As a policy matter, U.S. EPA has requested that states provide such schedules.³ U.S. EPA is not taking any action to approve or disapprove this schedule pursuant to Section 303(d).

³ See Memorandum from Robert Perciasepe, Assistant Administrator for Water, to Regional Administrators and Regional Water Division Directors, "New Policies for Developing and Implementing TMDLs", August 8, 1997.

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