Section J:

Addressing Waters Not Meeting Water Quality Goals

2008 Ohio Integrated Report

In reporting on the status of water quality in Ohio, methodologies for evaluating four beneficial uses were developed and applied to the available data. The results of this analysis were discussed and reported by individual beneficial use in Sections E, F, G, and H.

The results of the individual analyses (for the human health (fish contaminant), recreation, public drinking water, and aquatic life beneficial use evaluations in Sections E, F, G, and H, respectively) are summarized in Table J-1. Recall that the methodologies for each beneficial use include very conservative criteria for reaching "attains" status; for example, even one site at "partial" attainment status for aquatic life would mean that the watershed would be considered "impaired." This explains why progress continues to be made toward the "80 by 2010" goal—55% full attainment for watersheds and 79% for large rivers—even though the attainment statistics show a more desperate scenario. When there are only two possible answers, perfection or failure, nearly all Ohio streams fail. However, when a range of answers (e.g., a score from 0 to 100) is used, a more accurate picture of water quality in Ohio emerges. See the "Same data – different results?" box in Section A for additional discussion.

Table J-1. Summary of results for each beneficial use.[1]

	Aquatic Life	Recreation	Human Health (Fish contaminants)	Public Drinking Water
Watershed assessment units				
Attains	12	63	74	27
Unknown	71	131	155	0
Impaired, needs TMDL	186	107	102	2
Impaired, TMDL complete	60	30	0	0
Impaired, other remedy	0	0	0	0
Impaired, not pollutant	2	0	0	0
Total watersheds considered	331	331	331	29
Large river assessment units				
Attains	8	11	2	1
Unknown	0	6	3	4
Impaired, needs TMDL	11	5	18	2
Impaired, TMDL complete	2	1	0	0
Impaired, other remedy	0	0	0	0
Impaired, not pollutant	2	0	0	0
Total large rivers considered	23	23	23	7
Lake Erie assessment units				
Attains	0	1	0	3
Unknown	0	0	0	0
Impaired, other remedy	3	2	3	0
Total Lake Erie considered	3	3	3	3

[1] Includes most recent data even if older than 10 year threshold.

This section consolidates the analysis of the individual beneficial uses into a reporting format developed by the U.S. Environmental Protection Agency (U.S. EPA) and lays out how Ohio will deal with the waters identified as not meeting water quality goals. The results are summarized in various tables in Sections L and M, along with the summary results of the individual beneficial use analyses. Ohio's official 303(d) list is presented in Section L4.

J1. Assigning Assessment Units to Categories

Categories of Waters

Using the results for the human health (fish contaminant), recreation, public drinking water, and aquatic life evaluations in Sections E, F, G, and H, each Assessment Unit was placed in one of five categories. These categories reflect U.S. EPA guidance and are summarized below. An assessment unit is placed in only one category, so if any of the four beneficial uses is not "attaining," then the assessment unit is considered impaired overall.

Category Reported Pursuant to Section 303(d) and U.S. EPA Guidance	Results of Data Assessment and Determination of WQS Use Attainment
Category 1	All designated uses are met, and no use is threatened
Category 2	Some of the designated uses are met but there are insufficient data to determine if remaining designated uses are met
Category 3	Insufficient data to determine whether any designated uses are met
Category 4 4A 4B 4C	Water is impaired or threatened but a TMDL is not needed - TMDL has been completed - other required control measures will result in attainment of WQS - impairment or threat not caused by a pollutant
Category 5	Water is impaired or threatened and a TMDL is needed

Overall Results

Comparing results of the 2002, 2004, and 2006 IRs with the results of this reporting cycle reveals progress on completing TMDL projects in impaired waters. The growth in category 4 is attributable to the completion and approval of several TMDLs. Table J-2 provides a summary comparison for all Section 303(d) list categories over the past four IR cycles. Changes from cycle to cycle are slight; Figure J-1 compares the 2002 and 2008 results. Table J-3 is a detailed list of assessment unit category changes between the 2006 and 2008 IRs. A map showing the assessment unit reporting categories is included in Section K.

Overall, this report includes assessment results on more waters. The increases in category 5 numbers from 2002 to 2004 was the result of revised methodology for fish tissue and expanded data sources for bacteria data during that cycle. With no major methodology changes in the 2008 cycle, there are fewer changes in results. The overall number of "303(d) listed" waters (category 5 (impaired, requiring a TMDL)) did not change significantly. Eight waters moved into the impaired category based on new data; eight moved out of the category, seven based on approval of restoration plans and one on new data. Thus, most of the watersheds for which new data are collected show impairment of one or more uses.

Figure J-1 shows the overall decrease in unassessed waters and the growth in impaired waters, both those requiring a TMDL study and those not. The typical path for an assessment unit is from category 3 (no data) to category 5 (new data shows impairment) to category 4A (all TMDLs completed). The trend of fewer assessment units with insufficient data (category 3) continues. It is important to note that, while acquiring new data moves a water from category 3 to another category — usually category 5 (impaired) — the aging of data is not a reason to move waters out of category 5. The number of waters assigned to category 3 will probably continue to decline as new data are collected and waters are identified as impaired. As data age, waters can move among categories 1, 2, and 3.

Table J-2. Comparison of 303(d) listing results for Ohio's inland waters: 2002, 2004, 2006, and 2008.

Integrated Report Year	Category				
	1 Attaining all WQS	2 Attaining some WQS	3 Insufficient data	4 Impaired, no TMDL needed	5 Impaired, TMDL needed
Number of Watersheds					
2002	1	11	105	9	205
2004	1	7	75	6	242
2006	1	13	54	19	244
2008	1	13	47	27	243
Number of Large Rivers					
2002	0	5	1	2	15
2004	1	1	0	1	20
2006	0	2	0	1	20
2008	0	1	1	1	20

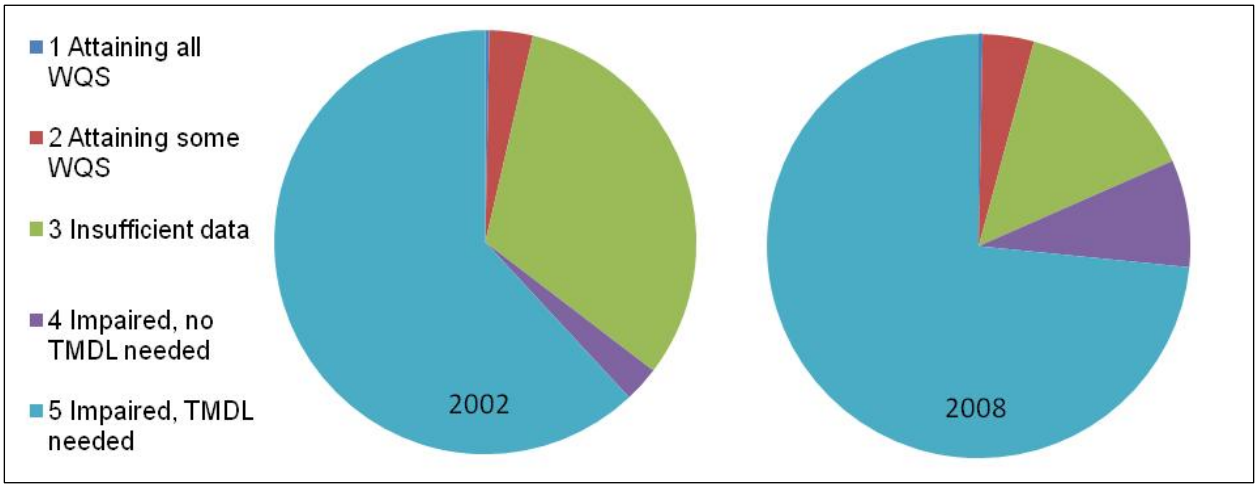

Figure J-1. Comparison of category results for watershed units: 2002 IR vs. 2008 IR

Table J-3. Summary of changes in 303(d) category from 2006 to 2008.

Assessment Unit Description		Category		Reason for Change
		2006	2008	
Assessment units moved out of Category 5 (303(d) list): 8 total				
04120101 010	Conneaut Creek; Lake Erie tributaries (East of Ashtabula River to West of Conneaut Creek)	5	2	New aquatic life and bacteria data; no recent fish tissue data
04110003 020	Chagrin River (headwaters to downstream Aurora Branch)	5	4A	TMDL completed
04110003 030	Chagrin River (downstream Aurora Branch to mouth)	5	4A	TMDL completed
05030204 070	Sunday Creek	5	4A	TMDL completed
05040001 100	Sugar Creek (headwaters to upstream Middle Fork)	5	4A	TMDL completed
05040001 110	South Fork Sugar Creek	5	4A	TMDL completed
05040001 120	Sugar Creek (upstream Middle Fork to mouth); excluding South Fork	5	4A	TMDL completed
05120101 030	Beaver Creek (downstream Grand Lake St. Marys Dam to mouth)	5	4A	TMDL completed
Assessment units moved into Category 5 (303(d) list) : 8 total				
05030101 100	Ohio River tributaries (downstream Little Beaver Creek to upstream Yellow Creek)	2	5	New aquatic life data
05060002 080	Middle Fork Salt Creek	2	5	New aquatic life data
05060003 040	Rattlesnake Creek (upstream Lees Creek to mouth)	2	5	New aquatic life and bacteria data
04100009 070	Swan Creek (headwaters to upstream Blue Creek)	3	5	New aquatic life data
05060003 070	Paint Creek (downstream Rocky Fork to downstream Lower Twin Creek); excluding Paint Creek mainstem	3	5	New aquatic life data
05060003 090	North Fork Paint Creek (downstream Compton Creek to mouth)	3	5	New aquatic life data
05060003 100	Paint Creek (downstream Lower Twin Creek to mouth); excluding North Fork and Paint Creek mainstem	3	5	New aquatic life data
05080001 070	Great Miami River (downstream Plum Creek to upstream Spring Creek); excluding GMR mainstem	3	5	New methodology: public drinking water supply
Category changes not involving Category 5: 4 total				
05080003 080	Whitewater River (downstream East Fork Whitewater R. [IN] to mouth); excluding Whitewater R mainstem	2	3	Old bacteria data[1]
05030106 100	Ohio River tributaries (downstream Wheeling Creek to downstream McMahon Creek)	3	2	New methodology: public drinking water supply
05040006 020	North Fork Licking River (downstream Sycamore Creek to mouth)	3	2	New methodology: public drinking water supply
05060003 080	North Fork Paint Creek (headwaters to downstream Compton Creek)	3	2	New aquatic life and bacteria data; no recent fish tissue data

[1] Data have aged past guidelines in methodology.

J2. Prioritizing the Impaired Waters: the 303(d) List

After waters are identified as impaired and requiring a TMDL, the category 5 waters are prioritized.

Ohio River and Lake Erie

Other organizations have accepted lead responsibility for TMDLs in two special waters affected by multiple jurisdictions: U.S. EPA for the open waters of Lake Erie and ORSANCO for the mainstem of the Ohio River. Ohio EPA automatically assigns these waters a low priority *for Ohio EPA-initiated action*. Ohio EPA is participating in TMDL actions conducted by the lead organizations. Lake Erie nearshore areas are assigned the priority of their contiguous watershed assessment units.

Inland Waters

For inland waters, a point system similar to that used in the 2006 Integrated Report was used to assign priority. Points were added for the Public Drinking Water Use, and points for the other uses were adjusted. A total of 20 points could be assigned to an assessment unit, distributed as shown in Figure J-2. The priority results for specific assessment units are reported in Sections L and M.

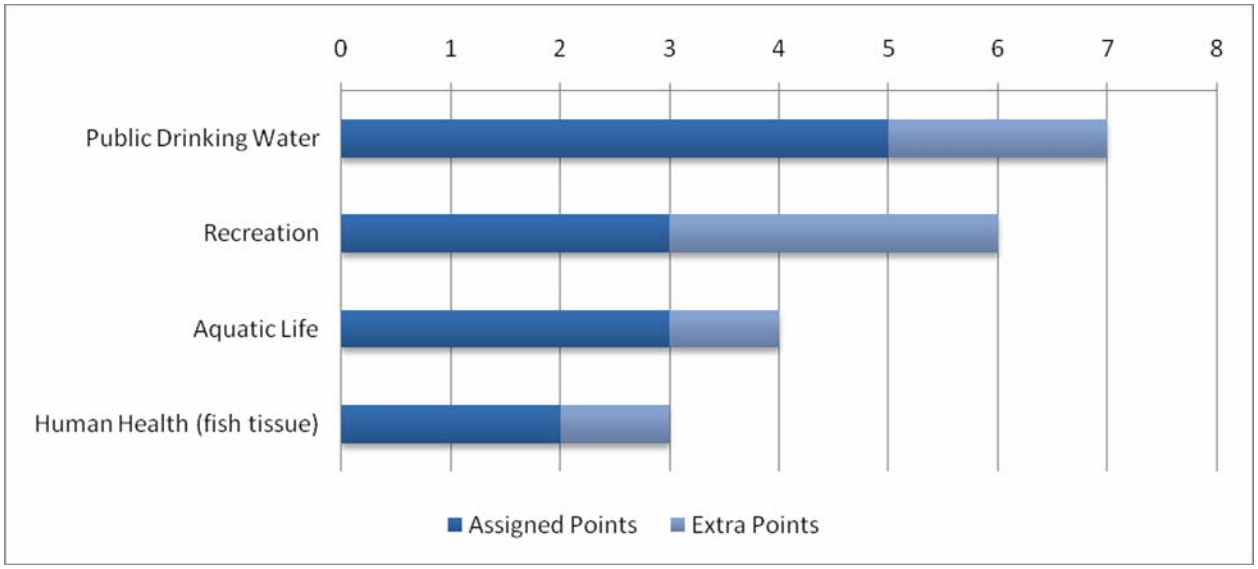

Figure J-2. Priority points assigned based on use impairment or other factors (extra points).

As a practical matter, only the 331 watershed and 23 large-river assessment units are included in the priority-setting exercise. Recognizing the functionality and importance of watersheds, areas and assessment units identified in other ways (inland lakes, Lake Erie nearshore areas) were assigned the priority of the appropriate surrounding or contiguous watershed assessment unit. The assessment units were assigned priority points using the guidelines in Table J-4.

Table J-4. Priority points for impaired assessment units.

Points	Condition	# Assessment Units
Public Drinking Water Use impairment (maximum of 7 points)		
5	Listed as impaired for Public Drinking Water Use for one indicator	4
2	Additional point in assessment units impaired for second indicator	0
1	Not listed as impaired, but on watch list; one point for each indicator	28
Recreation Use impairment (maximum of 6 points)		
3	Listed as impaired for recreation use	112
1	Geometric mean of available fecal coliform data was greater than 1000	14
1	75th percentile of available fecal coliform date greater than 3000	15
1	total number of sites was greater than 15 and the geometric mean of available fecal coliform data was greater than 1000 or impairment is to bathing water recreation use (Lake Erie)	7
Human Health Use impairment (fish tissue contaminants) (maximum of 3 points)		
2	Listed as impaired for Fish Contaminants (Human Health Use)	120
1	Additional point in assessment units that have the most severe levels of advisories (do not eat or 1 meal per 2 months).	14
Aquatic Life Use impairment (maximum of 4 points)		
1	Listed as impaired, with assessment unit score[1] between 0 and 39: Scores in this range generally indicate severe basin-wide problems, comprehensive degradation that may require significant time and resources and broad-scale fixes, including, possibly, fundamental changes in land use practices. Educating about how water quality is affected by various practices and encouraging stewardship may be more effective in these areas than a traditional TMDL approach. For example, a program by Ohio EPA and the Ohio Department of Natural Resources that funds local watershed coordinators to develop a comprehensive, implementable, community-driven watershed plan may be appropriate in these areas.	81
2	Listed as impaired, with assessment unit score[1] between 80 and 99: Scores in this range generally indicate a localized water quality issue. Addressing the impairment may not require a complete watershed effort; rather, a targeted fix for a particular problem may be most effective.	45
3	Listed as impaired, with assessment unit score[1] between 40 and 79: Scores in this range indicate a problem of such scale that purposeful action should produce a measurable response within a 10-year period. These waters are the best candidates for a traditional TMDL. Local watershed coordinators (as mentioned above) can also work effectively in these areas in concert with a TMDL effort.	71
1	Where the ratio of the Aquatic Life Use " partial attainment" to "non-attainment" is greater than 2, the chances for recovery are better. Additional priority is given to assessment units with this characteristic.	30

[1] The assessment unit score is reported on the summary sheets in Sections L and M and on the Aquatic Life Use Status (watershed assessment units) map in the Maps section.

J3. Removing Waters From the 303(d) List

Federal regulations require a demonstration of good cause for not including water bodies on the Section 303(d) list that were included on previous 303(d) lists (40 CFR 130.7(b)(6)(iv)). In its guidance for preparation of this report, U.S. EPA outlined a number of causes for delisting (pages 58-59 of 7/29/2005 Guidance for 2006 Assessment, Listing, and Reporting Requirements (U.S. EPA, 2005)). Ohio is delisting 8 assessment units based on two of these causes:

- the assessment and interpretation of more recent data demonstrate that the applicable WQS is being met (1 assessment unit)
- approval by U.S. EPA of a TMDL (7 assessment units)

Details for each delisting are summarized in the following text and tables.

More Recent Data

New data for one watershed assessment unit indicate that standards are now being met. Table J-5 identifies the watersheds and the 2006 category.

Table J-5. Assessment unit removed from category 5 because new data are available.

AU Number	AU Name	Explanation	2006 Category	2008 Category
04120101 010	Conneaut Creek; Lake Erie tributaries (East of Ashtabula River to West of Conneaut Creek)	New biology and bacteria data (Aquatic Life and Recreation Uses); no recent data to determine status of Human Health (fish tissue contaminants)	5	2

Approval of TMDL

Seven assessment units are being delisted because TMDLs that address all identified impairments have been approved by U.S. EPA (see Table J-6).

Table J-6. Assessment units removed from category 5 based on TMDL approval.

AU Number	AU Name	Date Approved	Pollutants Allocated, per U.S. EPA [1]
04110003 020	Chagrin River (headwaters to downstream Aurora Branch)	07/10/2007	nutrients (phosphorus and nitrate), bacteria, total suspended solids
04110003 030	Chagrin River (downstream Aurora Branch to mouth)		
05030204 070	Sunday Creek	03/31/2006	sediment, bacteria, acidity
05040001 100	Sugar Creek (headwaters to upstream Middle Fork)	05/08/2007	bacteria
05040001 110	South Fork Sugar Creek		
05040001 120	Sugar Creek (upstream Middle Fork to mouth); excluding South Fork		
05120101 030	Beaver Creek (downstream Grand Lake St. Marys Dam to mouth)	09/28/2007	nutrients (phosphorus and nitrate), bacteria

[1] The TMDL goal is restoration of the designated use through the attainment of applicable criteria; pollutants listed here were specifically recognized in U.S. EPA decision documents.

J4. Schedule for TMDL Work

Once waters are assessed and the impaired waters prioritized, the next step is to determine a schedule to address the monitoring needs of all waters and restoration needs (including TMDLs) of the impaired ones. Various factors must be considered, including Ohio's ongoing TMDL work, the process identified to do TMDLs, the monitoring strategy, and the resources available for the work.

Ohio TMDL Status

Ohio EPA is currently working on TMDLs in nearly 60 project areas, encompassing more than 180 assessment units, as illustrated in the "Ohio TMDL Program Progress" map in the Maps section. Most of these TMDLs address Aquatic Life Use impairments, and some also address Recreation Use impairment. TMDLs in 29 of the areas are approved, and implementation is proceeding. Table J-7 summarizes Ohio TMDLs approved by U.S. EPA.

Table J-7. Ohio TMDLs[1] approved by U.S. EPA.

Assessment Unit Code	Assessment Unit Name	U.S. EPA Approval Date	Pollutants Allocated, per U.S. EPA [2]
04110002 020	Cuyahoga River (below Black Brook to below Breakneck Creek)	10/11/2000	dissolved oxygen
04110002 030	Cuyahoga River (below Breakneck Creek to below Little Cuyahoga River)		
04110001 070	Rocky River (below West Br. to Lake Erie [including East Br.] and Lake Erie tribs [above Porter Cr to above Cuyahoga R]): Plum Creek	12/04/2001	phosphorus, nitrogen
05090202 010	Little Miami River (headwaters to above Massies Creek)	07/02/2002 05/13/2003	phosphorus, sediment
05090202 020	Little Miami River (above Massies Creek to below Beaver Creek)		
05090202 030	Little Miami River (below Beaver Creek of above Caesar Creek)		
05090202 040	Anderson Fork Caesar Creek		
05090202 050	Caesar Creek (except Anderson Fork)		
05060001 060	Bokes Creek (Scioto River above Bokes Creek to above Mill Creek)	09/27/2002 07/31/2003	phosphorus, sediment
05040001 100	Sugar Creek (headwaters to above Middle Fork Sugar Creek)	11/20/2002 07/08/2003	phosphorus, nitrogen, sediment
05040001 110	South Fork Sugar Creek		
05040001 120	Sugar Creek (upstream Middle Fork to mouth)		
05090101 020	Raccoon Creek (headwaters to above Hewett Fork)	3/20/2003	pH (acid), metals
05090101 030	Raccoon Creek (above Hewett Fork to below Elk Fork)		
05060001 070	Mill Creek (Scioto River basin)	9/02/2003	CBOD, ammonia, phosphorus, sediment, aldrin, d-BHC, dieldrin, endosulfan, endrin, heptachlor
05030201 110	East Fork Duck Creek	9/23/2003	TSS, aluminum, iron, manganese, BOD, ammonia
05030201 120	Duck Creek (except East Fork)		
04110002 040	Cuyahoga River (below Little Cuyahoga River to below Brandywine Creek)	9/26/2003	fecal coliform, phosphorus
04110002 050	Cuyahoga River (below Brandywine Creek to below Tinkers Creek)		
04110002 060	Cuyahoga River (below Tinkers Creek to Lake Erie)		
04110002	Cuyahoga River (mainstem)		
05080001 090	Stillwater River (headwaters to above Swamp Creek)	06/15/2004	nitrates, phosphorus
05080001 100	Stillwater River (above Swamp Creek to above Greenville Creek)		
05080001 110	Greenville Creek (headwaters to below West Branch)		
05080001 120	Greenville Creek (below West Branch to Stillwater River)		

Assessment Unit Code	Assessment Unit Name	U.S. EPA Approval Date	Pollutants Allocated, per U.S. EPA [2]
05080001 130	Stillwater River (below Greenville Creek to above Ludlow Creek)		
05080001 140	Stillwater River (above Ludlow Creek to Great Miami River)		
05080001	Stillwater River (mainstem)		
04100007 010	Auglaize River (headwaters to below Pusheta Creek)	09/23/2004	ammonia, phosphorus, pathogens, sediment
04100007 020	Auglaize River (below Pusheta Creek to above Jennings Creek)		
04100007 060	Auglaize River (above Jennings Creek to above Little Auglaize River)		
04110002 010	Cuyahoga River (headwaters to below Black Brook)	09/27/2004	phosphorus, sediment
04100011 020	Sandusky River (headwaters to above Broken Sword Creek)	09/30/2004	phosphorus, pathogens, sediment
04100011 030	Broken Sword Creek		
04100011 040	Sandusky River (below Broken Sword Creek to above Tymochtee Creek)		
04100011 050	Tymochtee Creek (headwaters to below Warpole Creek)		
04100011 060	Tymochtee Creek (downstream Warpole Creek to Sandusky River)		
04100011 070	Sandusky River (below Tymochtee Creek to above Honey Creek)		
04100011 080	Honey Creek		
05090203 010	Mill Creek	04/26/2005	phosphorus, nitrogen
04100012 040	Lake Erie Tributaries (below Huron River to above Vermilion River) [Old Woman and Chappel Creeks]	08/31/2005	nutrients, siltation, habitat alteration
05030204 060	Monday Creek	09/22/2005	pH, metals, sediment
05060001 130	Big Walnut Creek (headwaters to Hoover Dam)	09/26/2005	nutrients (phosphorus), pathogens, siltation, organic enrichment, flow, habitat alteration
05060001 140	Big Walnut Creek (below Hoover Dam to above Alum Creek)		
05060001 150	Alum Creek (headwaters to Alum Creek Dam)		
05060001 160	Big Walnut Creek (above Alum Creek [except above Alum Creek Dam] to Scioto River)		
04110003 010 (partial)	Lake Erie Tributaries (East of Cuyahoga River to West of Grand River; excluding Chagrin River) [Euclid Creek]	09/27/2005	nutrients (phosphorus), organic enrichment, habitat alteration
04100012 010	West Branch Huron River (headwaters to above Slate Run)	09/28/2005	nutrients (phosphorus), siltation, organic enrichment, flow,
04100012 020	West Branch Huron River (above Slate Run to above East Branch Huron River)		

Assessment Unit Code	Assessment Unit Name	U.S. EPA Approval Date	Pollutants Allocated, per U.S. EPA [2]
04100012 030	Huron River (above East Branch to Lake Erie) and Lake Erie Tributaries (below Sawmill Creek to below Huron River)		habitat alteration
05030101 070	Middle Fork Little Beaver Creek	09/28/2005	nutrients (phosphorus), pathogens, siltation, organic enrichment, flow, habitat alteration, unionized ammonia
05030101 080	West Fork Little Beaver Creek		
05030101 090	Little Beaver Creek (downstream Middle and West Forks to mouth)		
05030204 070	Sunday Creek	03/31/2006	sediment, bacteria, acidity
05060001 190	Big Darby Creek (headwaters to below Sugar Run)	03/31/2006	phosphorus, bacteria, sediment
05060001 200	Big Darby Creek (below Sugar Run to above Little Darby Creek)		
05060001 210	Little Darby Creek		
05060001 220	Big Darby Creek (below Little Darby Creek to Scioto River)		
04100010 020	Toussaint Creek	09/22/2006	phosphorus
05040004 020	Wakatomika Creek (headwaters to downstream Brushy Fork)	09/28/2006	bacteria, manganese, iron, aluminum, total dissolved solids, alkalinity
05040004 030	Wakatomika Creek (downstream Brushy Fork to mouth)		
05040001 100	Sugar Creek (headwaters to above Middle Fork Sugar Creek)	05/08/2007	bacteria
05040001 110	South Fork Sugar Creek		
05040001 120	Sugar Creek (upstream Middle Fork to mouth)		
04110003 020	Chagrin River (headwaters to downstream Aurora Branch)	07/10/2007	nutrients (phosphorus and nitrate), bacteria, total suspended solids
04110003 030	Chagrin River (downstream Aurora Branch to mouth)		
05060001 090	Olentangy River (headwaters to downstream Flat Run)	09/18/2007	nutrients (phosphorus), bacteria, total suspended solids
05060001 100	Whetstone Creek		
05060001 110	Olentangy River (downstream Flat Run to downstream Delaware Run); excluding Whetstone Creek		
05060001 120	Olentangy River (downstream Delaware Run to mouth)		
05120101 020	Beaver Creek (Grand Lake St. Marys and tributaries)	09/28/2007	nutrients (phosphorus and nitrate), bacteria
05120101 030	Beaver Creek (downstream Grand Lake St. Marys Dam to mouth)		

[1] One or more assessment units may be included in a TMDL report. The determination is made on a project-by-project basis, at the discretion of Ohio EPA.

[2] The TMDL goal is restoration of the designated use through the attainment of applicable criteria; pollutants listed here were specifically recognized in U.S. EPA decision documents. TMDL reports typically include such parameters for targeting, pollutant load characterization, and measuring interim progress, and may explore other indicators of watershed condition.

Long-Term Schedules for Monitoring and TMDLs

Ohio's five-year basin approach (see Section D) provides a foundation for scheduling monitoring and TMDL projects. The assessment methodology allows that, generally, aquatic life use monitoring data up to ten years old are valid for judging assessment units, so it follows that each assessment unit must be monitored at least once every ten years to maintain coverage. Thus, each assessment unit is assigned to one of the next two monitoring cycles using the following factors:

- Ohio EPA's five-year basin monitoring strategy
- time since most recent assessment
- distribution of work effort among Ohio EPA district offices
- priority ranking
- TMDL schedule

Our experience in doing TMDLs indicates that local involvement is a key to success. However, it is difficult to gauge the level of local interest sufficient to sustain a TMDL effort. Thus, the schedule is flexible and can be influenced by expressions of local interest to undertake a TMDL (e.g., significant interest from local citizens and decision-makers, especially combined with letters of resolution from local governments).

In an effort to maintain the monitoring and TMDL schedule, Ohio EPA is committed to researching and pursuing additional resources, both in terms of funding and partnering opportunities.

The scheduling and TMDL information is reported on the detailed information sheets for each assessment unit (see Section M). Section L5 presents the scheduling information by monitoring year. A map illustrating the long-term monitoring schedule is included in Section K.

Short-Term Schedule for TMDL Development

Ohio EPA has scheduled several TMDL projects during the next two years, as indicated in Table J-8. Because Ohio's TMDL process begins with a watershed assessment, all TMDLs to be completed in the next two years are already in progress.

The TMDL goal is restoration of the designated use through the attainment of applicable criteria. Pollutants to be targeted for pollutant load characterization and as measures of interim progress will be determined as part of the TMDL process described in Section C1.

Table J-8. Short-term schedule for TMDL development.

Assessment Unit Code	Assessment Unit Name
TMDLs pending approval by U.S. EPA	
04100012 050 04100012 060	Vermilion River (headwaters to above East Branch) Vermilion River (above East Branch to Lake Erie)
04110001 060 04110001 070	West Branch Rocky River (bacteria) Rocky River and East Branch Rocky River (bacteria)
05030202 090	Leading Creek
TMDLs to be submitted to U.S. EPA in FFY 2008	
05030202 090	Leading Creek
04110001 020 04110001 030 04110001 040 04110001 050	West Branch Black River (headwaters to Black River) East Branch Black River (headwaters to below Coon Creek) East Branch Black River (below Coon Creek to Black River) Black River (below East Branch to Lake Erie) and Lake Erie tribs (below Black R. to above Porter Cr)
04100007 110	Powell Creek
05080001 150 05080001 160 05080001 170 05080001 180 05080001 190 05080001	Mad River (headwaters to downstream Kings Creek) Mad River (downstream Kings Creek to downstream Chapman Creek) Buck Creek Mad River (downstream Chapman Creek to upstream Mud Creek); excluding Buck Creek and Mad R. mainstem Mad River (upstream Mud Creek to mouth); excluding Mad R. mainstem Mad River (mainstem)
04110004 050 04110004 060 04110004	Mill Creek Grand River (downstream Mill Creek to mouth); excluding Grand R. mainstem Grand River mainstem
05030204 010 05030204 020 05030204 030 05030204 040 05030204 050 05030204 080 05030204 090 05030204 100 05030204	Hocking River (headwaters to Enterprise); excluding Rush Creek and Clear Creek Rush Creek (headwaters to upstream Little Rush Creek) Rush Creek (upstream Little Rush Creek to mouth) Clear Creek Hocking River (Enterprise to upstream Monday Creek); excluding Hocking R. mainstem dst. Duck Creek Hocking River (downstream Monday Creek to Athens/RM 33.1); excluding Hocking R. mainstem Federal Creek Hocking River (downstream Athens/RM 33.1 to mouth); excluding Federal Creek and Hocking R. mainstem Hocking River (mainstem)
05040001 050	Nimishillen Creek

Assessment Unit Code	Assessment Unit Name
05040001 010	Tuscarawas River (headwaters to downstream Wolf Creek)
05040001 020	Chippewa Creek
05040001 030	Tuscarawas River (downstream Wolf Creek to downstream Sippo Creek); excluding Chippewa Creek
05040001 090	Tuscarawas River (downstream Sippo Creek to upstream Sugar Creek); excluding Tuscarawas R. mainstem
05040001 130	Tuscarawas River (downstream Sugar Cr. to upstream Stillwater Cr.); excluding Tuscarawas R. mainstem
05040001 180	Tuscarawas River (downstream Stillwater Cr. to upstream Evans Cr.); excluding Tuscarawas R. mainstem
05040001 190	Tuscarawas River (upstream Evans Creek to mouth); excluding Tuscarawas R. mainstem
05040001	Tuscarawas River (mainstem)
TMDLs to be submitted to U.S. EPA in FFY 2009	
05080002 030	Twin Creek (headwaters to upstream Bantas Fork)
05080002 040	Twin Creek (upstream Bantas Fork to mouth)
05080002 070	Fourmile Creek (excluding Sevenmile Creek)
05080002 080	Indian Creek
04100008 010	Blanchard River (headwaters to downstream Potato Run)
04100008 020	Blanchard River (downstream Potato Run to upstream Eagle Creek)
04100008 030	Blanchard River (upstream Eagle Creek to upstream Ottawa Creek)
04100008 040	Blanchard River (upstream Ottawa Creek to upstream Riley Creek); excluding Blanchard R.
04100008 050	Riley Creek
04100008 060	Blanchard River (downstream Riley Creek to mouth); excluding Blanchard R. mainstem
04100008	Blanchard River (mainstem)
05030101 180	Yellow Creek (headwaters to upstream Town Fork)
05030101 190	Yellow Creek (upstream Town Fork to mouth)
05030101 100	Ohio River tributaries (downstream Little Beaver Creek to upstream Yellow Creek)
05060001 170	Walnut Creek (headwaters to downstream Sycamore Creek)
05060001 180	Walnut Creek (downstream Sycamore Creek to mouth)
05060002 070	Salt Creek (headwaters to upstream Queer Creek)
05060002 080	Middle Fork Salt Creek
05060002 090	Salt Lick Creek (excluding Middle Fork)
05060002 100	Salt Creek (upstream Queer Creek to mouth); excluding Little Salt Creek and Middle Fork Salt Creek
04100009 070	Swan Creek (headwaters to upstream Blue Creek)
04100009 080	Swan Creek (upstream Blue Creek to mouth)
05090201 090	East Fork White Oak Creek; North Fork White Oak Creek
05090201 100	White Oak Creek (North Fork/East Fork to mouth)
05060002 140	South Fork Scioto Brush Creek
05060002 150	Scioto Brush Creek (excluding South Fork)

Assessment Unit Code	Assessment Unit Name
05060003 010	Paint Creek (headwaters to downstream East Fork)
05060003 020	Sugar Creek
05060003 030	Rattlesnake Creek (headwaters to upstream Lees Creek)
05060003 040	Rattlesnake Creek (upstream Lees Creek to mouth)
05060003 050	Paint Creek (downstream East Fork to upstream Rocky Fork); excluding Sugar Cr. and Rattlesnake Cr.
05060003 060	Rocky Fork Paint Creek
05060003 070	Paint Creek (downstream Rocky Fork to downstream Lower Twin Creek); excluding Paint Creek mainstem
05060003 080	North Fork Paint Creek (headwaters to downstream Compton Creek)
05060003 090	North Fork Paint Creek (downstream Compton Creek to mouth)
05060003 100	Paint Creek (downstream Lower Twin Creek to mouth); excluding North Fork and Paint Creek mainstem
05060003	Paint Creek (mainstem
05030103 010	Mahoning River (headwaters to downstream Beech Creek)
05030103 020	Mahoning River (downstream Beech Creek to downstream Berlin Dam)
05030103 030	Mahoning River (downstream Berlin Dam to downstream West Branch)
05030103 040	Mahoning River (downstream West Br. to upstream Duck Cr.); excluding Mahoning River dst. Eagle Cr.
TMDLs to be submitted to U.S. EPA in FFY 2010	
05090201 030	Ohio Brush Creek (headwaters to downstream Baker Fork)
05090201 040	West Fork Ohio Brush Creek
05090201 050	Ohio Brush Creek (downstream Baker Fork to mouth); excluding West Fork
05090202 060	Little Miami River (downstream Caesar Creek to downstream Turtle Creek); excluding LMR mainstem
05090202 070	Todd Fork (headwaters to upstream East Fork Todd Fork)
05090202 080	Todd Fork (downstream East Fork Todd Fork to mouth)
05090202 090	Little Miami River (downstream Turtle Creek to downstream O'Bannon Creek); excluding LMR mainstem
05090202 140	Little Miami River (downstream O'Bannon Creek to mouth); excluding East Fork LMR and LMR mainstem
05090202	Little Miami River (mainstem)
04110004 010	Grand River (headwaters to downstream Swine Creek)
04110004 020	Grand River (downstream Swine Creek to upstream Rock Creek)
04110004 030	Rock Creek
04110004 040	Grand River (downstream Rock Creek to upstream Mill Creek)
05040003 010	Kokosing River (headwaters to upstream North Branch)
05040003 020	North Branch Kokosing River
05040003 030	Kokosing River (downstream North Branch to upstream Jelloway Creek)
05040003 040	Kokosing River (upstream Jelloway Creek to mouth)
05040002 010	Black Fork Mohican River (headwaters to downstream Whetstone Creek)
05040002 020	Black Fork Mohican River (downstream Whetstone Creek to downstream Rocky Fork)
05040002 030	Clear Fork Mohican River (headwaters to downstream Cedar Fork)
05040002 040	Clear Fork Mohican River (downstream Cedar Fork to mouth)
05040002 050	Jerome Fork Mohican River
05040002 060	Muddy Fork Mohican River
05040002 070	Lake Fork Mohican River
05040002 080	Mohican River; Black Fork Mohican R. (downstream Rocky Fork to mouth); excluding mainstem
05040002	Mohican River (mainstem)