State of Ohio
Environmental Protection Agency

Division of Surface Water

Ohio 2008 Integrated Water Quality Monitoring and Assessment Report

Prepared to fulfill the requirements of
Sections 303(d), 305(b), and 314 of the Clean Water Act

Final Report
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List of Acronyms

AmphIBI	amphibian index of biotic integrity
AOC	Area of Concern (as identified under the Great Lakes Water Quality Agreement)
AU	assessment unit
BEACH	Beaches Environmental Assessment and Coastal Health (Act)
BMP	best management practice
BUI	Beneficial Use Impairment (as described in Annex 2 of the Great Lakes Water Quality Agreement)
CABB	Center for Applied Bioassessment and Biocriteria
CAFO	Concentrated Animal Feeding Operations
Corps	U.S. Army Corps of Engineers
CREP	Conservation Reserve Enhancement Program
CRP	Conservation Reserve Program
CSO	combined sewer overflow
CSP	Conservation Security Program
CWH	Coldwater Habitat
CWA	Clean Water Act
DDAGW	Division of Drinking and Ground Waters
DDT	dichlorodiphenyltrichloroethane
DEFA	Division of Environmental and Financial Assistance
DES	Division of Environmental Services
DLG	Digital Line Graph
DSW	Division of Surface Water
EAG	External Advisory Group
EQIP	Environmental Quality Incentives Program
EWH	Exceptional Warmwater Habitat
FCA	fish consumption advisory
FFY	federal fiscal year
FWPCA	Federal Water Pollution Control Act
GRP	Grassland Reserve Program
HUC	hydrologic unit code
IR	Integrated Report
kg	kilogram
L	liter
LaMP	Lakewide Management Plan
LCI	Lake Condition Index
LEC	(Ohio) Lake Erie Commission
LEPF	(Ohio) Lake Erie Protection Fund
LRAU	large river assessment unit

LRW	Limited Resource Water
LTCP	long-term control plan
MBI	Midwest Biodiversity Institute
MF	membrane filter
mg	milligram
mi^2	square miles
MOR	monthly operating data
MPN	most probable number
MS4	municipal separate storm sewer systems
MWH	Modified Warmwater Habitat
NEORSD	Northeast Ohio Regional Sewer District
ng	nanogram
NHD	National Hydrography Dataset
NOI	notice of intent
NPDES	National Pollutant Discharge Elimination System
NPS	nonpoint source
NSSP	National Shellfish Sanitation Program
OAC	Ohio Administrative Code
ODH	Ohio Department of Health
ODNR	Ohio Department of Natural Resources
ORC	Ohio Revised Code
ORSANCO	Ohio River Valley Water Sanitation Commission
OTMP	Ohio Tributary Monitoring Program
OWDA	Ohio Water Development Authority
OWRC	Ohio Water Resources Council
PAHs	polyaromatic hydrocarbons
ppb	parts per billion
PCB	polychlorinated biphenyls
PDWS	Public Drinking Water Supply
PS	point source
PTI	permit to install
PTO	permit to operate
PWS	Public Water Supply
QA	quality assurance
QC	quality control
RF3	Reach File Version 3
RM	river mile
SDWA	Safe Drinking Water Act
SDWIS	Safe Drinking Water Information System
SFY	state fiscal year (July 1 to June 30)
sq mi	square miles
SSM	single-sample maximum
STORET	STOrage and RETtrieval (a U.S. EPA water quality database)
SWIMS	Surface Water Information Management System
TMDL	total maximum daily load
TOC	total organic carbon
U.S. EPA	United States Environmental Protection Agency
µg	microgram
USC	United States Code
USGS	U.S. Geological Survey

VIBI	vegetation index of biotic integrity
WAUs	watershed assessment unit
WHIP	Wildlife Habitat Incentives Program
WPCLF	Water Pollution Control Loan Fund
WQ	water quality
WQC	Water Quality Certification (Section 401)
WQMP	Water Quality Management Plan
WQPSD	Water Quality Permit Support Document
WQS	water quality standards
WRP	Wetlands Reserve Program
WRRSP	Water Resource Restoration Sponsor Program
WSRLA	Water Supply Revolving Loan Account
WWH	Warmwater Habitat

Executive Summary

The *Ohio 2008 Integrated Water Quality Monitoring and Assessment Report* summarizes water quality conditions in the State of Ohio. The report satisfies Ohio's water quality reporting requirements under Sections 303(d), 305(b), and 314 of the Clean Water Act. The report was last updated in 2006.

Using methods devised to determine the suitability of waters for four specific uses—aquatic life (fish and aquatic insects), recreation such as boating and swimming, human health impacts related to fish tissue contamination, and public drinking water supplies—available data were compared with water quality goals. The results indicate which waters are meeting goals and which are not. Waters not meeting the goals for one or more of the four types of uses are referred to as *impaired.* The waters found to be impaired are prioritized and scheduled for further study and restoration. The report also includes the monitoring schedule that Ohio EPA plans to follow for the next several years.

The report describes the methods used to judge impairment of each type of use. The methods have evolved in each reporting cycle as the Agency gains access to more data and develops better ways to interpret them. This is the first reporting cycle to include an evaluation of public drinking water supplies.

Results are reported for 331 watershed units, 23 large river units (those draining more than 500 square miles), and 3 Lake Erie nearshore units. Additional information on streams draining between 50 and 500 square miles is presented. General information on Ohio's water quality is also reported in the form of statistics and progress toward Ohio's "80% attainment of the aquatic life use goal."

The 2008 highlights include the following:

- The overall number of "303(d) listed" waters did not change significantly.
- Six out of 66 eligible waters were impaired for nitrate under the public drinking water supply use designation; two out of 35 were impaired for atrazine.
- Fewer waters are without any data (i.e., condition unknown), although the number of waters with data collected within the past 10 years decreased slightly.
- Most of the watersheds for which new data are collected show impairment of one or more uses.
- Overall, the 2008 report includes assessment results for more waters, but does not indicate any substantial decline or improvement in Ohio's waters over the past two years.

Data from the report indicate that incremental improvements in water quality and progress toward the "80% attainment of the aquatic life use goal" continue. In general, large rivers in Ohio are meeting aquatic life use goals at a much higher percentage than smaller streams. Most water quality impairments are related to modification of the landscape in both urban and agricultural settings.