

TABLE OF CONTENTS

Chapter 1: Introduction and Overview

Addressing Requirements for Water Quality Management Planning.....	Page 1-2
The Plan Update Process.....	Page 1-3

Chapter 2: Water Resources in Southwest Ohio.....

Introduction and Purpose.....	Page 2-1
Level 1: Region.....	Page 2-2
Level 2: Sub-Region.....	Page 2-3
Figure 2-1: Figure 2-1: Sub-Regions (HUC 4) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-3
Level 3: Basin.....	Page 2-3
Level 4: Sub-Basin.....	Page 2-3
Table 2-1: Codes and Names for Sub-Basins (HUC 8) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-4
Figure 2-2: Sub-Basins (HUC 8) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-2
Level 5: Watershed.....	Page 2-5
Table 2-2: Names for Watersheds (HUC 10) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-5
Figure 2-3: Watersheds (HUC 10) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-6
Level 6: Sub Watershed.....	Page 2-6
Table 2-3: Names for Sub-Watersheds (HUC12) in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-7
Figure 2-4: Sub-Watersheds (HUC12) in Butler, Clermont, Hamilton, and Warren Counties.	Page 2-8
Natural Characteristics.....	Page 2-9
Geology.....	Page 2-9
Figure 2-5: Ordovician and Silurian Geology.....	Page 2-10
Figure 2-6: Cincinnati Arch.....	Page 2-13
Figure 2-7: Generalized Glacial Geology of the Great and Little Miami River Basins.....	Page 2-13
Figure 2-8: Glacial Map of Ohio.....	Page 2-15
Figure 2-9: Sand and Gravel Mining Locations in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-16
Figure 2-10: Yields of the Unconsolidated Aquifers of Ohio.....	Page 2-17
Ecoregions.....	Page 2-18
Figure 2-11: Level IV Ecoregions in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-20
Physiographic.....	Page 2-21
Figure 2-12: Physiographic Regions of Ohio.....	Page 2-23
Soils	Page 2-24
Figure 2-13: State Soil Geographic Data Base Map Units for Southwest Ohio.....	Page 2-25
Table 2-4: Most Prevalent Soil Types in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-26
Figure 2-14: Soil Regions in the Great and Little Miami River Basins.....	Page 2-35
Butler County	Page 2-36
Clermont County.....	Page 2-36
Hamilton.....	Page 2-37

TABLE OF CONTENTS

Chapter 2 Continued: Water Resources in Southwest Ohio

Warren County.....	Page 2-37
Figure 2-15: Soil Regions of Ohio.....	Page 2-38
Soil Region 4 Conclusion from Figure 2-15.....	Page 2-38
Soil Region 7 Conclusion from Figure 2-15.....	Page 2-38
Soil Region 9 Conclusion from Figure 2-15.....	Page 2-38
Figure 2-16: Soil Drainage Classes of Ohio.....	Page 2-40
Slope.....	Page 2-41
Figure 2-17: Slopes in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-42
Flood Prone Areas.....	Page 2-42
Figure 2-18: Flood Hazard Areas in Butler County.....	Page 2-43
Figure 2-19: Flood Hazard Areas in Clermont County.....	Page 2-44
Figure 2-20: Flood Hazard Areas in Hamilton County.....	Page 2-45
Figure 2-21: Flood Hazard Areas in Warren County.....	Page 2-46
Depth to Bedrock and High Water Table.....	Page 2-47
Figure 2-22: Shallow Depth to Bedrock in the OKI Region.....	Page 2-47
Figure 2-23: Shaded Bedrock-Topography Map of Ohio.....	Page 2-48
Figure 2-24: High Water Table Areas in the OKI Region.....	Page 2-49
Prime Farmland.....	Page 2-50
Figure 2-25 Prime Farmlands in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-51
Soil Suitability for Onsite Wastewater Treatment Systems.....	Page 2-52
Vegetative Cover.....	Page 2-52
Figure 2-26: Land Use and Land Cover in Ohio.....	Page 2-53
Figure 2-27: Natural Vegetation of Ohio.....	Page 2-55
Climate.....	Page 2-56
Table 2-5: Normal Precipitation at Kings Mills.....	Page 2-56
Table 2-6: Precipitation Threshold Climatology at Kings Mills*.....	Page 2-57
Figure 2-28: Mean Monthly Temperature and Precipitation at Selected Weather Service Stations in the Great and Little Miami River Basins.....	Page 2-58
Table 2-7: Precipitation Extremes at Kings Mills*.....	Page 2-59
Streamflow.....	Page 2-59
Table 2-8: Summary of Daily Mean Streamflow.....	Page 2-60
Figure 2-29: Mean Daily Discharge by 5-Year Intervals.....	Page 2-60
Figure 2-30: Annual 7-Day Low Flow for Little Miami River at Milford.....	Page 2-60
Water Uses.....	Page 2-61
Figure 2-31: Great Miami Buried Valley Aquifer System in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-63
Figure 2-32: Designated Sole Source Aquifer in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-64
Table 2-9: Source Water Protection Status of Active Community Water Systems and Non- Transient, Non-Community Water Systems in Butler County.....	Page 2-66
Table 2-10: Source Water Protection Status of Active Community Water Systems in Clermont County.....	Page 2-67

TABLE OF CONTENTS

Chapter 2 Continued: Water Resources in Southwest Ohio

Table 2-11: Source Water Protection Status of Active Community Water Systems and Non-Transient, Non-Community Water Systems in Hamilton County.....	Page 2-68
Table 2-12: Source Water Protection Status of Active Community Water Systems and Non-Transient, Non-Community Water Systems in Warren County.....	Page 2-69
Designations and Assessments of Southwest Ohio’s Water Resources.....	Page 2-71
Water Supply.....	Page 2-71
Aquatic Life Habitat.....	Page 2-71
Warmwater.....	Page 2-71
Limited warmwater.....	Page 2-72
Exceptional warmwater.....	Page 2-72
Modified warmwater.....	Page 2-73
Seasonal salmonid.....	Page 2-73
Coldwater habitat.....	Page 2-73
Limited resource water.....	Page 2-73
Recreation.....	Page 2-74
Bathing waters.....	Page 2-74
Primary contact.....	Page 2-74
Secondary contact.....	Page 2-75
Primary contact recreation subcategories.....	Page 2-76
Class A primary contact recreation.....	Page 2-76
Class B primary contact recreation.....	Page 2-76
Class C primary contact recreation.....	Page 2-76
Human Health Fish Contaminants.....	Page 2-77
Table 2-13: Fish Tissue Samplings and Sport Fish Consumption Advisories in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-79
Figure 2-33: Exceptional Warmwater Habitat Watersheds in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-80
Figure 2-34: Class A Primary Contact Streams in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-81
Antidegradation Policy.....	Page 2-82
Table 2-14: Special High Quality Waters in Butler, Clermont, Hamilton and Warren Counties....	Page 2-82
Total Maximum Daily Loads (TMDLs).....	Page 2-83
Priority Points	Page 2-83
Figure 2-35: Ohio EPA’s System for Assigning Up to 20 Priority Points to Impaired Waters.....	Page 2-84
Figure 2-36: Watershed Assessment Scores for Aquatic Life Use in Butler, Clermont, Hamilton and Warren Counties.....	Page 2-86
Chapter 3 Current and Projected Development.....	Page 3-1
Introduction and Purpose.....	Page 3-2

TABLE OF CONTENTS

Chapter 3 Continued Current and Projected Development	
The relationship between Development and Water Resources.....	Page 3-2
Table 3-1: Stream Discharge Increases as Land Use Changes from Agricultural Land to Residential Land.....	Page 3-3
Water Quality versus Water Quantity.....	Page 3-6
Point Source Pollution versus Nonpoint Source Pollution.....	Page 3-6
Chemical Standards versus Biological Standards.....	Page 3-6
Designated Uses versus Habitat Conditions.....	Page 3-7
Riparian Habitat versus Aquatic Habitat.....	Page 3-7
Gray Infrastructure versus Green Infrastructure.....	Page 3-8
The Relationship Among Water Quality and Land Use Data and Current Development	Page 3-9
Table 3-2: Subwatershed Rating by Percentage of Impervious Cover.....	Page 3-11
Figure 3-1: Center for Watershed Protection’s Impervious Cover Model.....	Page 3-12
The Relationship Between Demographic Data and Water Quality Management Planning.....	Page 3-12
Facility Planning.....	Page 3-13
Table 3-3: County Populations for 2005 and 2030.....	Page 3-14
Figure 3-2 2000-2004 Residential Building Permitted Units (RBPU) Facility Planning Areas in Butler, Clermont, Hamilton and Warren.....	Page 3-15
Figure3-3: Anticipated Growth Areas and Recommend Facility Planning Areas in Butler, Clermont, Hamilton and Warren Counties.....	Page 3-17
Facility Planning Area (FPA) Boundary Updates.....	Page 3-18
Overlay Facility Planning Areas.....	Page 3-18
Figure 3-4: 1900 and 2000 Population Facility Planning Areas in Butler, Clermont Hamilton and Warren Counties.....	Page 3-20
Figure 3-5 2030 Population Projections Recommended Facility Planning Areas in Butler, Clermont, Hamilton and Warren Counties.....	Page 3-21
Chapter 4 Management of Onsite Wastewater Treatment Systems	Page 4-1
Introduction and Purpose	Page 4-2
Figure 4-1: The Fate of Wastewater Discharged into Septic Systems.....	Page 4-4
Water Quality Impacts of Onsite Wastewater Treatment Systems.....	Page 4-5
Nitrates.....	Page 4-5
Phosphorus.....	Page 4-7
Pathogens.....	Page 4-7
Table 4-1: Survival of Certain Pathogens in Soil and Groundwater (after Salvato, 1992).....	Page 4-9
Table 4-2: Typical Pathogen Survival Times (U.S. EPA, 2002).....	Page 4-9
Table 4-3: Onsite System Effectiveness with Major Types of Pollutants.....	Page 4-10
Onsite System Management.....	Page 4-10
Septic Tank to Soil Absorption.....	Page 4-11

TABLE OF CONTENTS

Chapter 4 Cont. Management of Onsite Wastewater Treatment Systems

Figure 4-2: Septic Tank to Soil Absorption Trenches.....	Page 4-11
Figure 4-3: Septic Tank to Soil Absorption Trenches.....	Page 4-11
Figure 4-4: Alternative Aggregate or Chamber Products.....	Page 4-12
Pretreatment to Soil Absorption Trenches.....	Page 4-12
Basic Design.....	Page 4-12
Advantages.....	Page 4-12
Figure 4-5: Typical Suspended Growth Aerobic Treatment Unit.....	Page 4-13
Figure 4-6: Fixed Film Pretreatment Unit.....	Page 4-13
Disadvantages	
Operational and Maintenance.....	Page 4-13
Average Regional System Costs in Southwest Ohio.....	Page 4-14
Sand Mounds with Pressure Distribution.....	Page 4-14
Basic Design.....	Page 4-14
Figure 4-7: Sand Mound with Pressure Distribution.....	Page 4-14
Advantages.....	Page 4-14
Disadvantages.....	Page 4-15
Operation and Maintenance.....	Page 4-15
Average Regional System Costs in Southwest Ohio.....	Page 4-16
Peat Biofilter with Soil Absorption.....	Page 4-15
Basic Design.....	Page 4-15
Figure 4-8: Peat Biofilter with Soil Absorption.....	Page 4-15
Advantages.....	Page 4-16
Disadvantages.....	Page 4-16
Operation and Maintenance.....	Page 4-16
Estimated Statewide System Cost.....	Page 4-16
Single Pass Intermittent Sand Filter/Bioreactor.....	Page 4-16
Basic Design.....	Page 4-16
Figure 4-9: Single Pass Intermittent Sand Filter/Bioreactor.....	Page 4-17
Septic Tank/Pretreatment to Low Pressure Pipe.....	Page 4-18
Advantages.....	Page 4-18
Disadvantages.....	Page 4-18
Operation and Maintenance.....	Page 4-19
Estimated Statewide System Cost.....	Page 4-19
Drip Distribution System.....	Page 4-19
Basic Design.....	Page 4-19
Figure 4-11: Drip Distribution System.....	Page 4-19
Advantages.....	Page 4-20
Disadvantages.....	Page 4-20
Operation and Maintenance.....	Page 4-20
Average Regional System Costs in Southwest Ohio.....	Page 4-20

TABLE OF CONTENTS

Chapter 4 Cont. Management of Onsite Wastewater Treatment Systems

Spray Irrigation System.....	Page 4-20
Basic Design.....	Page 4-20
Figure 4-12: Spray Irrigation System.....	Page 4-20
Advantages.....	Page 4-21
Disadvantages.....	Page 4-21
Operation and Maintenance.....	Page 4-21
Estimated Statewide System Cost.....	Page 4-21
Constructed Wetland.....	Page 4-21
Basic Design.....	Page 4-21
Figure 4-13: Constructed Wetland.....	Page 4-22
Advantages.....	Page 4-22
Disadvantages.....	Page 4-22
Operation and Maintenance.....	Page 4-22
Estimated Statewide System Cost.....	Page 4-22
Age.....	Page 4-23
Table 4-4: Population Served by Onsite Wastewater Treatment Systems and Sewers in 1975.....	Page 4-24
Design.....	Page 4-24
Load Reducing Techniques.....	Page 4-24
Onsite Treatment Techniques.....	Page 4-25
Soil Absorption System Improvements.....	Page 4-25
Modified Collection Systems.....	Page 4-25
Table 4-5: Vertical Separation Distances Recommended by Ohio Department of Health.....	Page 4-26
Table 4-6: Steps and Features for Improved Design of Onsite Systems.....	Page 4-28
Siting.....	Page 4-28
Figure 4-14: Landscape Position Features and Absorption Field Siting Potential.....	Page 4-30
Installation.....	Page 4-30
Operation.....	Page 4-33
Maintenance.....	Page 4-34
Table 4-7: Recommended Pumping Frequencies, Based on Tank Size and Number of Users	Page 4-34
Repairs and Upgrades or Replacement.....	Page 4-35
Cost	Page 4-35
Table 4-8: Households and Populations Outside of Municipal Boundaries Earning Below 200% of the Poverty Level in Butler, Clermont, Hamilton and Warren counties	Page 4-36
Regulation.....	Page 4-36
Enforcement.....	Page 4-36
Table 4-9: Percent of Land Area in Three Classes of General Soil Suitability for Onsite System Absorption Fields.....	Page 4-40
Figure 4-15: Suitability of Soils for Septic Tank-Leach Field Systems in Butler	Page 4-40
Figure 4-16: Suitability of Soils for Septic Tank-Leach Field Systems in Clermont County.....	Page 4-41
Figure 4-17: Suitability of Soils for Septic Tank-Leach Field Systems in Hamilton County.....	Page 4-42
Figure 4-18: Suitability of Soils for Septic Tank-Leach Field Systems in Warren	Page 4-43

TABLE OF CONTENTS

Chapter 4 Cont. Management of Onsite Wastewater Treatment Systems

Onsite System Regulation.....	Page 4-44
Table 4-10: Onsite System Policies and Criteria in	Page 4-45
Table 4-11: Onsite System Types and Regulatory Responsibilities in Ohio.....	Page 4-46
Local Regulatory Oversight.....	Page 4-47
Butler County Health	Page 4-47
Clermont County General Health	Page 4-47
Hamilton County Public Health.....	Page 4-47
Warren County Combined Health District.....	Page 4-48
Onsite System Failure.....	Page 4-48
Butler County Health	Page 4-48
Clermont County General Health	Page 4-49
Hamilton County Public Health.....	Page 4-49
Warren County Combined Health District.....	Page 4-49
Onsite System Challenges from a Water Quality Perspective.....	Page 4-49
Butler County Health	Page 4-49
Clermont County General Health	Page 4-49
Hamilton County Public Health.....	Page 4-50
Warren County Combined Health District.....	Page 4-50
Local Resources for Enforcing Onsite System Requirements.....	Page 4-50
Butler County Health	Page 4-50
Clermont County General Health	Page 4-50
Hamilton County Public Health.....	Page 4-55
Warren County Combined Health District.....	Page 4-51
Interactions with Septage Haulers, Wastewater Treatment Providers and Government.....	Page 4-51
Butler County Health	Page 4-51
Clermont County General Health	Page 4-51
Hamilton County Public	Page 4-51
Warren County Combined Health	Page 4-52
Table 4-12: Survey Results of Interim Regulations Adopted by the Health Districts of Butler, Clermont, Hamilton and Warren	Page 4-52
Clustered Sewage Service.....	Page 4-52
Alternative Collection Systems.....	Page 4-53
Natural Treatment and Disposal Systems.....	Page 4-53
Mechanical Treatment Systems.....	Page 4-53
Table 4-13: Decentralized Wastewater Management Models.....	Page 4-55
Table 4-14: A Framework for Exploring the Management of Onsite and Clustered Wastewater Treatment Systems.....	Page 4-56
Potential Problem Areas.....	Page 4-56
Figure 4-19: Butler County Concentrations of Onsite Wastewater Treatment Systems in Relation to Surface Waters.....	Page 4-58

TABLE OF CONTENTS

Chapter 4 Cont. Management of Onsite Wastewater Treatment Systems

Figure 4-20: Clermont County Concentrations of Onsite Wastewater Treatment Systems in Relation to Surface Waters.....	Page 4-59
Figure 4-21: Hamilton County Concentrations of Onsite Wastewater Treatment Systems in Relation to Surface Waters.....	Page 4-60
Figure 4-22: Warren County Concentrations of Onsite Wastewater Treatment Systems in Relation to Surface Waters.....	Page 4-61
OKI 's four county study area: watersheds impaired by "household sewage treatment systems:"	Page 4-61
Four Mile Creek.....	Page 4-62
Indian	Page 4-62
Upper Little Miami River.....	Page 4-62
Mill Creek.....	Page 4-62
Twin Creek.....	Page 4-62
Recommendations.....	Page 4-65
Recommendations by Ohio Department of Health.....	Page 4-65
Recommendations by U.S. EPA	Page 4-67
Recommendations by American Planning Association.....	Page 4-68
Recommendations by OKI Regional Council of	Page 4-68
OKI's Current Recommendations.....	Page 4-69

Chapter 5: Management of Non Point Sources of Pollutions

Introduction and	Page 5-2
Sources and Causes of Nonpoint Source Pollution.....	Page 5-3
Figure 5-1: Watersheds in Butler, Clermont, Hamilton and Warren Counties.....	Page 5-4
Table 5-1: Names for HUC 12 Watersheds in Butler, Clermont, Hamilton and Warren Counties.....	Page 5-5
Nonpoint Source Data and Data Sources.....	Page 5-8
Table 5-2: Contaminated Sediment Loadings to Watersheds in Southwest Ohio.....	Page 5-9
Table 5-3: Ohio Water Bodies in the OKI Region Assessed with Human Health Impairments Due to PCBs.....	Page 5-10
Table 5-4: Ohio Water Bodies in the OKI Region with Historical Data of Human Health.....	Page 5-10
Table 5-5: Watershed Assessment Units in the OKI Region that are Impaired for Recreation Use.....	Page 5-11
Table 5-6: Swimming Advisory Postings at Inland Lake Public Beaches in the OKI Region (2004-2008).....	Page 5-11
Table 5-7: Summary of Public Drinking Water Supply Assessment Results in the OKI Region for the Nitrate and Pesticide Indicators.....	Page 5-12
Table 5-8: List of Prioritized Impaired Waters in Butler, Clermont, Hamilton and Warren Counties, Ohio	Page 5-13
Table 5-9: Combined Percentage of Land that is Developed or Farmed with Row Crops in Butler County's Watershed Assessment Units.....	Page 5-16
Table 5-10: Combined Percentage of Land that is Developed or Farmed with Row Crops in Clermont County's Watershed Assessment	Page 5-17

TABLE OF CONTENTS

Chapter 5: Cont. Management of Non Point Sources of Pollutions	
Table 5-11: Combined Percentage of Land that is Developed or Farmed with Row Crops in Hamilton County’s Watershed Assessment Units.....	Page 5-18
Table 5-12: Combined Percentage of Land that is Developed or Farmed with Row Crops in Warren County’s Watershed Assessment Units.....	Page 5-19
Total Maximum Daily Load Reports.....	Page 5-21
Table 5-13: Nonpoint Source Impairments to Butler County.....	Page 5-24
Table 5-14: Nonpoint Source Impairments to Clermont County Watersheds.....	Page 5-26
Table 5-15: Nonpoint Source Impairments to Hamilton County Watersheds.....	Page 5-29
Table 5-16: Nonpoint Source Impairments to Warren County Watersheds.....	Page 5-31
Conclusions and Recommendations.....	Page 5-33
Chapter 6: Watershed Planning in Southwest Ohio	Page 6-1
Introduction and Purpose.....	Page 6-2
The Watershed Groups of Southwest Ohio.....	Page 6-4
East Fork Watershed Collaborative.....	Page 6-5
Watershed group’s founding, mission and geographic focus.....	Page 6-5
Watershed group’s water resource priorities and initiatives.....	Page 6-6
Group’s role in watershed management planning and total maximum daily load planning.....	Page 6-6
Water quality monitoring or habitat evaluation data collected or used by the watershed group...	Page 6-7
Partnerships forged by the watershed group.....	Page 6-8
Friends of the Great Miami.....	Page 6-9
Watershed group’s founding, mission and geographic focus.....	Page 6-9
Watershed group’s water resource priorities, initiatives and partnerships forged.....	Page 6-9
Group’s role in watershed management planning.....	Page 6-11
Water quality monitoring or habitat evaluation data collected or used by the watershed group...	Page 6-11
Greenacres Water Quality Project.....	Page 6-12
Watershed group’s founding, mission and geographic focus.....	Page 6-12
Watershed group’s water resource priorities and initiatives.....	Page 6-12
Group’s role in watershed management planning and total maximum daily load	Page 6-12
Water quality monitoring or habitat evaluation data collected or used by the watershed group...	Page 6-14
Partnerships forged by the watershed group.....	Page 6-14
Partnerships forged by the watershed group.....	Page 6-15
Little Miami Inc.....	Page 6-18
Watershed group’s founding, mission and geographic focus.....	Page 6-18
Watershed group’s water resource priorities and initiatives.....	Page 6-18
Group’s role in watershed management planning and total maximum daily load	Page 6-19
Water quality monitoring or habitat evaluation data collected or used by the watershed group...	Page 6-20
Partnerships forged by the watershed	Page 6-20
Little Miami River Partnership.....	Page 6-21
Watershed group’s founding, mission and geographic focus.....	Page 6-21
Watershed group’s water resource priorities and initiatives.....	Page 6-21
Group’s role in watershed management planning and total maximum daily load	Page 6-23

TABLE OF CONTENTS

Chapter 6: Cont. Watershed Planning in Southwest Ohio	
Water quality monitoring or habitat evaluation data collected or used by the watershed group....	Page 6-24
Partnerships forged by the watershed group.....	Page 6-24
Mill Creek Restoration Project.....	Page 6-25
Watershed group’s founding, mission and geographic focus.....	Page 6-26
Watershed group’s water resource priorities and initiatives.....	Page 6-26
Group’s role in watershed management planning and total maximum daily loads	Page 6-27
Water quality monitoring or habitat evaluation data collected or used by the watershed group....	Page 6-28
Partnerships forged by the watershed group.....	Page 6-28
Mill Creek Watershed Council of Communities.....	Page 6-30
Watershed group’s founding, mission and geographic focus.....	Page 6-30
Watershed group’s water resource priorities and initiatives.....	Page 6-31
Group’s role in watershed management planning and total maximum daily load	Page 6-32
Water quality monitoring or habitat evaluation data collected or used by the watershed group....	Page 6-33
Partnerships forged by the watershed group.....	Page 6-34
Three Valley Conservation Trust.....	Page 6-36
Watershed group’s founding, mission and geographic focus.....	Page 6-36
Watershed group’s water resource priorities and initiatives.....	Page 6-36
Group’s role in watershed management planning and total maximum daily loads	Page 6-38
Water quality monitoring or habitat evaluation data collected or used by the watershed group	Page 6-38
Partnerships forged by the watershed group.....	Page 6-39
The Relevance of Total Maximum Daily Loads to Watershed Action Planning.....	Page 6-40
Figure 6-1: The Status of Watershed Action Plans in Southwest Ohio.....	Page 6-41
Figure 6-2: The Status of Total Maximum Daily Load Reports in Southwest Ohio.....	Page 6-42
Chapter 7: Wastewater Facilities Planning	Page 7-1
Federal and State Oversight of Public Wastewater Treatment Plants.....	Page 7-2
OKI’s Work with Public Wastewater Facilities for “208” Planning.....	Page 7-3
Figure 7-1 Existing Wastewater Facility Planning Areas in 2009 for Butler, Clermont, Hamilton and Warren Counties.....	Page 7-4
Figure 7-2 Recommended Wastewater Facility Planning Areas In 2011 for Butler, Clermont, Hamilton and Warren Counties,	Page 7-5
Figure 7-3 Wastewater Treatment Facilities and Sewer Service Areas in 2011 in Butler, Clermont, Hamilton and Warren Counties.....	Page 7-6
Recommended Butler County Wastewater Facility Planning Areas.....	Page 7-7
Dry Fork Whitewater River Facility Planning Area.....	Page 7-8
Elk Creek Facility Planning Area.....	Page 7-10
Fairfield Facility Planning Area.....	Page 7-12
Four Mile Creek Facility Planning Area.....	Page 7-14
City of Hamilton Facility Planning Area.....	Page 7-16
Indian Creek Facility Planning Area.....	Page 7-18
LeSourdsville Facility Planning Area.....	Page 7-20

TABLE OF CONTENTS

Chapter 7: Cont Wastewater Facilities Planning	
Middletown Facility Planning Area.....	Page 7-22
Oxford Facility Planning Area.....	Page 7-24
Seven Mile Facility Planning Area.....	Page 7-26
Upper Mill Creek Facility Planning Area.....	Page 7-28
Recommended Clermont County Wastewater Facility Planning Areas.....	Page 7-30
Felicity Facility Planning Area.....	Page 7-31
Horner Run Branch Hill Facility Planning Area.....	Page 7-33
Lower East Fork Facility Planning Area.....	Page 7-35
Middle East Fork Facility Planning Area.....	Page 7-37
Milford Facility Planning Area.....	Page 7-40
New Richmond Facility Planning Area.....	Page 7-42
Nine Ten Mile Facility Planning Area.....	Page 7-44
O’Bannon Creek Facility Planning Area.....	Page 7-46
Stonelick Facility Planning Area.....	Page 7-48
Upper East Fork Facility Planning Area.....	Page 7-50
Williamsburg Facility Planning Area.....	Page 7-52
Recommended Hamilton County Wastewater Facility Planning Areas.....	Page 7-54
Glendale Facility Planning Area.....	Page 7-55
Harrison Facility Planning Area.....	Page 7-57
Little Miami Facility Planning Area.....	Page 7-59
Loveland Facility Planning Area.....	Page 7-61
Mill Creek Facility Planning Area.....	Page 7-63
Muddy Creek Facility Planning Area.....	Page 7-65
Polk Run Sycamore Creek Facility Planning Area.....	Page 7-67
Taylor Creek Facility Planning Area.....	Page 7-69
Western Hamilton County Facility Planning Area.....	Page 7-71
Whitewater Facility Planning Area.....	Page 7-74
Recommended Warren County Wastewater Facility Planning Areas.....	Page 7-77
Butlerville Facility Planning Area.....	Page 7-78
Caesar Creek Facility Planning Area.....	Page 7-80
Fort Ancient Facility Planning Area.....	Page 7-82
Franklin Facility Planning Area.....	Page 7-84
Lebanon/South Lebanon Facility Planning Area.....	Page 7-86
Lower Little Miami Facility Planning Area.....	Page 7-88
Mason Facility Planning Area.....	Page 7-90
North O’Bannon Creek Facility Planning Area.....	Page 7-92
Southwest Warren County Facility Planning Area.....	Page 7-94
Springboro Facility Planning Area.....	Page 7-97

TABLE OF CONTENTS

Chapter 8: Ongoing Areawide Water Quality Management Planning	Page 8-1
The Evolution of “208” Planning.....	Page 8-2
The Plan Amendment Process.....	Page 8-2
Steps in Amending the “208” Plan.....	Page 8-3
Information Checklist for “208” Amendment Requests.....	Page8-3
General Criteria for Evaluating 208 Amendment Requests.....	Page 8-4
Future Planning Activities.....	Page 8-5