

Turtle Creek Watershed Project Table

Causes of Impairment (Pollutant or Stressor)	Sources of Pollutant	Projects	Major Tasks/ Milestones	Potential Project Partners	Funding Source(s)	Timeline	Status (in progress, planning, concept, ongoing, complete)	Performance Indicator/Environmental Results (Loadings)	Coastal Management Measure	HUC/Stream Segment Addressed	BUI Color Code: ■ Impaired ■ Not Impaired ■ Unknown ■ Not Applicable														Comments & Misc. Info.					
											BUI #1	BUI #2	BUI #3	BUI #4	BUI #5	BUI #6	BUI #7	BUI #8	BUI #9	BUI #10	BUI #11	BUI #12	BUI #13	BUI #14						
All	All	Conduct a TMDL	1) Design watershed survey, 2) Collect water quality data, 3) Assess waterbodies, 4) Identify target conditions, 5) Develop restoration projects, 6) Select restoration scenario, 7) Prepare implementation plan, 8) Submit TMDL report, 9) Implement TMDL (inside Ohio EPA), 10) Implement TMDL (outside OEPA), 11) Annual validation activities, and 12) Validate water quality status	OEPA	OEPA	2008-2010	concept			HUC 04100010010																Source: OEPA				
All	All	GIS Water Quality database (Phase 1)	1) Create relational database from OEPA water resources inventory data for Maumee AOC	University of Toledo, Maumee RAP	US EPA GLNPO	2004-2005	complete																							
All	All	GIS Water Quality database (Phase 1)	2) Export LE Tribs data to a GIS format				complete																							
All	All	GIS Water Quality database (Phase 1)	3) Publish relational database and GIS online				complete																							
All	All	GIS Water Quality database (Phase 2)	Expand GIS to entire AOC				in progress																							
Flow alterations	channelization	Stream restoration demonstration project	1) Identify potential partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, Army Corps of Engineers	2005-2010	concept			entire watershed																				
Flow alterations	channelization	Stream restoration demonstration project	2) assess possible stream restoration projects				concept																							
Flow alterations	channelization	Stream restoration demonstration project	3) Select demonstration sites				concept																							
Flow alterations	channelization	Stream restoration demonstration project	4) conduct landowner contact				concept																							
Flow alterations	channelization	Stream restoration demonstration project	5) conduct public education				concept																							
Flow alterations	channelization	Stream restoration demonstration project	5) complete project				concept																							
Flow alterations	channelization	Stream restoration demonstration project	6) assess and monitor results				concept																							
Habitat modification	Changing land uses in the watershed	Land use/ land cover analysis and mapping of AOC	Use remote sensing and GIS to classify major land use/land cover types	Maumee RAP, TMACOG, Lucas, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			HUC 04100010010																				
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	1) Identify and evaluate existing wetlands using remote sensing	University of Toledo, Maumee RAP, TMACOG, Lucas Co.	OEPA 319	1999-2003	complete			portion of watershed in Lucas Co																				
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	2) create GIS map of wetlands and potential wetlands				complete																							
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	3) Identify restoration needs				complete																							
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	planning			portion of watershed in Wood Co																				
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	2) create GIS map of wetlands and potential wetlands				planning																							
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	3) Identify restoration needs				planning																							
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			portion of watershed in Ottawa Co																				
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	2) create GIS map of wetlands and potential wetlands				concept																							
Habitat modification	Changing land uses in the watershed	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	3) Identify restoration needs				concept																							
Habitat modification	Removal of riparian vegetation	Land use/ land cover analysis and mapping of AOC	Use remote sensing and GIS to classify major land use/land cover types	Maumee RAP, TMACOG, Lucas, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			HUC 04100010010																				
Habitat modification	Removal of riparian vegetation	Watershed Wildlife Habitat Inventory and assessment	1) Determine wildlife habitat types	Maumee RAP, TMACOG, Lucas, Wood, Ottawa Co., Local municipalities	Lake Erie Protection Fund, USEPA GLNPO, OEPA 319	2005-2006	concept			Maumee AOC																				
Habitat modification	Removal of riparian vegetation	Watershed Wildlife Habitat Inventory and assessment	2) Identify and map habitat types				concept																							
Habitat modification	Removal of riparian vegetation	Watershed Wildlife Habitat Inventory and assessment	3) Field assessment of habitat conditions and quality				concept																							
Habitat modification	Removal of riparian vegetation	Watershed Wildlife Habitat Inventory and assessment	4) Identify range of habitats				concept																							
Habitat modification	Streambank modification/ flow alterations	Stream restoration demonstration project	1) Identify potential partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, Army Corps of Engineers	2005-2010	concept			entire watershed																				

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Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	1) Identify potential Partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			HUC 04100010010								X			X			X	
Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	2) Assess possible BMPs				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	3) Select demonstration sites				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	4) conduct land owner contact				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	5) conduct public education				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Implementation of Agricultural BMPs	6) complete project				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Incentive programs for implementation of agricultural BMPs such as filter strips & conservation tillage, fertilizer/pesticide management	Continue to promote and support the implementation of these programs	Ohio Lake Erie Commission, USDA - NRCS, SWCDs	Ohio Lake Erie Commission, USDA - NRCS, SWCDs		ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Reduce the impact of erosion of water quality	Educate watershed landowners of their impact on water quality and of the benefits of riparian habitat protection or restoration				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	Student Watershed Watch	7) Student share data and finding at Student Summit			mid-Nov	ongoing										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	SWW Teacher Training/Creditable Data Certification	1) Conduct Teacher Training	Maumee RAP, Ohio EPA, Lucas SWCD		2006	concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	SWW Teacher Training/Creditable Data Certification	2) Award a certificate completion for training				concept										X				X			X	
Nutrients	Erosion & runoff from fertilized fields	SWW Teacher Training/Creditable Data Certification	3) Submit certificate to Ohio EPA for Level 1 Qualified Data Collector (QDC) certification				concept										X				X			X	
Nutrients	Urban Runoff	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept										X				X			X	
Nutrients	Urban Runoff	Establish/Utilize volunteer stream monitoring networks	2) Develop framewprk for publishing and updating data via online GIS				concept										X				X			X	
Nutrients	Urban Runoff	Expand Student Watershed Watch Program into additional schools		Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	year round	ongoing										X				X			X	
Nutrients	Urban Runoff	Give Water a Hand Campaign and educational materials	Distribute info at events, programs and presentations	Maumee RAP; Lucas, Ottawa and Wood SWCDs	OEEF; local jurisdictions	year round	ongoing										X				X			X	
Nutrients	Urban Runoff	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing										X				X			X	
Nutrients	Urban Runoff	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing										X				X			X	
Nutrients	Urban Runoff	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing										X				X			X	
Nutrients	Urban Runoff	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing										X				X			X	
Nutrients	Urban Runoff	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing										X				X			X	

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Nutrients	Urban Runoff	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing							X													
Nutrients	Urban Runoff	Student Watershed Watch	7) Student share data and findings at Student Summit			mid-Nov	ongoing							X													
Nutrients	Urban Runoff	SWW Teacher Training/Creditable Data Certification	1) Conduct Teacher Training	Maumee RAP, Ohio EPA, Lucas SWCD		2006	concept							X													
Nutrients	Urban Runoff	SWW Teacher Training/Creditable Data Certification	2) Award a certificate completion for training				concept							X													
Nutrients	Urban Runoff	SWW Teacher Training/Creditable Data Certification	3) Submit certificate to Ohio EPA for Level 1 Qualified Data Collector (QDC) certification				concept							X													
Organic enrichment	Human & animal excreta	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept							X													
Organic enrichment	Human & animal excreta	Establish/Utilize volunteer stream monitoring networks	2) Develop framework for publishing and updating data via online GIS				concept							X													
Organic enrichment	Human & animal excreta	Expand Student Watershed Watch Program into additional schools		Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	year round	ongoing							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 1)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	LEPF, TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	2002-2005	complete			5.6.2;				X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 1)	2) Convert electronic data into GIS map files				complete							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 1)	3) Intergrate with AERIS data				complete							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 1)	4) Train Health Dept personnel to input data and use GIS system				complete							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 2)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Wood County Health Dept, Lucas County Auditor's Office, Northwest Regional Sewer District	LEPF, TMACOG, Lucas County Auditor's Office, Wood County Health Dept	2005-2007	planning			5.6.2;				X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 2)	2) Convert electronic data into GIS map files				planning							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 2)	3) Intergrate with AERIS data				planning							X													
Organic enrichment	Human & animal excreta	GIS Septic System Inventory (Phase 2)	4) Train Health Dept personnel to input data and use GIS system				planning							X													
Organic enrichment	Human & animal excreta	Identify and assess package plant discharges	1) Locate package plants	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept							X													
Organic enrichment	Human & animal excreta	Identify and assess package plant discharges	2) Review NPDES permits				concept							X													
Organic enrichment	Human & animal excreta	Identify and assess package plant discharges	3) Identify plants operating without permit				concept							X													
Organic enrichment	Human & animal excreta	Identify and assess package plant discharges	4) Sample adjacent streams				concept							X													
Organic enrichment	Human & animal excreta	Identify and assess package plant discharges	5) Assess water quality impacts				concept							X													
Organic enrichment	Human & animal excreta	Plankton Survey and Bioassay	1) Establish Methodology	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., University of Toledo, OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept							X													
Organic enrichment	Human & animal excreta	Plankton Survey and Bioassay	2) Identify sample sites				concept							X													
Organic enrichment	Human & animal excreta	Plankton Survey and Bioassay	3) Conduct sampling				concept							X													
Organic enrichment	Human & animal excreta	Plankton Survey and Bioassay	4) Analyze data				concept							X													
Organic enrichment	Human & animal excreta	Plankton Survey and Bioassay	5) Determine status				concept							X													
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	1) Identify stream sampling locations	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	US ACE [WRDA sec. 401]	2004	complete	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage	5.6.2; Chapter 11					X													
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	2) Identify septic system dye testing locations				complete							X													
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	3) Conduct stream sampling and dye testing				complete							X													

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Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	4) Prioritize areas for enforcement based on testing results				complete																			
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	5) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems				complete																			
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	1) Conduct additional stream sampling and dye testing	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2005	in progress	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage																		
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	2) Modify priority areas (if necessary)				in progress																			
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	3) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available)				in progress																			
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 3)	1) Continue to sample and dye test to identify problem areas	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2006 - ?	in progress	Sample stream sites and dye test septic systems as needed per county to reduced discharges of unmeasurable amounts of inadequately treated sewage																		
Organic enrichment	Human & animal excreta	Stream and Septic System Sampling Project (Phase 3)	2) Continue to pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available) until priority areas are addressed				in progress																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing																			
Organic enrichment	Human & animal excreta	Student Watershed Watch	7) Student share data and finding at Student Summit			mid-Nov	ongoing																			
Organic enrichment	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	1) Conduct Teacher Training	Maumee RAP, Ohio EPA, Lucas SWCD		2006	concept																			
Organic enrichment	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	2) Award a certificate completion for training				concept																			
Organic enrichment	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	3) Submit certificate to Ohio EPA for Level 1 Qualified Data Collector (QDC) certification				concept																			
Pathogens	Cropland or pasture where manure is spread	Encourage Bufferstrips to trap sediments		Lucas and Wood Soil and Water Conservation Districts		Ongoing	ongoing																			
Pathogens	Cropland or pasture where manure is spread	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept																			
Pathogens	Cropland or pasture where manure is spread	Establish/Utilize volunteer stream monitoring networks	2) Develop framewprk for publishing and updating data via online GIS				concept																			
Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	1) Identify potential Partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			HUC 04100010010																
Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	2) Assess possible BMPs				concept																			
Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	3) Select demonstration sites				concept																			

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Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	4) conduct land owner contact				concept																		
Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	5) conduct public education				concept																		
Pathogens	Cropland or pasture where manure is spread	Implementation of Agricultural BMPs	6) complete project				concept																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing																		
Pathogens	Cropland or pasture where manure is spread	Student Watershed Watch	7) Student share data and finding at Student Summit			mid-Nov	ongoing																		
Pathogens	Human & animal excreta	Educate Horse owners on proper disposal of manure	Implement Equine Environmental Assurance and Liability Program for Fulton, Lucas and Wood Counties	LSWCD, WSWCD Ohio Livestock Coalition, Farm Bureau	Ohio Livestock Coalition, Farm Bureau, ODRN-DSWC	2006	concept				X		X			X		X		X	X				
Pathogens	Human & animal excreta	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept																		
Pathogens	Human & animal excreta	Establish/Utilize volunteer stream monitoring networks	2) Develop framewprk for publishing and updating data via online GIS				concept																		
Pathogens	Human & animal excreta	Expand Student Watershed Watch Program into additional schools		Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	year round	ongoing																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 1)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	LEPF, TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	2002-2005	complete																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 1)	2) Convert electronic data into GIS map files				complete																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 1)	3) Intergrate with AERIS data				complete																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 1)	4) Train Health Dept personnel to input data and use GIS system				in progress																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 2)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Wood County Health Dept, Lucas County Auditor's Office, Northwest Regional Sewer District	LEPF, TMACOG, Lucas County Auditor's Office, Wood County Health Dept	2005-2007	in progress																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 2)	2) Convert electronic data into GIS map files				in progress																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 2)	3) Intergrate with AERIS data				in progress																		
Pathogens	Human & animal excreta	GIS Septic System Inventory (Phase 2)	4) Train Health Dept personnel to input data and use GIS system				in progress																		
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	1) Identify stream sampling locations	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	US ACE [WRDA sec. 401]	2004	complete	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage	5.6.2; Chapter 11																
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	2) Identify septic system dye testing locations				complete																		
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	3) Conduct stream sampling and dye testing				complete																		
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	4) Prioritize areas for enforcement based on testing results				complete																		
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 1)	5) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems				complete																		

Turtle Creek Watershed Project Table

Causes of Impairment (Pollutant or Stressor)	Sources of Pollutant	Projects	Major Tasks/ Milestones	Potential Project Partners	Funding Source(s)	Timeline	Status (in progress, planning, concept, ongoing, complete)	Performance Indicator/Environmental Results (Loadings)	Coastal Management Measure	HUC/Stream Segment Addressed	BUI Color Code: Impaired Not Impaired Unknown Not Applicable														Comments & Misc. Info.	
											BUI #1	BUI #2	BUI #3	BUI #4	BUI #5	BUI #6	BUI #7	BUI #8	BUI #9	BUI #10	BUI #11	BUI #12	BUI #13	BUI #14		
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	1) Conduct additional stream sampling and dye testing	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2005	concept	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage												X						
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	2) Modify priority areas (if necessary)				concept														X					
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 2)	3) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available)				concept														X					
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 3)	1) Continue to sample and dye test to identify problem areas	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2006 - ?	concept	Sample stream sites and dye test septic systems as needed per county to reduced discharges of unmeasurable amounts of inadequately treated sewage													X					
Pathogens	Human & animal excreta	Stream and Septic System Sampling Project (Phase 3)	2) Continue to pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available) until priority areas are addressed				concept														X					
Pathogens	Human & animal excreta	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing														X					
Pathogens	Human & animal excreta	Student Watershed Watch	7) Student share data and finding at Student Summit			mid-Nov	ongoing														X					
Pathogens	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	1) Conduct Teacher Training	Maumee RAP, Ohio EPA, Lucas SWCD		2006	concept														X					
Pathogens	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	2) Award a certificate completion for training				concept														X					
Pathogens	Human & animal excreta	SWW Teacher Training/Creditable Data Certification	3) Submit certificate to Ohio EPA for Level 1 Qualified Data Collector (QDC) certification				concept														X					
Pathogens	Septic systems	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept														X					
Pathogens	Septic systems	Establish/Utilize volunteer stream monitoring networks	2) Develop framewprk for publishing and updating data via online GIS				concept														X					
Pathogens	Septic systems	Expand Student Watershed Watch Program into additional schools		Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	year round	ongoing														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 1)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	LEPF, TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office	2002-2005	complete														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 1)	2) Convert electronic data into GIS map files				complete														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 1)	3) Intergrate with AERIS data				complete														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 1)	4) Train Health Dept personnel to input data and use GIS system				in progress														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Wood County Health Dept, Lucas County Auditor's Office, Northwest Regional Sewer District	LEPF, TMACOG, Lucas County Auditor's Office, Wood County Health Dept	2005-2007	in progress														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	2) Convert electronic data into GIS map files				in progress														X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	3) Intergrate with AERIS data				in progress														X					

Turtle Creek Watershed Project Table

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Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	4) Train Health Dept personnel to input data and use GIS system				in progress																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	1) Identify stream sampling locations	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	US ACE [WRDA sec. 401]	2004	complete	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage	5.6.2; Chapter 11																		
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	2) Identify septic system dye testing locations				complete																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	3) Conduct stream sampling and dye testing				complete																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	4) Prioritize areas for enforcement based on testing results				complete																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	5) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems				complete																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 2)	1) Conduct additional stream sampling and dye testing	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2005	concept	Sample 50 stream sites and dye test 100 septic systems per county to reduced discharges of unmeasurable amounts of inadequately treated sewage																			
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 2)	2) Modify priority areas (if necessary)				concept																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 2)	3) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available)				concept																				
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 3)	1) Continue to sample and dye test to identify problem areas	TMACOG, Toledo/Lucas County Health Dept, Lucas County Auditor's Office, Wood County Health Dept	WRDA 401, Ohio EPA 319	2006 - ?	concept	Sample stream sites and dye test septic systems as needed per county to reduced discharges of unmeasurable amounts of inadequately treated sewage																			
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 3)	2) Continue to pursue enforcement requiring upgrades or replacement of failed or inadequate systems with cost share incentives (if available) until priority areas are addressed				concept																				
Pathogens	Septic systems	Student Watershed Watch	1) Enlist teacher/schools to participate	Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	August - November	ongoing																				
Pathogens	Septic systems	Student Watershed Watch	2) Conduct teacher training (see SWW Teacher Training/Creditable Data Certification)				ongoing																				
Pathogens	Septic systems	Student Watershed Watch	3) Teachers submit requests for supplies needed to Maumee RAP and sampling plan to Ohio EPA (if Qualified Data Collector)			Sept	ongoing																				
Pathogens	Septic systems	Student Watershed Watch	4) Supplies are distributed to participating teacher/schools			Sept	ongoing																				
Pathogens	Septic systems	Student Watershed Watch	5) Teachers conduct student training and sampling on designated sampling day (preferably)			mid-Oct	ongoing																				
Pathogens	Septic systems	Student Watershed Watch	6) Teachers submit student data to Maumee RAP (and Ohio EPA if Qualified Data Collector)			late Oct- early Nov	ongoing																				
Pathogens	Septic systems	Student Watershed Watch	7) Student share data and findings at Student Summit			mid-Nov	ongoing																				
Pathogens	Septic systems	SWW Teacher Training/Creditable Data Certification	1) Conduct Teacher Training	Maumee RAP, Ohio EPA, Lucas SWCD		2006	concept																				
Pathogens	Septic systems	SWW Teacher Training/Creditable Data Certification	2) Award a certificate completion for training				concept																				
Pathogens	Septic systems	SWW Teacher Training/Creditable Data Certification	3) Submit certificate to Ohio EPA for Level 1 Qualified Data Collector (QDC) certification				concept																				
Pathogens	Urban Runoff	Establish/Utilize volunteer stream monitoring networks	1) Train volunteers in as per EPA QA standards				concept																				
Pathogens	Urban Runoff	Establish/Utilize volunteer stream monitoring networks	2) Develop framework for publishing and updating data via online GIS				concept																				
Pathogens	Urban Runoff	Expand Student Watershed Watch Program into additional schools		Maumee RAP, TMACOG, Ohio EPA, public and private schools	private donations	year round	ongoing																				
Pathogens	Urban Runoff	Give Water a Hand Campaign and educational materials	Distribute info at events, programs and presentations	Maumee RAP; Lucas, Ottawa and Wood SWCDs	OEEF; local jurisdictions	year round	ongoing																				

Turtle Creek Watershed Project Table

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Pesticides	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	1) Survey SWCDs to determine extent of BMP implementation	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co], Area Universities	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			entire watershed				X	X			X								X		
Pesticides	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	2) Conduct initial water sampling to determine baseline WQ				concept							X	X												X	
Pesticides	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	3) Determine best location of BMPs for optimal impact				concept							X	X												X	
Pesticides	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	4) Conduct post implementation sampling to quantify impacts				concept							X	X												X	
Pesticides	Cropland	Incentive programs for implementation of agricultural BMPs such as filter strips & conservation tillage, fertilizer/pesticide management	Continue to promote and support the implementation of these programs	Ohio Lake Erie Commission, USDA - NRCS, SWCDs	Ohio Lake Erie Commission, USDA - NRCS, SWCDs		concept			entire watershed				X	X												X	
Pesticides	Cropland	Plankton Survey and Bioassay	1) Establish Methodology	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., University of Toledo, OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept			entire watershed				X	X												X	
Pesticides	Cropland	Plankton Survey and Bioassay	2) Identify sample sites				concept			entire watershed				X	X												X	
Pesticides	Cropland	Plankton Survey and Bioassay	3) Conduct sampling				concept							X	X												X	
Pesticides	Cropland	Plankton Survey and Bioassay	4) Analyze data				concept							X	X												X	
Pesticides	Cropland	Plankton Survey and Bioassay	5) Determine status				concept							X	X												X	
Pesticides	Cropland	Survey of Wildlife Managers [tainting of fish and wildlife flavor]	Design and conduct survey for regional wildlife managers in order to determine and tainting of fish an wildlife flavor	Maumee RAP, Federal and State wildlife agencies	Lake Erie Protection Fund, Ohio Sea Grant	2005-2006	concept			Maumee AOC				X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	1) Identify potential Partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			HUC 04100010010				X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	2) Assess possible BMPs				concept							X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	3) Select demonstration sites				concept							X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	4) conduct land owner contact				concept							X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	5) conduct public education				concept							X	X												X	
Pesticides	Cropland	Implementation of Agricultural BMPs	6) complete project				concept							X	X												X	
Pesticides	urban/suburban areas	Give Water a Hand Campaign and educational materials	Distribute info at events, programs and presentations	Maumee RAP; Lucas, Ottawa and Wood SWCDs	OEEF; local jurisdictions	year round	ongoing							X	X												X	
Refuse, litter, etc	litter	CYS Day	1) Establish planning team	Maumee RAP; Duck and Otter Creeks Partnership; ORKA; Cities of Oregon, Northwood, Toledo; TMACOG; Lake Erie Commission; various other community partners	Solicit private and public contributions, grants when available	April - Sept (annually)	ongoing	Relative to previous years: 1) tons of garbage and debris removed from area streams; 2) number of volunteers that participate; 3) # of sites/RM cleaned 4) amount of support received for planning and funding the event	Chapter 10.5					X							X						X	
Refuse, litter, etc	litter	CYS Day	2) Solicit contributions and site captain support			April - Sept	ongoing							X							X						X	
Refuse, litter, etc	litter	CYS Day	3) Distribute promotional materials			June - Sept	ongoing							X							X						X	
Refuse, litter, etc	litter	CYS Day	4) Select waterways and sites to be cleaned			Aug	ongoing							X							X						X	
Refuse, litter, etc	litter	CYS Day	5) Conduct site captain training			Sept	ongoing							X							X						X	
Refuse, litter, etc	litter	CYS Day	6) Hold event and appreciation picnic			Sept	ongoing							X							X						X	
Sedimentation/Siltation	Construction	Assessment of stream for storm water flows pre- and post- development					concept							X	X		X			X						X		
Sedimentation/Siltation	Construction	Evaluate land use		City of Toledo, RAP Urban Runoff Action Group			concept							X	X		X			X						X		
Sedimentation/Siltation	Construction	Identify alternative development designs/layouts that protect water quality					concept							X	X		X			X						X		
Sedimentation/Siltation	Construction	Implement a watershed storm water management program		RAP Urban Runoff Action Group	Lake Erie Protection Fund Local jurisdictions		concept							X	X		X			X						X		
Sedimentation/Siltation	Construction	Land use/ land cover analysis and mapping of AOC	Use remote sensing and GIS to classify major land use/land cover types	Maumee RAP, TMACOG, Lucas, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			Maumee AOC				X	X		X			X						X		

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Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 1)	1) Determine contents for manual	RAP Urban Runoff Action Group, MRRSWC	Lake Erie Protection Fund	2002	complete	Implement a regional/watershed management program: a) control increases in runoff rates, b) prevent losses in infiltration, c) prevent runoff pollution		all of AOC																	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 1)	2) Write manual				complete							X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 1)	3) Identify alternative development designs/layouts that protect water quality				complete							X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 1)	4) Encourage local jurisdictions to adopt manual as their standards				complete							X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 2)	1) Review existing manual	Maumee RAP Urban Runoff Action Group, SWC	GLC	2005-2007	in progress	Completion and distribution of revised manual	Chapter 10.5; 5.7.1	all of watershed				X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 2)	2) Update chapters with new content and regulations			2005-2006	in progress							X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 2)	3) Conduct workshops and site visits for consultants, developers, contractors on stormwater plan preparation and post-construction BMPs			2006-2007	in progress	50 percent of consultants, developers, contractors that work in the area participate						X	X		X					X				X	
Sedimentation/Siltation	Construction	Regional Storm Water Standards Manual (Phase 3)	Maintain and update manual as needed				ongoing							X	X		X					X				X	
Sedimentation/Siltation	Construction	Require BMPs on smaller developments					concept			entire watershed				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Develop potential project list based on Cropland Inventory Project Results					concept			entire watershed				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	1) Survey SWCDs to determine extent of BMP implementation	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co], Area Universities	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			entire watershed				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	2) Conduct initial water sampling to determine baseline WQ				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	3) Determine best location of BMPs for optimal impact				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Identify extent & benefit of conservation tillage and other BMPs used by farmers in watershed	4) Conduct post implementation sampling to quantify impacts				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	1) Identify potential Partners	Maumee RAP Rural Runoff Action Group, SWCD [Lucas, Wood, Ottawa Co]	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			HUC 04100010010				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	2) Assess possible BMPs				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	3) Select demonstration sites				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	4) conduct land owner contact				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	5) conduct public education				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Implementation of Agricultural BMPs	6) complete project				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Incentive programs for implementation of agricultural BMPs such as filter strips & conservation tillage, fertilizer/pesticide management	Continue to promote and support the implementation of these programs	Ohio Lake Erie Commission USDA - NRCS SWCDs (Fulton & Lucas in Ohio)	Ohio Lake Erie Commission USDA - NRCS SWCDs (Fulton & Lucas in Ohio)		concept			entire watershed				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Incentives and equipment rental for conservation tillage		Lucas and Wood Soil and Water Conservation Districts		ongoing	ongoing							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Inventory watershed for amount of acreage in cropland	1) Develop inventory methodology utilizing existing AERIS system and other available resources	Maumee RAP Ag Runoff Action Group, SWCDs (Fulton & Lucas in Ohio), ODNR - SWC	U.S. ACE, Section 319, NatureWorks (ODNR)		concept			entire watershed				X	X		X					X				X	
Sedimentation/Siltation	Cropland	Inventory watershed for amount of acreage in cropland	2) Convert electronic data into GIS map files				concept							X	X		X					X				X	
Sedimentation/Siltation	Cropland	Inventory watershed for amount of acreage in cropland	3) Intergrate with AERIS data				concept							X	X		X					X				X	

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Sedimentation/Siltation	Cropland	Inventory watershed for amount of acreage in cropland	4) Determine impact on watershed and possible projects to reduce or eliminate				concept																			
Sedimentation/Siltation	Cropland	Reduce the impact of erosion of water quality	Educate watershed landowners of their impact on water quality and of the benefits of riparian habitat protection or restoration	Maumee RAP Ag Runoff Action Group, SWCDs (Fulton & Lucas in Ohio), ODNR - SWC, Ohio EPA 319	Ohio EPA 319		concept			entire watershed																
Sedimentation/Siltation	Cropland or pasture where manure is spread	Plankton Survey and Bioassay	1) Establish methodology	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., University of Toledo, OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept			entire watershed																
Sedimentation/Siltation	Cropland or pasture where manure is spread	Plankton Survey and Bioassay	2) Identify sample sites				concept			entire watershed																
Sedimentation/Siltation	Cropland or pasture where manure is spread	Plankton Survey and Bioassay	3) Conduct sampling				concept																			
Sedimentation/Siltation	Cropland or pasture where manure is spread	Plankton Survey and Bioassay	4) Analyze data				concept																			
Sedimentation/Siltation	Cropland or pasture where manure is spread	Plankton Survey and Bioassay	5) Determine status				concept																			
Sedimentation/Siltation	land clearing and infilling for development	Incentives and equipment rental for conservation tillage		Lucas and Wood SWCDs			ongoing	ongoing																		
Sedimentation/Siltation	land clearing and infilling for development	Land use/ land cover analysis and mapping of AOC	Use remote sensing and GIS to classify major land use/land cover types	Maumee RAP, TMACOG, Lucas, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			Maumee AOC																
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	1) Identify and evaluate existing wetlands using remote sensing	University of Toledo, Maumee RAP, TMACOG, Lucas Co.	OEPA 319	1999-2003	complete			portion of watershed in Lucas Co																
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	2) create GIS map of wetlands and potential wetlands				complete																			
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	3) Identify restoration needs				complete																			
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	planning			portion of watershed in Wood Co																
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	2) create GIS map of wetlands and potential wetlands				planning																			
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	3) Identify restoration needs				planning																			
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			portion of watershed in Ottawa Co																
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	2) create GIS map of wetlands and potential wetlands				concept																			
Sedimentation/Siltation	land clearing and infilling for development	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	3) Identify restoration needs				concept																			
Sedimentation/Siltation	Pasture	Develop potential project list based on Pasture Inventory Project Results					concept																			
Sedimentation/Siltation	Pasture	Identify extent & benefit of BMPs used by farmers in watershed		Ohio Lake Erie Commission USDA - NRCS SWCDs (Fulton & Lucas in Ohio)	Ohio Lake Erie Commission USDA - NRCS SWCDs (Fulton & Lucas in Ohio, Monroe & Lenawee in MI)		concept																			
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	1) Identify potential Partners	Maumee RAP Rural Runoff Action Group, SWCD (Lucas, Wood, Ottawa Co)	LEPF, USEPA GLNPO, OEPA 319, GLC Great Lakes Basin Program for Soil Erosion and Sediment Control	2005-2010	concept			HUC 04100010010																
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	2) Assess possible BMPs				concept																			
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	3) Select demonstration sites				concept																			
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	4) conduct land owner contact				concept																			
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	5) conduct public education				concept																			

Turtle Creek Watershed Project Table

Causes of Impairment (Pollutant or Stressor)	Sources of Pollutant	Projects	Major Tasks/ Milestones	Potential Project Partners	Funding Source(s)	Timeline	Status (in progress, planning, concept, ongoing, complete)	Performance Indicator/Environmental Results (Loadings)	Coastal Management Measure	HUC/Stream Segment Addressed	BUI Color Code: Impaired Not Impaired Unknown Not Applicable														Comments & Misc. Info.
											BUI #1	BUI #2	BUI #3	BUI #4	BUI #5	BUI #6	BUI #7	BUI #8	BUI #9	BUI #10	BUI #11	BUI #12	BUI #13	BUI #14	
Sedimentation/Siltation	Pasture	Implementation of Agricultural BMPs	6) complete project				concept																		
Sedimentation/Siltation	Pasture	Incentive programs for implementation of agricultural BMPs such as filter strips, manure management, pesticide management	Continue to promote and support the implementation of these programs				concept																		
Sedimentation/Siltation	Pasture	Inventory watershed for amount of acreage in pasture	1) Develop inventory methodology utilizing existing AERIS system and other available resources	RAP Ag Runoff Action Group, SWCDs (Fulton & Lucas in Ohio), ODNR - SWC	U.S. ACE, Section 319, NatureWorks (ODNR)		concept			entire watershed															
Sedimentation/Siltation	Pasture	Inventory watershed for amount of acreage in pasture	2) Convert electronic data into GIS map files				concept																		
Sedimentation/Siltation	Pasture	Inventory watershed for amount of acreage in pasture	3) Intergrate with AERIS data				concept																		
Sedimentation/Siltation	Pasture	Inventory watershed for amount of acreage in pasture	4) Determine impact on watershed and possible projects to reduce or eliminate				concept																		
Sedimentation/Siltation	Pasture	Reduce the impact of erosion of water quality	Educate watershed landowners of their impact on water quality and of the benefits of riparian habitat protection or restoration				concept																		
Sedimentation/Siltation	Streambanks	Collect additional data, as needed					concept																		
Sedimentation/Siltation	Streambanks	Define Stabilization Problem					concept																		
Sedimentation/Siltation	Streambanks	Develop potential project list based on Streambank Inventory Project Results					concept			entire watershed															
Sedimentation/Siltation	Streambanks	Identify additional data needed					concept																		
Sedimentation/Siltation	Streambanks	Implemented project(s) from proposed list					concept																		
Sedimentation/Siltation	Streambanks	Inventory watershed for streambank conditions		Ohio EPA, ODNR, US F&WS, US ACE	US ACE [WRDA ?? 905(b)], Ohio EPA 319		planning			entire watershed														NOTE: ACE recognizes & recommends use of OEPA's QHEI	
Sedimentation/Siltation	Streambanks	Review previously collected data		Ohio EPA, ODNR, US F&WS, US ACE	US ACE [WRDA ?? 905(b)]		concept																		
Sedimentation/Siltation	Streambanks	Streambank Tree Planting	1) Identify nurseries willing to donate plants	NRCS, SWCDs, Maumee RAP, TMACOG,	Ohio EPA 319	2006-?	concept			entire watershed															
Sedimentation/Siltation	Streambanks	Streambank Tree Planting	2) Locate areas in need of bank stabilization				concept																		
Sedimentation/Siltation	Streambanks	Streambank Tree Planting	3) Find receptive landowners				concept																		
Sedimentation/Siltation	Streambanks	Streambank Tree Planting	4) Assist in planting				concept																		
Thermal stress/sunlight	Removal of riparian vegetation	Plankton Survey and Bioassay	1) Establish Methodology	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., University of Toledo, OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept			entire watershed															
Thermal stress/sunlight	Removal of riparian vegetation	Plankton Survey and Bioassay	2) Identify sample sites				concept			entire watershed															
Thermal stress/sunlight	Removal of riparian vegetation	Plankton Survey and Bioassay	3) Conduct sampling				concept																		
Thermal stress/sunlight	Removal of riparian vegetation	Plankton Survey and Bioassay	4) Analyze data				concept																		
Thermal stress/sunlight	Removal of riparian vegetation	Plankton Survey and Bioassay	5) Determine status				concept																		
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	1) Identify and evaluate existing wetlands using remote sensing	University of Toledo, Maumee RAP, TMACOG, Lucas Co.	OEPA 319	1999-2003	complete			portion of watershed in Lucas Co															
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	2) create GIS map of wetlands and potential wetlands				complete																		
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 1) (Lucas Co.)	3) Identify restoration needs				complete																		
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	planning			portion of watershed in Wood Co															
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	2) create GIS map of wetlands and potential wetlands				planning																		
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 2) (Wood Co.)	3) Identify restoration needs				planning																		
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	1) Identify and evaluate existing wetlands using remote sensing	Maumee RAP, TMACOG, Wood, Ottawa Co., University of Toledo	LEPF, USEPA GLNPO, OEPA 319, Ohio Sea Grant	2005-2006	concept			portion of watershed in Ottawa Co															

Turtle Creek Watershed Project Table

											BUI Color Code: Impaired Not Impaired Unknown Not Applicable														
Causes of Impairment (Pollutant or Stressor)	Sources of Pollutant	Projects	Major Tasks/ Milestones	Potential Project Partners	Funding Source(s)	Timeline	Status (in progress, planning, concept, ongoing, complete)	Performance Indicator/Environmental Results (Loadings)	Coastal Management Measure	HUC/Stream Segment Addressed	BUI #1	BUI #2	BUI #3	BUI #4	BUI #5	BUI #6	BUI #7	BUI #8	BUI #9	BUI #10	BUI #11	BUI #12	BUI #13	BUI #14	Comments & Misc. Info.
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	2) create GIS map of wetlands and potential wetlands				concept						X				X							X	
thermal stress/sunlight	riparian cooridor destruction	Wetlands Inventory and Mapping (Phase 3) (Ottawa Co.)	3) Identify restoration needs				concept						X				X							X	
Toxic substances	Industrial discharges (current or old)	Identify point sources		Ohio EPA	Ohio EPA		concept						X	X							X			X	
Toxic substances	Industrial discharges (current or old)	Maintain compliance with NPDES permits		Ohio EPA Permittees	Ohio EPA		concept						X	X							X			X	
Toxic substances	Industrial discharges (current or old)	NPDES permit GIS inventory (Phase 1)	1) Collect GIS coordinates for all current NPDES permits	Ohio EPA DSW	Ohio EPA	2005-07	in progress	Coodinates for all permits collected					X	X	X	X	X			X	X	X	X	X	
Toxic substances	Industrial discharges (current or old)	NPDES permit GIS inventory (Phase 1)	2) Convert electronic data into GIS map files				in progress						X	X	X	X	X			X	X	X	X	X	
Toxic substances	Industrial discharges (current or old)	NPDES permit GIS inventory (Phase 2)	Integrate with AERIS data	TMACOG, Lucas County Auditor's Office	Maumee RAP		planning						X	X	X	X	X			X	X	X	X	X	
Toxic substances	Urban Runoff	Educate public on sources/pathways					concept						X	X							X			X	
Toxic substances	Urban Runoff	Evaluate capacity/condition of existing systems; analysis of storm water flow, thermal impacts, runoff quality, erosion and sedimentation, and groundwater recharge.					concept						X	X							X			X	
Toxic substances	Urban Runoff	Evaluate impact of Phase II Stormwater regulations		Possibly Health Dept, permitted Phase 2 stormwater jurisdictions			concept						X	X							X			X	
Toxic substances	Urban Runoff	Evaluate upstream contributions					concept						X	X							X			X	
Toxic substances	Urban Runoff	Give Water a Hand Campaign and educational materials	Distribute info at events, programs and presentations	Maumee RAP; Lucas, Ottawa and Wood SWCDs	OEEF; local jurisdictions	year round	ongoing						X	X							X			X	
Toxic substances	Urban Runoff	Identify illicit connections					concept						X	X							X			X	
Toxic substances	Urban Runoff	Identify sources not addressed by existing regulations (i.e. commercial)					concept						X	X							X			X	
Toxic substances	Urban Runoff	Identify vulnerable areas					concept						X	X							X			X	
Toxic substances	Urban Runoff	Implement a regional/watershed management program:	1) control increases in runoff rates, 2) prevent losses in infiltration, 3) prevent runoff pollution	SWC & other local governments, RAP Urban Runoff Action Group	LEPF, local jurisdictions		concept						X	X							X			X	
Toxic substances	Urban Runoff	Performance bond/tie compliance into building permits.					concept						X	X							X			X	
Toxic substances	Urban Runoff	Provide venues for proper disposal of wastes		Lucas County Solid Waste Mgmt Distct			concept						X	X							X			X	
Toxic substances	Urban Runoff	Provide/identify BMPs (may be based on a performance criteria) to prevent/remove pollutants					concept						X	X							X			X	
Toxic substances	Wastewater treatment plant	Identify and assess package plant discharges	1) Locate package plants	Maumee RAP, TMACOG, Wood, Lucas, Ottawa Co., Health Depts., OEPA	LEPF, Ohio Sea Grant, USEPA, OEPA	2005-2006	concept			entire watershed			X	X							X			X	
Toxic substances	Wastewater treatment plant	Identify and assess package plant discharges	2) Review NPDES permits				concept						X	X							X			X	
Toxic substances	Wastewater treatment plant	Identify and assess package plant discharges	3) Identify plants operating without permit				concept						X	X							X			X	
Toxic substances	Wastewater treatment plant	Identify and assess package plant discharges	4) Sample adjacent streams				concept						X	X							X			X	
Toxic substances	Wastewater treatment plant	Identify and assess package plant discharges	5) Assess water quality impacts				concept						X	X							X			X	