Toussaint Creek, Toussaint River and Rusha 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.
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 scenerio, 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	2003-2005	in progress				X	X	X	X		X		X		X	X	X		X	Source: OEPA
All	All	GIS Water Quality database (Phase 1)	1) Create relational database from OEPA water resources inventory data for Maumee AOC	Universitry of Toledo, Maumee RAP	US EPA GLNPO	2004-2005	complete				X	X	X	X	X	X	X	X		X	X	X		X	
All	All	GIS Water Quality database (Phase 1)	2) Export LE Tribs data to a GIS format				complete				X	X	X	X	X	X	X	X		X	X	X		X	
All	All	GIS Water Quality database (Phase 1)	3) Publish relational database and GIS online				complete				X	X	X	X	X	X	X	X		X	X	X		X	
All	All	GIS Water Quality database (Phase 2)	Expand GIS to entire AOC				in progress				X	X	X	X	X	X	X	X		X	X	X		X	
Habitat Modifications	changing land use	Create Regional Storm Water Standards Manual		RAP Urban Runoff Action Group, MRRSWC	Lake Erie Protection Fund	2002	complete						X												
Habitat Modifications	changing land use	Educate developers/contractors on need and use of BMPs		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X											
Habitat Modifications	changing land use	Implement the Phase 2 storm water management program		City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area	local jurisdictions; additional grants if necessary	2006-	ongoing						X											
Habitat Modifications	changing land use	Implement the Phase 2 storm water management program	Review all site plan and require pre/post construction controls for water quality, even for sites < 1 acre	City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area		2004-	ongoing		5.3.1; 5.3.2; 5.3.3; 5.4.1; 5.4.2				X											
Habitat Modifications	changing land use	Implement the Phase 2 storm water management program	Revise storm water regulations and ordinances; may incorporate Maumee RAP manual, ODNR Rainwater manual, regional Storm Water Coalition recommendations and other references	City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area		2004	ongoing	stricter BMPs, ordinances that are more protective of stream health	Chapter 5				X											
Habitat Modifications	changing land use	Maintain and update Stormwater Standards Manual (as needed)		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X											
Habitat Modifications	changing land use	Propose alternative development designs/layouts and BMPs that protect habitat and water quality				2004-2005	ongoing						X											
Habitat Modifications	changing land use	Work with new development/industries moving into the watershed to develop strategies to minimize their impact on the creeks (for instance, storm water BMPs, setbacks, habitat buffers, etc)	Identify BMPs to recommend and literature to support it; become familiar with local storm water rules, wetland and stream mitigation rules, etc		none needed	2004-2006	ongoing		5.3.1; 5.3.2				X											X
Habitat Modifications	Channelization	Modified dredging procedures, Natural stream channel and/or 2-Stage ditch design	Demonstrate a natural stream channel anywhere in watershed	ODNR, SWCDs, County Engineers	ODNR, NOAA/Coastal NPS, 319 grants	2007	planning	Increase QHEI score to 60.	7.4.1; 7.4.2	RM 36.5 13.9 4.7			X			X							
Habitat Modifications	construction	Create Regional Storm Water Standards Manual		RAP Urban Runoff Action Group, MRRSWC	Lake Erie Protection Fund	2002	complete						X											
Habitat Modifications	construction	Educate developers/contractors on need and use of BMPs		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X											
Habitat Modifications	construction	Implement the Phase 2 storm water management program		City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area	local jurisdictions; additional grants if necessary	2006-	ongoing						X											
Habitat Modifications	construction	Implement the Phase 2 storm water management program	Review all site plan and require pre/post construction controls for water quality, even for sites < 1 acre	City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area		2004-	ongoing		5.3.1; 5.3.2; 5.3.3; 5.4.1; 5.4.2				X											
Habitat Modifications	construction	Implement the Phase 2 storm water management program	Revise storm water regulations and ordinances; may incorporate Maumee RAP manual, ODNR Rainwater manual, regional Storm Water Coalition recommendations and other references	City of Bowling Green, portions of Wood and Ottawa county in Toledo urbanized area		2004	ongoing	stricter BMPs, ordinances that are more protective of stream health	Chapter 5				X											
Habitat Modifications	construction	Maintain and update Stormwater Standards Manual (as needed)		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X											
Habitat Modifications	construction	Propose alternative development designs/layouts and BMPs that protect habitat and water quality				2004-2005	ongoing						X											

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Habitat Modifications	construction	Work with new development/industries moving into the watershed to develop strategies to minimize their impact on the creeks (for instance, storm water BMPs, setbacks, habitat buffers, etc)	Identify BMPs to recommend and literature to support it; become familiar with local storm water rules, wetland and stream mitigation rules, etc		none needed	2004-2006	ongoing		5.3.1; 5.3.2				X											X	
Habitat Modifications	removal of riparian vegetation	Adopt riparian setback ordinances in residential and urban areas					concept						X			X									
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	1) Develop scope and tasks for project				concept		8.3.1; 8.3.2; 8.3.3				X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	2) Distribute RFP and hire consultants				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	3) Desktop review of watershed to id preliminary wetland sites				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	4) Secure property owner permission for site access for field visits				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	5) Conduct detailed survey of each priority site				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	6) Develop detailed conceptual plans and cost estimates for restoration/enhancement of identified wetlands				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	7) Distribute WIRP to interested stakeholders, agencies, etc				concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream					concept						X			X								X	
Habitat Modifications	removal of riparian vegetation	Propose alternative development designs/layouts and BMPs that protect habitat and water quality					concept																	X	
Habitat Modifications	removal of riparian vegetation	Purchase conservation easements along riparian corridors					concept						X			X									
Habitat Modifications	removal of riparian vegetation	Re-planting program	Secure grant and identify available space along creeks for replanting				concept		5.5.1; 7.6.1				X												
Habitat Modifications	removal of Riparian vegetation	Restore streamside vegetation on natural streams	Install trees and shrubs along river bank(s) upstream of RM 12.6	ODNR, SWCDs, County Engineers	ODNR, NOAA/Coastal NPS, 319 grants	2006	planning	Increase QHEI riparian metric; Increase D.O. to 5.0 mg/l avg.	7.6.1; 8.3.3	RM 12.6 Stange Rd (2003)			X			X									
Habitat Modifications	streambank modifications	Determine feasibility of restoring floodplain access in limited areas					concept						X			X									
Habitat Modifications	streambank modifications	Identify areas of creek where stream "curves" can be re-created											X											X	
Habitat Modifications	streambank modifications	Identify areas of creek where stream bank stabilization is needed	Continue "walking" creek and general observations			2005			5.5.1; 7.6.1				X												
Habitat Modifications	streambank modifications	Work w/local cities and county to review code and incorporate environmental planning/setbacks		county planning commissions, TMACOG			concept		Chapter 5							X									
Habitat Modifications	streambank modifications	Work with new development/industries moving into the watershed to develop strategies to minimize their impact on the creeks (for instance, storm water BMPs, setbacks, habitat buffers, etc)	Identify BMPs to recommend and literature to support it; become familiar with local storm water rules, wetland and stream mitigation rules, etc		none needed	2004-2006	ongoing		5.3.1; 5.3.2							X									
Nutrients	Cropland or pasture where manure is spread	Develop Nutrient Management Plans	Cost share on practices to manage manure and fertilizer throughout watershed	SWCDs, OSU Extension, Fertilizer dealers	LEPF, 319 EQIP, CSP	2005	planning	Increase producer participation to 25%, Increase IBI score above 28 ; Increase QHEI score to at least 60. Eliminate D.E.L.T. anomalies	3.3.3; 3.3.4	all of Toussaint River Watershed			X			X		X			X				
nutrients	Cropland or pasture where manure is spread	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			
Nutrients	Cropland or pasture where manure is spread	Variable rate nutrient application	Provide cost share for soil testing and GPS mapping of fields	SWCDs, OSU Extension, Fertilizer dealers	LEPF, 319 EQIP, CSP	2005	planning	Same	3.3.4	Toussaint RM 36.5 Rusha Ck RM 5.0, RM 3.0			X			X		X			X			
Nutrients	erosion and runoff from fertilized fields	Develop or adopt existing program for Fertilizer/pesticide education/reduction for general public and commercial users					concept		5.7.1; Chapter 10.5				X												
Nutrients	erosion and runoff from fertilized fields	periodic observations by watershed coordinator and/or other volunteers to determine if nuisance algae is present	Volunteer reports if nuisance algae is observed and its location, daytime temp, conditions, etc.		none needed		concept											X							What is "normal" and what is nuisance?

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Nutrients	erosion and runoff from fertilized fields	Provide secondary containment for storage tanks		ODA, NRCS,	ODA, EQIP	2007	planning			all of Toussaint River Watershed			X			X		X			X				
Nutrients	erosion and runoff from fertilized fields	Research controlled drainage projects to reduce nutrient transport during storm events	Demonstrate a controlled drainage project upstream of RM 36.5 and 28.5	ODNR, SWCDs, County Engineers	USDA Farm Bill, 319 grants	2006	planning	Increase QHEI score to 60. Increase D.O to 5.0 mg/l average.	3.3.1; 3.3.2; 3.3.3	RM 14@ Graytown Rd; RM 28.5@ Lemoyne Rd; RM 36.5@ Poe Rd (2003)			X			X		X			X				
Nutrients	erosion and runoff from fertilized fields	Review existing dissolved oxygen data	Determine if meets Ohio WQS or if data is lacking		none needed		concept											X							
Nutrients	urban runoff	Fertilizer/pesticide education program for general public and commercial users					concept		5.7.1; Chapter 10.5									X						X	
Nutrients	urban runoff	periodic observations by watershed coordinator and/or other volunteers to determine if nuisance algae is present	Volunteer reports if nuisance algae is observed and its location, daytime temp, conditions, etc.		none needed		concept											X							What is "normal" and what is nuisance?
Nutrients	urban runoff	Review existing dissolved oxygen data	Determine if meets Ohio WQS or if data is lacking		none needed		concept											X							
Nutrients	Wastewater treatment plants	Eliminate CSOs in Luckey	Develop CSO elimination plan and schedule or a long term control plan for CSOs	Village of Luckey, Ohio EPA	DEFA, WPCLF	2006	ongoing	NPDES permit		RM 28.6			X												
Nutrients	Wastewater treatment plants	Upgrade Luckey WWTP	Develop general plan for wastewater treatment plant improvements	Village of Luckey, Ohio EPA	DEFA, WPCLF	2006	ongoing	NPDES permit		RM 28.6			X												
Organic Enrichment	decaying plant/animal matter	Develop or obtain educational material to deter landowners from dumping grass clippings and such into creeks	1) Research available materials			2006?	concept	# of households reached; survey of indiviudal implementation?	Chapter 10.5				X			X								X	
Organic Enrichment	decaying plant/animal matter	Develop or obtain educational material to deter landowners from dumping grass clippings and such into creeks	2) Distribute to landowners, especially adjacent to creek			2006?	concept						X			X								X	
Organic Enrichment	decaying plant/animal matter	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	1) Identify additional project partners		OEEF; 319 grants; ODNR/CZM grants; foundations; local donations; cities		concept	# of new storm drains stenciled; # of households given ed materials; # of volunteers participating	Chapter 10.5; 5.7.1	all of watershed											X			X	
Organic Enrichment	decaying plant/animal matter	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	2) Identify specific grant funding				concept														X			X	
Organic Enrichment	decaying plant/animal matter	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	3) Revise/update old SDS manual and supplies				concept														X			X	
Organic Enrichment	decaying plant/animal matter	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	4) Secure funding to kickoff project in watershed				concept														X			X	
Organic Enrichment	decaying plant/animal matter	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	5) Implement project in subwatersheds				concept														X			X	
Organic Enrichment	discarded litter/food waste	CYS Day	1) Establish planning team	TMACOG; various other community partners	Solicit private and public contributions, grants when available		concept	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	
Organic Enrichment	discarded litter/food waste	CYS Day	2) Solicit contributions and site captain support				concept						X			X								X	
Organic Enrichment	discarded litter/food waste	CYS Day	3) Distribute promotional materials				concept						X			X								X	
Organic Enrichment	discarded litter/food waste	CYS Day	4) Select waterways and sites to be cleaned				concept						X			X								X	
Organic Enrichment	discarded litter/food waste	CYS Day	5) Conduct site captain training				concept						X			X								X	
Organic Enrichment	discarded litter/food waste	CYS Day	6) Hold event and appreciation picnic				concept						X			X								X	
Organic Enrichment	discarded litter/food waste	Work with local communities to encourage "adopt a stream segment" or neighborhood stewardship program					concept						X			X								X	
Organic Enrichment	human and animal excreta	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	1) Identify additional project partners		OEEF; 319 grants; ODNR/CZM grants; foundations; local donations; cities		concept	# of new storm drains stenciled; # of households given ed materials; # of volunteers participating	Chapter 10.5; 5.7.1	all of watershed			X			X				X	X			X	
Organic Enrichment	human and animal excreta	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	2) Identify specific grant funding				concept						X			X				X	X			X	
Organic Enrichment	human and animal excreta	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	3) Revise/update old SDS manual and supplies				concept						X			X				X	X			X	
Organic Enrichment	human and animal excreta	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	4) Secure funding to kickoff project in watershed				concept						X			X				X	X			X	
Organic Enrichment	human and animal excreta	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	5) Implement project in subwatersheds				concept						X			X				X	X			X	

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Organic Enrichment	human and animal excreta	Install pet waste bag/collection stations ir Public access areas with educational signage				2006-2007	concept	# of stations installed	Chapter 10.5				X			X				X					
Organic Enrichment	urban runoff	Watershed partners distribute GWAH tip cards at community events	1) Distributed at County Fairs and community events.	Counties and local jurisdictions		2006 - ??	ongoing		5.6.2; 5.7.1; Chapter 10.5		X		X	X		X									
Organic Enrichment/Low D.O.	failed septic systems	Connect to sanitary sewer or provide centralized wastewater treatment					ongoing						X					X							
Organic Enrichment/Low D.O.	failed septic systems	Develop approved Home Sewage Treatment System (HSTS) Plans for counties in the watershed	Inventory the home sewage systems throughout the county and designate critical areas with priority for connection to sewers, installation of centralized treatment facilities or replacement with an individual on-site treatment system.	Local HDs, TMACOG, Maumee RAP committee, Ohio EPA	LEPF local sources	2005	complete	Approved county wide or watershed HSTS plan	5.6.1; 5.6.2	whole watershed			X			X									
Organic Enrichment/Low D.O.	failed septic systems	Repair or replace failed home sewage treatment systems	Provide grant or loan assistance to eligible homeowners in critical HSTS areas	Local Health Departments	DEFA Linked Deposit loan, 319 grants	2006	ongoing	Eliminate discharge to surface or ground water; Increase D.O.to 5 mg/l avg; Fecal coliforms below 1000 per 100ml	5.6.1; 5.6.2	RM 36.5, 12.5			X			X		X							
Organic Enrichment/Low D.O.	Wastewater treatment plants	Eliminate CSOs in Luckey	Develop CSO elimination plan and schedule, or a long term control plan for CSOs	Village, Ohio EPA	DEFA, WPCLF		ongoing	NPDES permit		RM 28.6 (ditch along Luckey road)			X											
Organic Enrichment/Low D.O.	Wastewater treatment plants	Upgrade Luckey WWTP	Develop general plan for wastewater treatment plant improvements	Village, Ohio EPA	DEFA, WPCLF		ongoing	NPDES permit		RM 28.6			X											
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 and animal excreta	Implement baseline water quality sampling program	1) Implement seasonal sampling for variety of parameters at fixed, repeated locations, 2) Share data with other entities, such as UT LERC, 3) Identify problems areas and/or trends	Ottawa, Sandusky and Wood Co. Health Depts; Ohio EPA		2006	concept	# of samples taken, # of locations sampled	Chapter 11											X						
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	1) Scan paper copies to create electronic files of existing septic systems	TMACOG, Ottawa, Sandusky, and Wood County Health Depts, Northwest Regional Sewer District	LEPF, TMACOG, Lucas County Auditor's Office, Wood County Health Dept	2005-2007	planning		5.6.2;											X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	2) Convert electronic data into GIS map files				planning													X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	3) Intergrate with AERIS data				planning													X					
Pathogens	Septic systems	GIS Septic System Inventory (Phase 2)	4) Train Health Dept personnel to input data and use GIS system				planning													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	1) Identify stream sampling locations	TMACOG, Ottawa, Sandusky, and Wood County Health Depts, Northwest Regional Sewer District	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	RM 2.0										X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	2) Identify septic system dye testing locations				complete													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	3) Conduct stream sampling and dye testing				complete													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	4) Prioritize areas for enforcement based on testing results				complete													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 1)	5) Pursue enforcement requiring upgrades or replacement of failed or inadequate systems				complete													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 2)	1) Conduct additional stream sampling and dye testing	TMACOG, Ottawa, Sandusky, and Wood County Health Depts, Northwest Regional Sewer District	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	Septic systems	Stream and Septic System Sampling Project (Phase 2)	2) Modify priority areas (if necessary)				concept													X					
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													X					
Pathogens	Septic systems	Stream and Septic System Sampling Project (Phase 3)	1) Continue to sample and dye test to identify problem areas	TMACOG, Ottawa, Sandusky, and Wood County Health Depts, Northwest Regional Sewer District	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	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	Ottawa, Sandusky and Wood Co. Health Depts; Ohio EPA	319 grants	2007	concept													X					

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Pathogens	septic systems	Develop approved Home Sewage Treatment System (HSTS) Plans for counties in the watershed	Inventory the home sewage systems throughout the county and designate critical areas with priority for connection to sewers, installation of centralized treatment facilities or replacement with an individual on-site treatment system.	Local HDs, TMACOG, Maumee RAP committee, Ohio EPA	LEPF local sources	2005	planning	Approved county wide or watershed HSTS plan	5.6.1; 5.6.2	whole watershed										X					
Pathogens	septic systems	Repair or replace failed home sewage treatment systems	Provide grant or loan assistance to eligible homeowners in critical HSTS areas	Local Health Departments	DEFA Linked Deposit loan, 319 grants	2006	planning	Eliminate discharge to surface or ground water; Increase D.O.to 5 mg/l avg; Fecal coliforms below 1000 per 100ml	5.6.1; 5.6.2	RM 36.5, 12.5										X					
Pathogens	urban runoff	Obtain and review current water quality data to id areas of high bacteria or nutrient loading	Request Data from Ohio EPA (TMDL report)	TMACOG, Health Depts		2005-2006	in progress													X					
Pathogens	urban runoff	Work with Health Dept to review available sediment and water data for creeks to identify if contact advisories should be posted	1) Review data with Health Dept to id problem areas	Ottawa, Sandusky and Wood Co. Health Depts; Ohio EPA	Ohio Department of Health	2005-2006	concept													X					
Pathogens	urban runoff	Work with Health Dept to review available sediment and water data for creeks to identify if contact advisories should be posted	2) Send available data to LC Health Dept for review				concept													X					
Pathogens	urban runoff	Work with Health Dept to review available sediment and water data for creeks to identify if contact advisories should be posted	3) Meet with L.C. Health Dept. to determine next steps (I.e additional sampling?)				concept													X					
Pesticides	urban runoff	Distribute contact information for household haz. waste disposal options and existing programs for collection					concept		5.7.1; Chapter 10.5		X			X										
Pesticides	urban runoff	Educational workshop for residents and other appliers (golf course staff, etc) to stress proper application and alternative management measures					concept		5.7.1; Chapter 10.5		X													
Pesticides	urban runoff	Survey of wildlife officials to determine if reports of tainting; if unknown by wildlife officials, survey local residents to determine if eat fish and if so, if tainted?		University; volunteer student; ODNR	unknown		concept					X												Ask wildlife officials? Mark S says probably not-ODNR would have heard reports, but tainting is subjective
Pesticides	urban runoff	Watershed partners distribute GWAH tip cards at community events	1) Distributed at County Fairs and community events.	Counties and local jurisdictions		2006 - ??	ongoing		5.6.2; 5.7.1; Chapter 10.5		X		X	X		X								
Refuse, litter	litter	Continue/expand Sign our Streams program to increase community awareness of stream locations and increase stewardship of stream by the community (in turn, reduce dumping/aesthetic degradation)	1) Purchase signs/images from Clearwater	Maumee RAP Rural/Ag Runoff Action Group, TMACOG	OEEF; foundations; local donations; cities		concept	# of locations "signed"	Chapter 10.5	whole watershed										X					
Refuse, litter	litter	Continue/expand Sign our Streams program to increase community awareness of stream locations and increase stewardship of stream by the community (in turn, reduce dumping/aesthetic degradation)	2) Identify sign locations at visible road crossings in watershed	Maumee RAP Rural/Ag Runoff Action Group, TMACOG	OEEF; foundations; local donations; cities		concept	# of locations "signed"	Chapter 10.5	whole watershed										X					
Refuse, litter	litter	Continue/expand Sign our Streams program to increase community awareness of stream locations and increase stewardship of stream by the community (in turn, reduce dumping/aesthetic degradation)	3) Install signs	Maumee RAP Rural/Ag Runoff Action Group, TMACOG	OEEF; foundations; local donations; cities		concept	# of locations "signed"	Chapter 10.5	whole watershed										X					
Refuse, litter	litter	periodic observations by watershed coordinator or other volunteers to report noticeable "free froms"	enlist volunteers and discuss what to look for and report	Friends of volunteers, community members	none needed	2005-2006	concept													X					
Refuse, litter	litter	periodic observations by watershed coordinator or other volunteers to report noticeable "free froms"	Throughout year, compile list of potential CYS sites and areas that regularly have litter, etc	watershed coordinator	none needed	2004-2005	ongoing													X					
Refuse, litter, etc	litter	CYS Day	1) Establish planning team	TMACOG; various other community partners	Solicit private and public contributions, grants when available	April - Sept (annually)	concept	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					
Refuse, litter, etc	litter	CYS Day	2) Solicit contributions and site captain support				concept							X							X				
Refuse, litter, etc	litter	CYS Day	3) Distribute promotional materials				concept							X							X				
Refuse, litter, etc	litter	CYS Day	4) Select waterways and sites to be cleaned				concept							X							X				
Refuse, litter, etc	litter	CYS Day	5) Conduct site captain training				concept							X							X				
Refuse, litter, etc	litter	CYS Day	6) Hold event and appreciation picnic				concept							X							X				

Toussaint Creek, Toussaint River and Rusha 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.
Salinity	road deicing	Implement alternative deicing products (such as corn-based products) and other control measures	Begin using alternative deicing products			2005-2006	planning	% of salt use reduced; # of miles of road where alternative applied	5.8.4				X			X								X	
Salinity	road deicing	Install computerized spreaders on all salt trucks to control application rate					planning	# of trucks converted; % of salt use reduced	5.8.4				X			X								X	
Salinity	road deicing	Research more environmentally-friendly road salt options; encourage cities to apply less or to use better alternatives					planning		5.8.4				X			X								X	
Salinity	road deicing	Sampling program for conductivity, pH, and other salinity factors during winter months	Determine if salinity is a limiting factor or concentrated pollutant leading to fish/habitat impairments				planning		Chapter 11				X			X								X	
Sediment/Siltation	construction	Create Regional Storm Water Standards Manual	manual includes recommended BMPs for urban runoff/construction controls, setbacks, etc	RAP Urban Runoff Action Group, MRRSWC	Lake Erie Protection Fund	2002	complete		5.3.1; 5.3.2; 5.5.1; 10.5				X			X									
Sediment/Siltation	construction	Educate developers/contractors on need and use of BMPs		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X			X									
Sediment/Siltation	construction	Implement the Phase 2 storm water management program		Cities of Bowling Green, Northwood or county	local jurisdictions; additional grants if necessary	2004-	ongoing						X			X									
Sediment/Siltation	construction	Maintain and update Stormwater Standards Manual (as needed)		Maumee RAP Urban Runoff Action Group, SWC	Ohio Environmental Education Fund, GLC	2005	ongoing		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X			X									
Sediment/Siltation	construction	Propose alternative development designs/layouts and BMPs that protect habitat and water quality			none needed	2004-2005	ongoing						X			X									
Sediment/Siltation	construction	Work with new development/industries moving into the watershed to develop strategies to minimize their impact on the creeks (for instance, storm water BMPs, setbacks, habitat buffers, etc)	Identify BMPs to recommend and literature to support it; become familiar with local storm water rules, wetland and stream mitigation rules, etc		none needed	2004-2006	ongoing		5.3.1; 5.3.2				X			X									
Sediment/Siltation	Cropland	Controlled Drainage (surface and subsurface)	Demonstrate controlled drainage projects upstream of RM 14 and RM 28.5	ODNR, SWCDs, County Engineers	LEPF, GLC, USDA Farm Bill, 319 grants	2006	planning	Increase IBI score above 28; Increased QHEI substrate metric score to 12.5. Increase D.O to 5.0 mg/l average.		RM 14@ Graytown Rd, and RM 28.5@ Lemoyne Rd. (2003)			X			X									
Sediment/Siltation	Cropland	Continue to promote new conservation tillage practices with rental and equipment buydown incentives	Target additional grants from 319 and Lake Erie CREP programs to areas not currently participating	Wood, Ottawa & Sandusky SWCDs, OSU Extension, NRCS	USDA Farm Bill, 319 grants	2005	ongoing	Increase IBI score above 28; Increased QHEI substrate metric score to 12.5.	3.3.1	Toussaint River RM 36.5, 28.6, 13.9, 12.5, 1.7 Rusha Ck RM 5.0 Rusha 4.0.			X			X									
Sediment/Siltation	Cropland	Promote cover crops in field rotations when conventional tillage is occasionally done	Target additional grants from 319 and Lake Erie CREP programs to areas not currently participating	SWCDs	USDA Farm Bill, 319 grants	2005	ongoing		3.3.1	Toussaint River RM 36.5, 28.6, 13.9, 12.5, 1.7 Rusha Ck RM 5.0 Rusha 4.0.			X			X									
Sediment/Siltation	Cropland	Toussaint Improvement Incentive Program (Phase 1)	1) Install 1480 acres of Conservation Tillage	Wood, Ottawa & Sandusky SWCDs, OSU Extension, NRCS	USDA Farm Bill, 319 grants	1997 - 2000	complete	Increase IBI score above 28; Increase QHEI score to at least 60. Eliminate D.E.L.T. anomalies	3.3.1; Chapter 10.5; Chapter 11	all of Toussaint River mainstem			X			X									
Sediment/Siltation	Cropland	Toussaint Improvement Incentive Program (Phase 1)	2) Install 142,213 ft (27 miles) of filter strips and 233 acres of floodplain set-aside.				complete	Increase IBI score above 28; Increased QHEI substrate metric score to 12.5.		all of Toussaint River mainstem			X			X									
Sediment/Siltation	Cropland	Toussaint Improvement Incentive Program (Phase 2)	1) Install 2194 acres of Conservation tillage	Wood, Ottawa & Sandusky SWCDs, OSU Extension, NRCS	Toussaint 319 Grant #1, Toussaint 319 Grant #2, Lake Erie Buffer Program, Lake Erie CREP	2000 - 2004	complete	Increase IBI score above 28; Increase QHEI score to at least 60. Eliminate D.E.L.T. anomalies		all of Toussaint River watershed			X			X									also includes all of Packer Creek Watershed
Sediment/Siltation	Cropland	Toussaint Improvement Incentive Program (Phase 2)	2) Install 240,381 ft (47 miles) of filter strips and 34.8 acres of concentrated flow filter areas.				complete	Increase IBI score above 28; Increased QHEI substrate metric score to 12.5.		all of Toussaint River watershed			X			X									also includes all of Packer Creek Watershed
Sediment/Siltation	roads	Create Regional Storm Water Standards Manual	manual includes recommended BMPs for urban runoff/construction controls, setbacks, etc	RAP Urban Runoff Action Group, MRRSWC	Lake Erie Protection Fund	2002	complete		5.3.1; 5.3.2; 5.5.1; 10.5				X			X									
Sediment/Siltation	roads	Educate developers/contractors on need and use of BMPs		Maumee RAP Rural/Ag Runoff Action Group, SWCDs	Ohio Environmental Education Fund, GLC	2006	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X			X									
Sediment/Siltation	roads	Implement the Phase 2 storm water management program		Cities of Bowling Green, Northwood or county	local jurisdictions; additional grants if necessary	2004-	ongoing		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X			X									
Sediment/Siltation	roads	Maintain and update Stormwater Standards Manual (as needed)		Maumee RAP Rural/Ag Runoff Action Group, SWCDs	Ohio Environmental Education Fund, GLC	2005	planning		5.3.1; 5.3.2; 5.5.1; Chapter 10.5	all of watershed			X			X									
Sediment/Siltation	streambanks	Identify areas of creek where stream bank stabilization is needed	Continue "walking" creek and general observations	TMACOG and or volunteers			concept		7.6.1; 8.3.3															X	
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	1) Develop scope and tasks for project	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10														X	

Toussaint Creek, Toussaint River and Rusha 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.
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	2) Desktop review of watershed to id preliminary wetland sites	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10													X	
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	3) Secure property owner permission for site access for field visits	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10													X	
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	4) Conduct detailed survey of each priority site	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10													X	
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	5) Develop detailed conceptual plans and cost estimates for restoration/enhancement of identified wetlands	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10													X	
Sediment/Siltation	streambanks	Inventory watershed for existing wetland sites and potential wetland restoration sites; focus on riparian corridor w/in 500 feet of stream	6) Find funding source(s)	Ohio EPA Section 319, ODNR-Division of Wildlife, Ducks Unlimited	319 grant, ODNR-CZM grant	2006	concept	Increased QHEI scores (Steam channel metric), Nutrient reduction	8.3.1; 8.3.2; 8.3.3	Rusha Creek, Toussaint River below RM 10			X			X							X	
Thermal Stress	Riparian corridor destruction	Restore streamside vegetation on natural streams	Install trees and shrubs along river bank(s) upstream of RM 13.9	ODNR, SWCDs, County Engineers	ODNR, NOAA/Coastal NPS, 319 grants	2006	planning	Increase QHEI riparian metric; Increase D.O. to 5.0 mg/l avg.	7.6.1; 8.3.3	RM 13.9 Graytown?			X											
Toxic Substances	industrial discharges	Provide secondary containment for storage tanks		ODA, NRCS	ODA, EQIP		ongoing			RM 13.9 Graytown?			X			X								
toxic substances	industrial discharges	Work with EPA and Ohio Dept of Health to review available sediment and water data for creeks to identify if contact advisories should be posted	Have ODH review available data and identify if more current sampling is needed	Ottawa, Sandusky and Wood Co. Health Depts; Ohio EPA			concept												X				
toxic substances	landfills (current or old)	Implement baseline water quality sampling program	1) Implement seasonal sampling for variety of parameters at fixed, repeated locations, 2) Share data with other entities, such as UT LERC, 3) Identify problem areas and/or trends			2006	concept	# of samples taken, # of locations sampled	Chapter 11										X					
toxic substances	urban runoff	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	1) Identify additional project partners		OEEF; 319 grants; ODNR/CZM grants; foundations; local donations; cities		concept	# of new storm drains stenciled; # of households given ed materials; # of volunteers participating	Chapter 10.5; 5.7.1	all of watershed										X			
toxic substances	urban runoff	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	2) Identify specific grant funding				concept													X			
toxic substances	urban runoff	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	3) Revise/update old SDS manual and supplies				concept													X			
toxic substances	urban runoff	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	4) Secure funding to kickoff project in watershed				concept													X			
toxic substances	urban runoff	Implement Storm Drain Stenciling Program (to reduce pet waste and other dumping)	5) Implement project in subwatersheds				concept													X			
toxic substances	industrial discharges	Map of NPDES locations; basic information on type of discharge, frequency of use, permit parameters, etc.	Continue to add new information to GIS inventory	university volunteer or graduate student in GIS			concept				X													
toxic substances	urban runoff	Conduct survey of local residents to determine if fish and/or turtles caught in creek are eaten	Obtain funding or student volunteer	University of Toledo; Bowling Green State U	?		concept				X													
toxic substances	urban runoff	periodic observations by watershed coordinator or other volunteers to report noticeable "free froms"	enlist volunteers and discuss what to look for and report	Partnership members, Friends of volunteers, community members	none needed	2006	concept													X			