



Appendix F | Policy Matrix Review

Red Cedar River

Watershed Management Plan

Policy Review Criteria	Goal	General Recommendations	Alaiedon Township
Land Use Planning			
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted 1990 as a twenty year plan (1990-2010)
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Promote a healthy environment, the Township's natural resources, the quality of the Township's ecosystem and visual environment.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Amended February 11, 2013
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Flood Plain shall be defined as established and published by the Corps of Engineers of the U.S. Army. Uses Permitted: Agriculture, parks, playgrounds, golf courses, preserves, trails, and outdoor recreation and conservation or required yard and setback areas.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Account for existing natural features on and within 300 feet of site including woodlands; wetlands; drainage courses, water bodies, and 100-year flood plain areas; topography less than two-foot contour intervals; soils by type and drainage features. The location of all trees 10" or greater in diameter, measured at five feet (5') above ground surface identified by size and type, source and location of potable water, sewage disposal, and electrical and communication lines. Proposed grading, storm drainage and storm water management plan.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No

Policy Review Criteria	Goal	General Recommendations	Alaiedon Township
Other Ordinances			Subdivision Regulations, Junk Ordinance.
Agriculture			
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	GPO Text does address the preservation of agricultural land.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.	
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Open Space Preservation Communities: Encourage residential development to more effectively preserve the Township's natural resources including farmland, sensitive environmental areas, and the Township's rural character by grouping or clustering new homes on smaller lots so the remainder of the site can be preserved open space.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.	
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.	
Sediment			
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Clearing, Grading, and Drainage: In order to protect soil resources, public watercourses, and to provide for adequate drainage of surface water. Restrictions apply to the following: Removal of Topsoil, Drainage/Flow
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Landscaping and Screening standards to assure that land uses minimize noise, air, and visual pollution; assure adequate buffering between differing uses; prevent soil erosion and soil depletion
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide	

Policy Review Criteria	Goal	General Recommendations	Alaiedon Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Driveways shall be graded and drained to prohibit the ponding of water
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide	
Nutrients			
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	See site plan review ordinance Article 14
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.	See site plan review ordinance Article 14

Policy Review Criteria	Goal	General Recommendations	Alaiedon Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	No
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.	
Pesticides and Chemicals			
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	No
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.	Participates in Groundwater Management Board
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.	
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.	
PATHOGENS			
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.	
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.	
Temperature			

Policy Review Criteria	Goal	General Recommendations	Alaiedon Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.	
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.	
Invasive Species			
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.	
Other			
Other Comments			Participates in Groundwater Management Board

Policy Review Criteria	Goal	General Recommendations	Aurelius Township	Bath Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted December 1999	Comprehensive Plan adopted March, 2011. Prepared by McBride Dale Clarion. Strategic Plan 2009-2020
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Goal: Natural Resource Management. Includes four policies with supporting objectives	Promote and reinforce open space preservation. Protect environmentally sensitive areas from development. Develop township wide system of open space and conservation greenways.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Original Ordinance adopted July 20, 1980. Recent updates made in 2011, 2013	Adopted April 11, 2007
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	FEMA participant; No structures shall be erected within the floodplain of the Grand River as established by the U.S. Army Corps of Engineers.	Development restricted or prohibited in or surrounding floodplain for safety reasons, and to prevent flooding adjacent to development
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		Parks and Rec Plan: Adopted Jan 14, 2013. There are ten (10) Township owned recreation areas or facilities, a total of 85 acres.
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Site plans shall demonstrate that as many natural features as possible have been retained, particularly where such features provide a buffer between adjoining properties or help control soil erosion or stormwater.	
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.		
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No	

Policy Review Criteria	Goal	General Recommendations	Aurelius Township	Bath Township
Other Ordinances			Draft ordinance includes conservation measures including cluster development option, alternative surfacing for overflow parking and a detailed site plan review section. Subdivision control	
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	Ag Preservation District: Preserve prime soils for agricultural use and to protect viable agricultural enterprises. The district is designed to preserve these areas by prohibiting the intrusion of nonagricultural and incompatible uses into the prime agricultural areas.	
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Overlay Zoning District to provide innovative options for creation of open space residential communities and the promotion of open space preservation consistent with Public Act No. 177 of 2001 (MCL 125.286h)	
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Currently provides a building permit information package which could be used as a tool for providing other permit requirement and general BMP information.	
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Aurelius Township	Bath Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Soil erosion control plan (Clinton County Soil Erosion and Sedimentation Control Ordinance).
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide	A minimum of ten percent of the gross parking area shall be devoted to living plant material. Interior areas of parking lots shall contain landscaped areas to effectively disperse expansive paved areas and provide filtering opportunities for stormwater.	
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	<i>Surfacing:</i> All parking areas shall be graded to provide adequate storm drainage and provided with a smooth, durable, dustless surface consisting of bituminous, asphalt, concrete, aggregate stone or gravel. The planning commission may approve parking in an unimproved, grassy area for temporary or seasonal uses.	
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	No local ordinance	Preserve Existing Open Space and Wetlands Green infrastructure for strategically planned natural resources, parks and open spaces, and habitats which maintain and enhance the environment. Additionally, the Township has completed an extensive wetland inventory and will be implementing a wetland regulation ordinance which will add further protection.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).		Households in Bath Charter Township use personal septic tanks or the public sewer. The public sewer is provided and maintained by the Southern Clinton County Municipal Utilities Authority (SCCMUA) located in Dewitt Township.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Aurelius Township	Bath Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	No	
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	Specifically addresses wellhead protection, protection of surface water quality, best management practices through site plan review, cluster development options.	
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		Participate in the Groundwater Management Board administered through the Tri-County Regional Planning Commission. Review examples of wellhead protection ordinances to determine what should be incorporated into Bath Charter Township Ordinances. Research and develop a potential watershed protection ordinance.
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		Recycling and Reuse Objective: Bath Township will encourage conservation by promoting recycling and reuse for all businesses and residents.
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Aurelius Township	Bath Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	Landscaping and Buffering: Reduce the negative effects of... erosion, and sedimentation caused by expanses of impervious and other surfaces which are without vegetation. It is the intent of Landscaping elements can contribute to the processes of air and water purification, groundwater recharge.	Produce a connected system of preserved open spaces, greenways and trails (Master Plan)
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		Preserve the valued natural resources of Bath Township including water resources, floodplains, riparian corridors, wetlands, soils, slopes and tree canopies.(Master Plan)
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments			Currently provides a building permit information package which could be used as a tool for providing other permit requirement and general BMP information.	

Policy Review Criteria	Goal	General Recommendations	Bunker Hill Township	Conway Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Prepared by Carlisle Wortman Associates. Adopted October 21, 2003.	Prepared by Planning Commission March 2012
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Encourage the use of the lands and resources of the Township in accordance with their character and adaptability. Reduce hazards to natural settings... to conserve the resources of the Township.	Goal statement addresses preservation of the township's natural resources and lists open spaces, woodlands, wetlands, agricultural areas, floodplains and visual resources.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Prepared by Planning Commission with assistance from Carlisle Wortman. Effective 9-11-2011	10/21/1997. Updated to compliment Comprehensive Plan
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Delineation of Floodplain determined by the Federal Housing Administration, U.S. Army Corps of Engineers, the U.S. Soil Conservation Service. Development shall be prohibited within the one hundred (100) year floodplain of any existing watercourse and/or wetland.	Not Participating/ No local ordinance
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	Recreation Conservation District regulates development in order to protect the natural resources, natural habitats of wildlife, waterways and water bodies, agricultural capabilities, public and private recreation areas of Bunker Hill Township.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	Land Division Ordinance: -No land within Bunker Hill Township shall be divided without the prior review of the Township Assessor for compliance.	
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Site plan review includes: 1. Preservation of Natural Environment 4.Surface Water Drainage	Article 14 of zoning ordinance contains specific standards for site plan review related to soils, drainage and watercourses, and natural features
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	None	No.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	None	No.

Policy Review Criteria	Goal	General Recommendations	Bunker Hill Township	Conway Township
Other Ordinances			Section 11.06 Required Water Supply/Sanitary Sewerage Facilities Section 11.11 Shoreline Excavation and Dredging	(Article 6) include Preservation of Environmental Quality (6.12) and Landscaping provisions (6.16); Open Space Community (Article 11); Parking (Article 15); and Access Management and Private Road Standards (Article 16).
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	A primary focus of the Master Plan document is the preservation of agriculture and the rural character of the Township.	The Agricultural Residential District is established to protect lands best suited for agricultural uses, while also designating land area for rural residential.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Residential Cluster Development: at least fifty (50%) percent of the gross buildable area of the subject property must be perpetually preserved as open space (not including open bodies of water, streams, floodplains and wetlands)	Open Space Community objective: To assure the permanent preservation of open space, agricultural land, rural lands and natural resources.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Stormwater Management: All developments and earth changes subject to review... shall be designed, constructed, and maintained to prevent flooding and protect water quality.	
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Bunker Hill Township	Conway Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Zoning Ordinance has some drainage requirements included which requires equivalent grades for new public or private roads and addresses stormwater runoff. Site plan review section requires detailed grading plan and has drainage standards.
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	All areas designated as wetlands by the Michigan Department of Environmental Quality are declared to be "Wetlands" in the Township	Preservation of Environmental Quality: A river, stream, watercourse, drainage way or wetland, whether filed or partly filed with water shall not be altered in any way, except when done in conformance with state and federal law and standards.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	Sanitary Landfills only to be located in Ag Districts, developed in conformance with The Solid Waste Management Act, or under the jurisdiction of the Michigan Department of Natural Resources, and The Hazardous Waste Act.	Section 6.13 Sanitary Facilities: Articles (A)New Construction. (B) Festivals and (C) Seasonal Use
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Bunker Hill Township	Conway Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Drain Commission conducts any drainage work unless a signoff from the Drain Commission Office is granted.	Zoning Ordinance has some drainage requirements in it including equivalent grades for new public or private roads and addresses stormwater runoff. Site plan review requires detailed grading plan and has drainage standards.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.	In order to conserve the lakes, ponds, rivers, streams, water courses and drainage ways in the Township, no such feature shall be altered, or varied from its present existing condition	
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	None	No.
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.	Discharge of runoff from any site, which may contain oil, grease, toxic chemicals, or other polluting materials, is prohibited.	
Temperature				

Policy Review Criteria	Goal	General Recommendations	Bunker Hill Township	Conway Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	Landscaping, Greenbelts, Buffering, and Screening: Prevent soil erosion and soil depletion and promote sub-surface water retention.	Section 6.16 Required Landscaping and Screening for non-Residential Uses; Greenbelt with minimum width of 15 feet
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.	Encourage the integration of existing woodlands in landscape plans. Existing woodlands mapped in Master Plan Article 3.	
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.	Encourage an appropriate mixture of plant material, such as evergreen and deciduous trees and shrubs, to protect against insect and disease infestation.	
Other				
Other Comments				

Policy Review Criteria	Goal	General Recommendations	Village of Dansville	Delhi Charter Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted: 1982 Revisions: None	Originally adopted Oct 14, 2002. Amended Sept 24, 2007 and Oct 28, 2013
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	None within Village. The Village of Dansville falls under township ordinances and guidelines.	Preserving environmentally sensitive resources from the impacts of development. Identification of environmentally sensitive areas, participation in organizations focused on water quality, zoning ordinance amendments protect water bodies and open space.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted: 1977 Revisions: Small revisions; none pertaining to water quality	Originally adopted Oct., 1968. Most recent update: October, 2013
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Not a FEMA participant	Participating community plus regulations in zoning ordinance.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		Parkland and Open Space: An identification of the privately and publicly owned park and open space areas within the Township. Provide recreational opportunities, open space enhancement, and agricultural land uses.
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	No formal Site Plan Review Text exists, rather requirements for a building permit must be met	Section 3.3 of Zoning Ordinance requires review of Grading/Drainage. Plan and Landscape Plan required only for major projects. No specific standards for approval.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	None .	No
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	Whenever possible existing trees on the site shall be preserved. In addition, new landscaping shall be added to enhance the beauty of the development.	No

Policy Review Criteria	Goal	General Recommendations	Village of Dansville	Delhi Charter Township
Other Ordinances			Section 502 A: Removal of Soil, Sand, Gravel and other Materials must meet requirements of soil erosion control standards of Ingham County. Section 502. C: Public or Private Sanitary Landfills or Junk Yards: Uses shall be established and maintained in accordance with State of Michigan Statutes.	Section 6.6: Floodplain Regulations; Section 6.10: Landscape Requirements; Section 6.12: Storm Water Retention Areas and Lakes/Ponds.
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		To protect agricultural industry for the township, specific areas with adequate farming soils will be protected from development. A series of standards in these areas through a combined effort in Township Zoning Ordinance, Future Land Use Map and Public Infrastructure Boundary.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		Rural and Open Space Emphasis: preserving agricultural operations, natural features for water retention, ground water recharge, plants and habitat (Southern 1/3 of the Township south of McCue and Harper roads)
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		Very complete text provided for storm water retention areas. Monthly site plan review group meeting including Drain Commissioner in a roundtable review of pending site plans. Application packet available.
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Village of Dansville	Delhi Charter Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Section 403 B: Parking Design and Construction Requirements: Sites no reference to environmental damage control related to erosion or runoff from construction sites.	
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	None	Wetland Preservation Ordinance regulates all development within wetlands, ensures these important natural resources are not degraded.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).		88% of homes are serviced by public sewer. Those outside service boundary have private, on-site sewage disposal systems
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Village of Dansville	Delhi Charter Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Drain Commission conducts any drainage work unless a signoff from the Drain Commission Office is granted.	Drainage plans and site inspection required for all new construction with a full foundation prior to the issuance of a building permit. Drainage requirements mirror those of the County Drain Commissioner.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	None	Yes
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Village of Dansville	Delhi Charter Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				

Policy Review Criteria	Goal	General Recommendations	City of East Lansing	Handy Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	2006 Big Picture Comprehensive Plan	Prepared by McKenna Assoc. and adopted September, 1997
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Protect and enhance water resources by reducing pollution caused by surface runoff and sewer overflows, and by promoting conservation and replenishment of groundwater supplies	Preservation of Natural Features identified as a prevailing objective. Environmental Policies address natural features, pollution control, intergovernmental cooperation and flood-prone areas.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted Nov 18, 2003 and updated July 9, 2013	November 2011 as Amended
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Yes. Participating community and local regulations in Chapter 103 of the City Codes.	The flood plain area shall be determined by FEMA, the County Engineer, the U.S. Army Corp of Engineers. No building for human occupancy shall be erected or hereafter occupied, if vacant, in such designated flood plain areas.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	No specific text on Site Plan Review but (5.107 Parking and Landscape Plan) are used as the text basis for a Site Plan Review process.	Site plan must contain proposed storm drainage and identification of significant natural features. Standards include preservation of natural environment and specific surface water drainage standards.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No.	No. But Environmental Protection section of Zoning Ordinance is similar in result.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	A tree removal/land clearing permit shall be obtained prior to any removal of one or more trees which are four inches in diameter or larger and land clearing of an area of one-half acre or larger.	No. But Environmental Protection section of Zoning Ordinance addresses the tree removal in areas that the Planning Commission may designate as "environmentally sensitive."

Policy Review Criteria	Goal	General Recommendations	City of East Lansing	Handy Township
Other Ordinances			Landscaping standards are found within the parking section.	Section 2.17: Buffers/Greenbelts; Section 2.19: Private Roads; Section 2.22: Floodplain; Section 2.26: Site Condos; Section 2.28: Environmental Protection; Chapter 13: Planned Unit Development; Chapter 15 (2): Parking.
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		Section 2.28 (D): Preserve current or potential agricultural land based on soil types, elevation. Standards set within site planning
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		Open Space Development option requires at least fifty (50%) percent of the area of the subject property must be preserved as open space (not including open bodies of water, streams, floodplains and wetlands)
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	City of East Lansing	Handy Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Impervious Surface Reduction/Infiltration Enhancement: allowing for reduction in impervious surfaces whenever it finds that such deviations are more likely to meet the intent of impervious surface reduction and infiltration enhancement.
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	East Lansing Code of Ordinances Chapter 49: The protection of the stability of the city's wetlands	Not freestanding but provisions in Zoning Ordinance Environmental Protection Section 2.28 (G).
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).		
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	City of East Lansing	Handy Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Grading and Soil Erosion Ordinance requires that no increase in the rate of storm water runoff into the Remy-Chandler Drainage Basin will be caused by construction.	Some in Zoning Ordinance as described above in Site Plan Review comments.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		In order to conserve or wisely use the lakes, ponds, rivers streams, water courses and drainage ways in the Township, no such feature shall be altered from its present existing condition
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	A committee is currently developing a wellhead protection plan. A consultant has been hired to assist in the process.	No.
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	City of East Lansing	Handy Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		Landscaped greenbelts to be used as buffers between residential and non-residential uses
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments			Zoning ordinance has been amended to allow porous paving materials, on-site stormwater retention standards have been developed, floodplain regulations are in place at the local level.	Some zoning district policies include environmental references as well

Policy Review Criteria	Goal	General Recommendations	Howell Township	Ingham Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Prepared by the Planning Commission of Howell Township, Adopted January 2009	Adopted: 1977 Revised: No major additions, only small ones
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Promote the conservation of unrenovable natural resources, saving of vegetation, wildlife cover, watersheds, areas which periodically flood, features controlling wind or water erosion, wetlands, and areas of topographical... or agricultural significance.	No development on: excessive slopes to prevent erosion, wetlands or marshes, woodlands, poorly drained soils. Promote wises use of natural resources.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Last Amended and adopted August 26, 2013	Adopted: 1997 Revised September 9, 2011: No major revisions
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Land subject to periodic flooding shall be used only for agriculture and recreation uses, provided no structures are located within the area subject to flooding.	Not a FEMA participant.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	Howell Township recently completed a "Township Recreation Plan 2000 - 2005". The Township Recreation Committee will purchase and develop at least one park site. The Township currently has no parks.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Existing conditions of the natural environment shall be preserved in their natural state. Minimize tree and soil removal. Planning Commission of Township Board may determine EIS is needed for development.	The landscape shall be preserved in its natural state, by minimizing tree and soil removal, topographic modifications which result in maximum harmony with adjacent areas. Special attention shall be given to proper site surface drainage
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.		None
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	Ordinance stating that existing trees or vegetation on site must be replaced if dead within one year of new development	None

Policy Review Criteria	Goal	General Recommendations	Howell Township	Ingham Township
Other Ordinances				
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	Section 15.04: Preserve current or potential agricultural land based on soil types, elevation. Standards set within site planning	Sec 306.1 Ag Districts: preserve prime soils for agricultural use and to protect viable agricultural enterprises. It is to be applied to areas which have soils well suited to agricultural activities.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Open Space Developments shall set aside at least 50% of the total area of a lot or a parcel of land for this purpose. This provision shall apply in all Zoning Districts which permit single and multiple family housing as a principal use in them.	
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Detention areas or retention ponds shall be designed as an integral part of the overall site plan and shall be considered a natural landscape feature	
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Section 20.08: Special attention shall be given to proper site surface drainage so that the flow of surface waters will not adversely affect adjacent and surrounding properties or to public storm drainage system.	
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Howell Township	Ingham Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Soil survey conducted by the Soil Conservation Service for information on soils having: 1. Slight Limitations, 2. Moderate Limitations and 3. Severe Limitations.	
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		404.5 Design and Construction Requirements: Parking areas shall be maintained in a smooth, dust-free condition, and provided with adequate drainage
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	Section 15.07: All areas as designated on Map No. 6 (Master Plan) Rivers, Creeks, Floodplains, Wetlands, Lakes, Ponds, Streams, Drainage ways and Ridge Lines are and shall be subject to protective provisions	No formal zoning ordinances, but wetlands are referenced in Comprehensive Development Plan on pages 33 and 34.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	There are no public sanitary sewers or sewage treatment plant currently existing in Howell Township. Water supply is provided from individual onsite wells. All sewage and other forms of waste water from homes and businesses are treated with use of septic tanks and connecting tile drain fields.	Section 402.11 Any structure erected shall be provided with potable water supply and safe and effective means of waste disposal and treatment.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Howell Township	Ingham Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		Ingham County Drain Commission maintains drainage requirements.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.	Section 15.05: In order to conserve or wisely use the lakes, ponds, rivers, streams, water courses and drainage ways in the Township, no such feature shall be altered, changed, transformed or otherwise be varied from its present existing condition except as follows: (A)(B)(C)(D)	
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.		None
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Howell Township	Ingham Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.	Master Plan: As a natural resource... from a land use planning perspective... preserve as much of this woodland acreage as possible.	
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				

Policy Review Criteria	Goal	General Recommendations	Iosco Township	City of Lansing
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	March, 1988. Developed with Livingston County Planning Department	Master Plan Status: Goals and Objectives of the 21st Century (1993) currently beginning revisions
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	preservation of natural resources through cluster housing, protection of floodplain, wetlands and other environmentally sensitive areas, minimizing runoff and erosion.	Environmental Objective part of Community Facilities Goal contains a statement addressing preservation of environmentally sensitive areas.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Effective Date: February, 1991	Zoning Ordinance Status: Adopted December, 1991 with amendments to district provisions (2000).
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Not participating/ no local ordinance	FEMA participant. Floodplain Regulations in Zoning Code (Ch. 1288)
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		The City's parks and recreation master plan identified four top priorities for facility improvements: trails, natural areas, public gardens and nature centers, and recreation programming for special events and festivals.
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		Master Plan Chapter 4: Low-impact stormwater management strategies include, reducing impervious surface area, using rain barrels to collect and reuse rainwater, incorporating rain gardens and native vegetation.
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Identify undisturbed areas. Standards are included for soils, for drainage and watercourses and for natural features	Section 1242.04-07 of the Zoning Code address when required, contents, review process and modification provisions. Minimal standards for approval.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No. But "Preservation of Environmental Quality" has a similar result.	No.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No.	No.

Policy Review Criteria	Goal	General Recommendations	Iosco Township	City of Lansing
Other Ordinances			Section 723: Preservation of Environmental Quality; Article 9: Planned Residential Development District; Article 16: Parking	Chapter 1280: Planned Residential Development; Chapter 1284: Off-Street Parking; Chapter 1288 Floodplain Control; Chapter 1290: Landscaping, Screening and Buffering.
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		Restoring riverbanks and riparian buffers will further protect water quality. Typically, 100 feet of natural land cover is desirable on both sides of a river or stream. Where possible, river and stream channels should be reconnected to naturalized floodplain areas.
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		Open spaces are identified but primarily to serve as community activity areas.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		Managing stormwater throughout the city in ways that increase infiltration (by reducing impervious surface area and providing landscaped areas to store and filter rain water close to its source)
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Iosco Township	City of Lansing
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Green Street Design objective: Promote the use of low impact development strategies within the street network to minimize stormwater volumes and pollutants by reducing impervious surface and using rain gardens.
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should be a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	No.	No.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).		
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Iosco Township	City of Lansing
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	No. Standards appear several times in the zoning ordinance to reflect requirements of the Drain Commissioner.	Soil Erosion/Sedimentation regulated through Department of Public Service (Chapter 1218 of Planning Code).
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	No.	Yes. Adopted July, 2000. Prepared by Lansing Board of Water and Light
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Iosco Township	City of Lansing
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		TCRPC has initiated a collaborative effort by identifying green infrastructure conservation priorities and linkages. The City's existing river-related parks and trails will play an important role in that regional network.
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		Areas identified in Figure 5-1 of Master Plan
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				Brownfield Redevelopment Authority in place. Public Service Department oversees combined sewer/storm overflow project. Participates in Groundwater Management Board. City also has River Point Neighborhood Plan (1992)

Policy Review Criteria	Goal	General Recommendations	Lansing Charter Township	Leroy Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Prepared by Tri-County Regional Commission in 1974, updated in 2009	
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Environment Stewardship: conserve natural resources, improve environmental quality, and reduce the environmental impact of development and other human activities. Objectives: reduce solid waste, implement a recycling program, participate in regional efforts to improve water quality, work with relevant agencies to draft flood plain hazard mitigation plan.	
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Originally adopted August, 1966. Revisions include Planned Development Zone in September, 2000	
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	FEMA Participating Community and Local Floodplain Regulations (Chapter 90 of Zoning Ordinance) New construction, substantial improvements and other development, including fill, shall be prohibited within floodplain	
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Section 85-10 addresses site plan review. Section has been revised to include wellhead protection standards. Procedure includes an informal preapplication conference not prescribed in Zoning Ordinance.	
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No	
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No	

Policy Review Criteria	Goal	General Recommendations	Lansing Charter Township	Leroy Township
Other Ordinances			Section 85-11 PD/Planned Development Zone includes landscape and buffer requirements, and drainage provisions. Chapter 84 Parking and Loading allows for crushed stone or gravel surface material and shared parking. Chapter 90 contains floodplain provisions.	
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	Natural Resources and Environment: The 425 acres of agricultural land (owned by MSU) in the Township's southeastern-most corner are unlikely change to within the time frame of this master plan.	
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		Article 13 and Article 15 of Zoning Ordinance
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Lansing Charter Township	Leroy Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Prevent soil erosion and sedimentation from occurring as a result of earth-change activities within the township.	
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	No	
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).		
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Lansing Charter Township	Leroy Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	Site Plan Review process of Zoning Ordinance has standards which reflect the standards of the County Drain Commissioner. Reviewed by County Drain Commissioner.	
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	Provisions added to Site Plan Review Section	
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.	Section 24-2 of Zoning Ordinance: Cleanup and abatement of hazardous substance/waste releases shall be the responsibility of the person who produced, used or possessed substance. The Hazardous Waste Management Act of Michigan, part 111 of NREPA, shall apply where appropriate.	
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.	General Motors manufacturing facilities in the Township require remediation of the site for asbestos containing materials (ACM), polychlorinated biphenyls (PCBs), volatile organic compounds (VOCs) throughout demolition process	
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Lansing Charter Township	Leroy Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				

Policy Review Criteria	Goal	General Recommendations	Leslie Township	Locke Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted: September 1999 Revisions: None	Prepared by the Locke Township Planning Commission with assistance from Mark Eidelson and LANDPLAN Inc. Adopted Nov 17, 2004
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	2020 Vision Statement included in Future Land Use Plan: -Encourage City to maintain sewer/water system capacity for future growth. -Promotes and enforces protection of drains/creeks from chemical and bacterial pollution, siltation and warming. -Promotes and enforces best management practices from water erosion.-Requires buffers along edges of streams, drains and wetlands.	Preserve the Township's natural resources including farmland resources, wetlands and woodlands with coordinated future land use strategy and related implementation tools.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted: 1979 Revisions: Several small, fine tune revisions	Adopted Oct 6, 2005 amended Nov 14, 2006
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	Section 6.6 Floodplain Regulations; Leslie Township Zoning Ordinance: Includes data, delineation, existing and permitted uses, and liability	
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	The Leslie Community Recreation Plan, dated March 2006, was a successful cooperative planning effort carried out by the City of Leslie, Leslie Township and the Leslie School District.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Site Plan Review, Site Requirements, Land Division Application, Building Permit Application and Plan Examination	Site Plan Review Account for existing natural features on and within 300 feet of the site (woodlands; wetlands; drainage courses, water bodies, and 100-year flood plain areas), topography, soils by type and drainage features, and a grading, storm drainage and storm water management plan, including soil erosion and sedimentation control measures
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No formal adoptions are imposed locally only ones forced by county and state are followed.	
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	None	

Policy Review Criteria	Goal	General Recommendations	Leslie Township	Locke Township
Other Ordinances				
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		Preserve existing ag areas and those well suited for production. Provide opportunities for development that encourages preservation of open spaces, natural resources and rural character.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		Article 16 of zoning ordinance supports open space developments/clustering.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Leslie Township	Locke Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Zoning Ordinance Article 23.03.D. Off-street parking drainage standards
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	None	Development on a parcel containing wetlands should only occur on area void of wetland. township may require mitigation measures to replace environmentally sensitive areas harmed by development
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	Section 6.1.5. Required Water Supply and. Sanitary Sewerage Facilities - No structure shall be erected or altered without a safe, sanitary and potable water supply or without a safe and effective means of collection, treatment, and disposal of human excrement and domestic, commercial, and industrial wastes.	Any building shall be provided with a potable water supply and waste water disposal system. Constructed and maintained with standards of Ingham County Health Department.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Leslie Township	Locke Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Drain Commission conducts any drainage work unless a signoff from the Drain Commission Office is granted.	
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	None	
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Leslie Township	Locke Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments			The availability of public sewer, drains, and water should be the key trigger to whether other lands should be rezoned in the future consistent with the 2020 vision of Leslie Township. The 2020 vision provides a clear direction for the future decisions, both short and long term, to achieve the desired result for Leslie Township.	

Policy Review Criteria	Goal	General Recommendations	Marion Township	City of Mason
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Plan adopted January 25, 2005. New Master Plan adopted 2010 (date not specified)	Prepared by the City of Mason Planning Commission, adopted April 19, 2004.
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Protect environmentally sensitive areas such as wetlands, groundwater recharge areas, wellhead protection areas, and inland lakes from the harmful effects of incompatible development.	Preserve the City's natural resources through a coordinated future land use strategy and related implementation tools, discourage unnecessary destruction or loss of natural resources, including wetlands
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Prepared by the Livingston County Planning Department--March, 1996	
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	No. But language in Zoning Ordinance section 6.16 (B)	
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	Marion Township currently contracts public recreational opportunities with the Howell Area Parks and Recreation Authority (HAPRA) program.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Site plans are required to contain information on natural features; drainage, landscaping; and hazardous materials storage. Ground Water Standards: Protect natural features including water bodies. Stormwater management must be addressed.	
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	No.	
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No.	

Policy Review Criteria	Goal	General Recommendations	Marion Township	City of Mason
Other Ordinances			Section. 6.13: Landscaping; Section 6.16: Environmental Performance Standards; Section 6.17 (Infrastructure Concurrency) includes stormwater management; Section 6.21: Shorelines (includes several setback provisions); Section 6.27: Wellhead Protection and Hazardous Substance Overlay Zone;	
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	Preserve agricultural land, open space, and unobstructed views of fields, pastures, and agricultural buildings. Support the landowner's Right to Farm when proper agricultural practices are followed. Protect drainage ways for agricultural land.	
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.	All principal uses of land adjacent to inland lakes shall meet set back requirements and erosion control devices when located and designed	
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Section 6.29 Open Space Preservation: Allow developers to cluster new homes on smaller lots and to provide the home sites with permanently preserved open space.	The residents of Mason have clearly expressed an interest in maintaining the City's small town character. This character is due to open spaces including open fields, farmlands, woodlots, and natural wildlife habitats that surround the City.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Storm water management standards to prevent impact on adjacent land or water bodies. Any required infrastructure requirements must be made previous to development.	Adopt ordinances and policies to fund storm water management. (City Council)
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Marion Township	City of Mason
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Livingston County Soil Erosion and Sedimentation Ordinance.	
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Zoning Ordinance Section 6.19 f. Driveways shall be designed to minimize runoff and erosion.	
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.		Encourage the preservation of open spaces and natural resources (such as woodlands, wetlands, and stream corridors) as part of the land development process
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	Most Marion Township residents are served by individual septic systems and private wells. Municipal water services are available to township residents in the northern portion of the township. Marion Township is a member of a water authority called MHOG.	Expand sanitary sewer in phases to match development. Replace and upgrade older/unused pipes. Search for new efficiencies.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.	Septic tanks and associated drain fields for the containment of human or animal wastes shall conform to regulations and standards of the Livingston County Health Department.	

Policy Review Criteria	Goal	General Recommendations	Marion Township	City of Mason
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	No. Refers to standards of the Livingston County Drain Commissioner.	
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	Marion Township has two wellhead protection areas within their boundaries.	
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.	Site plans shall address the location and extent of any contaminated soils and/or groundwater on the site. Development shall be prohibited on a site of environmental contamination unless mediated	
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.	Extensive language regarding polluting materials, containment devices, storage standards and handling	Seeks to address improper clearing and discharging of runoff or wastes in or near important water courses. (City Council, in coordination with the County Drain Commissioner)
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Marion Township	City of Mason
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	Screening between land uses: 25 foot greenbelt along sides and rear. 50 foot greenbelt adjacent to any public road	
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments			Natural Resources Summary of existing environmental features.	

Policy Review Criteria	Goal	General Recommendations	Meridian Charter Township	Stockbridge Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted May 5, 2005	
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Preserve Open Space and Natural Areas: recharge areas; protecting endangered ecosystems, plants and animals, open spaces linkages	
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Codified Ordinance with regular revisions	January 2009. Revised May 9, 2011
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	The Township's floodplain map was updated in August of 2000 (Map 7-6). The Township monitors construction in the flood prone areas through the zoning ordinance.	
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	Goal: Develop the Meridian Township park and recreational system to reflect the population characteristics and recreation needs of current and future residents.	
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Contains standards for landscape preservation, surface water management, groundwater protection, soil erosion/sedimentation control. Currently being revised to include additional language for wellhead/groundwater protection:	Site Plan Review: Proposed grading and drainage patterns, existing natural and man-made features to be retained or removed, proposed water, sanitary sewer, and storm water catchment and drainage systems.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	Meridian Township Green space Plan: When implemented, the Green space Plan will provide a network of green spaces and non-motorized linkages that will protect and connect valued natural resources	
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	No, but is being considered	

Policy Review Criteria	Goal	General Recommendations	Meridian Charter Township	Stockbridge Township
Other Ordinances				
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		Section 4.07 AR, Agriculture Residential District: to provide for residential building purposes in a pastoral, agricultural, woodland or open land setting, which will remain un-served by public water distribution and wastewater disposal systems in the foreseeable future.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Township has a land preservation program to protect and enhance open space and natural features.	
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Storm water from the majority of the drains flows to the Red Cedar River. System uses natural and man made components. Major open drains displayed in Map 8-3 in Master Plan	
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide	Township has completed three sewer lining projects to reduce "inflow and infiltration" since 1998.	

Policy Review Criteria	Goal	General Recommendations	Meridian Charter Township	Stockbridge Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		Off-street parking areas shall be drained so as to dispose of all surface water accumulated without affecting adjacent areas
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	Adopted 1991. Regulates wetlands larger than 1/4 acre. Includes inventory map.	
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	The Township contracts with the City of East Lansing for wastewater treatment services.	
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Meridian Charter Township	Stockbridge Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	Storm Drainage code includes policy regarding excavation, grades and grading, water quality standards	
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	Following approval of the East Lansing/Meridian Wellhead Protection Plan, groundwater protection regulations were incorporated into the site plan review section of the zoning ordinance.	
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.	Protect groundwater recharge areas in the Township: identify important groundwater recharge areas, educate citizens, develop a set of public policies	
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		Unlawful for any person, firm, corporation or other legal entity to pollute, impair or destroy the air, water, soils or other natural resources within the Township
Temperature				

Policy Review Criteria	Goal	General Recommendations	Meridian Charter Township	Stockbridge Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	Township has green space plan to link open and natural areas.	A greenbelt shall be provided, and is an area established at a depth of the required front yard setback, with a number of standards regarding landscaping
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.	Conservancy District which is an overlay zone addressing groundwater recharge areas, floodway areas and floodway fringe areas with its boundaries determined on a case by case basis.	Section 4.06 RD, Resource Development District: Established to provide for the arrangement of land uses that are compatible with the conservation and preservation of natural environment.
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments			Local effort to close abandoned wells. Requirements for water conservation/lawn sprinkling. Participates in Groundwater Management Board. Very Comprehensive in its Natural Features Inventory	

Policy Review Criteria	Goal	General Recommendations	Unadilla Township	Vevay Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.		Adopted May 5, 2004
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Promote a healthy environment in Unadilla Township as it relates to the Township's natural resources, sensitive ecosystems, the integrity of the Township's land, water, and air	COMMUNITY CHARACTER / ENVIRONMENT GOAL: Preserve the dominant rural character of Vevay Township and the integrity of its environmental resources. Review development in light of impact. Educate the public. Encourage preservation of open spaces. Target key environmental areas for protection.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted May 13, 1999. Amended Nov 19, 2011	Adopted 6-2-2008. Prepared by LSL Planning
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.		Chapter 10 Zoning Ordinance- Delineation of a Floodplain Overlay District: 1000ft from high water marks and 500ft from the edge of any county drain easement.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.	C-1: Public Recreation District: protect the quantity and quality of the publicly owned natural resources within Unadilla Township.	Township operates a single recreation site. Township residents are able to use recreational facilities of the Mason and Dansville School Districts, Cities of Mason and Lansing, as well as regional facilities operated by Ingham County and other public agencies.
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		Chapter 11 PUD: Allow clustering of development to preserve common open space, traditional neighborhood design, historic or significant architectural features.
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.		Site Plan Text: See Attached -Business Districts -Planned Shopping Centers -Limited Industrial Districts -General Industrial Districts -Mobile Home Districts
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.		Only state imposed regulations are followed.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.		Any tree required by this Ordinance to be preserved die, the owner/developer shall replace the tree. A means of protecting site trees against injury during construction shall be provided.

Policy Review Criteria	Goal	General Recommendations	Unadilla Township	Vevay Township
Other Ordinances				
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	A-1: Farm / Residential District: Provide opportunities for farming in the Township and the retention of land areas in the Township for production of food and fiber... This District is also intended to preserve woodlands and wetlands associated with farms.	Approximately two-thirds of the Township is devoted to agricultural use and farming continues to play a dominant role in the community. Strong support in the community for the preservation of farmland resources.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.	Section 18.24 OPEN SPACE PRESERVATION OPTION: Under this option site must meet minimum space preserved, no more than 50% of total land area developed.	To the extent that residential development is accommodated in the Agricultural/Rural Residential Area, patterns that incorporate "clustering" and/or "open space developments." or the preservation of natural resources, open spaces, rural character are strongly encouraged.
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.	Storm Water Management: New development shall impact adjacent lands or reduce level of stormwater management service	Storm Water Management Policies: New development shall impact adjacent lands or reduce level of stormwater management service. Green infrastructure, or storm water management that places priority on the reliance on natural drainage patterns will be encouraged wherever feasible.
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Unadilla Township	Vevay Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.		The Goemaere-Anderson Wetland Protection Act enacted by the state of Michigan in 1979 is closely followed by Vevay Township.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	B. Sewage Disposal: Meets standards of Livingston County Public Health Dept. as well as other local, county, state or federal agencies. Service to two dwellings or more constitutes a public system	All on-site sewage disposal and potable water facilities will be in accordance with the standards of the Ingham County Public Health Department, Michigan Public Health Department, and other applicable local, county, state or federal agencies.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Unadilla Township	Vevay Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		Ingham County Drain Commission maintains drainage requirements.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.		None
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.	Section 24.06 SURFACE WATER and GROUNDWATER MANAGEMENT and PROTECTION: Requirements set for protection and design standards for facilities that are associated with greater than 100kg/month of hazardous substances.	
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Unadilla Township	Vevay Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		Section 62.4 Excavation of Soils and Minerals: Top soil shall not be stripped, excavated or otherwise removed on any premises for sale or for any other use than on the premises on which the top soil was originally located.
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				

Policy Review Criteria	Goal	General Recommendations	Village of Webberville	Wheatfield Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Issued as part of the Zoning Ordinance.	Adopted: 1994 , Revisions: Small revisions and slight adjustments made in 1997
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.		Protect the rural character and environmental integrity of the Township. - Maintain a record of the natural environment including woodlands, wetlands, and water resources, as well as potentially environmentally hazardous areas. - Encourage an environmentally friendly future land use plan.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted: Aug 24, 2009 Revisions: In the process of adopting wellhead protection ordinances.	Adopted: 1996 - Revisions: Very small revisions made throughout the years
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	A participant of FEMA. Floodplain regulations protect areas of predictable flooding.	Not a FEMA participant.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.		Site Plan Application/Site Plan Review Checklist/Site Plan Review Text
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	None	None.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	None	Existing trees and other plant growth shall be preserved in areas where disturbance is not necessary. Use of native species is encouraged with landscaping.

Policy Review Criteria	Goal	General Recommendations	Village of Webberville	Wheatfield Township
Other Ordinances				
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.		The following apply to farms: - -Manure Management: manure shall be stored in a manner to minimize runoff -Pesticide Management: pesticide facilities shall have a concrete floor that is sloped to a sump for containment of spills to prevent groundwater contamination.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	Village of Webberville	Wheatfield Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	None	None.
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	Chapter 51: Webberville Sewer Ordinance	
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	Village of Webberville	Wheatfield Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Drain Commission conducts any drainage work unless a signoff from the Drain Commission Office is granted.	Ingham County Drain Commission maintains drainage requirements.
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	None, but the village has gone through public hearings and are awaiting the adoption of new revisions in the next few months.	None.
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		The cleanup of hazardous materials shall be the responsibility of the person who produced them. Hazardous materials shall not be disposed of/collected/stored/transported within the village without written approval of the Village President or the Fire Chief.
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	Village of Webberville	Wheatfield Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.		
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects.	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				Stormwater Management -Existing natural drainage shall be maintained to the maximum extent feasible. -Stormwater management facilities shall be designed in as small an area as possible -Retention areas shall resemble natural features.

Policy Review Criteria	Goal	General Recommendations	White Oak Township	Williamstown Township
Land Use Planning				
Master Plans/Future Land Use Maps	Master Plan and Comprehensive Land Use Plan should state the community's intention for land use, natural resource preservation, and providing infrastructure.	The Master Plan is the first place where natural resource protection should be mentioned in an overarching statement of stewardship.	Adopted: 1992 Revised: None	Adopted 2006. Proposed update April 23, 2013
Environmental Goals/Policies/Objectives	Some goals/policies/objectives for the community should include specifics to environmental health and safety, overall environmental stewardship.	Goals and objectives should be very clear about environmental protection and stewardship. This can be tied to quality of life and economic development.	Provide sufficient areas for future development and growth, protect adjacent natural features.	Preservation of Natural Features. Potable Water & Wastewater Treatment. Farmland Preservation. Green Mixed Used Development Policies / Environmental Policy Statements.
Zoning Ordinance	Zoning Ordinances should enact the rules that support the vision of the Master Plan and Future Land Use Maps.	Be sure that the Zoning Ordinance falls in line with the Master Plan goals and objectives; this is often where disconnects in policy begin.	Adopted: 1995 Revised: Several items currently being revised including communication towers, driveway requirements, and land splits.	Adopted July 9th, 2013
Floodplain Mapping, Overlay District Flood Hazard Mitigation Planning, Floodplain Ordinance	Extent of 100-year floodplain is recognized and provisions to protect or mitigate impacts to the floodplain are adopted.	Floodplain language/maps should be updated to include the most up to date information. Revise zoning maps accordingly.	A participant of FEMA.	FEMA Participant/Floodplain Ordinance adopted 1982. Discourage development in areas that are known to be in the 100-year flood plain.
Recreation Plan	A MDNR approved 5-year Recreation Plan identifies priority lands for acquisition or protection for future recreational use.	Recreation plans should include trails, green space, parks, blue trails, and boating access. Future recreational uses need to incorporate water recreation as a more prominent opportunity.		The Williamstown Township Parks and Recreation Master Plan sets forth the Township goals, objectives, and places for parks and recreation facilities and services. Plan was adopted in 2007 and must be updated to remain eligible for state recreation grants.
Low Impact Development Ordinance - development and division practices	Impacts of development to communities resources are minimized through infiltration and reduction of impervious surfaces.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite		
Development Review Process	Existing and future plans for natural features are illustrated in site plan. Protective measures are included in site plans to ensure that developments preserve natural features and water quality	Site Plan review procedures and checklists should align with all ordinances/policies related to water quality, conservation, stewardship and maintenance.	Section 4.38 Site Plan Review and Approval Procedures	Section 27.02: Site Plan Review/ Plat Approval Process are combined in Section 27 entitled General Procedures and Related Standards.
Natural Features Overlay District	Overlay districts restrict activities in areas of protection based on proposed land use changes.	Be sure that the Zoning Ordinance and Site Plan procedures take an overlay district into account.	Section 4.33 Landscaping Requirements and Plant Materials, Buffer strip and Greenbelt Standards	No, but has been discussed.
Tree Removal Ordinance	When trees are removed from a site for development, they should be replaced/replanted with an appropriate ratio to enhance tree coverage in the community.	The Site Plan review process should include the tree ordinance criteria.	Section 4.33 Landscaping Requirements: All diseased and/or dead material shall be removed within thirty days following Township notification and shall be replaced.	Objective included in Master Plan: Prepare and Adopt a Tree Protection Ordinance.

Policy Review Criteria	Goal	General Recommendations	White Oak Township	Williamstown Township
Other Ordinances			Section 4.19 Building Grades: Land surrounding structures shall be graded to prevent inflow of water on structure	Sec 2.11: Grading Regulations; Sec 2.20: Floodplains; Sec 2.21: Soil Erosion and Sedimentation Control; Article 5: Landscaping and Screening; Article 25: Planned Development
Agriculture				
Agriculture/Farmland Preservation	Master Plans describe importance of agricultural land and rural character in community. Zoning ordinances provide regulations for preserving farmland	Ingham Co. municipalities need to be sure that the Ag/Farmland Preservation program criteria is included in their development procedures; Livingston Co. could consider adopting a similar program.	Article 9 Zoning Ordinance: The Agricultural District is intended to conserve and enhance the low-density character and agricultural use of substantial portions of the Township.	Encourage continued agricultural activity. When reviewing development plans, explore alternative layouts to minimize loss of farmland and conflict with nearby farming operations.
Riparian Ordinance - riparian setbacks	Buffer overlay zones are identified and regulated for stream protection and flood control	Be sure that the Zoning Ordinance and Site Plan procedures take the riparian corridor into account.		
Clustering and Open Space Developments - protect open spaces, natural resource protection	Cluster development is allowed and incentivized. Land conservation techniques are utilized to keep land preserved in perpetuity	Be sure that the Zoning Ordinance and Site Plan procedures allow for cluster/open space development.		The Green Zone Planned Development District (the "Green Zone") is a diverse mixed use zoning district created to guide development of a portion of the Grand River corridor in a sustainable compact design
Street Patterns	Standards are flexible for street length and width, sidewalk locations, and cul-de-sacs to reduce imperviousness	Reduce imperviousness by using the most appropriate street/sidewalk widths while maintaining public safety. Work with the Road Commission to have common goals.		
Conservation Easements and Similar Tools	Use of conservation tools is incentivized to allow developers to realize benefits of protecting resources.	Consider utilizing easements in areas for conservation, work with the TCRPC to review potential conservation areas in depth and incorporate into Master Plan/Zoning documents.		
Sediment				
Storm Water Standards - runoff and water quality	Storm Water Standards and criteria are developed to regulate for flood control, stream protection, and water quality.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite. The handbook covers all topics listed here.		
Engineered Best Management Practices	Designs for water quality are incorporated into designs standards.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Runoff Volume Control	Reduction of runoff volume is incorporated into designs, allowing flexibility in street and development drainage systems.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Minimizing Inflow	Disconnect downspouts and other direct connections to the storm sewer	Use the GLRC Post-Construction Stormwater Control handbook as a guide		

Policy Review Criteria	Goal	General Recommendations	White Oak Township	Williamstown Township
SESC, Construction Management Ordinance	Soil erosion and sedimentation control is identified as an important activity of the County and other enforcing agents.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
	Adequate staff is available to effectively administer and enforce SESC ordinance	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Impervious Surface Reduction - parking lot designs and parking space requirements, alternative materials	Flexibility is allowed for alternative paving materials and requirements	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Parking Lots and Driveways	Alternative parking lots and driveways designs are permitted to reduce imperviousness.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Streets and Access	Reduced street widths and on-street parking requirements are allowed to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Lot Setbacks/Lot Width/Lot Coverage	Relaxed rules for specific dimensions allows more options for developers, such as open space and cluster development designs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Sidewalks	Flexibility is allowed for sidewalks on only one side of the street or the use of alternative pathways and trails to reduce imperviousness	Use the GLRC Post-Construction Stormwater Control handbook as a guide		
Nutrients				
Wetland Preservation	Identification and delineation of wetlands provides support for ordinance and regulations to protect and preserve existing and restored wetlands.	Protection of existing wetlands should a priority in the Master Plan and Zoning ordinance; restoration is a component that should be included for future land use planning.	None	Zoning Ordinance Article 2 Section 2.24 Wetland Buffer Regulations
Sanitary System Standards	Master Plan provides sewer service area that adequately serves the community.	These standards should be updated on a regular schedule as part of the Master Plan update (every five years).	List of provisions, prohibitions and acts requiring permit regarding handling and disposal of waste, and sanitation systems.	According to the Soils Survey, soils over almost the entire Township have moderate or severe limitations with regard to use of septic systems. A lack of public water or sewer is one of the reasons Williamstown was not included in the TCRPC's urban services boundary.
Septic Ordinance	An ordinance regulating the siting, installation, and maintenance of septic systems reduces failures and identifies faulty systems.	Ingham Co. Point of Sale Ordinance should be recognized throughout community specific plans; Livingston Co. could consider similar regulations.		

Policy Review Criteria	Goal	General Recommendations	White Oak Township	Williamstown Township
Local Site Drainage Requirements other than County Drain Commissioner	Reduce polluted runoff from entering municipal drainage systems and BMPs.	Use the GLRC Post-Construction Stormwater Control handbook as a guide to set design criteria for BMPs to manage stormwater onsite	The Drain Commission conducts any drainage work unless a signoff from the Drain Commission Office is granted.	No
Lake Management	Minimize lake access and usage to preserve water quality.	Be sure lake properties are zoned/planned for to protect water quality. This can include setbacks, septic maintenance requirements, native plants, etc.		
Pesticides and Chemicals				
Wellhead Protection Areas	Identify and map wellhead protection areas to preserve groundwater.	Work with the TCRPC to develop a Wellhead Protection Plan which should include recommendations for siting new wells based on land use.	Section 4.49 Wells: All structures associated with a well must be pre-empted by the Michigan Department of Natural Resources, the EPA, or the Ingham County Health Dept.	No
Groundwater Protection	Restrict high-risk land uses in groundwater recharge areas.	Work with the TCRPC to develop a potential contaminant source inventory (already exists in the urban area) to be used in future land use planning.		The Michigan Resource Information System (MIRIS) maps indicate wetlands are scattered throughout the Township, but the greatest concentrations are located along the Red Cedar River and Coon Creek. Development should be restricted in all groundwater recharge and wetlands areas.
Waste Reduction/Recycling	Provide recycle facilities and opportunities for waste removal or reduction	Work to provide recycle and waste reduction opportunities to reduce dumping or spills.		
Preventing Pollution/Housekeeping	Communities should maintain facilities and storage areas to reduce polluted runoff.	Use the GLRC Pollution Prevention and Good Housekeeping Manual to develop a community specific set of standard operating procedures.		
PATHOGENS				
Animal Waste (Pet & Manure)	Educate residents about the availability, location, and requirements of properly disposing of pet waste	Promote the use of BMPs related to animal waste storage and application. Develop a pet waste ordinance for local park and open space areas.		
IDEP Illicit Discharge Ordinance	Map drainage system and outfalls to support IDEP ordinance and inspection program.	Work with the GLRC to develop consistencies related to illicit connections throughout all municipalities.		
Temperature				

Policy Review Criteria	Goal	General Recommendations	White Oak Township	Williamstown Township
Greenways/Greenbelts	Plan for use of greenways and greenbelts to protect watercourses and other resources.	Utilize the TCRPC Green Infrastructure Vision to protection and enhance conservation areas.	Where required, greenbelts shall conform to outlined standards: Width, and minimum landscaping provisions	
Woodland Preservation	Assess individual trees and woodlands to support protection measures of ordinances and standards to minimize tree removal during construction projects	The Site Plan review process should include woodland preservation criteria.		
Habitat Preservation - Natural Area Preservation/Restoration	Assess natural areas to identify unique and sensitive areas important for ecosystem.	Utilize the TCRPC Green Infrastructure Vision to protect and enhance conservation areas.		Preservation of natural features should be a prevailing objective in all future development. (Rural character, including woodlands and woodlots, wetlands, drainage courses, and rolling topography)
Invasive Species				
Invasive Species Management	Use native and site specific plants to maximize viability and reduce threat of invasive species.	Work with the TCRPC Green Infrastructure Vision and the Conservation District to reduce the risk of invasive species.		
Other				
Other Comments				Developing a local Wetlands Ordinance; Also looking to amend Zoning Ordinance section regarding Agriculture/Commercial zone. Looking at a specific cluster development option in the Ag Commercial Zone which pairs clustering with donation of development rights.