

Water Quality and Natural Resource Protection Master Plan and Zoning Ordinance Assessments

Otsego County

Funding provided by
Great Lakes Restoration Initiative, USEPA

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Water Quality and Natural Resource Protection MASTER PLAN AND ZONING ORDINANCE ASSESSMENTS

The report contains master plan and zoning ordinance reviews for communities in the county.

Section 1 – Master Plan Reviews

- County Report

- Comparison of community planning

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- Comparison of community zoning

Appendix A

- Individual Community Sheets

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- Individual Community Sheets

Introduction

NEMCOG received funding from the U.S. EPA Great Lakes Restoration Initiative to work with communities in the Lake Huron Watershed in Northeast Michigan. The effort promotes collaboration between citizens, organizations, communities, & agencies within the Lake Huron Watershed. Outreach and educational activities will provide greater understanding of environmental conditions and identify roles of individuals and communities in protecting their natural resources.

The project has identified common resource related issues & promoted environmentally responsible decision making. Primary focus for the technical assistance component is with coastal communities. Education efforts targeted all communities within the Lake Huron watershed area of northeast Michigan.

Purpose

One component of the program has been to conduct reviews of community planning and zoning activities for our coastal counties. This report provides an assessment of master plans in the coastal counties to determine each community's level of commitment to resource conservation and water quality protection. The report enables communities to understand how they fit into an overall effort to provide a greater level of water resource protection and may encourage neighbors to collaborate.

Project Area

Northern Lower Michigan's abundant freshwater resources are at the core of the region's identity and livelihood, even in jurisdictions without Great Lakes shoreline, like

landlocked Otsego County. With dozens of inland lakes, along with groundwater and streams, all of which are part of the great Lake Huron watershed, water quality protection is and should be a major concern for the Otsego County government and those of its townships. This concern is manifested in the Otsego County Master Plan, its townships' master plans, and the Otsego County Zoning Ordinance. However, the extent to which the county and its townships officially identify and address specific water issues in these documents is not uniform. This has been shown through use of a planning and zoning assessment form provided by the Northeast Michigan Council of Governments (NEMCOG). Sufficiency in setting water quality protection goals, requirements for attaining those goals, and the relevance of such goals varied within the Otsego County documents and between township master plans. As a result, areas needing improvement within the context of the evaluation form have been identified. To ensure the future health of Otsego County's water resources, and thereby the Lake Huron Watershed as well, appropriate adjustments should be made in these master plans and the zoning code.

Planning and Zoning are the principal tools that local communities have to manage growth, preserve community character, protect property values and enhance the economic viability of the area. Planning helps establish and focus the desired future of the community and zoning ordinances are used as one of the primary ways to implement the community master plan and achieve the goals of the community.

Section 1

Master Plan Reviews



Procedure for Completing the Analysis

For analysis to be performed, the most recent Master Plan needed to be obtained from each community. Every effort was used to obtain the most current plan. Analysis for each community’s Master Plan started with an evaluation form titled, “Planning and Zoning Assessment: Lake Huron Watershed Community Collaboration. Each question was then rated for how well the plan met the criteria with a value from 2 to 0.

Score	
2	Criteria Met
1	Nominal Representation
0	Missing

The Master Plans for each jurisdiction were scored and then ranked into three categories.

Strong: Master Plans with a total score of 31-46 are considered strong in areas protecting water resources and water quality. These plans are more protective than most plans in the state. Strong plans exceed minimum standards for water protection.

Adequate: Master Plans with a total score of 16-30 are considered adequate in areas protecting water resources and water quality. These plans are comparable with other plans in the state. This plan is at least protective as ordinances in other jurisdictions with similar water resources.

Weak: Master Plans with a total score of 0-15 are considered weak in areas protecting water resources and water quality. These plans are less protective than most plans in the state. Weak plans fail to meet minimum standards for water protection and, at the next review period, should be considered for updating to protect the well-being of the watershed.

Summarize findings

All of the master plans were found to be adequate from a resource protection standpoint, though some provide higher levels of protection. Otsego County has a master plan that is strong with respect to water quality. Impervious surface reduction is not addressed in the master plan. Wildlife resources are also another area of concern for this master plan. Wildlife is very important to the identity of Otsego County, especially in the Pigeon River State Forest. This is a goal that should be updated to protect the importance of this resource.

Elmira Township is the only community that addresses the importance of stormwater management. Erosion and groundwater contamination can result from the lack of stormwater containment.

Most communities in Otsego County lack goals in protecting threatened and endangered species. These sensitive species must be protected before it is too late and any become extinct.

There are two townships without master plans. Dover and Hayes Townships should develop master plans to help increase the quality of water in their communities. With a master plan in place, the communities can anticipate any potential water quality problems, and then create a greater quality of life in the townships.

1. All of the master plans adequately identify watershed the communities are located in; and have inventories of lakes, rivers and wetlands.
2. All eight master plans do not identify or map groundwater recharge areas.
3. Five plans have an adequate goal or statement of intent to protect water resources. Three more plans mention protecting water resources to some degree, but do not have a specific statement or goal for protection.
4. Four plans have adequate goals for community acquisition or conservation of open space to protect their water resources. Four more plans mention open space in one form or another, or may not protect open space in regards to water quality.
5. Three plans adequately identify stormwater management as an important community policy. One plan minimally identifies stormwater management as an important community policy. Four plans do not address stormwater management in the communities. Because of the rural character in many of the communities in Otsego County, stormwater management may not be an issue as it can be in a more urban setting.
6. One plan adequately addresses minimizing impervious surfaces in construction projects to reduce stormwater runoff and improve infiltration. Seven plans do not address reduction of impervious surfaces. Because of the rural character in many of the communities in Otsego County, impervious surface reduction may not be an issue as it can be in a more urban setting.
7. One plan adequately includes the identification and protection of wildlife corridors. Five plans minimally include identification and protection of wildlife corridors. They may call for protection without identifying the corridor. Two plans do not address wildlife corridors in the communities.
8. One plan adequately identifies and calls for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and groundwater. Two plans minimally cover Natural Areas and/or Natural Rivers, often one or the other, and not always for water quality. Five plans are missing protection.
9. One plan minimally acknowledges the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources. Seven plans are missing the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources. Properly built and maintained road stream crossings are extremely important for protection of water quality. Narrow culverts reduce fish passage, collect sediment, increase

erosion and allow pooling, which increases water temperature. Inventories and corrections of poor crossing will help to improve water quality.

10. Seven plans adequately provide information on the forest resources. One plan provides minimal information on the forest resources.
11. Four plans adequately provide information on the wildlife resources. One plan minimally provides information on the wildlife resources. Three plans are missing information on the wildlife resources.
12. Two plans adequately provide information on threatened and endangered species. Six plans are missing information on threatened and endangered species.
13. All eight plans adequately provide information on the soils and soil constraints.
14. Two plans adequately address forest and wildlife resources in their goals and objectives section. Five plan minimally address forest and wildlife resources in their goals and objectives section. One plan is missing forest and wildlife resources in their goals and objectives section.
15. Three plans adequately address forest and wildlife resources in their future land use section. Two plans minimally address forest and wildlife resources in their future land use section, most only addressing forest resources. Three plans are missing forest and wildlife resources in their future land use section.
16. Five plans adequately address groundwater protection in the goals and objectives section. Three plans are missing groundwater protection in the goals and objectives section.
17. Two plans adequately address retention or restoration of waterside greenbelts or buffers in the goals and objectives section. Two plans minimally address retention or restoration of waterside greenbelts or buffers in the goals and objectives section. Four plans are missing retention or restoration of waterside greenbelts or buffers in the goals and objectives section.
18. Three plans adequately address use of conservation easements to protect open space in the goals and objectives section. Two plans minimally address the use of conservation easements. Three plans are missing the use of conservation easements to protect open space in the goals and objectives section.
19. All eight plans are missing text related to septic system maintenance in the goals and objectives section. Proper septic system maintenance will prevent many problems that can degrade water quality. Routine septic pumping and proper use will help keep untreated water from entering the water supply.
20. Three plans adequately address wetland protection and restoration in the goals and objectives section. Three plans minimally address wetland protection and

restoration in the goals and objectives section. Two plans are missing wetland protection and restoration in the goals and objectives section.

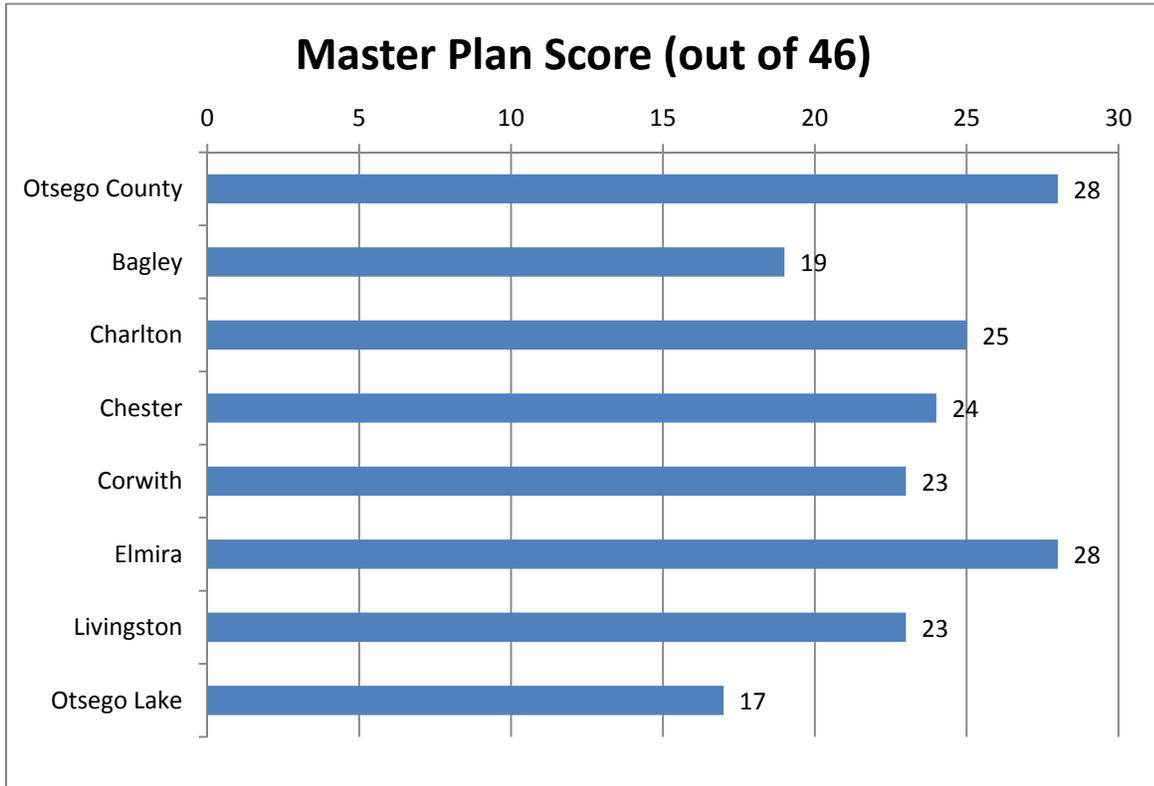
21. All eight plans are missing floodplain protection in the goals and objectives section.

The following table shows a summary tally of community's ratings by criteria. There were a total of eight master plans reviewed. For example, all eight of the master plans adequately identified the watersheds.

Master Plan Review – Section 1			
Criteria	Adequate	Minimal	Absent
Does Master Plan exist?	8	0	0
Does the Master Plan specifically identify the watershed(s) in which the community is located?	8	0	0
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	8	0	0
Does it identify and map groundwater recharge areas?	0	0	8
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	5	3	0
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	4	4	0
Does the Master Plan identify stormwater management as an important community policy?	3	1	4
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	1	0	7
Does the Master Plan include identification and protection of Wildlife corridors?	1	5	2
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	1	2	5
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	0	1	7
Master Plan Review – Section 2			
Does the master plan provide information on the	7	1	0

forest resources in the community?			
Does the master plan provide information on the wildlife resources in the community?	4	1	3
Does the master plan provide information on threatened and endangered species?	2	0	6
Does the master plan provide information on the soils and soils constraints?	8	0	0
Does the master plan address forest and wildlife resources in the goals and objectives section?	2	5	1
Does the master plan address forest and wildlife resources in the future land use section?	3	2	3
Does the master plan address groundwater protection in the goals and objectives section?	5	0	3
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	2	2	4
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	3	2	3
Does the plan address Septic Systems maintenance in the goals and objectives section?	0	0	8
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	3	3	2
Does the plan address Floodplain Protection in the goals and objectives section?	0	0	8
Total:	78	32	75

Combined Scores by Community



Otsego County

Master Plan Adopted: June 9, 2009

Master Plan Review Score: 28/46

Resource	Very Good	Satisfactory	Needs Work
Forests	X		
Future Land Use	X		
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space		X	
Soils	X		
Statement(s) of Intent	X		
Stormwater	X		
Water Resources			X
Wetlands	X		
Wildlife			X
Undisturbed Natural Areas			X

The Otsego County Master Plan is strong in many areas concerned in the evaluation form. The master plan has been rated "Very Good" or "Satisfactory" in the majority of categories in the evaluation. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to open space preservation. The areas of concern for this plan are groundwater recharge maps, the reduction of impervious surfaces, septic system maintenance, greenbelt retention, threatened/endangered species, wildlife resources and wildlife corridors throughout the county and preservation of undisturbed natural areas. The master plan is reviewed and adopted every five years. At the next review, areas in the "Needs Work" category should be considered for updating to protect the well-being of the watershed.

Bagley Township

Master Plan Adopted: January 3, 2007

Master Plan Review Score: 19/46

Resource	Very Good	Satisfactory	Needs Work
Forests			X
Future Land Use			X
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space		X	
Soils	X		
Statement(s) of Intent			X
Stormwater			X
Water Resources			X
Wetlands			X
Wildlife		X	
Undisturbed Natural Areas		X	

The Bagley Township Master Plan has been rated “Very Good” or “Satisfactory” in only five of the thirteen categories in the evaluation. Resources rated “Satisfactory” can still be improved by strengthening the master plan in regards to open space acquisition, a plan for wildlife corridors and resources, and protection of Natural Areas. The areas of concern for this plan are forest and wildlife resources in the goals and objectives and future land use, groundwater protection and recharge mapping, the reduction of impervious surfaces, stronger statement of intent to protect the water resources, stormwater management, greenbelt retention and wetland protection. The master plan is reviewed and adopted every five years. At the next review, areas in the “Needs Work” category should be considered for updating to protect the well-being of the watershed.

Charlton Township Master Plan 2001-2026

Master Plan Adopted: November 7, 2011

Master Plan Review Score: 25/46

Resource	Very Good	Satisfactory	Needs Work
Forests		X	
Future Land Use	X		
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies			X
Open Space		X	
Soils		X	
Statement(s) of Intent		X	
Stormwater			X
Water Resources		X	
Wetlands		X	
Wildlife			X
Undisturbed Natural Areas	X		

The Charlton Township Master Plan has been rated "Very Good" or "Satisfactory" in many categories in the evaluation. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to open space acquisition/conservation, expanding on soils and constraint definition, a specific statement of intent to protect water resources and wetland protection for water quality. The areas of concern for this plan are updated inventory of water bodies with maps, groundwater protection, septic system maintenance, reduction of impervious surfaces, stormwater management, threatened/endangered species, wildlife resources and wildlife corridors. The master plan is reviewed and adopted every five years. At the next review, areas in the "Needs Work" category should be considered for updating to protect the well-being of the watershed.

Chester Township

Master Plan Adopted: March 8, 2011

Master Plan Review Score: 24/46

Resource	Very Good	Satisfactory	Needs Work
Forests	X		
Future Land Use	X		
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space		X	
Soils	X		
Statement(s) of Intent	X		
Stormwater			X
Water Resources			X
Wetlands		X	
Wildlife			X
Undisturbed Natural Areas		X	

The Chester Township Master Plan has been rated “Very Good” or “Satisfactory” in eight of the thirteen categories in the evaluation. Resources rated “Satisfactory” can still be improved by strengthening the master plan in regards to open space acquisition, and greenbelt retention, and undisturbed natural areas. Areas of concern for this plan are groundwater recharge area maps, reduction of impervious surfaces, stormwater management, septic system maintenance and listing of threatened/endangered species. The master plan is reviewed and adopted every five years. At the next review, areas in the “Needs Work” category should be considered for updating to protect the well-being of the watershed.

Corwith Township

Master Plan Adopted: November 29, 2004

Master Plan Review Score: 23/46

Resource	Very Good	Satisfactory	Needs Work
Forests	X		
Future Land Use		X	
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space			X
Soils	X		
Statement(s) of Intent	X		
Stormwater			X
Water Resources		X	
Wetlands	X		
Wildlife		X	
Undisturbed Natural Areas		X	

The Corwith Township Master Plan has been rated “Very Good” or “Satisfactory” in nine of the thirteen categories in the evaluation. Resources rated “Satisfactory” can still be improved by strengthening the master plan in regards to forest resources in future land use, septic system maintenance, wildlife corridors and undisturbed natural areas. The areas of concern for this plan are groundwater protection, reduction of impervious surfaces, open space protection and acquisition, and stormwater management. The master plan is reviewed and adopted every five years. At the next review, areas in the “Needs Work” category should be considered for updating to protect the well-being of the watershed.

Elmira Township

Master Plan Adopted: 2013

Master Plan Review Score: 28/46

Resource	Very Good	Satisfactory	Needs Work
Forests		X	
Future Land Use			X
Groundwater			X
Impervious Surface Reduction	X		
Inventory of Water Bodies	X		
Open Space		X	
Soils	X		
Statement(s) of Intent	X		
Stormwater	X		
Water Resources		X	
Wetlands		X	
Wildlife			X
Undisturbed Natural Areas			X

The Elmira Township Master Plan has been rated “Very Good” or “Satisfactory” in nine of the thirteen categories in the evaluation. Resources rated “Satisfactory” can still be improved by strengthening the master plan in regards to forest resources, open space acquisition, water resource protection, and wetland protection. The areas of concern for this plan are groundwater protection and recharge maps, forest and wildlife in future land use, septic system maintenance, threatened/endangered species, and wildlife resources. The master plan is reviewed and adopted every five years. At the next review, areas in the “Needs Work” category should be considered for updating to protect the well-being of the watershed.

Livingston Township

Master Plan Adopted: October 9, 2012

Master Plan Review Score: 23/46

Resource	Very Good	Satisfactory	Needs Work
Forests	X		
Future Land Use	X		
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space		X	
Soils	X		
Statement(s) of Intent		X	
Stormwater			X
Water Resources		X	
Wetlands		X	
Wildlife		X	
Undisturbed Natural Areas			X

The Livingston Township Master Plan is strong in many areas concerned in the evaluation form. The master plan has been rated "Very Good" or "Satisfactory" in many categories in the evaluation. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to open space protection, stronger statement of intent to protect water resources, wetland and wildlife protection. The areas of concern for this plan are groundwater protection, reduction of impervious surfaces, stormwater management, threatened/endangered species, and preservation of undisturbed natural areas. The master plan is reviewed and adopted every five years. At the next review, areas in the "Needs Work" category should be considered for updating to protect the well-being of the watershed.

Otsego Lake Township

Master Plan Adopted: May 14, 2006

Master Plan Review Score: 17/46

Resource	Very Good	Satisfactory	Needs Work
Forests		X	
Future Land Use			X
Groundwater			X
Impervious Surface Reduction			X
Inventory of Water Bodies	X		
Open Space			X
Soils	X		
Statement(s) of Intent		X	
Stormwater			X
Water Resources			X
Wetlands		X	
Wildlife			X
Undisturbed Natural Areas			X

The Otsego Lake Township Master Plan is strong in some areas concerned in the evaluation form. The master plan has been rated "Very Good" or "Satisfactory" in a few categories in the evaluation. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to forest resources, stronger statement of intent to protect water resources and wetland protection. The areas of concern for this plan are future land use plans, groundwater recharge area maps, reduction of impervious surfaces, open space protection, stormwater management, septic system maintenance, conservation easements, threatened/endangered species, wildlife resources and corridors, and protection of Natural Areas. The master plan is reviewed and adopted every five years. At the next review, areas in the "Needs Work" category should be considered for updating to protect the well-being of the watershed.

Section 2

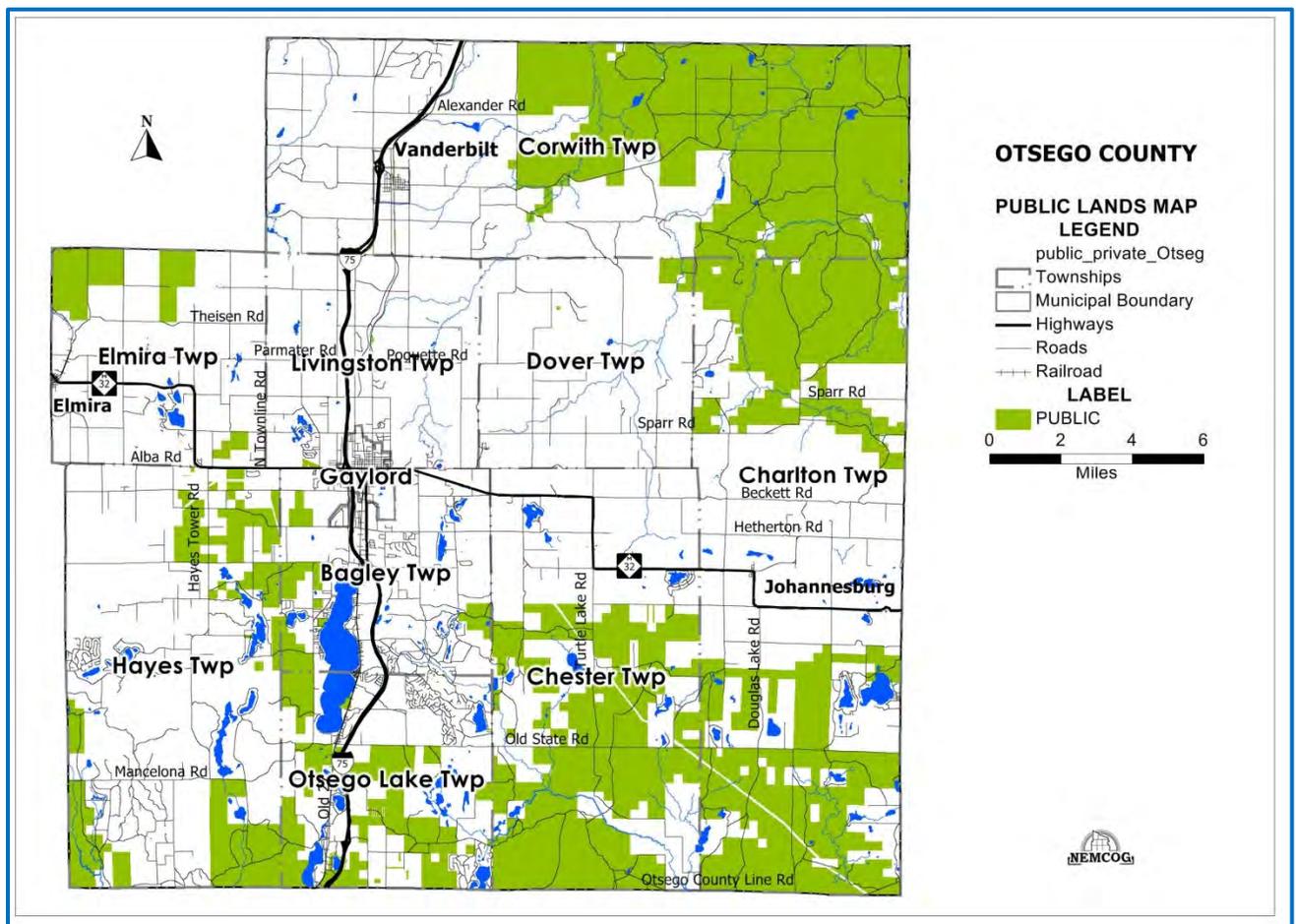
Zoning Ordinance Reviews



Promoting collaboration between citizens, organizations, communities, & agencies within the Watershed.

Otsego County Zoning Assessment Lake Huron Watershed Community Collaboration

Name of Jurisdiction: Otsego County, Michigan
 Name of Reviewer: R. Deuell
 Last amended: 2010



Funding provided by Great Lakes Restoration Initiative, USEPA

As a part of a Lake Huron Watershed Project, we have completed a water resource protection review of your community's zoning ordinance. The review is based on a list of zoning standards related to surface and ground water quality protection. The results provide communities an opportunity to compare their current standards with recommended water quality protection approaches. While it is understood each community is unique, both its resource and its constituent base; there are several key "common ground" zoning approaches, that if adopted by all communities within a watershed, will support long term water and natural resource protection. We are

hopeful your community will review the information and consider amending your ordinance to enhance water quality and natural resource protection.

Questions used in the evaluation were derived from several sources, which included Tip of the Mitt Watershed Council, Land Policy Institute and NEMCOG. The questions are grouped into the following categories: 1) basic zoning elements, 2) shorelines, 3) stormwater management, 4) sewer/septic systems, 5) groundwater and wellhead protection, and 6) impervious surface reduction. Each question was scored based on how the ordinance met the criteria. A score of **2** means "Yes, Criteria Was Met," **1** means "Minimally with Comments," and **0** means "Missing." The values for each question were totaled under each category, which was classified as strong, adequate or lacking.

Summary of Zoning Review

I. Basic Zoning Elements - Strong

II. Shorelines - Adequate

III. Stormwater Management - Strong

IV. Sewer/Septic - Adequate

V. Groundwater and Wellhead Protection - Lacking

VI. Impervious Surface Reduction - Strong

I. Basic Zoning Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Zoning Ordinance: Administrative		
1. Does Zoning Ordinance have a statement of purpose or intent that includes protection of water and/or natural resources?	; to encourage resource protection, farming, and forestry activities; by securing the most appropriate use of land; by providing for the protection of land and water resources; For the purpose of preventing and controlling water pollution, preserving shoreland cover, natural beauty, and to further the maintenance of safe and healthy conditions on shorelands of streams, rivers, lakes, and flowages of water that appears on the U.S. Geological Survey Quadrangle maps of Otsego County,	2
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Yes – p. XXII-3, 22.3.2.4: Fees, escrow for professional review	2
3. Does the Zoning Ordinance have methods in	Section XXII, includes civil infraction	2

place for enforcement, including a clearly defined process for inspections and correction of violations?		
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits?	Section 22.3 Permit Procedures and Regulations 22.3.2.6 Withholding Permit	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	Section 20.3: pre-application conference not mandatory but strongly advised.. Article 21 Planned Unit Development (PUD) is recommended that this submission be preceded by pre-application conferences	2
6. Does the Zoning Ordinance include requirements for environmental assessment, at the expense of the applicant, for proposals that include a land area of five acres or more, or building over 50,000 sq. ft.?		0
Zoning Ordinance: Site Plan Review		
7. Does the Zoning Ordinance require Site Plan Review?	Yes – p. XX-1: Article 20 - Site Plan Review	2
8. Is the Site Plan required to indicate all existing natural features?	Section 20.2.2.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	p. III-2, Section 3.6 - Other Ordinance Controls lists Soil Erosion and Sediment Control	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review?		0
11. Does the Zoning Ordinance require floodplains to be identified on site plans?	Location and elevations of existing water courses and water bodies, including county drains and man-made surface drainage ways, flood plains and wetlands within fifty (50) feet of the parcel.	2
Zoning Ordinance: PUD		
12. Does ordinance include Planned Unit Development (PUD) provisions?	p. XXI-1: Article 21	2
13. Do PUDs require inclusion of a minimum open space threshold?	p. XXI-5: Section 21.3	2
Zoning Ordinance: Open Space		
14. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	p. XXI-6, 21.3.2 – Open Space Plan	2
15. Does the open space have to be managed in a natural condition?	p. XXI-5, 21.3.1	2
16. Are allowable uses in the open space restricted to low impact uses?	p. XXI-5, 21.3.1	2
17. Is open space required to be protected through a conservation easement or other similar mechanism?	Section 21.3 Open Space Plan A conservation easement or similar deed restriction.	2
Zoning Ordinance: Special Districts		
18. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management?	Forest Recreation	2

19. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands?	Article 15 Lots Near Water	2
TOTAL POINTS SECTION I		34
TOTAL POSSIBLE POINTS:		38

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Inland Lakes		
1. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 and less than 25' = 0	Article 15 Lots Near Water 50 feet	1
Shorelines: Setbacks Streams		
2. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 and less than 25' = 0	Article 15 Lots Near Water 150 feet	2
Shorelines: Protection strips		
3. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	Article 15 Lots Near Water	2
4. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?	50 feet	2
5. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?	In no case shall clear cutting exceed a total width of 30 feet for each 100 feet of shoreline.	2
6. Does it specify the use of native plant species in the riparian buffer zone?	Article 15 Lots Near Water	1
7. Are invasive and exotic plants prohibited from being used?	No reference	0
Shorelines: Density		
8. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	150 feet wide	2
Shorelines: Private Shared Lake Access; Keyhole/Funneling		
9. Does the Zoning Ordinance include Private Shared Lake Access provisions that regulate number of back lots using the shared waterfront lot, development of shared lot, and docks?	Section 15.11 Site Design Standards Also, p. VII-2, Section 7.2: Permitted Uses Subject to Special Conditions –	2
Shorelines: Road Ends		
10. Does the Zoning Ordinance regulate Road Ends terminating at the edge of navigable waters, to ensure the right of public access does not include: the ability to install private docks or boat hoists for the overnight mooring of boats?	No	0
Shorelines: Marinas		
11. Does the community regulate marinas by using special land use provisions or other tools?	Section 15.11 Site Design Standards	1

TOTAL POINTS SECTION II	15
TOTAL POINTS POSSIBLE	22

III. Stormwater Management		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Stormwater: Construction and Redevelopment		
1. Does the community regulate stormwater as part of the Zoning Ordinance?	Article 20 Site Plan Review Section 18.40: Section 16.7	2
2. Are stormwater management areas and facilities whether on-site or off-site, required to be designed, constructed, and maintained to prevent flooding and protect surface and ground water quality?	Section 16.7	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event?	Section 16.7	2
4. Does the stormwater require runoff leaving the site to be controlled to a non-erosive velocity, both during and after construction?		0
5. Does ordinance require that all stormwater management systems be regularly evaluated and maintained?	Section 16.7 shall identify the party responsible for maintenance of the storm water management system.	2
TOTAL POINTS SECTION III		8
TOTAL POINTS POSSIBLE		10

IV. Sewer/Septic		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Septic Systems		
1. Does the Zoning Ordinance require an inspection of septic tanks by an authorized inspector? Is there a point of sale inspection requirement?		0
2. Are regulations that pertain to septic systems coordinated with the County Health Department regulations?	Sanitary Sewer or Septic Approval: In the case of a permit for buildings proposed for human occupancy or required by law to have plumbing fixtures,	2
TOTAL POINTS SECTION IV		2
TOTAL POINTS POSSIBLE		4

V. Groundwater and Wellhead Protection 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Groundwater Protection		
1. Does the Zoning Ordinance have groundwater protection standards for commercial, industrial or other uses that may cause groundwater contamination?	no	0
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	20.1: Site plan review required for new developments, but no mention of groundwater protection	1
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	p. XIII-1, 13.1: Industrial district section specifically mentions strict requirements in cases where discharge to water sources (including groundwater) occurs.	1
TOTAL POINTS SECTION V		2
TOTAL POINTS POSSIBLE		6

VI. Impervious Surface Reduction 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Impervious Surface Reduction: Lot Coverage		
1. Does the Zoning Ordinance contain impervious surface area regulations or guidelines for individual lots?	Article 14 Schedule of Dimensions	2
Impervious Surface Reduction: Parking Lots		
2. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	Where the property owner can demonstrate that the required amount of parking is excessive, the Planning Commission may approve a smaller parking area, provided	2
3. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	18.27.3 In the instance of dual function of off-street parking spaces where operating hours of uses do not overlap, the Zoning Board of Appeals may grant an exception by reducing the total number of spaces required.	2
4. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	One street tree shall be planted adjacent to the public right-of-way for each twenty-four (24) lineal feet of frontage. Parking lots with more than two (2) parking aisles shall require landscaped areas...	2
5. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	Parking lot cross-connections shall be used in addition to frontage roads or shared driveways, when in the opinion of the Planning Commission, cross-connections do not hinder traffic.	2
TOTAL POINTS SECTION VI		10
TOTAL POINTS POSSIBLE		10

Score: 71
Total Possible: 90
Percent of total possible score: 79%

Appendix A

Community Master Plan Review Sheets

Bagley Township

Master Plan Assessment

Name of Jurisdiction: Bagley Township
 Master plan Title: Bagley Township Master Plan 2007
 Creation date: January 3, 2007

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, <u>not both.</u>	Citation and Comments note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. January 2012	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 4-6	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes. Pg 4-7	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	No. Mentions extreme importance of protecting surface waters.	1
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Yes	2
Does the Master Plan identify stormwater management as an important community policy?	No	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	Protection	1
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	Protection of natural areas	1
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 11		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments note any comments and citation	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 4-8	2
Does the master plan provide information on the wildlife resources in the community?	Yes. Pg 4-8	2
Does the master plan provide information on threatened and endangered species?	Yes. Pg 4-8,9	2
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 4-3,5	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	No	0
Does the master plan address forest and wildlife resources in the future land use section?	No	0
Does the master plan address groundwater protection in the goals and objectives section?	No	0
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	No	0
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	No	0
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	No	0
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		8
	Total:	19

Charlton Township

Master Plan Assessment

Name of Jurisdiction: Charlton Township

Master plan Title: Charlton Township Master Plan 2011-2026

Creation date: November 7, 2011

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, <u>not both.</u>	Citation and Comments note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. November 2016	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 17	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes.	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Provide for the enhancement & protection of Twp's surface & groundwater quality	1
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Yes. Pg 22	2
Does the Master Plan identify stormwater management as an important community policy?	No	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	Protection. Pg 22	1
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	Goals and future land use	2
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 12		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments note any comments and citation	Points
Does the master plan provide information on the forest resources in the community?	Map of forest locations, no specifics on species	1
Does the master plan provide information on the wildlife resources in the community?	No	0
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes	1
Does the master plan address forest and wildlife resources in the goals and objectives section?	Natural Environment Goals	2
Does the master plan address forest and wildlife resources in the future land use section?	Environmental Preservation and Forest/Recreation future land use categories	2
Does the master plan address groundwater protection in the goals and objectives section?	Yes. Pg 22	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Protection of greenways	1
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	Mention of adequate buffers to maintain property values	1
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Mention of protection to protect rural character of the twp	1
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		13
	Total:	25

Chester Township Master Plan Assessment

Name of Jurisdiction: Chester Township
 Master plan Title: Chester Township Master Plan
 Creation date: March 8, 2011

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)	Yes. March 2016	2
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 3-2, 3-4	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Yes. Pg 6-2	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Conservation of state owned open space to protect natural resources in general	1
Does the Master Plan identify stormwater management as an important community policy?	No	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	Mentions preservation of wildlife corridors	1
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	Mention of "natural rivers" given additional protection	1
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 11		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 3-6	2
Does the master plan provide information on the wildlife resources in the community?	Yes. Pg 3-6	2
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 3-2, 3-3	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Forests Pg 6-2	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes	2
Does the master plan address groundwater protection in the goals and objectives section?	Yes Pg 6-2	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	No	0
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	No. Does address in Future Land Use Section	1
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	General mention of protecting and preserving wetlands	1
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		13
	Total:	24

Corwith Township

Master Plan Assessment

Name of Jurisdiction: Corwith Township
 Master plan Title: Corwith Township Master Plan 2004
 Creation date: November 29, 2004

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. November 2009	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 3-8	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Yes. Pg 3-8	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Yes. Pg 6-3	2
Does the Master Plan identify stormwater management as an important community policy?	No	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	No	0
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	No	0
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 10		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 3-10	2
Does the master plan provide information on the wildlife resources in the community?	Yes. Pg 3-11,12	2
Does the master plan provide information on threatened and endangered species?	Yes. Pg 3-12,13	2
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 3-6,7	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes. Pg 6-3	2
Does the master plan address forest and wildlife resources in the future land use section?	Forest Pg 7-3,4	1
Does the master plan address groundwater protection in the goals and objectives section?	No	0
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Mention of preserving scenic views & open space, especially along roadways & shorelines	1
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	No	0
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Mentions protecting wildlife & waterfowl habitat	1
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		13
	Total:	23

Elmira Township

Master Plan Assessment

Name of Jurisdiction: Elmira Township

Master plan Title: Elmira Township Master Plan Update 2013

Creation date:

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. November, 2018	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes Pg 3-2	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes Pg 3-7	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Yes. Pg 3-8	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Mention of open space for protection of scenic and rural character of the township	1
Does the Master Plan identify stormwater management as an important community policy?	Yes. Pg 7-3	2
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	Yes. Pg 7-2	2
Does the Master Plan include identification and protection of Wildlife corridors?	Yes. Protection	1
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	No	0
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 14		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 3-8	2
Does the master plan provide information on the wildlife resources in the community?	Mention of wildlife in forest resources	1
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes. Forest Pg 7-3	1
Does the master plan address forest and wildlife resources in the future land use section?		
Does the master plan address groundwater protection in the goals and objectives section?	Yes. Pg 7-3	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Yes. Pg 7-3	2
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	Yes. 7-4	2
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Yes. Pg 7-3	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		14
	Total:	28

Livingston Township

Master Plan Assessment

Name of Jurisdiction: Livingston Township
 Master plan Title: Livingston Township Master Plan 2012
 Creation date: October 9, 2012

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. October 2017	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 1-4, 3-7	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes. 3-8	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Mentions importance of protecting resources of the area, but nothing specifically for water.	1
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Mentions importance of open space for rural character, but nothing in regards to water resources.	1
Does the Master Plan identify stormwater management as an important community policy?	No.	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	Mention of NE corner of township being an important wildlife corridor for Pigeon River Country State Forest	2
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	Mention of preservation of natural vegetation for protection of water resources Pg 9-3	2
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 12		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 3-5	2
Does the master plan provide information on the wildlife resources in the community?	Yes. Pg 3-5, 3-7	2
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 3-2, 3-3	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes. Only mentions wildlife as a part of forest resources.	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes.	2
Does the master plan address groundwater protection in the goals and objectives section?	No	0
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	No	0
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	Yes	2
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	No	0
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		11
	Total:	23

Otsego County

Master Plan Assessment

Name of Jurisdiction: Otsego County

Master plan Title: Otsego County Master Plan 2009 (Currently being updated)

Creation date: June 9, 2009

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. June 2014. Currently being updated.	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)	NA	
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 89	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes. Pg 11, 15	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Yes. Pg 57	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Yes. Pg 57, 58	2
Does the Master Plan identify stormwater management as an important community policy?	Yes. Pg 50, 57	2
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	"Encourage the use of green building techniques." Pg 50	0
Does the Master Plan include identification and protection of Wildlife corridors?	Pigeon River Country, Mention of Protection Pg 57, 58	1
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	No	0
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	Identifies 2 road/stream crossing concerns in the Pigeon River Watershed	1
TOTAL POINTS 13		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 15, 44	2
Does the master plan provide information on the wildlife resources in the community?	No	0
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 10, 72	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes Pg 48, 57	2
Does the master plan address forest and wildlife resources in the future land use section?	Yes. Pg 47, 48, 57	2
Does the master plan address groundwater protection in the goals and objectives section?	Yes. Pg 50, 57	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	No	0
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	Yes. Pg 58	2
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Yes. Pg 47, 63	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		14
	Total:	28

Otsego Lake Township

Master Plan Assessment

Name of Jurisdiction: Otsego Lake Township
 Master plan Title: Otsego Lake Township Master Plan 2006
 Creation date: May 18, 2006

Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. May, 2011	2
If no Master Plan, is one currently being drafted? (If yes: note relevant deadlines in Comments section)		
Does the Master Plan specifically identify the watershed(s) in which the community is located?	Yes. Pg 3-2	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes. Pg 3-4,5	2
Does it identify and map groundwater recharge areas?	No	0
Does the jurisdiction's Master Plan have a specific and focused goal or statement of intent to protect water resources? If yes, note it in Comments section.	Mention of importance of protecting & managing water resource quality	1
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	Mentions conservation of open space to preserve rural character, not specifically for water protection	1
Does the Master Plan identify stormwater management as an important community policy?	No	0
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	No	0
Does the Master Plan include identification and protection of Wildlife corridors?	No	0
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	No	0
Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	No	0
TOTAL POINTS 8		

Master Plan Review – Section 2		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Does the master plan provide information on the forest resources in the community?	Yes. Pg 3-5	2
Does the master plan provide information on the wildlife resources in the community?	No	0
Does the master plan provide information on threatened and endangered species?	No	0
Does the master plan provide information on the soils and soils constraints?	Yes. Pg 3-2	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Forest	1
Does the master plan address forest and wildlife resources in the future land use section?		
Does the master plan address groundwater protection in the goals and objectives section?	Yes	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	No	0
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	No	0
Does the plan address Septic Systems maintenance in the goals and objectives section?	No	0
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Yes	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
		9
	Total:	17