

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

Alcona 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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- 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

Land use planning and zoning are administered at the city, village and township level.

Alcona County does not have a county planning commission. While each community administers their own zoning and maintains their own planning commission and zoning boards of appeals, three townships (Alcona, Caledonia and Hawes) operate under a joint master plan. The Tri-Township planning committee was initiated in 1994 and continues to meet to coordinate planning and zoning activities.

The City of Harrisville, Village of Lincoln and all townships (Alcona, Caledonia, Curtis, Greenbush, Gustin, Harrisville, Hawes, Haynes, Mikado, Millen and Mitchell) have exercised their authority under state statutes to administer their own planning and zoning. Each community has a planning commission, zoning board of appeals, and zoning administrator to administer zoning. The planning commissions are responsible for overseeing the master plan, recreation plan and zoning ordinance. The Township Board and municipal councils are the governing bodies responsible for managing finances and making policy decisions. None of the communities have planning staff and therefore, rely on planning commissions to oversee planning and zoning activities.

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



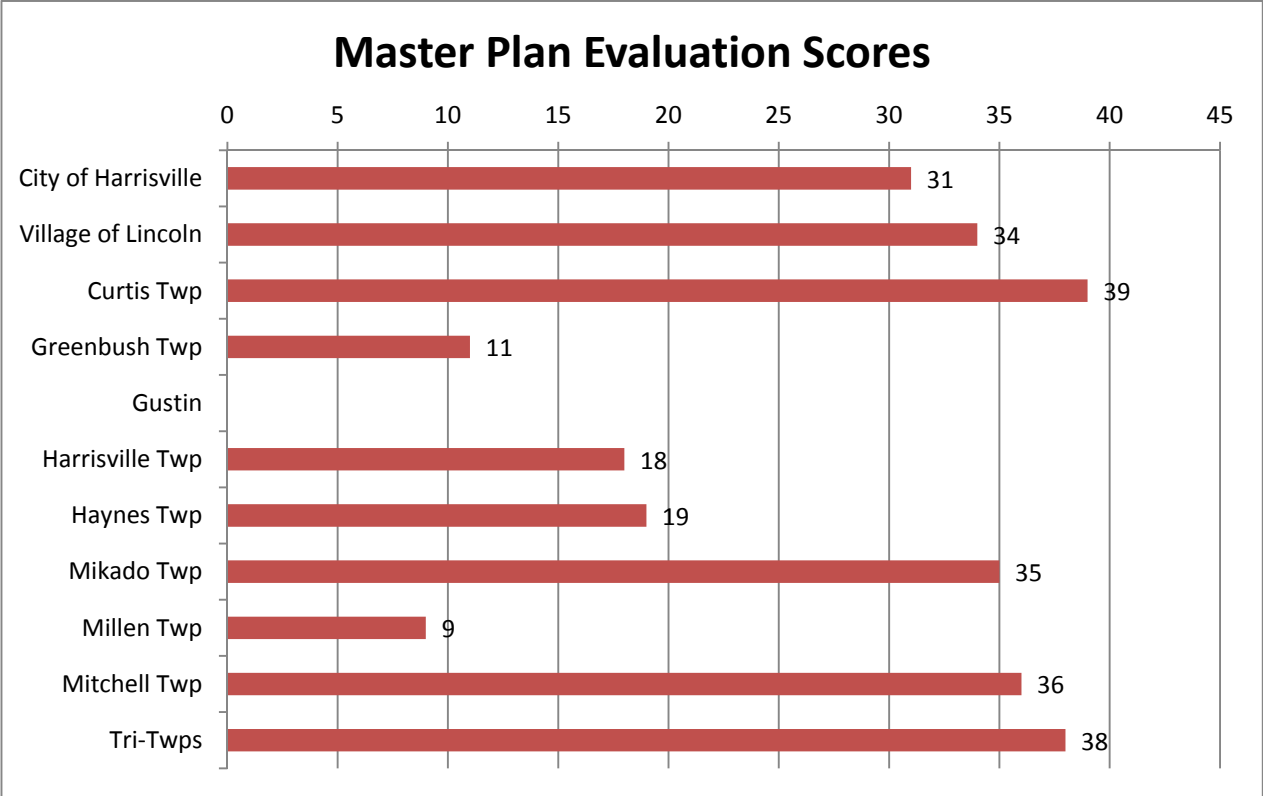
Procedure for completing the analysis

For analysis to be performed, the most recent master plan was obtained from each community. Every effort was used to obtain the most current plan, however in one case the plan was over 30 years old.

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 evaluated water resource protection, environmental protection, forests and wildlife. A listing of the evaluation questions can be found at the end of this report. Each question was then rated for how well the plan met the criteria with a value from 2 to 0. A rating of 2 means "Yes, Criteria Was Met," 1 means "Minimally with Comments," and 0 means "Missing." There are a total of 23 questions, with 2 points possible for each question, giving a possible total score of 46. The values were totaled, and the Master Plans were then rated.

Summarize findings

The majority of the communities in Alcona County have master plans that address water quality protection. However, goals and policies related to stormwater management, groundwater protection, and impervious surface reduction are lacking in many community master plans. Forests, wildlife habitat, wetlands, and threatened



and endangered species are not adequately address in many community master plans. Healthy forests, wetlands and greenbelts provide essential habitat for wildlife, both game and nongame species. In addition, these same critical components of the rural landscape contribute to maintaining water quality in streams and lakes, which in

turn equates to healthy fisheries.

Communities who are considering updating their master plans are encouraged to review master plans with scores greater than 35 points, see above chart. Collaboration with adjacent communities would allow communities to work towards common goals of water quality protection and resource conservation.

Communities in Alcona County

The following table shows a summary tally of community's ratings by criteria. There were a total of eight master plans reviewed. For example, eight of the master plans adequately identified the watersheds, one minimally identified and one community master did not identify watersheds.

Master Plan Review – Section 1			
Criteria	Adequate Number of Communities	Minimal Number of Communities	Absent Number of Communities
Does Master Plan exist?	10	0	0
Does the Master Plan specifically identify the watershed(s) in which the community is located?	8	1	1
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	8	1	1
Does it identify and map groundwater recharge areas?	3	4	3
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.	8	0	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	6	0	4
Does the Master Plan identify stormwater management as an important community policy?	6	0	4
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	0	1	9
Does the Master Plan include identification and protection of Wildlife corridors?	3	3	4
Does the Master Plan identify and call for preservation of undisturbed Natural Areas and/or Natural River designations for surface water and ground water?	6	1	3

Does the plan acknowledge the importance of well-constructed and maintained road stream crossings on the quality of stream and water resources?	0	0	10
Master Plan Review – Section 2			
Does the master plan provide information on the forest resources in the community?	7	2	1
Does the master plan provide information on the wildlife resources in the community?	9	0	1
Does the master plan provide information on threatened and endangered species?	4	0	6
Does the master plan provide information on the soils and soils constraints?	9	1	0
Does the master plan address forest and wildlife resources in the goals and objectives section?	4	5	1
Does the master plan address forest and wildlife resources in the future land use section?	6	2	2
Does the master plan address groundwater protection in the goals and objectives section?	6	1	3
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	7	0	3
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	6	2	3
Does the plan address Septic Systems maintenance in the goals and objectives section?	3	0	7
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	4	3	3
Does the plan address Floodplain Protection in the goals and objectives section?	0	1	9
Total:	123	27	39

City of Harrisville

Master Plan Adopted: April 12, 2010

Master Plan Review Score: 31/46

The City of Harrisville's 2010 Master Plan is strong in most areas, and has been rated "Very Good" or "Satisfactory" in the majority of categories evaluated. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to forest resources in future land use, septic system maintenance and a plan for wildlife corridors. The areas of concern for this plan are forest resources, the reduction of impervious surfaces, 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.

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

Village of Lincoln

Master Plan Adopted: March 7, 2011

Master Plan Review Score: 34/46

The Village of Lincoln Master Plan is strong in most areas, and has been rated "Very Good" or "Satisfactory" in the majority of categories evaluated. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to forest resources, septic system maintenance and wildlife corridors. The areas of concern for this plan are the reduction of impervious surfaces, 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.

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

Curtis Township

Master Plan Adopted: March 1, 2006

Master Plan Review Score: 39/46

The Curtis Township Master Plan Update is strong in most areas, and has been rated “Very Good” in the majority of categories. Resources rated “Satisfactory” can still be improved by strengthening the master plan in regards to statements of intent to protect water resources. The areas of concern for this plan are impervious surface reduction. 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.

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		

Greenbush Township

Master Plan Adopted: 2005

Master Plan Review Score: 11/46

The Greenbush Township 2005 Master Plan is weak in most areas, and has only been rated "Very Good" in the soil category for the evaluation. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards to forest resources, and wetland protection. Areas of concern for this plan are the groundwater recharge areas, reduction of impervious surfaces, conservation of open space, use of conservation easements, statements of intent to protect water resources, stormwater management, protection of wildlife corridors, 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.

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

Harrisville Township

Master Plan Adopted: January 23, 2008

Master Plan Review Score: 18/46

The Harrisville Township Master Plan is weak in most areas, and has been rated "Very Good" in only the soils category. Resources rated "Satisfactory" can still be improved by strengthening the master plan in regards forest, wildlife resources, inventory of water bodies, conservation of open space, water resources and future land use plan. Areas of concern for this plan are the groundwater protection, reduction of impervious surfaces, use of conservation easements, statements of intent to protect water resources, stormwater management, wetland protection, 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.

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

Haynes Township

Master Plan Adopted: 1979

Master Plan Review Score: 20/46

It was not possible to obtain a copy more recent than the 1979 version of Haynes Township Comprehensive Plan. Still the older Haynes Township Comprehensive Plan addresses some of the topic areas, and has been rated "Very Good" in three categories and "Satisfactory" in four categories. Resources rated "Satisfactory" can be improved by strengthening the master plan in regards to forest resources, groundwater protection, wetland protection and wildlife. Areas of concern for this plan are future land use planning, reduction of impervious surfaces, conservation of open space, use of conservation easements, stormwater management, septic system maintenance, and greenbelt retention, 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.

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

Mikado Township

Master Plan Adopted: July 30, 2002

Master Plan Review Score: 35/46

The Mikado Township Land Use Master Plan is strong in most areas, and has been rated "Very Good" or "Satisfactory" in the majority of categories. Resources rated "Satisfactory" can be improved by strengthening the master plan in regards to open space designation, wetland restoration, preservation of undisturbed natural areas. The area of concern for this plan is the reduction of impervious surfaces. 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.

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	

Millen Township

Master Plan Adopted: 1989

Master Plan Review Score: 9/46

The Millen Township Comprehensive Plan, 1989, is weak in most areas, and has been rated "Very Good" in only the soil category. Resources rated "Satisfactory" can be improved by strengthening the master plan in regards forest resources, and open space conservation. Areas of concern for this plan are the forest resources in future land use, groundwater recharge areas, reduction of impervious surfaces, inventory of water bodies, statements of intent to protect water resources, stormwater management, water resource protection, septic system maintenance, wildlife resources and corridors, wetland inventory and protection, 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.

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

Mitchell Township

Master Plan Adopted: August 4, 2008

Master Plan Review Score: 37/46

The Mitchell Township Master Plan is strong in most area, and has been rated "Very Good" or "Satisfactory" in the majority of categories evaluated. The area of concern for this plan is the reduction of impervious surfaces. 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.

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		

Tri-Townships (Alcona, Caledonia and Hawes Townships)

Master Plan Adopted: June 28, 2006

Master Plan Review Score: 38/46

The Tri-Townships Township Master Plan is strong in many areas, and has been rated "Very Good" or "Satisfactory" in a majority of the categories evaluated. The area of concern for this plan is the reduction of impervious surfaces. 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.

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		

Section 2

Zoning Ordinance Reviews



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

Community Zoning Ordinances

Zoning ordinances were reviewed using criteria related to water resource and natural resources protection. The following table shows the criteria and includes a tally of scores for all of the zoning ordinances reviewed. For example, for question 2, nine of the communities have fee systems to cover all costs associated with the review of proposal applications or appeals, including any professional reviews.

Individual community score sheets follow the summary table.

Zoning Reviews - Communities in Alcona County			
Criteria	Present	Minimal	Absent
Zoning Ordinance: Administrative	Number of Communities	Number of Communities	Number of Communities
1. Does Zoning Ordinance have a statement of purpose or intent that includes protection of water and/or natural resources'	2	6	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?	9	1	0
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	10	0	0
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits'	7	2	1
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	9	0	1
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	2	8
Zoning Ordinance: Site Plan Review			
7. Does the Zoning Ordinance require Site Plan Review?	10	0	0
8. Is the Site Plan required to indicate all existing natural features'	9	1	0
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	8	0	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review	3	2	5

Zoning Ordinance: PUD			
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	8	0	1
12. 13. Do PUDs require inclusion of a minimum open space threshold?	6	0	4
Zoning Ordinance: Open Space			
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	2	6	2
14. Does the open space have to be managed in a natural condition?	1	3	6
15. Are allowable uses in the open space restricted to low impact uses?	0	5	5
16. Is open space required to be protected through a conservation easement or other similar mechanism?	6	0	4
Zoning Ordinance: Special Districts			
17. Districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	6	2	2
18. Overlay districts for resource protection such as waterfront or wetlands.	1	0	9
Shorelines: Setbacks Great Lakes Shoreline			
19. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	0	0	3
20. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	0	0	3
Shorelines: Setbacks Inland Lakes			
21. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	3	4	3
Shorelines: Setbacks Streams			
22. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	3	4	3
Shorelines: Protection strips			

23. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	1	1	8
24. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?	1	1	8
25. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?	2	0	8
26. Does it specify the use of native plant species in the riparian buffer zone?	0	1	8
27. Are invasive and exotic plants prohibited from being used?	0	0	10
Shorelines: Density			
28. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	5	2	3
Shorelines: Keyhole/Funneling			
29. Does the Zoning Ordinance include keyhole prevention provisions by placing restrictions on the size and type of multi-boat launch and docking sites?	3	0	6
Shorelines: Road Ends			
30. 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?	0	0	10
Shorelines: Marinas			
31. Does the community regulate marinas by using special land use provisions or other tools?	1	0	9
Stormwater: Construction and Redevelopment			
32. Does the community regulate stormwater as part of the Zoning Ordinance?	8	0	2
33. 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?	7	1	2
34. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event	1	5	4
35. Does the stormwater require runoff leaving the site to be controlled to a non-erosive velocity, both during and	3	0	7

after construction?			
36. Does ordinance require that all stormwater management systems be regularly evaluated and maintained?	1	1	8
Septic Systems			
37. Does the Zoning Ordinance require an inspection of septic tanks by an authorized inspector? Is there a point of sale inspection requirement?	3	0	7
38. Are regulations that pertain to septic systems coordinated with the County Health Department regulations?	6	1	3
Groundwater Protection			
39. Does the Zoning Ordinance have groundwater protection standards for commercial, industrial or other uses that may cause groundwater contamination?	8	0	2
40. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	8	0	2
41. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	6	0	4
Impervious Surface Reduction: Lot Coverage			
42. Does the Zoning Ordinance contain impervious surface area regulations or guidelines for individual lots?	6	2	2
43. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	0	10	0
Impervious Surface Reduction: Parking Lots			
44. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	8	0	2
45. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	8	0	2
46. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	4	2	4
47. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	2	2	6
Floodplains			
48. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?	7	0	3

49. If yes, does is there ordinance language that regulates floodplain development?	1	1	8
50. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?	0	0	10
51. Does the Zoning Ordinance require floodplains to be identified on site plans?	5	1	4
TOTAL	208	69	216

Appendix A

Community Master Plan Review Sheets

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: **Curtis Township**

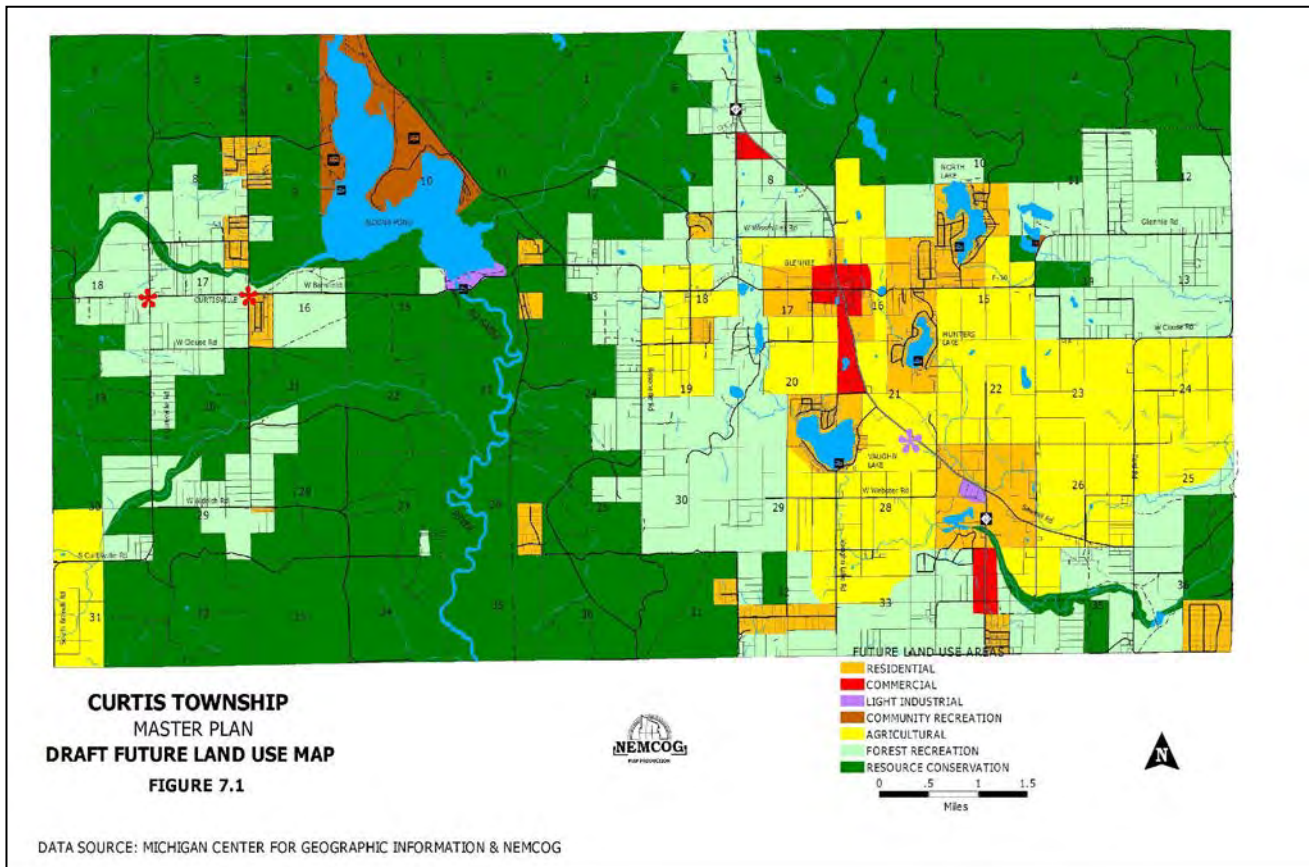
Date Completed: September 4, 2013

Name of Reviewer: Kyle Robinson and Richard Deuell

Master plan Title: Curtis Township Master Plan Update

Last updated: March 1, 2006

Prepared by: Curtis Township Planning Commission and NEMCOG



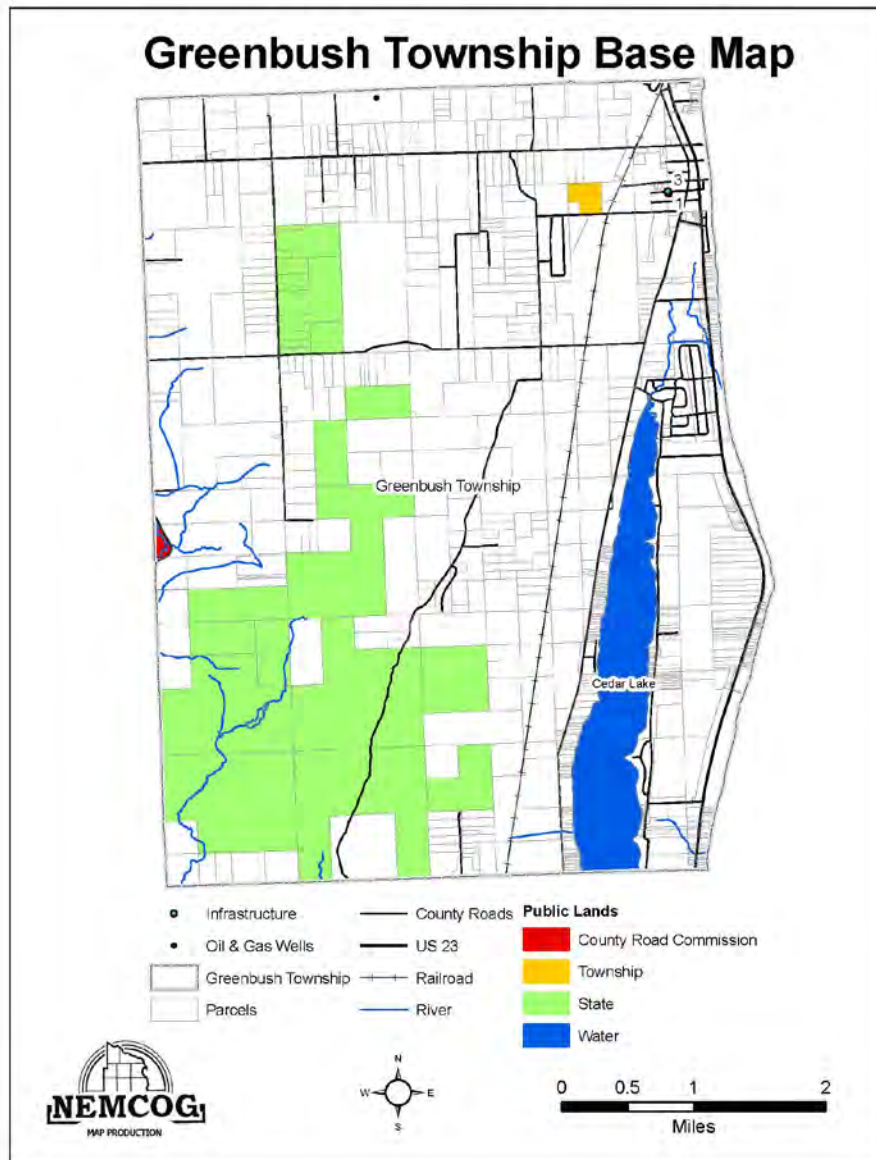
Master Plan Review – Section 1		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria Answer question #1 or #2, not both.	Citation and Comments note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. March 1, 2011	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	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?	Yes	1
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.	2
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?	Yes	2
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?	Yes	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?	yes	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		17
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	2
Does the master plan provide information on threatened and endangered species?	Yes	2
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.	2
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	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Yes	2
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?	Yes	2
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
	Total Points Section	22
	Total Score	39

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: Greenbush Township
Date Completed: September 7, 2013
Name of Reviewer: Kyle Robinson
Master plan Title: Greenbush Township 2005 Master Plan
Last updated: 2005



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. 2010	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	2
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	Yes. Inventory but no map	1
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	0
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	No	0
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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		5
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	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	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
	Total Points Section	6
	Total Score	11

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: **City of Harrisville**

Date Completed: September 7, 2013

Name of Reviewer: Kyle Robinson

Master plan Title: City of Harrisville 2010 Master Plan

Last updated: April 12, 2010

Prepared by: NEMCOG



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. April 12, 2015	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	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?	Yes	2
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. Recommendation of Wellhead Protection Program.	2
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?	Yes	2
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?	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?	yes	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		17
Source: Tip of the Mitt Watershed Council		

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?	No	0
Does the master plan provide information on the wildlife resources in the community?	Yes	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	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes. Wildlife	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes. Wildlife	1
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?	Yes	2
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?	Yes	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
	Total Points Section	14
	Total Score	31

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: **Harrisville Township**

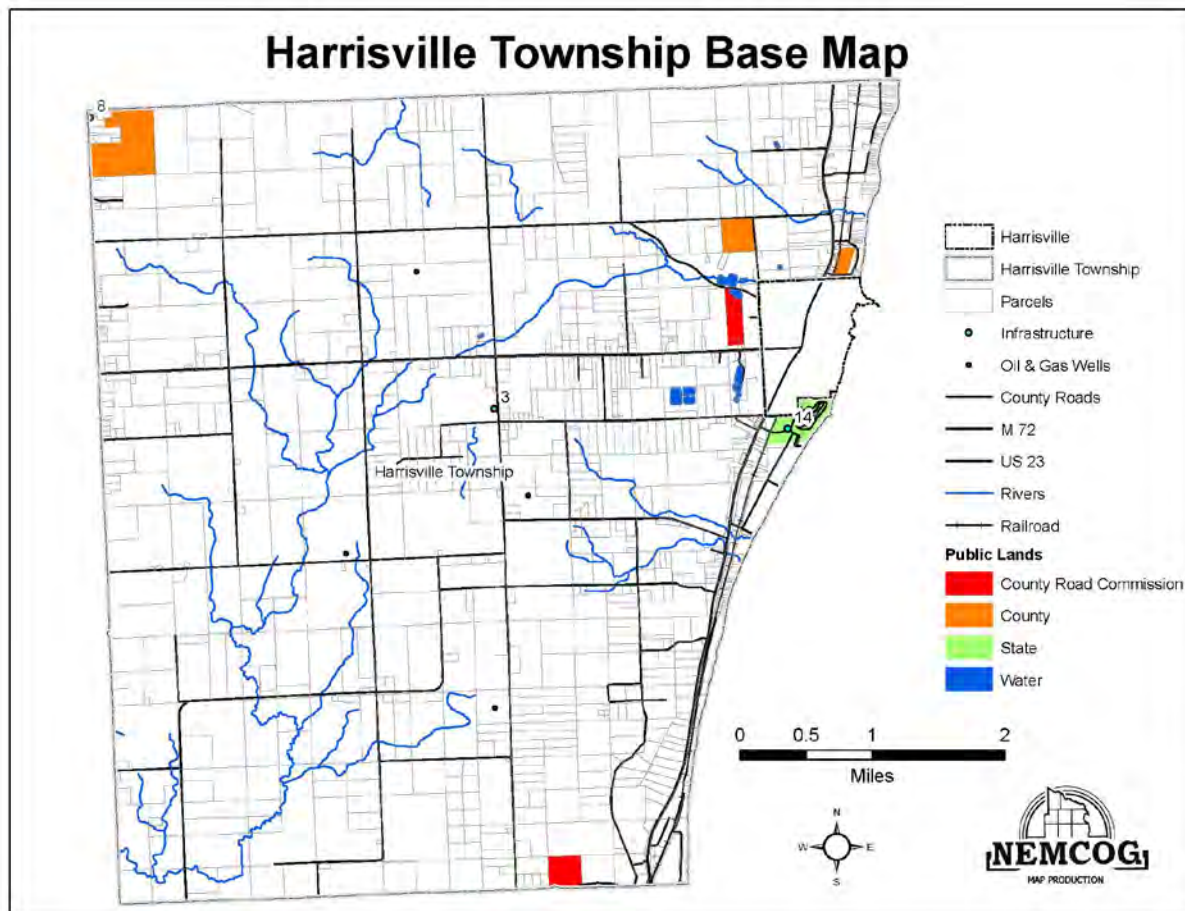
Date Completed: September 15, 2013

Name of Reviewer:

Master plan Title: Harrisville Township Master Plan

Last updated: January 23, 2008

Prepared by: Harrisville Township Planning Commission



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. January 23, 2013	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?	Water resources	1
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	1
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	No	0
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?	yes	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		8
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	2
Does the master plan provide information on threatened and endangered species?	Yes	2
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	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes. Forest	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?	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
	Total Points Section	10
	Total Score	18

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: Haynes Township

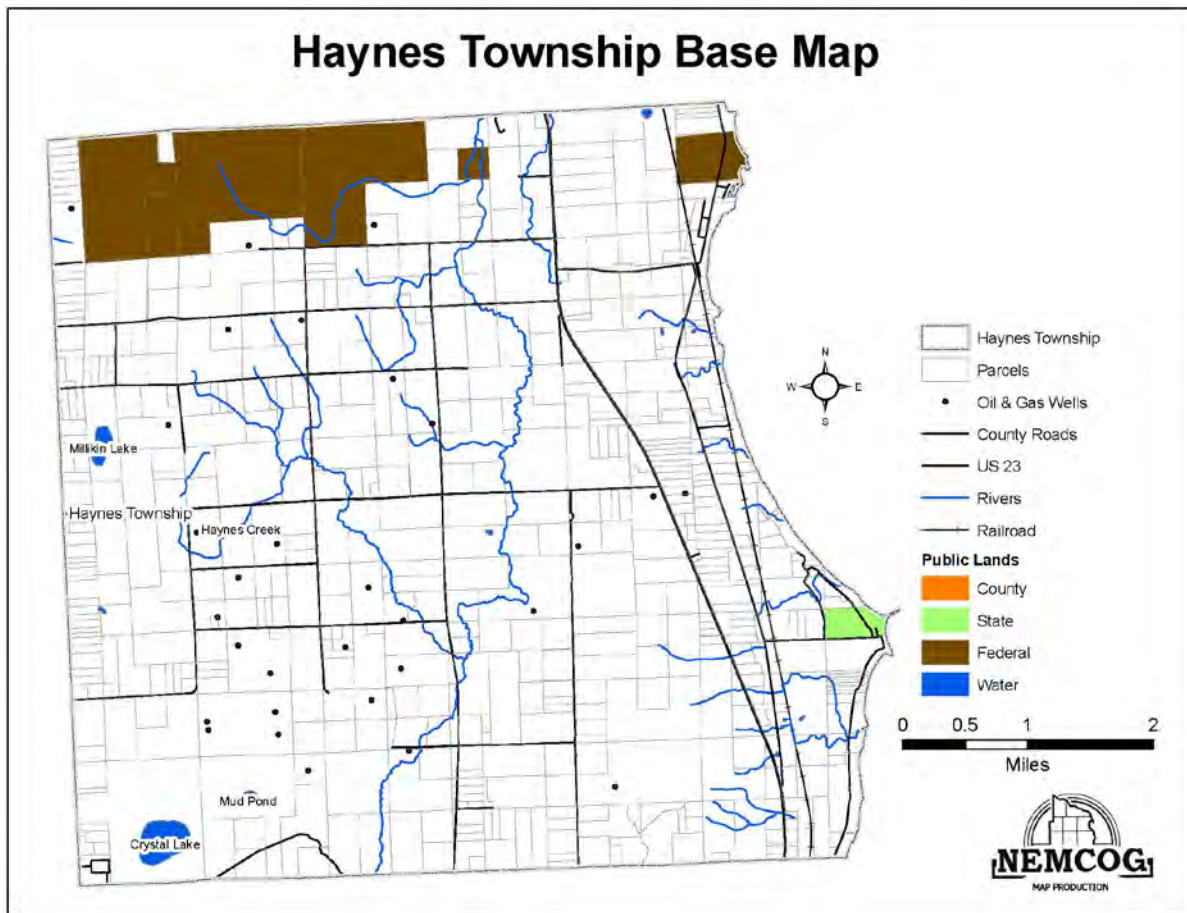
Date Completed: September 15, 2013

Name of Reviewer:

Master plan Title: Haynes Township Comprehensive Plan

Last updated: 1979

Prepared by: Haynes Township Planning and Adjustment Commission



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. 1984	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	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?	Yes	1
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	2
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	No	0
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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		9
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	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	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	yes	1
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?	Yes	1
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	1
Does the plan address Floodplain Protection in the goals and objectives section?	Yes	1
	Total Points Section	10
	Total Score	19

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: **Village of Lincoln**

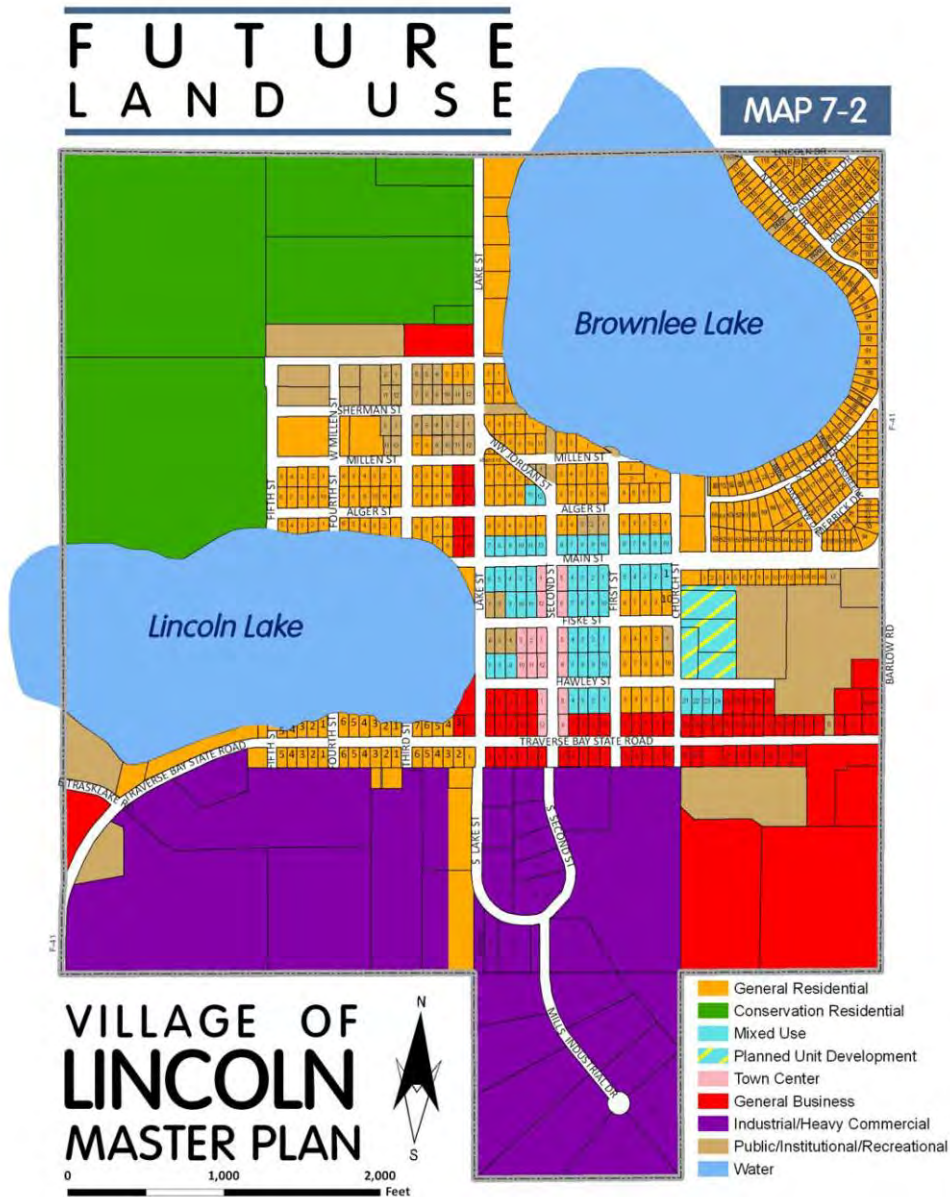
Date Completed: September 7, 2013

Name of Reviewer: Kyle Robinson

Master plan Title: Village of Lincoln Master Plan

Last updated: March 7, 2011

Prepared by: Village of Lincoln Planning Commission and NEMCOG



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. March 7, 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	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?	Yes	2
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	2
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?	Yes	2
Does the Master Plan call for minimizing impervious surfaces in new construction and redevelopment projects to reduce stormwater runoff and improve infiltration?	yes	1
Does the Master Plan include identification and protection of Wildlife corridors?	Yes. Mention of protection 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'	yes	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		18
Source: Tip of the Mitt Watershed Council		

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?	Forested wetlands	1
Does the master plan provide information on the wildlife resources in the community?	Yes	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	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes. Wildlife	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes. Wildlife	2
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?	Yes	2
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?	Yes	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
	Total Points Section	16
	Total Score	34

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: **Mikado Township**

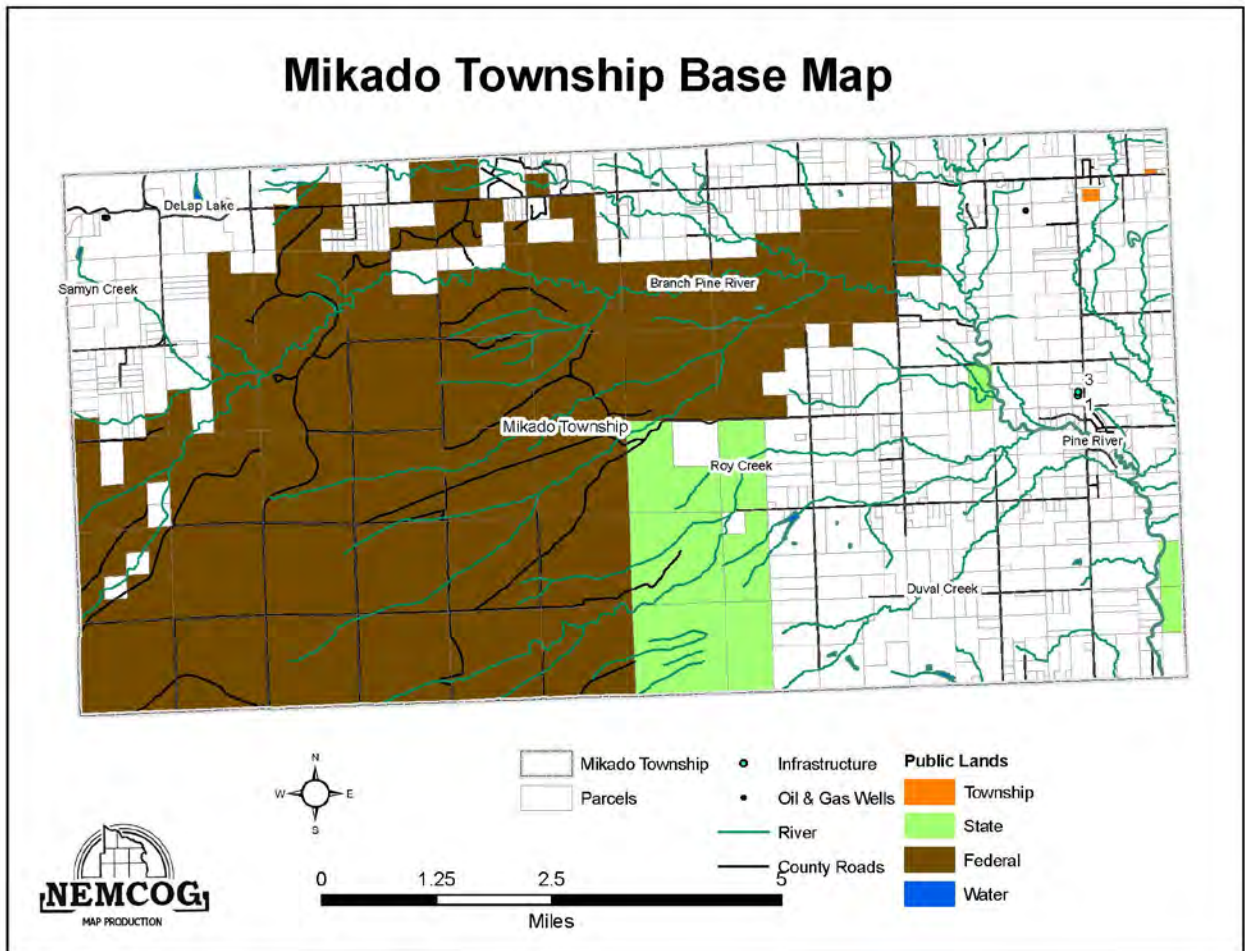
Date Completed: September 8, 2013

Name of Reviewer:

Master plan Title: Mikado Township Land Use Master Plan

Last updated: July 30, 2002

Prepared by: NEMCOG



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. July 30, 2007	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	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?	Yes	2
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	2
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?	Yes	2
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?	Yes	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?	Yes. Mention of impacts to sensitive 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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		17
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	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	2
Does the master plan address forest and wildlife resources in the goals and objectives section?	Yes	2
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	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Yes	2
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?	Yes	2
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Yes. Protection	1
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
Total Points Section		19
Total Score		35

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

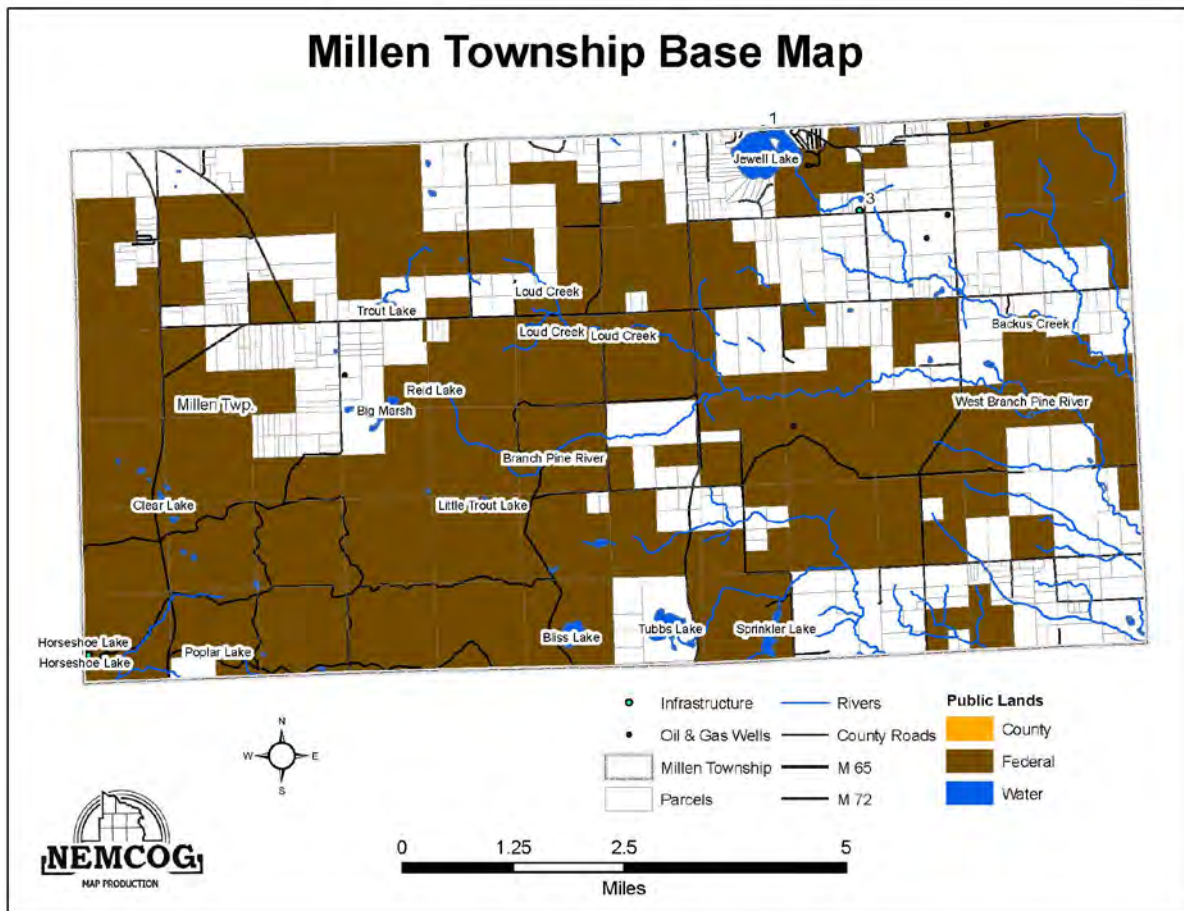
Name of Jurisdiction: **Millen Township**

Date Completed: September 15, 2013

Master plan Title: Millen Township Comprehensive Plan, 1989

Last updated: 1989

Prepared by: Government & Business Support Services



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. 1994	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?	No	0
Does the Master Plan have a complete inventory of lakes, rivers, and wetlands, with maps of their locations?	No	0
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	0
Does the Master Plan include goals for community acquisition or conservation of Open Space to protect surface water, ground water, and wetlands?	No	0
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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section 2
Source: Tip of the Mitt Watershed Council		

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?	No	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?	Yes. Forest	1
Does the master plan address forest and wildlife resources in the future land use section?	Yes. Forest	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?	Yes	2
Does the plan address use of conservation easement to protect open space in the goals and objectives section?	Yes	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?	No	0
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
Total Points Section		7
Total Score		

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: Mitchell Township

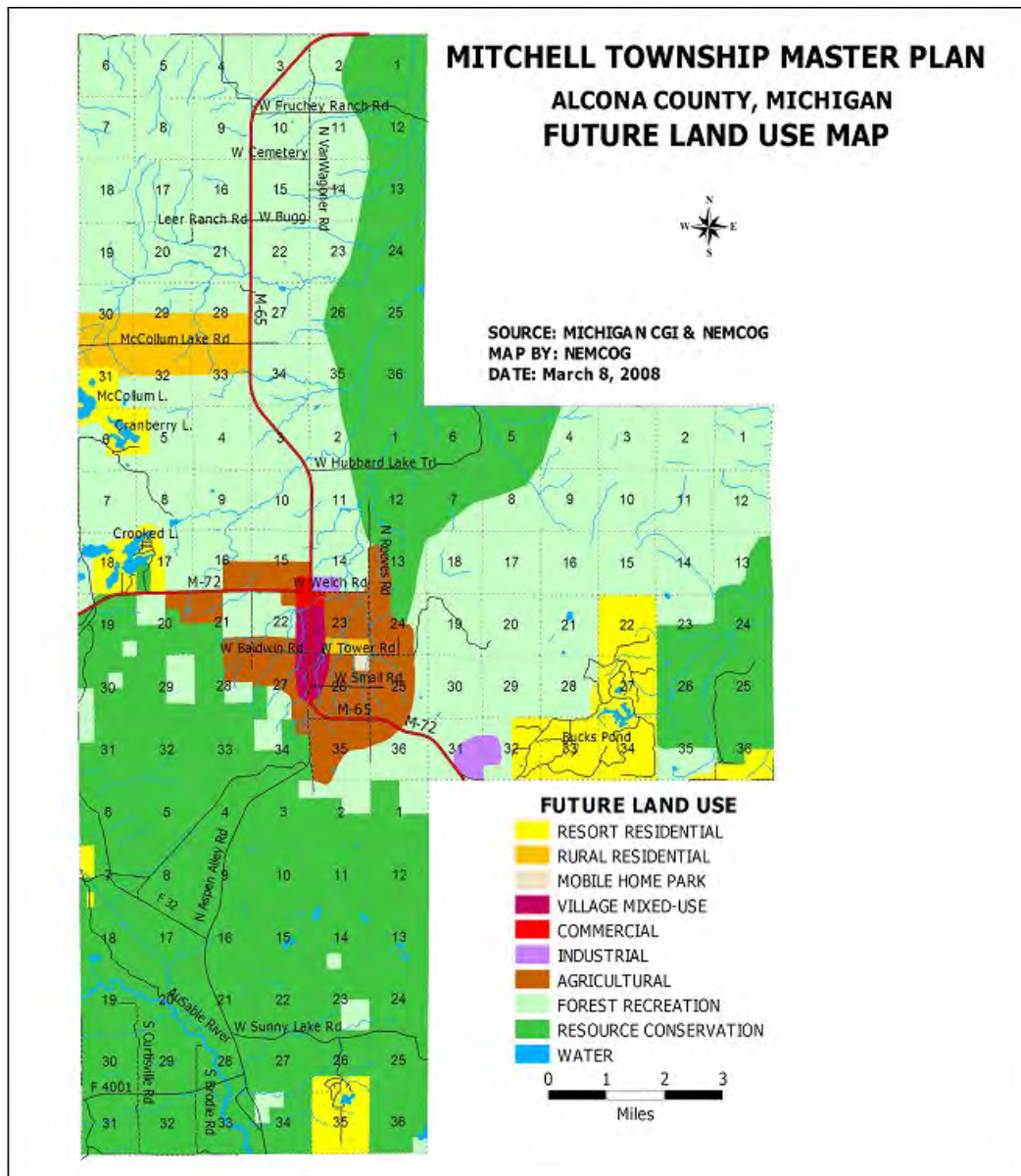
Date Completed: September 8, 2013

Name of Reviewer:

Master plan Title: Mitchell Township Master Plan

Last updated: August 4, 2008

Prepared by: Mitchell Township Planning Commission and NEMCOG



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. August 11, 2013	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	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?	Yes	1
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	2
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?	Yes	2
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?	Yes. Mention 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?	Yes. Mention of natural areas for water recharge.	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		16
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	2
Does the master plan provide information on threatened and endangered species?	Yes	2
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	2
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	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Yes	2
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?	Yes	2
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
Total Points Section		20
Total Score		36

MASTER PLAN ASSESSMENT

Lake Huron Watershed Community Collaboration

Name of Jurisdiction: Alcona, Caledonia, and Hawes Townships

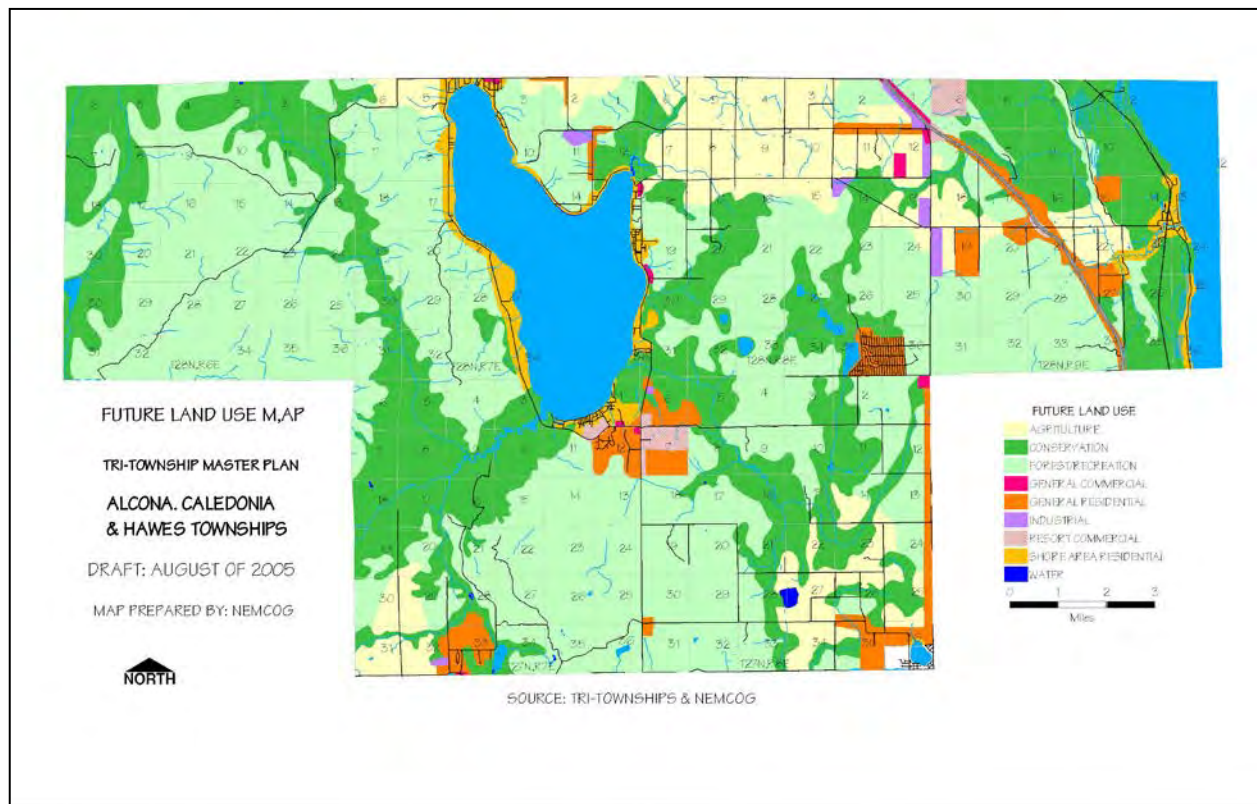
Date Completed: September 8, 2013

Name of Reviewer:

Master plan Title: Tri-Townships Township Master Plan

Last updated: June 28, 2006

Prepared by: Tri-Townships Township Planning Commission



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 note any comments and citation	Points
Does Master Plan exist? (If yes, note when scheduled for review again in Comments section) OR	Yes. July 11, 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	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?	Yes. NWI map	1
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	2
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?	Yes.	2
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?	Yes.	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?	Yes	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
(Questions 1 & 2 Count as One - Answer is One or the Other)		Total Points Section
		17
Source: Tip of the Mitt Watershed Council		

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	2
Does the master plan provide information on the wildlife resources in the community?	Yes	2
Does the master plan provide information on threatened and endangered species?	Yes	2
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	2
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	2
Does the plan address retention or restoration of waterside greenbelts or buffers in the goals and objectives section?	Yes	2
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?	Yes	2
Does the plan address Wetland Protection and Restoration in the goals and objectives section?	Yes. Protection	1
Does the plan address Floodplain Protection in the goals and objectives section?	No	0
	Total Points Section	21
	Total Score	38

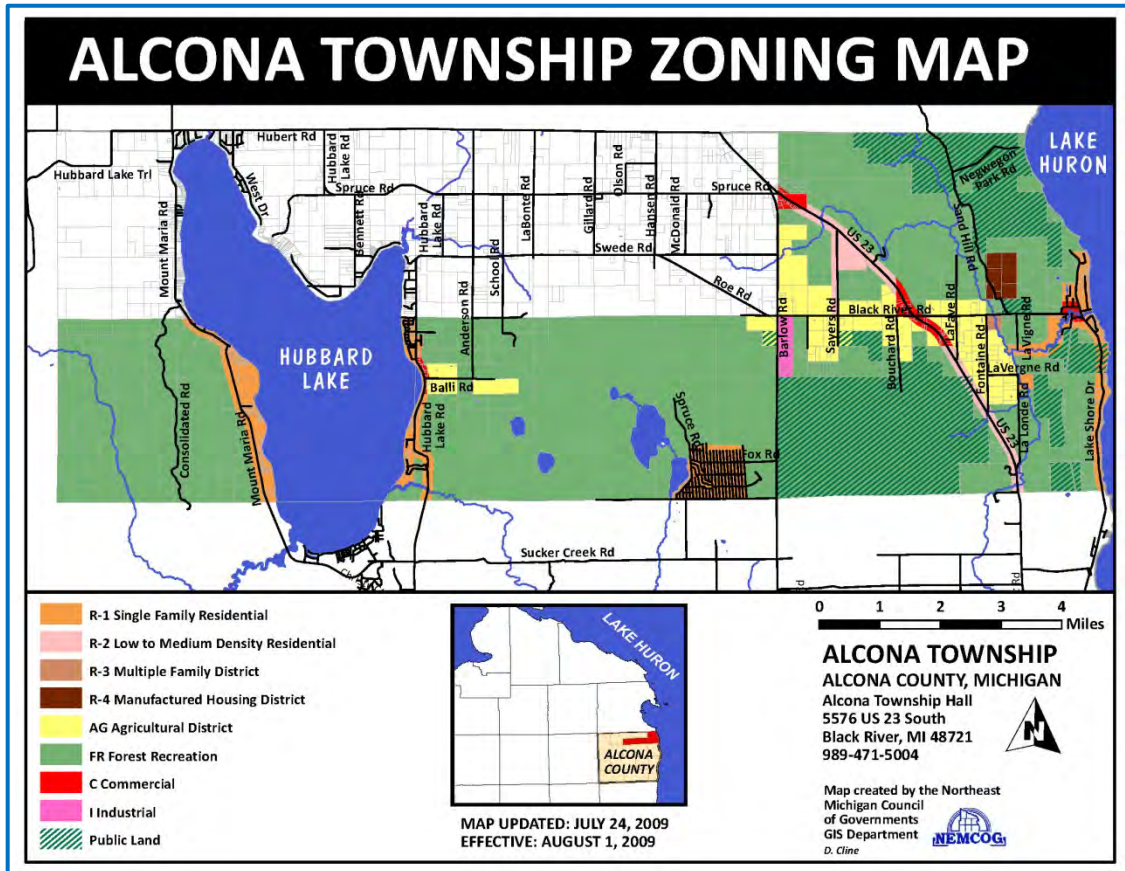
Appendix B

Community Zoning Ordinance Review Sheets

Alcona Township

Zoning Assessment

Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Alcona Township, Alcona County, Michigan

Name of Reviewer: R. Deuell

Zoning Ordinance Title: Alcona Township Zoning Ordinance

Last amended: August 1, 2009

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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 conserve the expenditure of monies for public involvements and services to conform with the most advantageous uses of land, resources and properties;	1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	If the Planning Commission or Zoning Board of Appeals determines that the basic zoning fees will not cover the actual costs of the application review or appeal, or if the Planning Commission or Zoning Board of Appeals determines that review of the application and/or participation in the review process or appeal by qualified professional planners, engineers, attorneys, or other professionals is necessary or advisable, then the applicant shall deposit with the Township Treasurer such additional zoning fees in an amount determined by the Planning Commission or Zoning Board of Appeals equal to the estimated additional costs.	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Any person, firm or corporation, including, but not by way of limitation, builders and contractors who shall violate, neglect or refuse to comply with or who resists the enforcement of any of the provisions of this Ordinance or conditions of the Planning Commission, Zoning Board of Appeals or Township Board adopted pursuant thereof, shall be guilty of a misdemeanor and, on conviction thereof, shall be punished by a fine and costs of prosecution, or by being imprisoned in the County Jail; both such fine and imprisonment at the discretion of the Court, but not to exceed \$100.00 fine or 90 days in jail. Each day that a violation is permitted to exist shall constitute a separate offense.	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits	Copies of permits or waivers of permits by other agencies as may be required by statute and/or by the Zoning Administrator. If copies of permits or waivers of permits cannot be obtained, then the applicant shall show evidence that all permits required by other agencies have been filed for.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	Except for §5.6 (Planned Unit Developments), this conference is not mandatory, but is recommended for small and large projects alike. For large projects, a pre-application conference should be held several months in advance of the desired start of construction.	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.?	Site Plan Review - Impact Statement. Statements relative to the impact of the proposed development on soil erosion, drainage patterns, shoreline protection, wildlife habitat, air pollution, water pollution (ground and surface), noise pollution and the aesthetics and scale of development in terms of the surrounding environment. Statement of the impact of the development with respect to noise, dust, fire hazard, fumes, odors, vibration, smoke, or excessive light.	1
Zoning Ordinance: Site Plan Review		
7. Does the Zoning Ordinance require Site Plan Review?	Section 7.2 – Site Plan Review (All Districts) Required site plans give the Planning Commission an opportunity to review development proposals in a	2

	concise and consistent manner. The use of the site plan ensures that the physical changes in the property meet with local approval and that development actually occurs as it was planned and represented by the developer.	
8. Is the Site Plan required to indicate all existing natural features'	Boundary dimensions of environmental features such as forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Ordinance and Stormwater Ordinance. It shall be the applicant's responsibility to provide documentation of compliance with these County Ordinances.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review	All persons engaged in earth changes shall design, implement, and maintain acceptable soil erosion and sedimentation control measures in conformance with the Soil Erosion and Sedimentation Control Act of 1972 and all official rules of the Michigan Water Resources Commission promulgated pursuant thereto, which effectively reduce accelerated soil erosion.	2
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	Section 9.20 – Planned Unit Development (PUD)	2
12. 13. Do PUDs require inclusion of a minimum open space threshold?		0
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	Density Regulations for Multiple-Family Dwelling Units	1
14. Does the open space have to be managed in a natural condition?'		0
15. Are allowable uses in the open space restricted to low impact uses?		0
16. Is open space required to be protected through a conservation easement or other similar mechanism?		0
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	Section 5.6– (FR) Forest Recreational District Purpose: This zoning district is provided to promote the proper use, enjoyment, and conservation of the water, land, topographic and forest land resources of the township which are particularly adapted to general, recreational, and forest uses.	2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		23
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	40 feet setback, Lake Huron not treated differently	0
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?		0
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	To preserve community scenic and recreational values, a waterfront setback no less than forty (40) feet as measured from the ordinary high water mark of a lake or stream shall be established and maintained on all waterfront lots. Within the waterfront setback area, the following development or use restrictions shall apply:	1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	To preserve community scenic and recreational values, a waterfront setback no less than forty (40) feet as measured from the ordinary high water mark of a lake or stream shall be established and maintained on all waterfront lots. Within the waterfront setback area, the following development or use restrictions shall apply:	1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	Greenbelt, Shoreline in Definitions Section, but not located in the regulation sections.	0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?	Greenbelt, Shoreline in Definitions Section, but not located in the regulation sections	0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?	Greenbelt, Shoreline in Definitions Section, but not located in the regulation sections	0
8. Does it specify the use of native plant species in the riparian buffer zone?	Greenbelt, Shoreline in Definitions Section, but not located in the regulation sections	0
9. Are invasive and exotic plants prohibited from being used?	Greenbelt, Shoreline in Definitions Section, but not located in the regulation sections	0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	100' all residential lots	2
Shorelines: Private Shared Lake		

Access; Keyhole/Funneling		
11. 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 9.13 - Keyhole Development (Residential uses with common use waterfront property)	2
Shorelines: Road Ends		
12. 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 reference	0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?	No reference	0
TOTAL POINTS SECTION II		6
TOTAL POINTS POSSIBLE		26

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?	Section 3.22 - Stormwater Retention The property owner or developer is required to retain on site all stormwater drainage in excess of natural conditions. This provision may require stormwater retention ponds where appropriate. An exception can be made for water leaving the site via an existing stormwater pipe, or through other stormwater facilities which will be developed at the same time as the proposed new use.	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?		2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event	All stormwater facilities, including detention or retention ponds, shall be designed at minimum to handle a storm with the projected frequency of once every ten years (ten year design storm).	1
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?		0
TOTAL POINTS SECTION III		5
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?		2
2. Are regulations that pertain to septic systems coordinated with the County Health Department regulations?	Setbacks for septic systems must meet those minimum requirements set by the District Health Department.	2
TOTAL POINTS SECTION IV		4
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?	Section 3.23 - Groundwater Protection These provisions apply to persons, businesses or entities that use, generate or store hazardous substances in quantities greater than twenty-five (25) gallons or two hundred twenty (220) pounds per month. Sites at which hazardous substances and polluting material are stored, used or generated shall be designed to prevent spills and discharges to the air, surface of the ground, groundwater, surface water and wetlands. Secondary containment shall be sufficient to store the substance for the maximum anticipated period of time necessary for the recovery of any released substance.	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	The Planning Commission may require a performance bond or similar assurance for safeguards prior to approval. The Planning Commission may require site plan review at five-year intervals.	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	General purpose floor drains shall be allowed only if they are connected to a public sewer system, an on-site holding tank, or a system authorized through a state groundwater discharge permit. State and federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?	Minimum lot coverage in schedule of regulations	2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	Not listed as prohibited	1
Impervious Surface Reduction: Parking Lots		
3. 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 or where there will be a dual function of parking spaces between two uses where operating hours do not overlap, the Planning Commission may approve a smaller parking area.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	or where there will be a dual function of parking spaces between two uses where operating hours do not overlap, the Planning Commission may approve a smaller parking area.	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	Highway Landscape Buffers Parking Lot Landscaping	2
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		9
TOTAL POINTS POSSIBLE		12

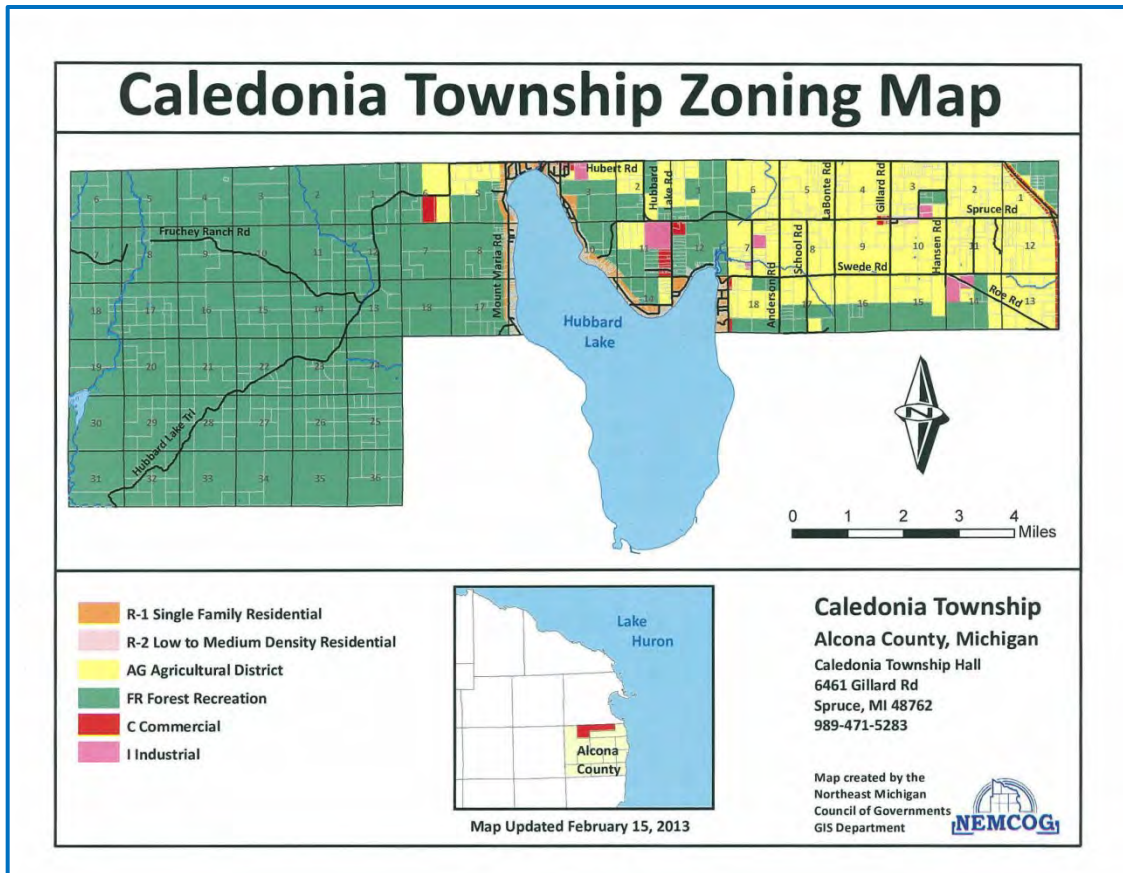
VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		2
2. If yes, is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		2
TOTAL POINTS SECTION VII		4
TOTAL POINTS POSSIBLE		8

Score: 57

Total Possible: 102

Percent of total possible score: 56%

Caledonia Township Zoning Assessment Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Caledonia Township, Alcona County
 Date Completed: 3/6/2014
 Name of Reviewer: R. Deuell
 Zoning Ordinance Title: Caledonia Township Zoning Ordinance
 Last amended: 2014

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'		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?	Planning Commission or Zoning Board of Appeals determines that review of the application and/or participation in the review process or appeal by qualified professional planners, engineers, attorneys, or other professionals is necessary or advisable	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 10. 8 -Violations and Penalties	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits'	No dredging or filling can occur in the waterfront setback without a Soil Erosion and Sediment Control Permit and applicable permits from the appropriate governing entity. No site plan shall be approved unless said site plan includes soil erosion and sediment control measures	1
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application meeting with the applicant/developer. Except for Section 5.6 (Planned Unit Developments), this conference is not mandatory, but is recommended for small and large projects alike.	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.?	Site Plan Impact Statement. The statement shall address itself to the following as applicable to the type of use: a. A complete description of the proposed development including: areas of the site; the number of lots or units; and the number and characteristics of the population impact such as density, as it relates to elderly persons, school children, tourists, family size, income, and related information as applicable.	1
Zoning Ordinance: Site Plan Review		
7. Does the Zoning Ordinance require Site Plan Review?	Section 7.2- Site Plan Review (All Districts)	2
8. Is the Site Plan required to indicate all existing natural features'	Boundary dimensions of environmental features such as forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10%) percent, drainage and other similar features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	All site plans shall comply with the terms of the Alcon a County Soil Erosion and Sedimentation Control Ordinance and Stormwater Ordinance. It shall be the applicant's responsibility to provide documentation of compliance with these County Ordinances.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review	All persons engaged in earth changes shall design, implement, and maintain acceptable soil erosion and sedimentation control measures in conformance with the Soil Erosion and Sedimentation Control Act of 1972 and all official rules of the Michigan Water Resources	2

	Commission promulgated pursuant thereto, which effectively reduce accelerated soil erosion.	
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	Section 9.20- Planned Unit Development (PUD)	
12. 13. Do PUDs require inclusion of a minimum open space threshold?		0
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	multiple family developments and manufactured home parks)	1
14. Does the open space have to be managed in a natural condition?'	Topography and Natural landscape: All elements of the site plan shall be designed so that there is a limited amount of change in the overall natural contours of the site and shall minimize reshaping in favor of elements that respect existing features of the site in relation to topography. The landscape shall be preserved in its natural state, insofar as practical, by minimizing tree and soil removal, and by topographic modifications which result in smooth natural appearing slopes as opposed to abrupt changes in grade between the project and adjacent areas.	1
15. Are allowable uses in the open space restricted to low impact uses?		1
16. Is open space required to be protected through a conservation easement or other similar mechanism?		0
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	Section 5.6 (FR) Forest Recreational District	1
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		22
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	Forty (40) feet	1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	Forty (40) feet	1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	In Definition Section: Greenbelt, Shoreline: A strip (of land) forty {40} feet wide parallel to the bank of a stream or lake maintained in trees and shrubs or in its natural state to serve as waterfront buffer. However, no language in standards and regulations.	0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	Minimum lot width of 100'	2

Shorelines: Private Shared Lake Access; Keyhole/Funneling		
11. 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 9.13 Keyhole Development (Residential Uses with Common Use Waterfront Property)	2
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		6
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?	Section 3.23 - Stormwater Retention The property owner or developer is required to retain on site all stormwater drainage in excess of natural conditions.	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?	This provision may require stormwater retention ponds where appropriate. An exception can be made for water leaving the site via an existing stormwater pipe, or through other stormwater facilities which will be developed at the same time as the proposed new use.	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event	All stormwater facilities, including detention or retention ponds, shall be designed at minimum to handle a storm with the projected frequency of once every ten (10) years (ten year design storm).	1
4. Does the stormwater require runoff leaving the site to be controlled to a non-erosive velocity, both during and after construction?	Drainage: On-site drainage shall be required. Appropriate measures shall be taken to ensure that removal of surface waters will not adversely affect neighboring properties. Provisions shall be made to accommodate stormwater and to prevent erosion and the formation of dust.	2
5. Does ordinance require that all stormwater management systems be regularly evaluated and maintained?	Surface water on all paved areas shall be collected at intervals so that it will not obstruct the flow of vehicular or pedestrian traffic or create puddles in paved areas. Catch basins may be required to contain oil filters or traps to prevent contaminants from being discharged to the natural drainage system.	1
TOTAL POINTS SECTION III		7
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?		2
2. Are regulations that pertain to septic systems coordinated with the County Health Department regulations?		2
TOTAL POINTS SECTION IV		4
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?	Section 3.24 - Groundwater Protection These provisions apply to persons, businesses or entities that use, generate or store hazardous substances in quantities greater than twenty-five (25) gallons or two hundred twenty (220) pounds per month.	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	Designed to prevent spills and discharges to the air, surface of the ground, groundwater, surface water and wetlands. The Planning Commission may require a performance bond or similar assurance for safeguards prior to approval. The Planning Commission may require site plan review at five (5) year intervals.	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	State and Federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?	Maximum lot coverage in Schedule of Regulations	2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	Not prohibited	1
Impervious Surface Reduction: Parking Lots		
3. 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 or where there will be a dual function of parking spaces between two uses where operating hours do not overlap, the Planning Commission may approve a smaller parking area.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses?	Collaborative Parking: Two (2) or more buildings or uses may collectively provide the required off-street parking.	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	Parking lot Landscaping Highway Landscape Buffers	2
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	Where possible, shared commercial access drives shall be encouraged.	1
TOTAL POINTS SECTION VI		10
TOTAL POINTS POSSIBLE		12

VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?	FEMA Floodplain mapping completed in 2012. Township is participating in NFIP	2
2. If yes, does is there ordinance language that regulates floodplain development?	The land area for which the grading is proposed may lie within the flood plain of any stream or watercourse not specifically designated and delineated by the Zoning Board as an area subject to flood hazard, unless a hydroponics report, prepared by a professional engineer, is submitted to certify that the proposed grading will have, in his/her opinion, no determined influence on the public welfare or upon the total development of the watershed.	1
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?	Boundary dimensions of environmental features such as forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10%) percent, drainage and other similar features.	2
TOTAL POINTS SECTION VII		5
TOTAL POINTS POSSIBLE		8

Score: 60

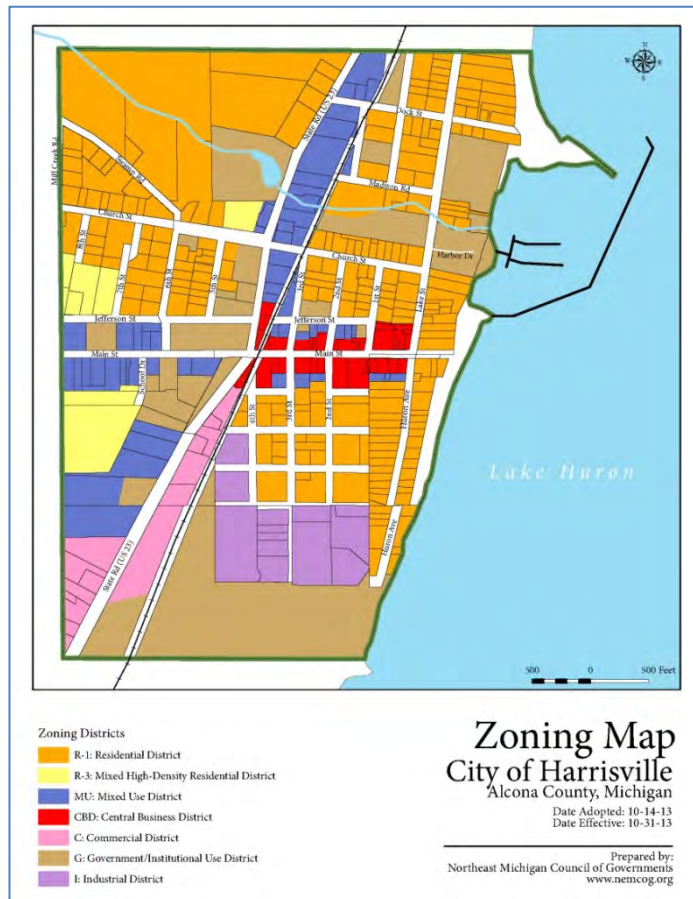
Total Possible: 100

Percent of total possible score: 60%

City of Harrisville

Zoning Assessment

Lake Huron Watershed Community Collaboration



Name of Jurisdiction: City of Harrisville
Date Completed: 3/5/2014
Name of Reviewer: R. L. Deuell
Zoning Ordinance Title: City of Harrisville Zoning Ordinance
Last amended: 10/31/2013

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'		1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Section 9.3 Fees	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 9.6 Violations	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits?	COMPLIANCE WITH OTHER STATUTES AND REGULATIONS: Site plans shall conform to all applicable requirements of state and federal statutes, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual zoning permit is granted.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	Site Plan Review - The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application meeting with the applicant/developer PUD - The developer shall meet with the Zoning Administrator, Mayor, and Planning Commission Chair prior to the submission of the development plan.	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?	Article 5 - Plot Plans & Site Plan Review	2
8. Is the Site Plan required to indicate all existing natural features'	Plot Plan - Natural features such as forests, water bodies, wetlands, high risk erosion areas, slopes over 10%, drainage and other similar features, if determined by the Zoning Administrator to be applicable. General Site Plan - Boundary dimensions of natural features such as existing trees and vegetation, forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	Documentation of Compliance with Soil Erosion and Stormwater Standards: All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Standards. It shall be the applicant's responsibility to provide documentation of compliance with these standards.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review	No construction, reconstruction, demolition, or other site work may progress in the interim between submittal and final approval of a site plan, and no building permit(s)	2

	shall be issued prior to the approval of the site plan.	
Zoning Ordinance: PUD		
11. Does ordinance include Planned Unit Development (PUD) provisions?	Section 7.25 Planned Unit Developments	2
12. Do PUDs require inclusion of a minimum open space threshold?	Common Open Space: A minimum of twenty (20) percent of the land developed in any planned unit development project shall be reserved for common open space and recreational facilities for the residents or users of the area being developed.	2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	PUD Cluster Housing Provision For Small Parcels:	2
14. Does the open space have to be managed in a natural condition?'		0
15. Are allowable uses in the open space restricted to low impact uses?		1
16. Is open space required to be protected through a conservation easement or other similar mechanism?	Deed restrictions, protective covenants, and other legal statements or devices to be used to control the use, development and maintenance of the land and the improvements thereon, including those areas which are to be commonly owned and maintained.	2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management		0
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		26
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	All structures proposed to be built upon property bordering Lake Huron shall be set back thirty-five (35) feet from the ordinary high water mark (unless modified by subsection 2 or 3 below), except for the following uses: pump houses, recreational docks, boat ramps, marinas, storm water and erosion control devices, picnic tables, benches, recreational watercraft, stairways and walkways, or other water-dependent uses. If a vegetative strip exists within twenty-five (25) feet of the ordinary high water mark, the vegetative strip shall be maintained.	0
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?		0
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1		0

Less than 75' = 0		
Shorelines: Private Shared Lake Access; Keyhole/Funneling		
11. 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?		0
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		2
TOTAL POINTS SECTION II		2
TOTAL POINTS POSSIBLE		26

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?	Section 3.17: Stormwater Management	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?	Stormwater management conveyance and storage facilities shall be designed to reduce flood hazards and water pollution related to runoff from the proposed development project.	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event?	The design of any stormwater runoff control system shall be based upon a 25-year frequency 24-hour duration storm event.	2
4. Does the stormwater require runoff leaving the site to be controlled to a non-erosive velocity, both during and after construction?	Runoff leaving the site shall be controlled to a non-erosive velocity, both during and after construction.	2
5. Does ordinance require that all stormwater management systems be regularly evaluated and maintained?	Be regularly maintained for optimum performance. A maintenance plan may be required for approval that as a minimum could include, but not be limited to: removal of accumulated sediment, periodic structural repairs, reseeding or replacement of vegetative cover.	2
TOTAL POINTS SECTION III		10
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?		1
TOTAL POINTS SECTION IV		1
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?	Section 3.14: Hazardous Substances	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	Stamped engineered drawings certifying that the facilities are in compliance with those standards shall be submitted to the City as part of the site and plan review process.	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	State and federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?		2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	No mention	1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	REDUCTION OF PARKING SPACES/LAND BANKING: For development in any zoning district, the Planning Commission may approve a total reduction of not more than 30% of the required off-street parking spaces where it has been demonstrated by study of the proposed use(s) and the customary operation of the use(s) that adequate parking would be provided.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	SHARED PARKING: Joint use of the same parking areas may be permitted for two (2) or more uses located on the same, adjacent, or nearby parcels provided that the developer or owner demonstrates to the satisfaction of the City that the uses will not overlap in hours of operation or in demand for shared spaces.	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?		1
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	Access management on US-23 and M-72	2
TOTAL POINTS SECTION VI		10
TOTAL POINTS POSSIBLE		12

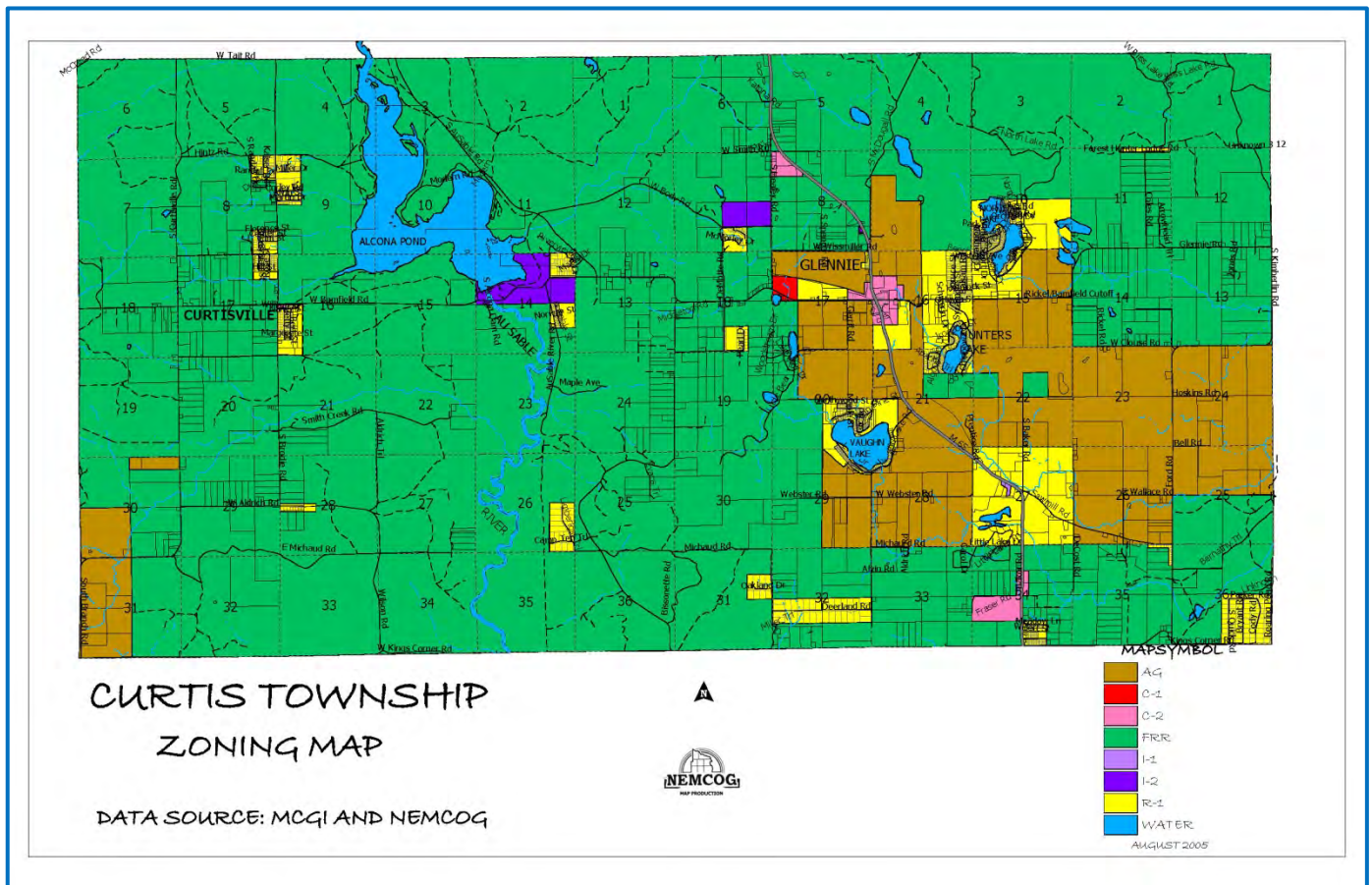
VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?	09/28/12	2
2. If yes, does is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?	Boundary dimensions of natural features such as existing trees and vegetation, forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
TOTAL POINTS SECTION VII		4
TOTAL POINTS POSSIBLE		8

Score: 59

Total Possible: 102

Percent of total possible score: 58%

Curtis Township Zoning Assessment Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Curtis Township
 Date Completed: 2/2/2014
 Name of Reviewer: R Deuell
 Zoning Ordinance Title: Curtis Township Zoning Ordinance
 Creation date: Last documented July 11, 2001
 Last amended: June 14, 2010

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'	Conserve natural resources and energy;	1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Section 9.07 – Fees and Forms	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 9.09 – Violations and Penalties	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits'	Site plans shall conform to all applicable requirements of state and federal statutes, applicable county regulations and the Curtis Township Master Plan, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual zoning permit authorizing the special land use is granted.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	Site Plan Review - This conference shall not be mandatory, but is recommended for small and large projects alike. A pre-application conference shall be held with the Planning Commission or its representative, unless waived by the applicant, for the purpose of determining the eligibility of the proposed PUD application and to review the procedures and standards for PUD approval.	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?		2
8. Is the Site Plan required to indicate all existing natural features'	The location of existing environmental features, such as watercourses, wetlands, shorelines, man-made drains, mature specimen trees, wooded areas or any other unusual environmental features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Ordinance. It shall be the applicant's responsibility to provide documentation of compliance of these County Ordinances where applicable.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review		0
Zoning Ordinance: PUD		
11. Does ordinance include Planned Unit Development (PUD) provisions?	Section 8.22 Planned Unit Development (PUD)	2

12. Do PUDs require inclusion of a minimum open space threshold?		2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	Open space residential development listed as Uses Subject to Special Use Permit in residential, forest recreation and agricultural zoning districts	1
14. Does the open space have to be managed in a natural condition?'		0
15. Are allowable uses in the open space restricted to low impact uses?		1
16. Is open space required to be protected through a conservation easement or other similar mechanism?		2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	FR Forest Recreation District	1
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		24
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	25'	1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	25'	1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	100'	2
Shorelines: Private Shared Lake Access; Keyhole/Funneling		

11. 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?		0
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		4
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?	In all Zones the property owner or developer is required to retain on site all stormwater drainage in excess of natural conditions. An exception can be made for water leaving the site via an existing stormwater pipe, or through other stormwater facilities which will be developed at the same time as the proposed new use. All stormwater facilities, including detention or retention ponds, shall meet the standards of the Alcona County Road Commission.	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?	This provision may require stormwater retention ponds where appropriate.	1
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event		1
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?		0
TOTAL POINTS SECTION III		3
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?		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?	Section 3.14 Groundwater Protection These provisions apply to persons, businesses or entities that use, generate or store hazardous substances. Sites at which hazardous substances and polluting material are stored, used or generated shall be designed to prevent spills and discharges to the air, surface of the ground, groundwater, surface water and wetlands.	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	The Planning Commission may require a performance bond or similar assurance for safeguards prior to approval. The Planning Commission may require site plan review at five (5) year intervals.	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	State and federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met and copies filed with the Zoning Administrator. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?		2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	Not prohibited	1
Impervious Surface Reduction: Parking Lots		
3. 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.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	Two (2) or more buildings or uses may collectively provide the required off-street parking.	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	Section 3.10 Landscaping and Buffering	1
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	Under access management standards	2
TOTAL POINTS SECTION VI		10
TOTAL POINTS POSSIBLE		12

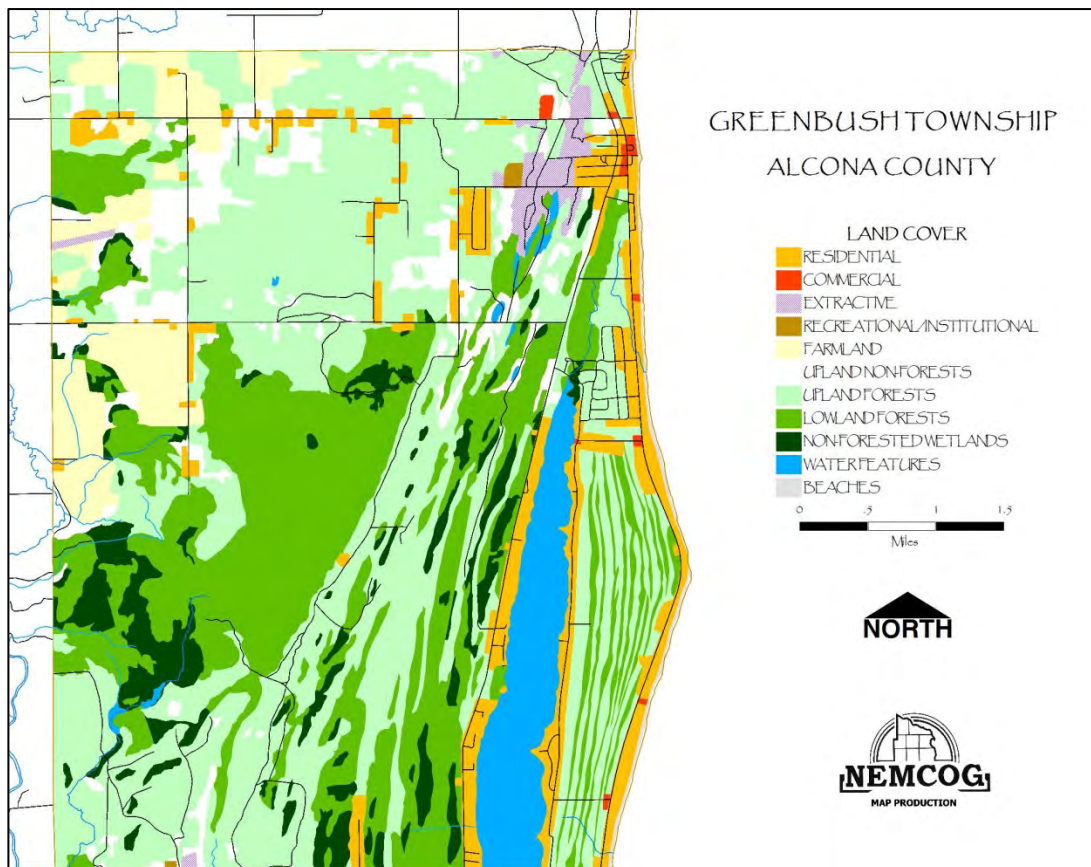
VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		0
2. If yes, does is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		0
TOTAL POINTS SECTION VII		0
TOTAL POINTS POSSIBLE		8

Score: 49

Total Possible: 98

Percent of total possible score: 50%

Greenbush Township Zoning Assessment Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Greenbush Township

Date Completed: 2/4/2014

Name of Reviewer: R. Deuell

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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?		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?	Sect. 13.5 Fees.	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Article XXIV - Administration And Enforcement	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits?	Sect. 3.2 No land use permit shall be issued by the Zoning Administrator, for any area designated by the State as a high risk erosion area, until given approval by the State. the proposed Planned Unit Development will conform to all state and local requirements as well as reflect, as closely as possible, the finished Planned Unit Development.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	PUD	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?		2
8. Is the Site Plan required to indicate all existing natural features?		1
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?		0
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review		0
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	Article XIX	2
12. 13. Do PUDs require inclusion of a minimum open space threshold?	40%	2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	Density increases can be allowed for Planned Unit Development over and above those allowed in the R-1, R-2 and R-3 Zoning Districts.	2
14. Does the open space have to be managed in a natural condition?'	Any portions of the PUD site, if deemed environmentally significant, may, upon review by the Planning Commission, be preserved in their natural state.	2

15. Are allowable uses in the open space restricted to low impact uses?		0
16. Is open space required to be protected through a conservation easement or other similar mechanism?	PUD - The developer must file a restrictive covenant with the County Register of Deeds at the time the final plan is approved, guaranteeing those open spaces included in the final plan will remain open for their designated purposes, or for other open space uses desired by the homeowners' association.	2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	FORESTRY DISTRICT	2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		25
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0		0
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?		0
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0		2
Shorelines: Private Shared Lake Access; Keyhole/Funneling		

11. 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?		0
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		4
TOTAL POINTS POSSIBLE		26

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?		0
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?		0
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event		0
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?		0
TOTAL POINTS SECTION III		0
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?		0
TOTAL POINTS SECTION IV		0
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?		0
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?		0
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?		0
TOTAL POINTS SECTION V		0
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?		1
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?		1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?		0
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?		0
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?		0
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		2
TOTAL POINTS POSSIBLE		12

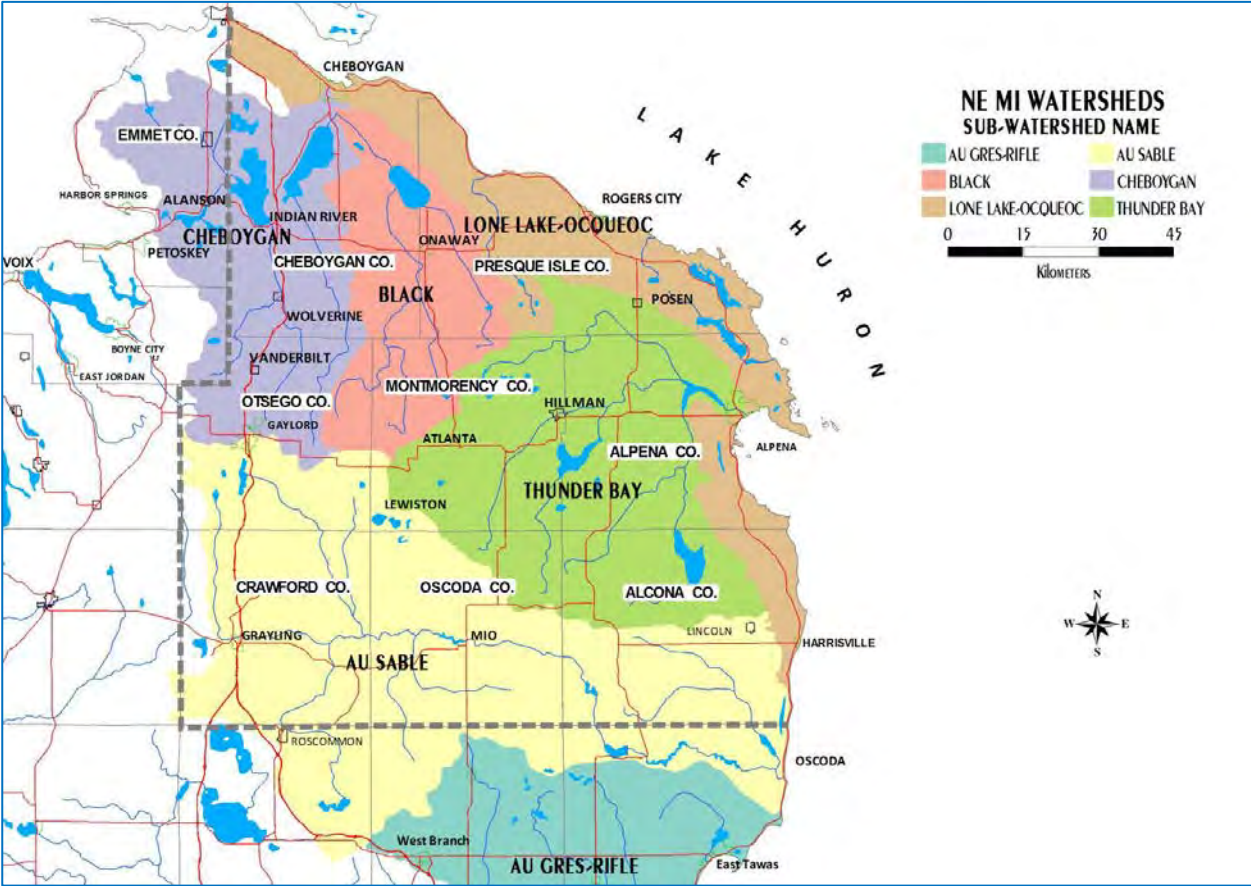
VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?	09/28/12	2
2. If yes, does is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		1
TOTAL POINTS SECTION VII		3
TOTAL POINTS POSSIBLE		8

Score: 34

Total Possible: 102

Percent of total possible score: 33%

Gustin Township Zoning Assessment Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Gustin Township, Alcona County, Michigan
 Name of Reviewer: R. Deuell
 Zoning Ordinance Title: Gustin Township Zoning Ordinance
 Last amended: Amendment under process.

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'		1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Section 9.3 Fees	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 9.0 Enforcement Section 9.6 Violations	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits	Submissions of the "State/County Environmental Permits Checklist". Compliance with Other Statutes and Regulations: Site plans shall conform to all applicable requirements of state and federal statutes, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual zoning permit is granted.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application meeting with the applicant/developer to assist them in understanding the site plan review process and other Ordinance requirements and to provide insight as to what portions of their proposed development may be of special concern to the Planning Commission.	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?		2
8. Is the Site Plan required to indicate all existing natural features'	Natural Features: Boundary dimensions of natural features such as existing trees and vegetation, forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	Documentation of Compliance with Soil Erosion and Stormwater Standards: All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Standards. It shall be the applicant's responsibility to provide documentation of compliance with these standards.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review	From and after the effective date of this Ordinance, it shall be unlawful for any person, firm, corporation, partnership or any other organization or entity to clear cut, strip any topsoil, sand, clay, gravel, or similar material, or to use lands for filling within the area of the Township without first obtaining written permission	1

	from the Zoning Administrator.	
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	Section 7.21 Planned Unit Developments	2
12. 13. Do PUDs require inclusion of a minimum open space threshold?	Common Open Space: A minimum of twenty (20) percent of the land developed in any planned unit development project shall be reserved for common open space and recreational facilities for the residents or users of the area being developed. The open space shall be disposed of as required in subsection (b) below.	2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	Through the PUD. CLUSTER HOUSING PROVISION FOR SMALL PARCELS: On parcels less than five (5) acres, the PUD provision may be utilized. Only residential on small parcels.	1
14. Does the open space have to be managed in a natural condition?		1
15. Are allowable uses in the open space restricted to low impact uses?		1
16. Is open space required to be protected through a conservation easement or other similar mechanism?		2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	Section 4.7 (FR) Forest Recreational District The intent of this District is to promote the proper use, enjoyment, and conservation of the water, land, topographic, and forest resources of the Township particularly adapted, in general, to recreational and forest uses.	2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		27
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0		0
Shorelines: Private Shared Lake Access; Keyhole/Funneling		

11. 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?		0
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		0
TOTAL POINTS POSSIBLE		26

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?		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?		2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event?		0
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?		0
TOTAL POINTS SECTION III		4
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?		0
TOTAL POINTS SECTION IV		0
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?	HH. DATA REQUIRED FOR GROUNDWATER PROTECTION:	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?		2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?		0
TOTAL POINTS SECTION V		4
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?		0
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?		1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	REDUCTION OF PARKING SPACES/LAND BANKING:	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	Collective and shared parking	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?		0
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		5
TOTAL POINTS POSSIBLE		12

VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		2
2. If yes, is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		2
TOTAL POINTS SECTION VII		4
TOTAL POINTS POSSIBLE		8

Score: 44

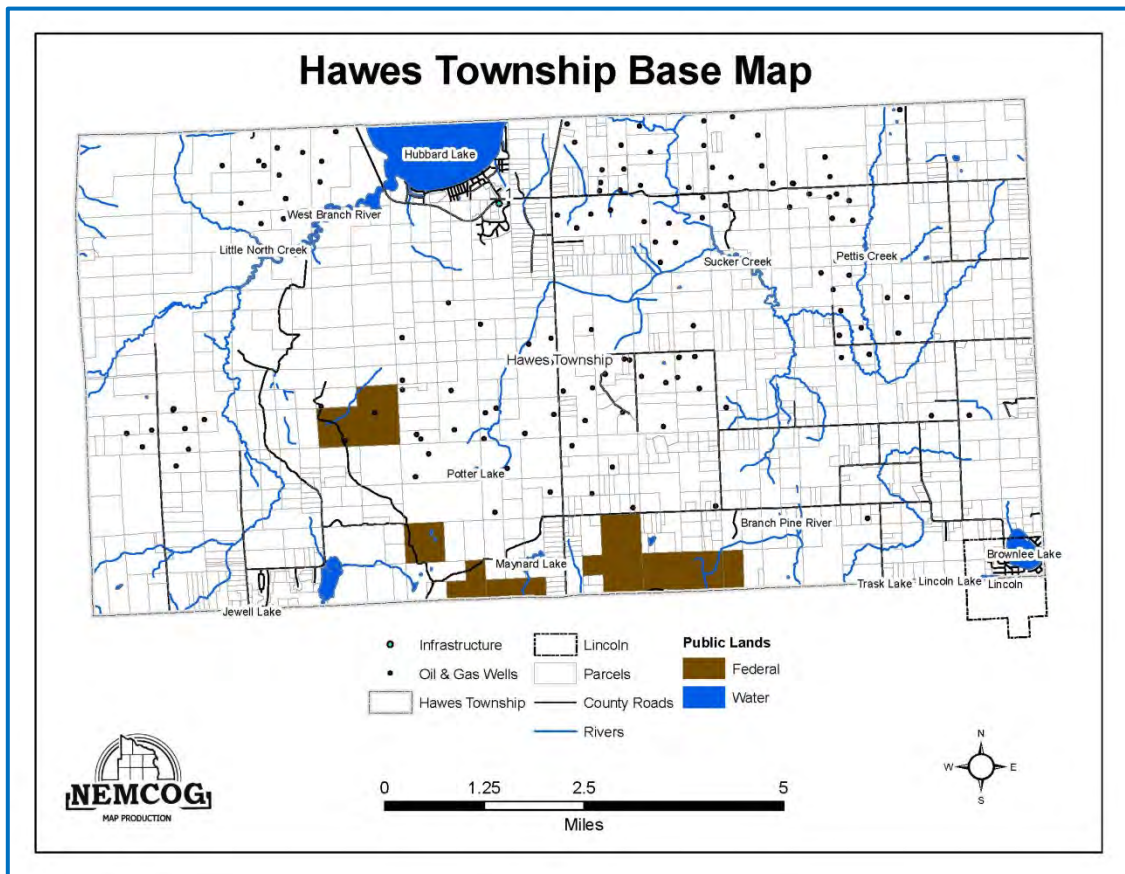
Total Possible: 98

Percent of total possible score: 45%

Hawes Township

Zoning Assessment

Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Hawes Township
Date Completed: 4/15/2014
Name of Reviewer: R Deuell
Zoning Ordinance Title: Hawes Township Zoning Ordinance
Creation date: September 20, 1973
Last amended: 2012

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'		0
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	The Township Board, in consultation with the Zoning Administrator, may set reasonable fees for the review and processing of Land Use Permits, Special Approval Use, Site Plans, and Petitions for Rezoning or Zoning Text Amendments.	1
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	SECTION 5 - Enforcement and Penalties:	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits'		0
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?		0
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?		2
8. Is the Site Plan required to indicate all existing natural features'	Existing and proposed environmental conditions, including vegetation, location of mature trees or woodland, surface water, and wetlands, and soils information where appropriate.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?		0
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review		0
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?		0
12. 13. Do PUDs require inclusion of a minimum open space threshold?		0
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?		0
14. Does the open space have to be managed in a natural condition?'		0
15. Are allowable uses in the open space restricted to low impact uses?		0
16. Is open space required to be protected through		0

a conservation easement or other similar mechanism?		
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management		0
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		7
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
8. Does it specify the use of native plant species in the riparian buffer zone?		0
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0	R1 and R2 80'	1
Shorelines: Private Shared Lake Access; Keyhole/Funneling		

11. 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?		
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		3
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?		0
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?		0
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event		0
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?		0
TOTAL POINTS SECTION III		0
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?		2
2. Are regulations that pertain to septic systems coordinated with the County Health Department regulations?		2
TOTAL POINTS SECTION IV		4
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?		0
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?		0
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?		0
TOTAL POINTS SECTION V		0
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?	Maximum lot coverage, including total ground floor area of the principal structure and floor area of all accessory buildings shall not exceed thirty-five percent (35%) of the buildable lot area. Paved driveways and parking areas are shall not be counted in the lot coverage calculations.	1
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?		1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?		0
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?		0
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?		0
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		2
TOTAL POINTS POSSIBLE		12

VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		2
2. If yes, does is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		0
TOTAL POINTS SECTION VII		2
TOTAL POINTS POSSIBLE		8

Score: 18

Total Possible: 98

Percent of total possible score: 6%

Zoning Assessment

Lake Huron Watershed Community Collaboration

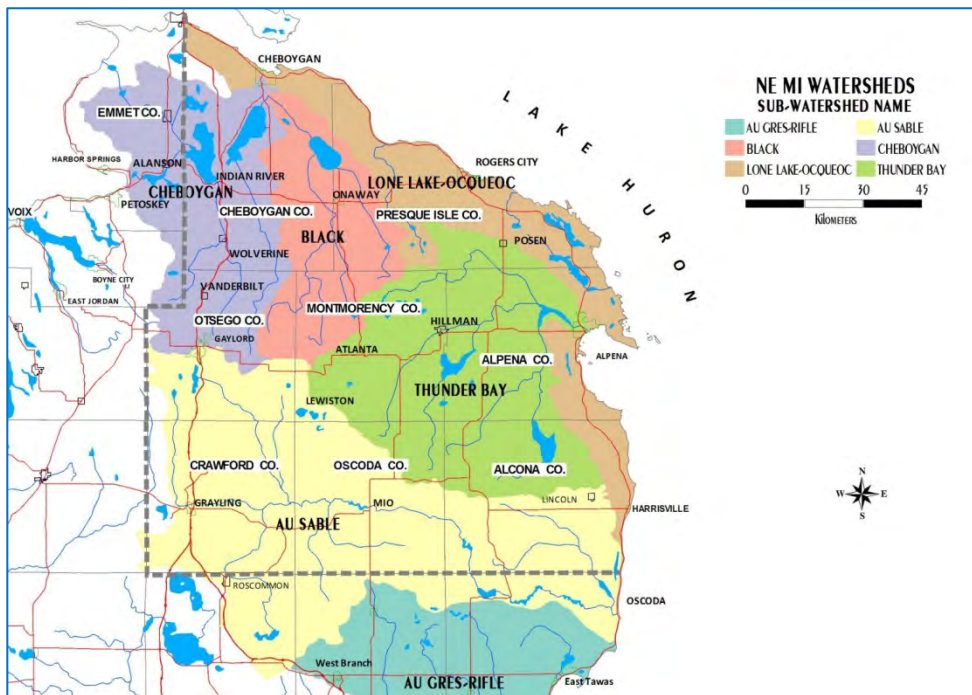
Name of Jurisdiction: Village of Lincoln, Alcona County, Michigan

Zoning Ordinance last amended: _____

Name of Reviewer: R. Deuell

Date Completed: 9/5/2014

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 - Lacking

III. Stormwater Management - Adequate

IV. Sewer/Septic - Adequate

V. Groundwater and Wellhead Protection - Strong

VI. Impervious Surface Reduction - Adequate

VII. Other Relevant Elements - Lacking

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?		1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Section 9.3 Fees. Allows for the hiring of qualified professional planners, engineers, attorneys, or other professionals is necessary, then the applicant shall deposit with the Village Treasurer such additional zoning fees in an amount determined by the Zoning Administrator equal to the estimated additional costs. The additional zoning fees shall be held in escrow in the applicant's name and shall be used	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?	Section 9.0 Enforcement Section 9.6 Violations	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits?	Submissions of the "State/County Environmental Permits Checklist". Compliance with Other Statutes and Regulations: Site plans shall conform to all applicable requirements of state and federal statutes, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual zoning permit is granted.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application meeting with the applicant/developer to assist them in understanding the site plan review process and other Ordinance requirements and to provide insight as to what portions of their proposed development may be of special concern to the Planning Commission.	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?		2
8. Is the Site Plan required to indicate all existing natural features?	Natural Features: Boundary dimensions of natural features such as existing trees and vegetation, forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	Documentation of Compliance with Soil Erosion and Stormwater Standards: All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Standards. It shall be the applicant's responsibility to provide documentation of compliance with these standards.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan	From and after the effective date of this Ordinance, it shall be unlawful for any person, firm, corporation, partnership or any other organization or entity to clear cut, strip any topsoil, sand,	2

review?	clay, gravel, or similar material, or to use lands for filling within the area of the Township without first obtaining written permission from the Zoning Administrator.	
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	Section 7.17 Planned Unit Developments	2
12. 13. Do PUDs require inclusion of a minimum open space threshold?	Common Open Space: A minimum of twenty (20) percent of the land developed in any planned unit development project shall be reserved for common open space and recreational facilities for the residents or users of the area being developed. The open space shall be disposed of as required in subsection (b) below.	2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	PUD Encourage a development pattern which preserves and utilizes natural topography and geologic features, scenic vistas, trees and other vegetation, and prevents the disruption of natural drainage patterns.	2
14. Does the open space have to be managed in a natural condition?		0
15. Are allowable uses in the open space restricted to low impact uses?		1
16. Is open space required to be protected through a conservation easement or other similar mechanism?	Deed restrictions, protective covenants, and other legal statements or devices to be used to control the use, development and maintenance of the land and the improvements thereon, including those areas which are to be commonly owned and maintained.	2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management?	Conservation Residential District This district is intended to maintain the rural character of the area by allowing larger lot single- and two-family residential development while at the same time protecting significant natural resources and features such as wetlands and forested areas.	2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands?		0
TOTAL POINTS SECTION I		28
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
Shorelines: Setbacks Inland Lakes		
1. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Setbacks Streams		
2. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		0
Shorelines: Protection strips		
3. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?		0
4. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?		0
5. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?		0
6. Does it specify the use of native plant species in the riparian buffer zone?		0
7. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
8. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0		0
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?		0
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?		0
Shorelines: Marinas		
11. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		0
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?	Section 3.17: Stormwater Management	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?	The property owner or developer is required to retain on site all stormwater drainage in excess of natural conditions. This provision may require stormwater retention ponds where appropriate. An exception can be made for water leaving the site via an existing stormwater pipe, or through other stormwater facilities which will be developed at the same time as the proposed new use.	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event?	All stormwater facilities, including detention or retention ponds, shall be designed at minimum to handle a storm with the projected frequency of once every ten years (ten year design storm).	1
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?		0
TOTAL POINTS SECTION III		5
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?	Shall have adequate water and sanitary facilities as determined by the District Health Department.	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?	Site Plan Review HH. DATA REQUIRED FOR GROUNDWATER PROTECTION	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	In the case of businesses or facilities which use or generate hazardous substances in quantities greater than	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	Location of exterior and interior drains, on-site sewage systems, dry wells; catch basins; retention/detention areas; sumps and other facilities designed to collect, store, transport stormwater or waste water. The point of discharge for all drains and pipes shall be specified on the site plan.	2
TOTAL POINTS SECTION V		6
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 4	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?	REDUCTION OF PARKING SPACES/LAND BANKING:	2
3. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	Collective and shared parking	2
4. Does the Zoning Ordinance require minimum landscaping standards in parking lots?		0
5. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		6
TOTAL POINTS POSSIBLE		10

VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		0
2. If yes, is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?	NATURAL FEATURES: Boundary dimensions of natural features such as existing trees and vegetation, forests, water bodies, wetlands, floodplains, high risk erosion areas, slopes over ten (10) percent, drainage and other similar features.	2
TOTAL POINTS SECTION VII		2
TOTAL POINTS POSSIBLE		8

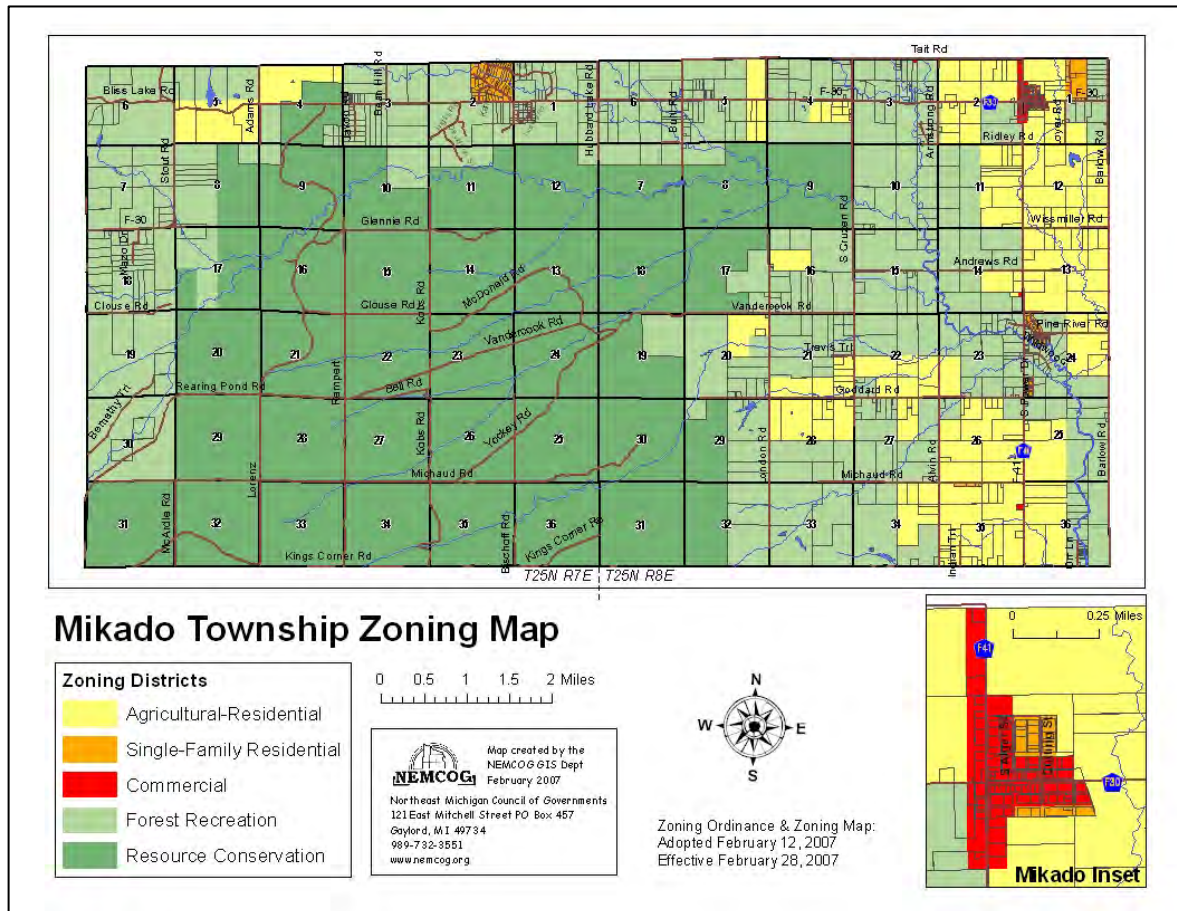
Score: 49

Total Possible: 96

Percent of total possible score: 51%

Mikado Township Zoning Assessment

Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Mikado Township, Alcona County
 Date Completed: 2/2/2014
 Name of Reviewer: R Deuell
 Zoning Ordinance Title: Mikado Township Zoning Ordinance
 Last amended: 2008
 Prepared by: NEMCOG

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'		0
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Section 10.6 – Fees	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 10.8 – Violations and Penalties	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits?	Site plans shall conform to all applicable requirements of state and federal statutes and the Mikado Township Master Plan, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual zoning permit authorizing the special land use is granted.	1
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	The procedure of application and approval of a PUD permit shall include one (1) or more informal conferences between the applicant and Zoning Administrator. Pre-application Conference: The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application meeting with the applicant/developer to assist them in understanding the site plan review process,	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?		2
8. Is the Site Plan required to indicate all existing natural features'		2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?	All site plans shall comply with the terms of the Alcona County Soil Erosion and Sedimentation Control Ordinance and Stormwater Ordinance. It shall be the applicant's responsibility to provide documentation of compliance with these County Ordinances.	2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review		0
Zoning Ordinance: PUD		
11. 12. Does ordinance include Planned Unit Development (PUD) provisions?	(PUD) Planned Unit Development District	2

12. 13. Do PUDs require inclusion of a minimum open space threshold?		0
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?		0
14. Does the open space have to be managed in a natural condition?'		0
15. Are allowable uses in the open space restricted to low impact uses?		0
16. Is open space required to be protected through a conservation easement or other similar mechanism?		0
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management	Section 5.5 – (RC) Resource Conservation District	2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		0
TOTAL POINTS SECTION I		17
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	Section 3.19 - Waterfront Setback Any property which borders on or contains a natural river, stream, pond, or lake, which is identifiable on the U.S. Geological Survey Maps of Mikado Township. Permanent structures, parking lots, and other impervious surfaces, except boat docks, boat slips, ramps, or marinas, or other water-dependent uses, shall observe a minimum setback of seventy-five (75) feet from the documented 1986 High Water Mark in all Districts.	2
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0	Same as above	2
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	Section 3.18 - Waterfront Greenbelt To preserve natural resources, water quality and community scenic and recreational values, a greenbelt shall be established and maintained on all property located within fifty (50) feet of the ordinary high water mark of a stream.	2
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?	Same as above	2
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?	At least 70% of the lot width at the water line shall be kept in its natural vegetative state with either trees, shrubs, herbaceous plants or unmowed grass located thereon.	2
8. Does it specify the use of native plant species in the riparian buffer zone?		1
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the	Residential lots have 100' minimum lot width	2

width of waterfront lots? 100' or more = 2 75'-99' = 1 Less than 75' = 0		
Shorelines: Private Shared Lake Access; Keyhole/Funneling		
11. 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?		0
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		13
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?	Site Plan Review	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?	Storm water detention, retention, transport, and drainage facilities shall be designed to use or enhance the natural storm water system on site, including the storage or filtering capacity of wetlands, watercourses, and water bodies, and/or the infiltration capability of the natural landscape. Storm water facilities shall not cause flooding or the potential for pollution of surface or groundwater, on-site or off-site.	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event		1
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?		0
TOTAL POINTS SECTION III		5
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?		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?	Section 3.26 - Groundwater Protection	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?	Statements relative to the impact of the proposed development on soil erosion, shoreline protection, wildlife habitat, air pollution, water pollution (ground and surface), noise and the scale of development in terms of the surrounding environment. The Planning Commission may require a performance bond or similar assurance for safeguards prior to approval. The Planning Commission may require site plan review at five (5) year intervals.	2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	State and federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?	Schedule of regulations	2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	Not listed as prohibited	1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	Parking Lot Deferment: Where the property owner can demonstrate that the required amount of parking is excessive, the Planning Commission may approve a smaller parking area.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	Two (2) or more buildings or uses may collectively provide the required off-street parking. In which case the required number of parking spaces for the individual uses may be reduced by up to twenty-five (25) percent if a signed agreement is provided by the property owners. Such parking requirements shall bind future owners of parcels and shall be recorded with the Register of Deeds office.	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	C. Parking Lot Landscaping	2
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?		0
TOTAL POINTS SECTION VI		9
TOTAL POINTS POSSIBLE		12

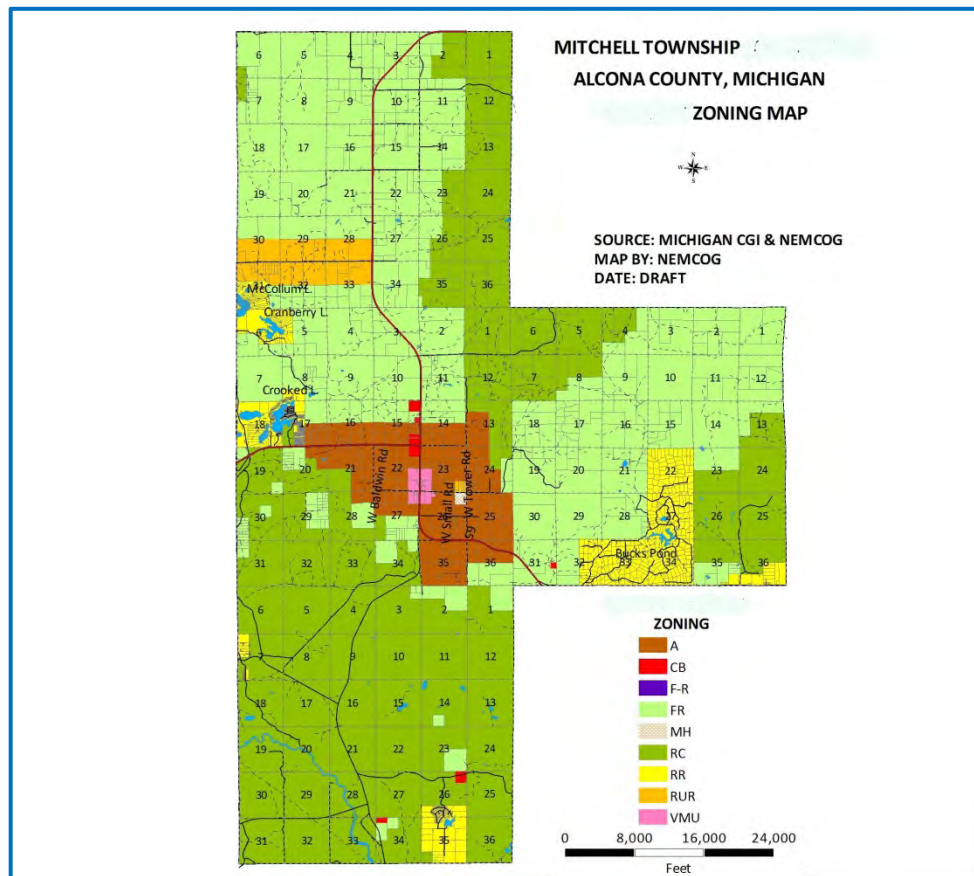
VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?		2
2. If yes, does is there ordinance language that regulates floodplain development?	Any filling or construction within flood plains or wetlands, or other environmental areas protected by State Law, or other laws, shall require appropriate permits from the government unit or agency having jurisdiction.	2
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		0
TOTAL POINTS SECTION VII		4
TOTAL POINTS POSSIBLE		8

Score: 56

Total Possible: 98

Percent of total possible score: 57%

Mitchell Township Zoning Assessment Lake Huron Watershed Community Collaboration



Name of Jurisdiction: Mitchell Township, Alcona County
Date Completed: 5/4/2014
Name of Reviewer: R Deuell
Zoning Ordinance Title: Mitchell Township Zoning Ordinance
Last amended: 2008

As a part of the 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 the community an opportunity to compare its current standards with recommended water quality protection standards. While it is understood communities are not likely to address all of the areas; we are hopeful your community will review the information and consider amending your ordinance to enhance water quality protection.

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'	Promote the use of lands and natural resources of the Township in accordance with their character and adaptability and in turn, limit their improper use; Conserve life, property and natural resources and the expenditure of funds for public improvements and services to conform with the most advantageous uses of land, resources and properties.	1
2. Does it include a fee system to cover costs to the community for review of proposal applications or appeals, including any professional reviews?	Determines that review of the application and/or participation in the review process or appeal by qualified professional planners, engineers, attorneys, or other professionals is necessary or advisable, then the applicant shall deposit with the Township.	2
3. Does the Zoning Ordinance have methods in place for enforcement, including a clearly defined process for inspections and correction of violations?"	Section 10.8 – Violations and Penalties	2
4. Is the Zoning Ordinance proposal review process coordinated with the receipt of other applicable County, State, and/or Federal permits'	All site plans shall comply with the terms of the NATURAL RESOURCES AND ENVIRONMENTAL PROTECTION ACT (P.A. 451 of 1994, Part 91, Soil Erosion and Sedimentation Control) It shall be the applicant's responsibility to provide documentation of compliance of these laws. 12) Site plans shall conform to all applicable requirements of state and federal statutes, applicable county regulations and the Mitchell Township Master Plan, and approval may be conditioned on the applicant receiving necessary state and federal permits before the actual Land Use Permit authorizing the special land use is granted.	2
5. Does it require a pre-application or pre-construction meeting for new development or redevelopment proposals?	A pre-application conference shall be held with the Planning Commission or its representative, unless waived by the applicant, for the purpose of determining the eligibility of the proposed PUD application and to review the procedures and standards for PUD approval. <u>Pre-application Conference:</u> The Zoning Administrator, Planning Commission Chair and/or Planning Commission shall have the authority to conduct a pre-application to assist them in understanding the site plan review process, and other Ordinance requirements; and to provide insight as to what portions of their proposed development may be of special concern to the Planning Commission. No Mandatory	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?		2
8. Is the Site Plan required to indicate all existing natural features?		2
9. Does the Site Plan Review process require a Soil Erosion and Sedimentation Control Plan, or coordination with County regulations?		2
10. Does the Zoning Ordinance prohibit land clearing or soil stripping prior to site plan review		0
Zoning Ordinance: PUD		
11. Does ordinance include Planned Unit Development (PUD) provisions?		2
12. Do PUDs require inclusion of a minimum open space threshold?		2
Zoning Ordinance: Open Space		
13. Are flexible site design criteria or incentives available to encourage developers to include open space or cluster design provisions?	PUD	1
14. Does the open space have to be managed in a natural condition?		0
15. Are allowable uses in the open space restricted to low impact uses?		0
16. Is open space required to be protected through a conservation easement or other similar mechanism?		2
Zoning Ordinance: Special Districts		
17. Does the Zoning Ordinance have districts specifically designated to protect natural resources such as Resource Conservation or Forest Resource Management		2
18. Does the Zoning Ordinance have overlay districts for resource protection such as waterfront or wetlands.		2
TOTAL POINTS SECTION I		26
TOTAL POSSIBLE POINTS:		36

II. Shorelines 2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Shorelines: Setbacks Great Lakes Shoreline		
1. If the community has a Great Lakes Shoreline, does it use an Overlay District, or other tools, to protect the shoreline with setbacks? SCORE: 100' or greater = 2 50' to 99' = 1 Less than 50' = 0	No Great Lakes shoreline Deduct 2 points from total possible score	X
2. For a Great Lakes Shoreline, does the Zoning Ordinance delineate a separate minimum setback and/or other protection measures for dunes and high risk erosion areas?	No Great Lakes shoreline Deduct 2 points from total possible score	X
Shorelines: Setbacks Inland Lakes		
3. Does the Zoning Ordinance require a minimum shoreline setback for inland lakes? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Setbacks Streams		
4. Does the Zoning Ordinance require a minimum shoreline setback for streams? SCORE: 75' = 2 25-74' = 1 less than 25' = 0		1
Shorelines: Protection strips		
5. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Inland Lakes?	25' Within twenty-five (25) feet of the ordinary high water mark,	1
6. Does Zoning Ordinance require riparian buffers or greenbelts, a minimum of 30' deep, on Streams?	25' Within twenty-five (25) feet of the ordinary high water mark,	1
7. Does Zoning Ordinance specify the degree of vegetation which may be removed in the riparian buffer zone or greenbelt?	a natural vegetation strip shall be established or maintained on at least seventy percent (70%) of the lake or stream frontage for any new construction or any renovation that results in an increase of the structure footprint by five hundred (500) square feet or greater.	2
8. Does it specify the use of native plant species in the riparian buffer zone?	The natural vegetation strip shall consist of trees, shrubs or herbaceous plants, excluding lawn and shall be twenty-five (25) feet wide commencing at the ordinary high water mark and measured inland twenty-five (25) feet.	
9. Are invasive and exotic plants prohibited from being used?		0
Shorelines: Density		
10. Does Zoning Ordinance regulate the width of waterfront lots? 100' or more = 2	With overlay district the underlying lots range from 75' to 330'	1

75'-99' = 1 Less than 75' = 0		
Shorelines: Private Shared Lake Access; Keyhole/Funneling		
11. 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?	5.10.6 Standards for Establishing Private Shared Lake Access	2
Shorelines: Road Ends		
12. 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?		0
Shorelines: Marinas		
13. Does the community regulate marinas by using special land use provisions or other tools?		0
TOTAL POINTS SECTION II		9
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?	Section 3.14 Stormwater Management	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?	Stormwater management areas and facilities, whether on-site or off-site, shall be designed, constructed, and maintained to prevent flooding and protect water quality. Stormwater management conveyance and storage facilities shall be designed to reduce flood hazards and water pollution related to runoff from the proposed development project.	2
3. Is the design of any stormwater management system required to be based upon a 25-year frequency, 24-hour duration storm event	The design of any stormwater management system shall be based upon a 10-year frequency 24-hour duration storm event.	1
4. Does the stormwater require runoff leaving the site to be controlled to a non-erosive velocity, both during and after construction?	Runoff leaving the site shall be controlled to a non-erosive velocity, both during and after construction. After development, runoff from the site shall approximate the rate of flow, volume, and timing of runoff that would have occurred following the same rainfall under predevelopment conditions.	2
5. Does ordinance require that all stormwater management systems be regularly evaluated and maintained?		0
TOTAL POINTS SECTION III		7
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?		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?	Section 3.15 Groundwater Protection	2
2. Is Site Plan Review used to ensure there are no unnecessary threats posed to groundwater by new or redevelopment proposals?		2
3. Does the Zoning Ordinance prohibit both direct and indirect discharge of hazardous substances to groundwater without appropriate approvals/permits?	State and federal agency requirements for storage, spill prevention, record keeping, emergency response, transport and disposal of hazardous substances and polluting materials shall be met. No discharges to groundwater, including direct and indirect discharges, shall be allowed without required permits and approvals.	2
TOTAL POINTS SECTION V		6
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?		2
2. Does Zoning Ordinance allow location of bio-retention, rain gardens, filter strips and swales in required setback areas and common areas?	Not listed as prohibited	1
Impervious Surface Reduction: Parking Lots		
3. Does Zoning Ordinance allow flexibility to reduce the number of parking spaces constructed, if warranted by the proposed development?	Parking Lot Deferment: Where the property owner can demonstrate that the required amount of parking is excessive or where there will be a dual function of parking spaces between two uses where operating hours do not overlap, the Planning Commission may approve a smaller parking area.	2
4. Does the Zoning Ordinance require/encourage shared use of parking between adjacent land uses? In what districts?	Collaborative Parking: Two (2) or more buildings or uses may collectively provide the required off-street parking. In which case the required number of parking spaces for the individual uses may be reduced by up to twenty-five (25%)	2
5. Does the Zoning Ordinance require minimum landscaping standards in parking lots?	landscape screening to minimize visual impacts of commercial and industrial development along roadways and to provide for landscaping within parking lots.	2
6. Does the Zoning Ordinance allow for shared driveways and in what instances and in what districts?	Preserve the capacity of M-65 & M-72 by limiting and controlling the number, location and design of access points and by requiring alternate means of access through shared driveways, service drives, and access off cross streets in certain locations.	1
TOTAL POINTS SECTION VI		10
TOTAL POINTS POSSIBLE		12

VII. Other Relevant Elements		
2=Yes; 1=Yes, minimally with comments; 0=missing		
Criteria	Citation and Comments	Points
Floodplains		
1. If FEMA floodplain mapping has been completed, does community participate in the National Flood Insurance Program?	Map Date: 09/28/12	0
2. If yes, does is there ordinance language that regulates floodplain development?		0
3. Does the community coordinate their efforts to protect the floodplain with adjoining communities and the county?		0
4. Does the Zoning Ordinance require floodplains to be identified on site plans?		0
TOTAL POINTS SECTION VII		0
TOTAL POINTS POSSIBLE		8

Score: 60

Total Possible: 98

Percent of total possible score: 61%