

ERCOL Social Indicators Study

Local Officials Survey Report

April 2019

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Survey distribution summary

Survey dates: March – June 2018

Surveys sent: 249

Undeliverable: 3

Deliverable addresses: 246

Responses: 74 (30%)

Key Findings from the Elk River Chain of Lakes Watershed Local Officials Survey

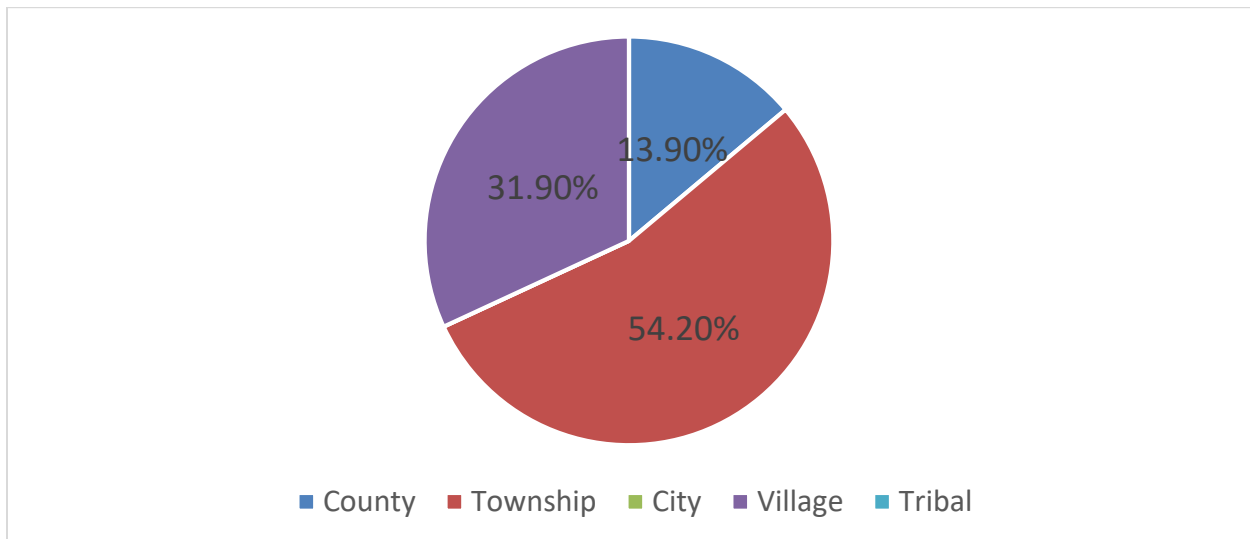
Tip of the Mitt Watershed Council conducted a series of three surveys in the Elk River Chain of Lakes (ERCOL) Watershed during 2017-2019 with watershed residents, shoreline property owners, and local officials. These were done to identify the needs and concerns regarding the water quality of the lakes in the Chain. The results will help guide the direction of future education efforts to protect the water quality of the Watershed.

Below are the key findings of the survey of local officials.

WHO RESPONDED?

Blank surveys were sent to 246 local officials in the Chain of Lakes Watershed. Of the 74 responses, 57% were male, 43% female. Most respondents were in the age range of late-50s to early-70s. 53% were elected officials, 34% were planning commissioners, and 13% served on Zoning Boards of Appeal. The majority of respondents were township officials at 54%, followed by 32% from villages, and 14% from the county.

In what type of community do you serve?



RESULTS

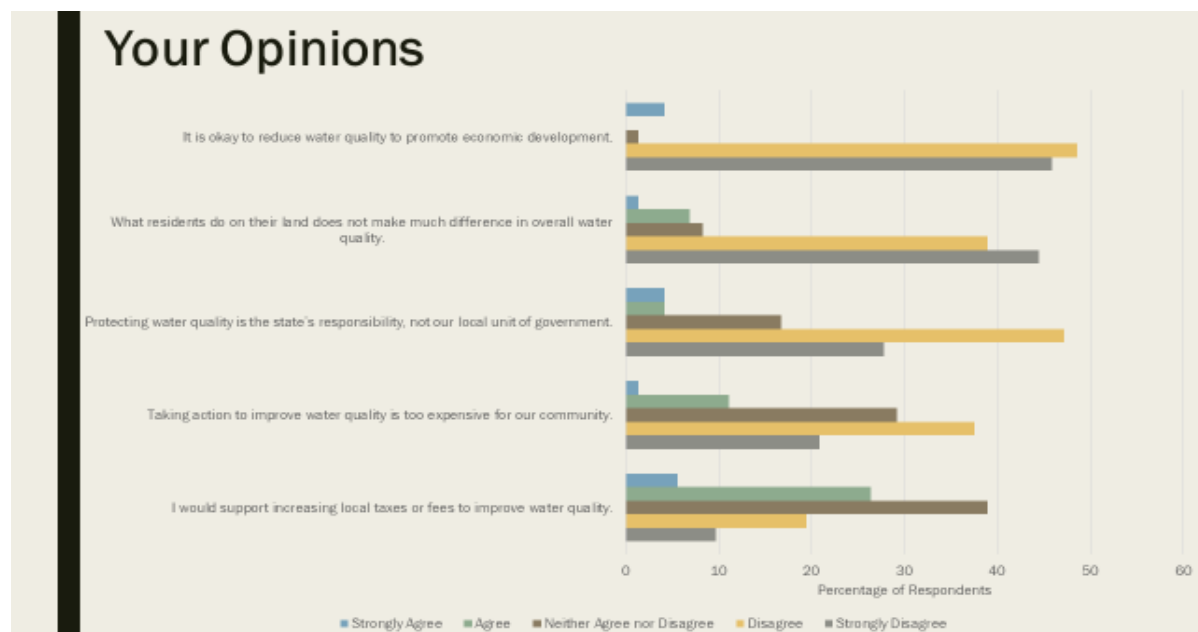
We will review topline results, first. In all three surveys, watershed residents, shoreline property owners, and local officials all believe the following:

- ✓ Quality of our water is “good”
- ✓ There are few Watershed impairments
- ✓ Economic stability depends on good water quality
- ✓ Not okay to reduce water quality to promote economic development
- ✓ Quality of life in their community depends on good water quality – lakes, rivers, and streams

RESULTS: WATER QUALITY RATING

Overwhelmingly, local officials rate the quality of our water as “okay” or “good.” Very few say “poor.” The most important activities to them are scenic beauty, boating, and picnicking or other family activities, followed by eating locally caught fish and swimming. They also feel responsible for local water quality, expressing strong disagreement with the idea that responsibility for clean water is up to the state. However, they also believe residents are responsible for local water quality.

92% agree or strongly agree that the economic stability of their communities depends upon good water quality. Local officials disagree that taking action to protect water quality is too expensive, and strongly disagree that it is okay to reduce water quality to promote economic development. They were even willing to consider increases in local taxes or fees to improve water quality. There was no significant difference in the way that local officials and watershed residents responded to the economic development questions, but residents were slightly more willing to pay taxes or fees than local officials were willing to impose those taxes or fees.

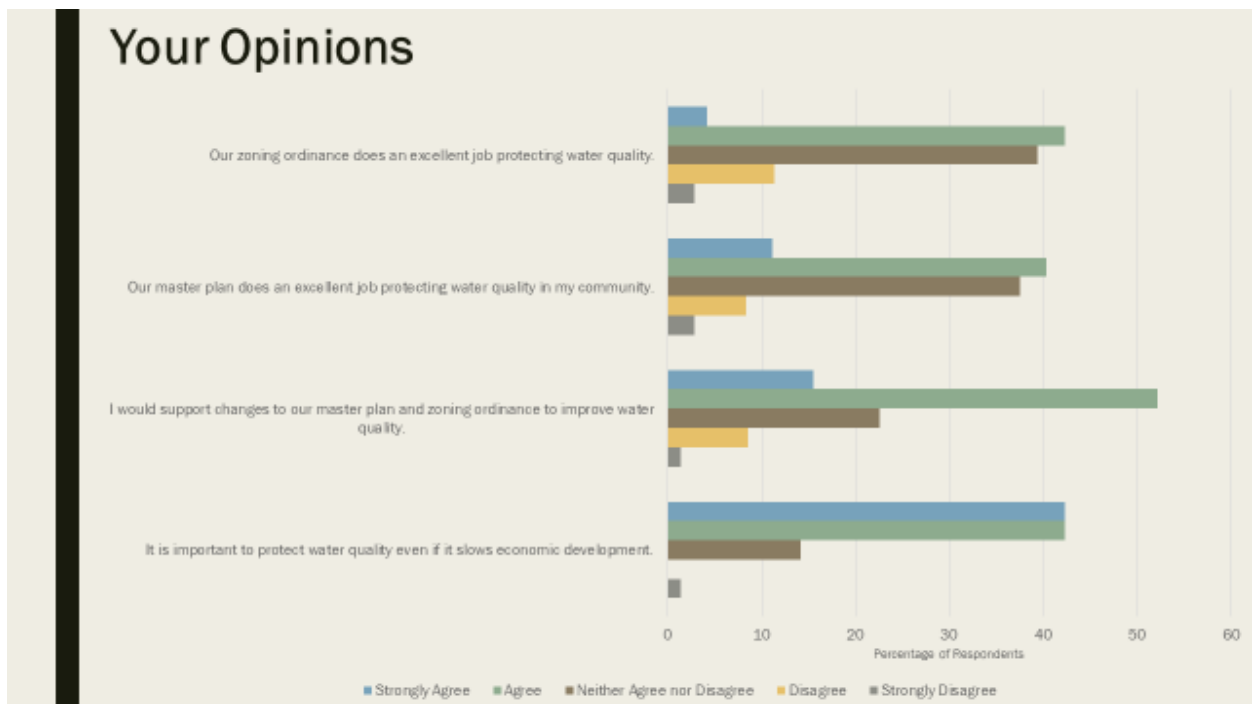


Water pollutants and impairments such as sediments, phosphorus, bacteria and viruses, trash, toxic materials, algae, invasive species, and habitat alteration are potential risks in Michigan waters. Local officials generally believe that there are no severe impairments to the ERCOL Watershed. However, most viewed invasive aquatic plants and animals as the biggest problem, followed by concerns over sedimentation (dirt and soil) in the water. They also noted concerns over habitat alteration harming fish, trash or debris in the water, and algae in the water.

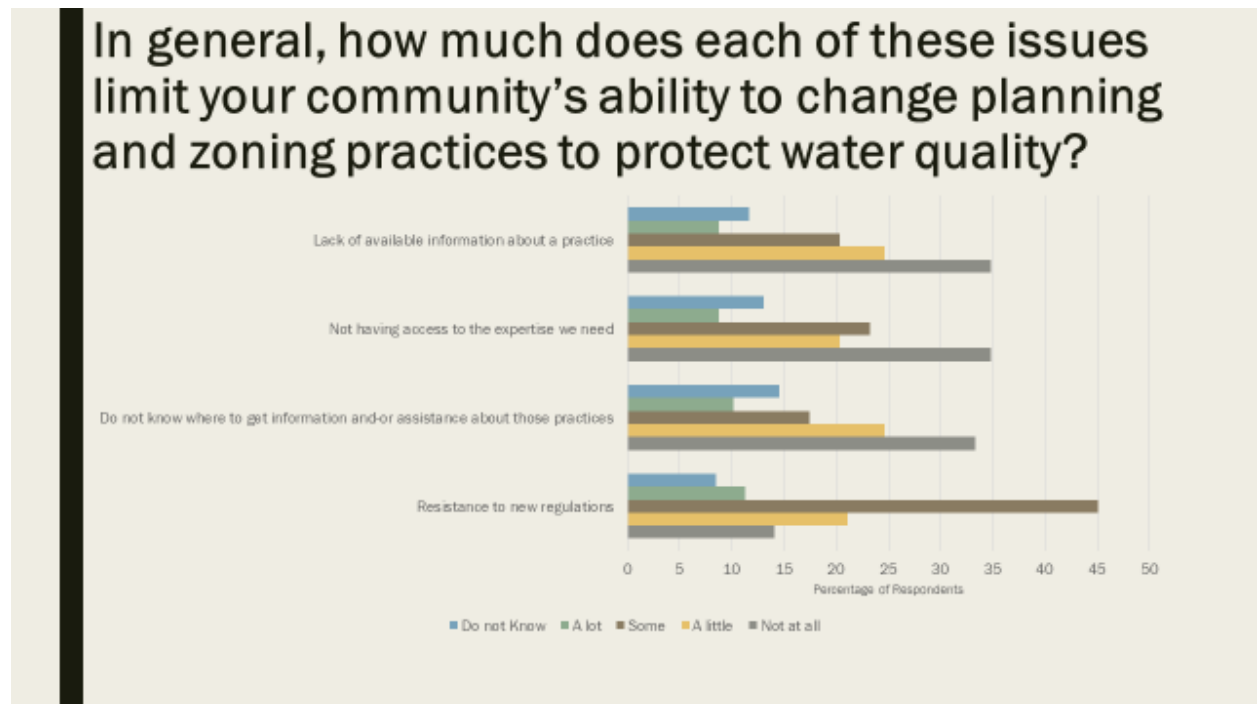
One answer was quite striking with over 50 percent of respondents indicating “don’t know” if toxic materials in the water is a local problem or not. This survey was being answered from late March to early June 2018. At that time, Flint was in the news because the state was cutting off payments for bottled water, and the early news of the discovery of PFAS in some Michigan locations was highly publicized as a threat to water supplies. We can’t prove that those things influenced this answer, but they could have.

RESULTS: LOCAL OFFICIAL PRACTICES

Over 40% believe that their master plan and zoning ordinance does an excellent job protecting water quality. However, another 40% were not sure, neither agreeing nor disagreeing with those statements. Local officials would support changes to their plan and ordinance to improve water quality, with over 60% either agreeing or strongly agreeing with that statement.



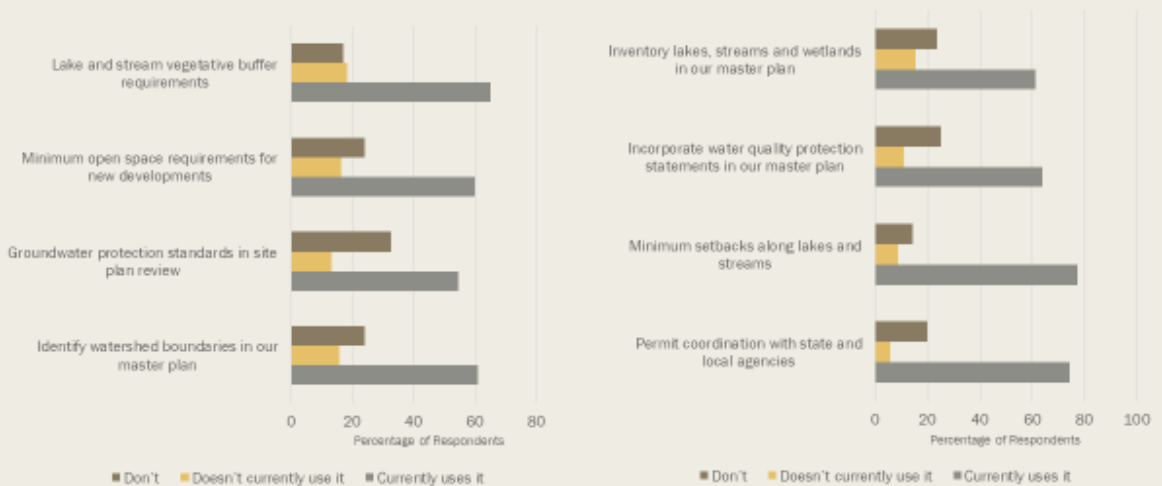
On average, respondents indicated that some issues limited their community’s ability to change planning and zoning practices to protect water quality “a lot” or “some.” The biggest constraints are resistance to new regulations. Next were concerns about economic impact of new regulations, and the expense to develop new regulations on the next slide. Conversely, local officials are not as limited by lack of expertise or information.



RESULTS: SPECIFIC PRACTICES

In terms of current planning and zoning practices to protect water quality, respondents were given a list of items ranging from master plan statements to vegetative buffer requirements. The survey question was asked in two parts, personal familiarity with a practice, and use of the practice by their community. Greatest use was with minimum setbacks along lakes and streams (79%). Next highest uses reported were permit coordination with state and local agencies (78%) followed by lake and stream vegetative buffer requirements (65%). The final two in the top 5 answers were septic system restrictions and stormwater regulations.

Planning and Zoning Practices to Improve Water Quality - My community uses:



Local officials were asked about two specific practices: septic system sizing and maintenance, and riparian buffer maintenance.

For septic systems, 91% had septic systems on their property. The majority of them were installed between 1967 and 2017, a 50-year range, meaning some of them have exceeded expected life spans of 25-30 years old. However, given that a majority of respondents live on their property as a secondary residence, it is possible these systems are not used as much as year-round residences. 49% said they are here for one of the following time periods: *3-5 months; several weekends or a few weeks out of the year; occasionally*. 82% of all who have septic systems reported no troubles. The remaining 18% reported having these issues and some who answered noted more than one problem: slow drains, sewage backup in the house, bad smells near tank or drainfield, sewage on the surface, or a frozen septic.

For riparian buffer maintenance, 65% said their community currently uses it. Those who do not use it said they never heard of it; were somewhat familiar; they know how to use it but do not; or it is not relevant. If not relevant, things like seawalls were noted. Only 5% said they are unwilling to try this practice, meaning broad outreach and education efforts should have a good chance of succeeding.

WHERE DO YOU SEEK WATER QUALITY INFO?

When asked where respondents find information about water quality, the following methods were noted, and several listed more than one. A majority listed newsletters, brochures, and fact sheets (74%). 54% said they get information from conversations

with others, followed by 49% who said the internet. Newspapers/magazines and workshops/demonstrations/meetings each got over 30%.

INFO SOURCES

Respondents were fairly trustful of common information sources, with most sources being “moderately” or “very much” trusted by most participants. The most trusted sources are:

- Michigan State University Extension
- Antrim Conservation District
- Tip of the Mitt Watershed Council
- Michigan Department of Natural Resources
- Michigan Department of Agriculture
- Michigan Department of Environmental Quality
- The Watershed Center Grand Traverse Bay
- ERCOL-WPIT

APPENDIX A: RAW DATA RESPONSES

Rating of Water Quality

Overall, how would you rate the quality of the water in your local rivers, streams, and lakes?

	N	Poor (1)	Okay (2)	Good (3)	Don't Know	Mean (SD)
a. For canoeing/kayaking/other boating	69	0	7.2	89.9	2.9	2.93 (.26)
b. For eating locally caught fish	69	1.4	17.4	71	10.1	2.77 (.46)
c. For swimming	69	5.8	21.7	69.6	2.9	2.66 (.59)
d. For picnicking and family activities	69	2.9	14.5	81.2	1.4	2.79 (.48)
e. For fish habitat	69	4.3	17.4	66.7	11.6	2.7 (.56)
f. For scenic beauty	68	0	4.4	95.6	0	2.96 (.21)

Your Opinions

Please indicate your level of agreement or disagreement with the statements below.

	N	Strongly Disagree (1)	Disagree (2)	Neither Agree nor Disagree (3)	Agree (4)	Strongly Agree (5)	Mean (SD)
a. The economic stability of my community depends upon good water quality.	72	0	2.8	5.6	36.1	55.6	4.44 (0.73)
b. The way that residents of my community care for their lawn and yard can influence water quality in local streams and lakes.	72	1.4	1.4	6.9	38.9	51.4	4.38 (0.8)
c. Residents are personally responsible to help protect water quality.	72	0	0	4.2	40.3	55.6	4.51 (0.58)
d. It is important to protect water quality even if it slows economic development.	71	1.4	0	14.1	42.3	42.3	4.24 (0.8)
e. What residents do on their own land doesn't make much difference in overall water quality.	72	44.4	38.9	8.3	6.9	1.4	1.82 (0.95)
f. Our master plan does an excellent job protecting water quality in my community.	72	2.8	8.3	37.5	40.3	11.1	3.49 (0.9)
g. Protecting water quality is the state's responsibility, not our local unit of government.	72	27.8	47.2	16.7	4.2	4.2	2.1 (1)
h. Taking action to improve water quality is too expensive for our community.	72	20.8	37.5	29.2	11.1	1.4	2.35 (0.98)
i. It is okay to reduce water quality to promote economic development.	72	45.8	48.6	1.4	0	4.2	1.68 (0.87)
j. Our zoning ordinance does an excellent job protecting water quality.	71	2.8	11.3	39.4	42.3	4.2	3.34 (0.84)
k. I would support increasing local taxes or fees to improve water quality.	72	9.7	19.4	38.9	26.4	5.6	2.99 (1.04)
l. I would support changes to our master plan and zoning ordinance to improve water quality.	71	1.4	8.5	22.5	52.1	15.5	3.72 (0.88)
m. The quality of life in my community depends on good water quality in local streams, rivers and lakes.	72	2.8	2.8	5.6	43.1	45.8	4.26 (0.9)

Water Impairments

Below is a list of water pollutants and conditions that are generally present in water bodies to some extent. The pollutants and conditions become a problem when present in excessive amounts. In your opinion, how much of a problem are the following water impairments in your area?

	N	Not a Problem (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know	Mean (SD)
a. Sedimentation (dirt and soil) in the water	73	13.7	24.7	30.1	16.4	15.1	2.58 (0.98)
b. Phosphorus	72	8.3	16.7	25	12.5	37.5	2.67 (0.95)
c. Bacteria and viruses in the water (such as E. coli / coliform)	72	15.3	18.1	16.7	18.1	31.9	2.55 (1.12)
d. Trash or debris in the water	72	16.7	38.9	26.4	11.1	6.9	2.34 (0.91)
e. Toxic materials in the water	73	13.7	6.8	13.7	13.7	52.1	2.57 (1.2)
f. Algae in the water	72	11.1	30.6	23.6	13.9	20.8	2.51 (0.95)
g. Invasive aquatic plants and animals	73	0	16.4	32.9	30.1	20.5	3.17 (0.75)
h. Habitat alteration harming local fish	72	11.1	13.9	25	12.5	37.5	2.62 (1.01)

Sources of Water Pollution

The items listed below are sources of water quality pollution across the country. In your opinion, how much of a problem are the following sources in your area?

	N	Not a Problem (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know	Mean (SD)
a. Discharges from industry into streams and lakes	73	42.5	19.2	8.2	9.6	20.5	1.81 (1.05)
b. Discharges from sewage treatment plants	73	50.7	9.6	6.8	9.6	23.3	1.68 (1.08)
c. Soil erosion from construction sites	72	26.4	38.9	13.9	5.6	15.3	1.98 (0.87)
d. Soil erosion from farm fields	72	31.9	22.2	19.4	5.6	20.8	1.98 (0.97)
e. Soil erosion from shorelines and/or streambanks	73	12.3	28.8	38.4	8.2	12.3	2.48 (0.85)
f. Excessive use of lawn fertilizers and/or pesticides	72	8.3	25	25	27.8	13.9	2.84 (0.99)
g. Improperly maintained septic systems	72	5.6	26.4	30.6	15.3	22.2	2.71 (0.87)
h. Droppings from geese, ducks and other waterfowl	72	11.1	19.4	37.5	19.4	12.5	2.75 (0.95)
i. Land development or redevelopment	72	25	20.8	25	9.7	19.4	2.24 (1.03)
j. Urban stormwater runoff	72	25	19.4	23.6	8.3	23.6	2.2 (1.03)
k. Removal of riparian vegetation	72	18.1	25	25	11.1	20.8	2.37 (0.99)
l. Drainage / filling of wetlands	72	20.8	22.2	22.2	12.5	22.2	2.34 (1.05)

Consequences of Poor Water Quality

Poor water quality can lead to a variety of consequences for communities. In your opinion, how much of a problem are the following issues in your area?

	N	Not a Problem (1)	Slight Problem (2)	Moderate Problem (3)	Severe Problem (4)	Don't Know	Mean (SD)
a. Beach closures	73	58.9	15.1	13.7	2.7	9.6	1.56 (0.86)
b. Contaminated fish	73	37	12.3	16.4	9.6	24.7	1.98 (1.11)
c. Loss of desirable fish	72	26.4	15.3	12.5	13.9	31.9	2.2 (1.17)
d. Reduced beauty of lakes or streams	72	41.7	27.8	19.4	5.6	5.6	1.88 (0.94)
e. Reduced opportunities for water recreation	72	50	19.4	13.9	6.9	9.7	1.75 (0.98)
f. Excessive aquatic plants or algae	72	16.7	25	27.8	13.9	16.7	2.47 (1)

Planning and Zoning Practices to Improve Water Quality – I personally –

	N	Never heard of it (0)	Am somewhat familiar with it (1)	Know how to use it (2)	Mean (SD)
a. Incorporate water quality protection statements in our master plan	71	16.9	43.7	39.4	1.23 (0.72)
b. Inventory lakes, streams and wetlands in our master plan	71	14.1	49.3	36.6	1.23 (0.68)
c. Identify watershed boundaries in our master plan	71	19.7	33.8	46.5	1.27 (0.77)
d. Minimum open space requirements for new developments	71	18.3	31	50.7	1.32 (0.77)
e. Minimum setbacks along lakes and streams	71	8.5	23.9	67.6	1.59 (0.65)
f. Lake and stream vegetative buffer requirements	71	11.3	33.8	54.9	1.44 (0.69)
g. Keyhole {"funneling"} regulations	71	43.7	23.9	32.4	.89 (.87)
h. Impervious surface maximums	69	33.3	30.4	36.2	1.03 (.84)
i. Stormwater regulations	70	17.1	47.1	35.7	1.19 (.71)
j. Rain garden requirements	71	26.8	39.4	33.8	1.07 (.78)
k. Permit coordination with state and local agencies	70	10	42.9	47.1	1.37 (.66)
l. Septic system restrictions	70	11.4	41.4	47.1	1.36 (.68)
m. Urban growth boundaries	71	32.4	35.2	32.4	1 (.81)
n. Groundwater protection standards in site plan review	70	21.4	40	38.6	1.17 (.76)

o.	Development restrictions on steep slopes	69	17.4	44.9	37.7	1.2 (.72)
p.	Municipal wellhead protection	69	36.2	29	34.8	.99 (.85)
q.	Coordinated water quality zoning provisions with neighboring communities	71	35.2	40.8	23.9	.89 (.77)

Planning and Zoning Practices to Improve Water Quality – My Community -

	N	Currentl y uses it (1)	Doesn't currentl y use it (0)	Don't (9)	Mean (SD)	
a.	Incorporate water quality protection statements in our master plan	72	63.9	11.1	25	0.85 (0.36)
b.	Inventory lakes, streams and wetlands in our master plan	72	61.1	15.3	23.6	0.8 (0.4)
c.	Identify watershed boundaries in our master plan	71	60.6	15.5	23.9	0.8 (0.41)
d.	Minimum open space requirements for new developments	67	59.7	16.4	23.9	0.78 (0.42)
e.	Minimum setbacks along lakes and streams	70	77.1	8.6	14.3	0.9 (0.3)
f.	Lake and stream vegetative buffer requirements	71	64.8	18.3	16.9	0.78 (0.42)
g.	Keyhole {"funneling"} regulations	70	35.7	22.9	41.4	0.61 (0.49)
h.	Impervious surface maximums	69	33.3	27.5	39.1	0.55 (0.5)
i.	Stormwater regulations	69	49.3	23.2	27.5	0.68 (0.47)
j.	Rain garden requirements	68	25	35.3	39.7	0.41 (0.5)
k.	Permit coordination with state and local agencies	70	74.3	5.7	20	0.93 (0.26)
l.	Septic system restrictions	68	58.8	29.4	11.8	0.67 (0.48)
m.	Urban growth boundaries	69	29	33.3	37.7	0.47 (0.5)
n.	Groundwater protection standards in site plan review	68	54.4	13.2	32.4	0.8 (0.4)
o.	Development restrictions on steep slopes	70	44.3	20	35.7	0.69 (0.47)
p.	Municipal wellhead protection	69	37.7	23.2	39.1	0.62 (0.49)
q.	Coordinated water quality zoning provisions with neighboring communities	71	26.8	29.6	43.7	0.48 (0.51)

Making Decisions for my Property

In general, how much does each of these issues limit your ability to change your household and lawn care practices?

	N	Not at All (1)	A little (2)	Some (3)	A lot (4)	Don't Know	Mean (SD)
a. Expense to develop new regulations	71	18.3	23.9	32.4	8.5	16.9	2.82 (1.31)
b. Resistance to new regulations	71	14.1	21.1	45.1	11.3	8.5	2.79 (1.09)
c. The need to learn new skills or techniques	69	14.5	23.2	31.9	13	17.4	2.96 (1.29)
d. Not having access to the expertise we need	69	34.8	20.3	23.2	8.7	13	2.45 (1.39)
e. Lack of available information about a practice	69	34.8	24.6	20.3	8.7	11.6	2.38 (1.35)
f. No communities we know are implementing the practice	69	20.3	13	10.1	4.3	52.2	3.55 (1.68)
g. Approval by residents of my community	70	14.3	24.3	27.1	15.7	18.6	3 (1.32)
h. Legal restrictions	70	15.7	22.9	27.1	8.6	25.7	3.06 (1.41)
i. Do not know where to get information and-or assistance about those practices	70	33.3	24.6	17.4	10.1	14.5	2.48 (1.42)
j. Concerns about economic impact of new regulations	69	15.9	23.2	37.7	8.7	14.5	2.83 (1.24)
k. Lack of need for additional regulations in our community	70	21.4	21.4	30	5.7	21.4	2.84 (1.41)
l. Other {please specify} - _____	10	20	20	10	0	50	3.4 (1.78)

About You

1. What is your gender?

N=68
57.4 Male
42.6 Female

2. What is your age? _____

N=65
27 – 87 Range
63.52 Average

3. What is the *highest grade* in school you have completed?

N=68
0 Some formal schooling
10.3 High school diploma / GED
22.1 Some college
11.8 2 year college degree
35.3 4 year college degree
20.6 Graduate degree

4. How long have you *lived at your current residence in the watershed?*

_____ years
N=67
1 – 71 Range
24.9 Average

**5. What is your role in the community?
(check all that apply)**

N=53
34 Planning Commission
13.2 Zoning Board of Appeals
52.8 Elected Officials

6. In what type of community do you serve?

N=72
13.9 County
54.2 Township
0 City
31.9 Village
0 Tribal

7. Does your community have a zoning ordinance?

N=70
84.3 Yes
15.7 No
0 I do not know

**8. What water resources does your community include?
(check all that apply)**

N=73
38.4 Elk Lake
23.3 Lake Skegemog
45.2 Torch Lake
28.8 Clam Lake
27.4 Grass River
26 Lake Bellaire
34.2 Intermediate Lake
16.4 Hanley Lake
13.7 Ben-way Lake
17.8 Wilson Lake
26 Ellsworth Lake
21.9 Sixmile Lake
12.3 None of these

**9. Where are you likely to seek information about water quality issues?
(check all that apply)**

N=71
64.8 Newsletters/brochures/fact sheet
49.3 Internet
7 Radio
45.1 Newspapers/magazines
62 Workshops/demonstrations/meetings
60.6 Conversations with others
16.9 Other - _____

Information Sources

People get information about water quality from a number of different sources. To what extent do you trust those listed below as a source of information about soil and water?

	N	Not at All (1)	Slightly (2)	Moderately (3)	Very much (4)	Am not familiar	Mean (SD)
a. ERCOL Watershed Management Plan Project	66	4.5	9.1	10.6	37.9	37.9	3.95 (1.13)
b. Planning publications	69	4.3	18.8	37.7	24.6	14.5	3.26 (1.07)
c. U.S. Environmental Protection Agency {USEPA}	68	10.3	17.6	36.8	29.4	5.9	3.03 (1.06)
d. Michigan State University Extension	71	2.8	14.1	28.2	53.5	1.4	3.37 (0.85)
e. Michigan Department of Agriculture	71	2.8	19.7	29.6	40.8	7	3.3 (0.96)
f. Michigan Department of Natural Resources	70	2.9	10	37.1	47.1	2.9	3.37 (0.82)
g. Michigan Department of Environmental Quality	71	4.2	11.3	42.3	39.4	2.8	3.25 (0.86)
h. Environmental Groups (Which ones) - _____	1	0	0	0	100	0	4 (0)
i. Planning officials like me in other communities	70	10	21.4	40	15.7	12.9	3 (1.14)
j. County Planning Department	69	8.7	21.7	46.4	17.4	5.8	2.9 (0.99)
k. Planning Consultants	69	5.8	23.2	40.6	20.3	10.1	3.06 (1.04)
l. Statewide organizations (Which ones) - _____	0	N/A	N/A	N/A	N/A	N/A	N/A (0)
m. Municipal Attorneys	68	17.6	23.5	38.2	8.8	11.8	2.74 (1.2)
n. Tribal Government	68	25	19.1	19.1	5.9	30.9	2.99 (1.59)
o. Tip of the Mitt Watershed Council	69	1.4	11.6	34.8	52.2	0	3.38 (0.75)
p. Conservation Organizations	69	1.4	11.6	49.3	31.9	5.8	3.29 (.81)
q. The Watershed Center Grand Traverse Bay	69	8.7	14.5	30.4	37.7	8.7	3.23 (1.09)
r. Local Conservation District	69	2.9	5.8	34.8	53.6	2.9	3.48 (.78)

Responses of Environmental Groups (Which ones) - _____	
Torch Conservation Center	NRDC
Friends of the Jordan, GRNA, Lakes Assoc., Michigan Planner and Seminars, Planning and Zoning News	Tip of the Mitt, DNR, Health Department
Torch Conservation Center	TLPA, Torch Conservation Group
DEQ, DNR	NMEAC
For The Love of Water {FLOW} Grass River Natural Area	Three Lakes. Grass River, Torch Lake Conservancy
TLPA, Elk Lake A	
Tip of the Mitt, 3 Lakes Assoc., Land Conservancy	

Responses of Statewide organizations (Which ones) - _____	
Trout Unlimited	
at Municipal League	
Michigan Townships Assoc	
all seminars, Tip of the Mitt	
EPA	

Septic Systems

1. Do you have a septic system?

N=67
 22.4 No
 1.5 Don't Know
 76.1 Yes

2. If you answered 'yes' to the previous question, what year was it installed?

N=42
 1955 – 2018 Range
 1990.88 Average

3. Within the last five years, have you had any of the following problems? (Check all that apply)

N=64
 9.4 Slow Drains
 1.6 Sewage backup in house
 1.6 Bad smells near tank or drain field
 0 Sewage on the surface
 0 Sewage flowing to ditch
 3.1 Frozen septic
 1.6 Other
 89.1 None
 0 Don't know

4. In the future, would you like a reminder from your local health department regarding inspection/maintenance of your septic system?

N=63
 11.1 Yes
 73 No
 15.9 Don't know

5. Do you think a local government agency should handle inspection and maintenance of septic systems?

N=68
 33.8 Yes
 44.1 No
 22.1 Don't Know

Thank you for your time and assistance!

Please return your completed survey in the postage-paid envelope provided. Please use the space below for any additional comments about this survey or water resource issues in your community.



Project Coordinator:

Grenetta Thomassey

Tip of the Mitt Watershed Council

Phone: (231) 347-1181

Email: grenetta@watershedcouncil.org