

Greater Lansing Regional Water Quality Survey

Findings Report

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2018

**Submitted to the Greater Lansing Regional
Committee for Stormwater Management**

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2018 Greater Lansing Regional Water Quality Survey Executive Summary

Overview

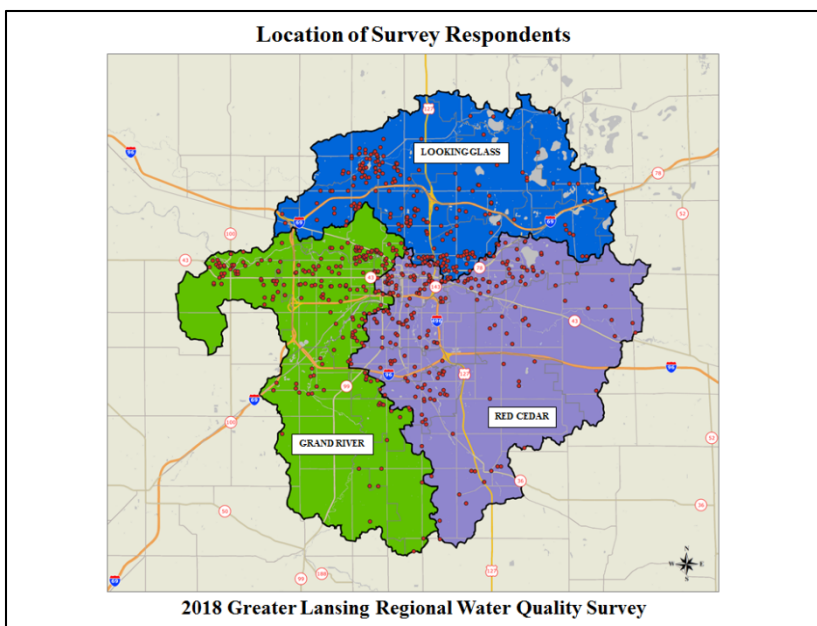
The Greater Lansing Regional Committee for Stormwater Management (GLRC) conducted a water quality survey during the summer of 2018. The purpose of the survey was to gather feedback from residents to determine the effectiveness of regional and local public outreach campaigns on water quality issues in the Greater Lansing region. This is the third regional water quality survey conducted by the GLRC, previous surveys were conducted in 2012 and 2006.

Methodology

ETC Institute mailed a survey packet to a random sample of households in the in the Greater Lansing region, which includes the Looking Glass, Red Cedar, and Grand River watersheds. Each survey packet contained a cover letter, a copy of the survey, and a postage-paid return envelope. Residents who received the survey were given the option of returning the survey by mail or completing it on-line at www.GLRCWaterSurvey.org.

Ten days after the surveys were mailed, ETC Institute sent emails and placed phone calls to the households that received the survey to encourage participation. The emails contained a link to the on-line version of the survey to make it easy for residents to complete the survey. To prevent people who were not residents of the region from participating, everyone who completed the survey on-line was required to enter their home address prior to submitting the survey. ETC Institute then matched the addresses that were entered on-line with the addresses that were originally selected for the random sample. If the address from a survey completed on-line did not match one of the addresses selected for the sample, the on-line survey was not counted.

The goal was to obtain completed surveys from at least 600 residents, 200 from each of the three watersheds. The goal was exceeded with a total of 666 residents completing the survey. A total of 229 surveys were from the Grand River watershed, 217 were collected from the Looking Glass watershed, and 220 surveys were collected from the Red Cedar watershed. The results for each watershed have a precision of at least 6.7% at the



95% level of confidence. The overall results for the sample of 666 households have a precision of at least $\pm 3.8\%$ at the 95% level of confidence.

This report contains the following:

- Charts showing the overall results of the survey (Section 1)
- GIS Maps showing how respondents from different areas of the study area answered select questions on the survey (Section 2)
- Tabular data showing the overall results for all questions on the survey (Section 3)
- Tabular data showing the overall by each of the three watershed districts (Section 4)
- A copy of the survey instrument (Section 5)

The major findings of the survey are summarized below and on the following pages.

Perceptions of Water Resources

Respondents were asked questions about their current perceptions of water resources in the Greater Lansing region. Some of the major findings are listed below.

- Respondents were asked to indicate their level of concern about pollution in lakes, rivers, and other waterways in the Greater Lansing area. Most respondents (93%) indicated they were either “very concerned” (55%) or “somewhat concerned” (38%), 5% of respondents indicated they were “not sure” and only 2% of respondents indicated they were “not concerned” with pollution in lakes, rivers, and other waterways in the Greater Lansing Area.
- Twenty-one percent (21%) of respondents indicated they think the quality of water in lakes, rivers, and streams in the community where they live are improving (“somewhat better” or “much better”), 34% indicated they think the quality of water has remained the same, and 24% indicated they think water quality has declined (“somewhat worse” or “much worse”).
- Most (69%) of respondents indicated they think the way they maintain their home affects the quality of water in lakes and streams in their community, 19% think it has little effect, 5% think it has no effect, and 6% indicated they did not know if it has an effect.
- More than one-third (35%) of respondents indicated their household has taken some type of action to protect water resources in the past five years, 46% have not taken any actions, and 19% indicated they “don’t know” if their household has done anything that would have helped protect water resources.

Connection of Stormwater Runoff and Water Resources

Respondents were asked questions about stormwater runoff and water resource issues. Selected findings are listed below.

- Respondents were asked to indicate what they thought contributed most to pollution in lakes, rivers, and streams in the community where they live. Thirty-one percent (31%) of respondents indicated they think stormwater runoff was the greatest contributor of pollution, 25% think it is factories/industrial discharges, 17% selected agricultural operation,

9% selected sewage overflow, 8% selected construction sites and new development, 7% selected municipal wastewater treatment facilities, and 3% selected animal waste.

- Fifty-three percent (53%) of respondents indicated they think stormwater (rain water) goes directly to lakes and streams without treatment, 19% think it goes to lakes and streams after receiving some treatment, 18% think it goes to a wastewater treatment plant, and 18% indicated they did not know.
- Twenty-five percent (25%) of respondents indicated they do not know or are not familiar with the term watershed, 32% of respondents indicated they live in a watershed, 29% indicated they live near a watershed, and 13% of respondents indicated they do not live in a watershed.

Current Activities

Respondents were asked questions regarding lawn and home care activities. Select findings can be found below.

- Eighty-two percent (82%) of respondents indicated they typically wash their vehicle at a carwash during the summer, this is a 10% increase from 72% in 2012. Seventeen percent (17%) of respondents wash their vehicles at home in the driveway and 3% wash them at home on the grass.
- Only 14% of respondents indicated someone in their household usually changes motor oil, transmission fluid, or radiator fluid for vehicles at home.
- Seventy-two percent (72%) of respondents indicated they typically dispose of materials such as old oil/fluids from their vehicle, batteries, pesticides, paints, or other household hazardous wastes at a scheduled community collection site or facility that accepts like materials, this is a 5% decrease from 77% in 2012. Sixteen percent (16%) dispose of these materials with their regular trash 14% keep them in a container at home, and 1% dispose of them on the ground.
- Respondents who indicated they do not dispose of their household hazardous waste at scheduled community collection sites or facilities were asked to indicate why they do not use the sites or facilities designated for disposal. Thirty-nine percent (39%) of respondents indicated they do not know the location of facilities, 14% do not have time, 7% indicated there are no sites near their home, and 1% indicated they do not think household hazardous waste facilities are necessary.
- Twenty-two percent (22%) of respondents indicated their home has a septic system. Of those who indicated their home has a septic system, 72% have had their septic system checked or serviced during the past five years.
- Thirty-four percent (34%) of respondents indicated their household uses a lawn service for mowing, fertilizer, and/or pesticide applications, this is a 5% increase from 2012. Thirty-nine percent (39%) of those who use a lawn service that uses environmentally friendly products and practices, 5% have asked their lawn service about environmentally friendly products but they are not offered, 27% have not asked but will in the future, 2%

indicated they do not think using environmentally friendly products matters, and 27% indicated they did not know if their service provider offers environmentally friendly products.

- Sixty-eight percent (68%) of respondents indicated they leave their grass clippings and or leaves on the lawn or mulch them into the lawn, 20% set them out for curbside pickup, and 20% compost them in their yard.
- Half of all respondents indicated they never or seldom use fertilizers on their lawn, 5% use fertilizers five or more times per year, 17% use fertilizers three to four times per year, and 27% use fertilizers one or two times per year.

Willingness to Act to Help Reduce Pollution of Streams and Lakes

Respondents were asked to indicate how willing they would be to perform various actions to help reduce pollution in lakes and streams. Respondents were most willing (“very willing” or “willing”) to dispose of household hazardous waste at a community collection event (91%), sweep excess fertilizer and grass clippings from paved surfaces back onto lawns (86%, a 4% decrease from 2012), change their car washing practices (85%), and promptly picking up and disposing of pet waste (84%). Respondents indicated they were least willing to implement green infrastructure on their property (64%).

Best Ways to Inform Residents

Fourteen percent (14%) of respondents indicated they have seen or heard information from the GLRC, 12% have seen information from Pollution Isn’t Pretty, and 6% have seen information from Middle Grand River Organizations of Watersheds (MGROW). Respondents who indicated they have seen or heard information from one of the three organizations listed above were asked to indicate what sources were used. Thirty-seven percent (37%) of respondents saw information on trail signs and 35% saw information in newspapers, magazines or other print materials. Respondents indicated they would most prefer receiving information via social media posts or in newspapers, magazines or other print materials. Most (64%) of respondents indicated they use Facebook, 26% use Instagram, 17% use Twitter, 17% use Snapchat, and 9% use Nextdoor.

Levels of Agreement with Water Quality Statements

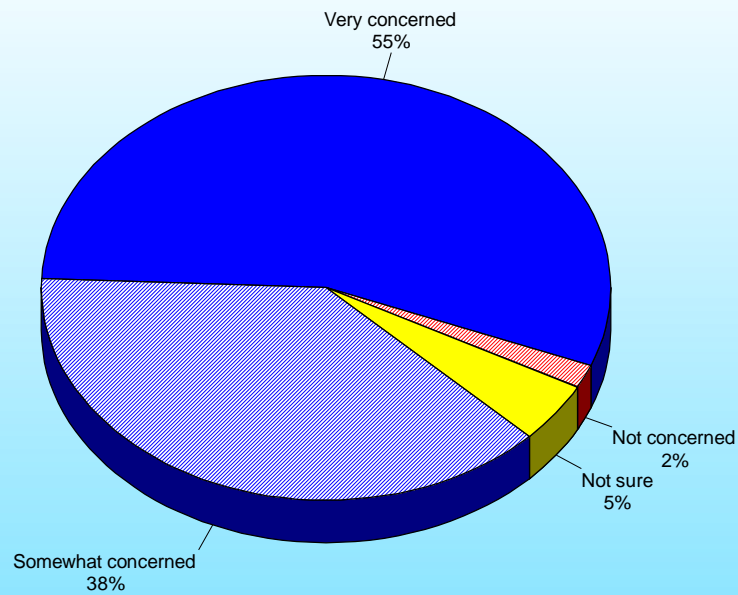
Respondents were asked to indicate how strongly they agree with a set of 11 various statements all related to water quality in the Greater Lansing region. Respondents were most in agreement (“strongly agree” or “agree”) with the following statements: I think it is important to improve the quality of water in lakes and rivers in my community (95%), the quality of local rivers affects property values in my community (89%), the quality of local rivers affects my quality of life (88%), I would support my local government working with other cities and counties to improve water quality (87%), I would support my local government allocating resources to improve water quality (87%), and the quality of local rivers affects drinking water quality (85%).

Section 1

Charts and Graphs

Q1. How concerned are you about pollution in lakes, rivers, and other waterways in the Greater Lansing Area

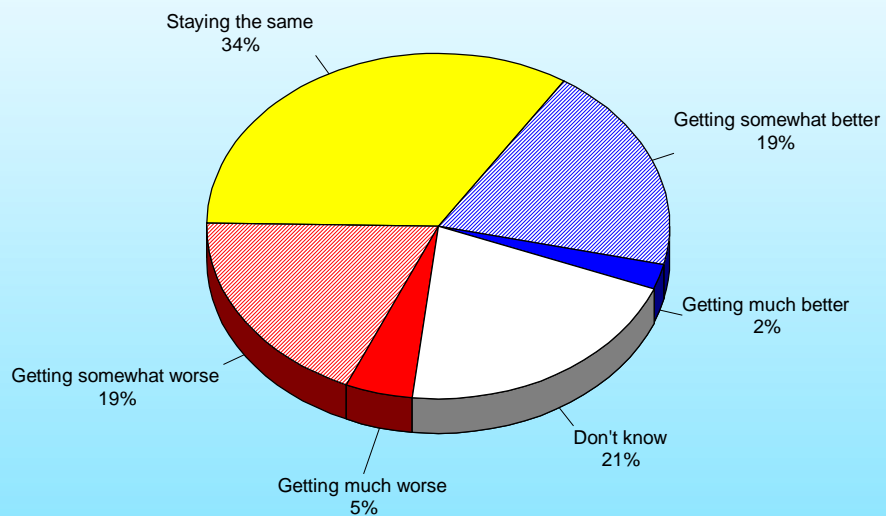
by percentage of respondents



Source: ETC Institute (2018)

Q2. Do you think the quality of water in lakes, rivers, and streams in the community where you live is...

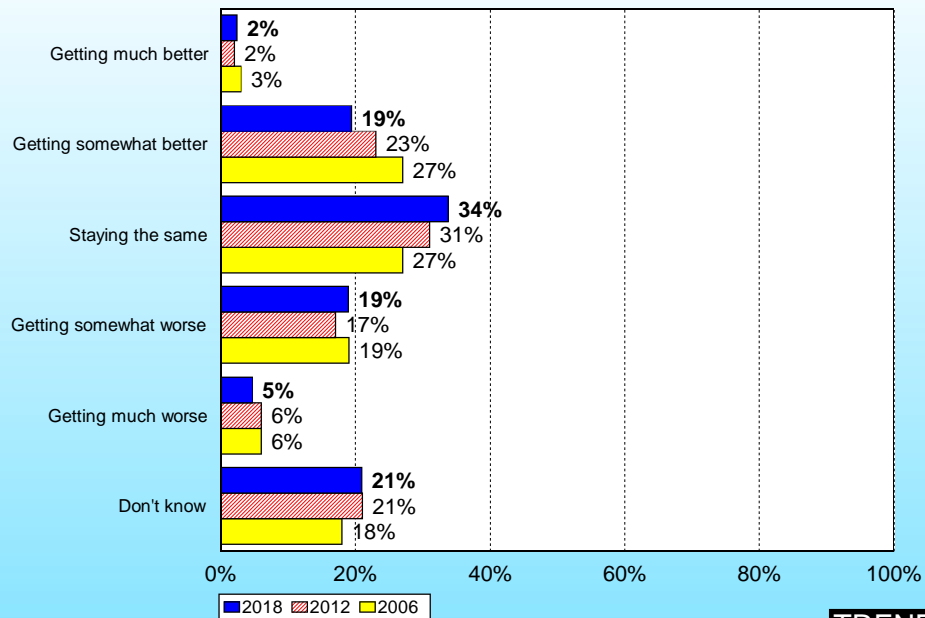
by percentage of respondents



Source: ETC Institute (2018)

Q2. Do you think the quality of water lakes, rivers, and streams in the community where you live is...

by percentage of respondents

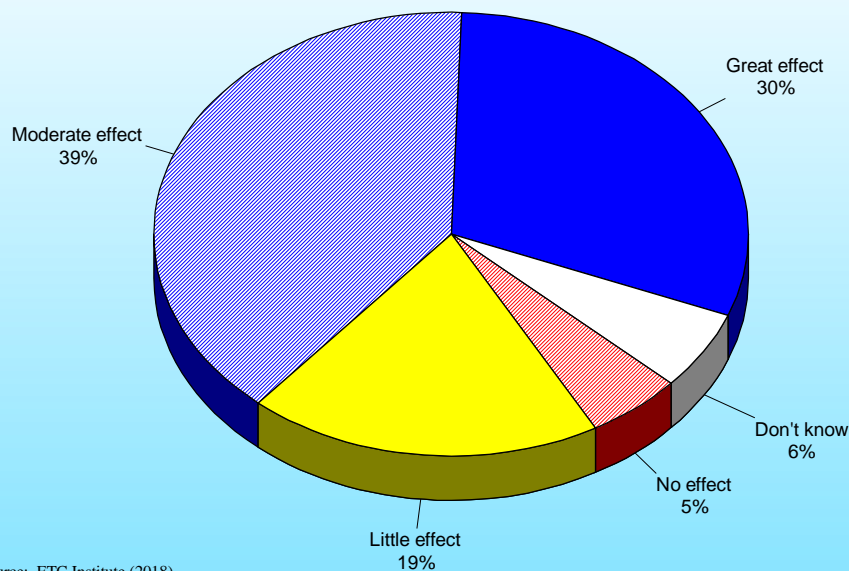


Source: ETC Institute (2018)

TRENDS

Q3. How much do you think the way you maintain your home affects the quality of water in lakes and streams in the community where you live?

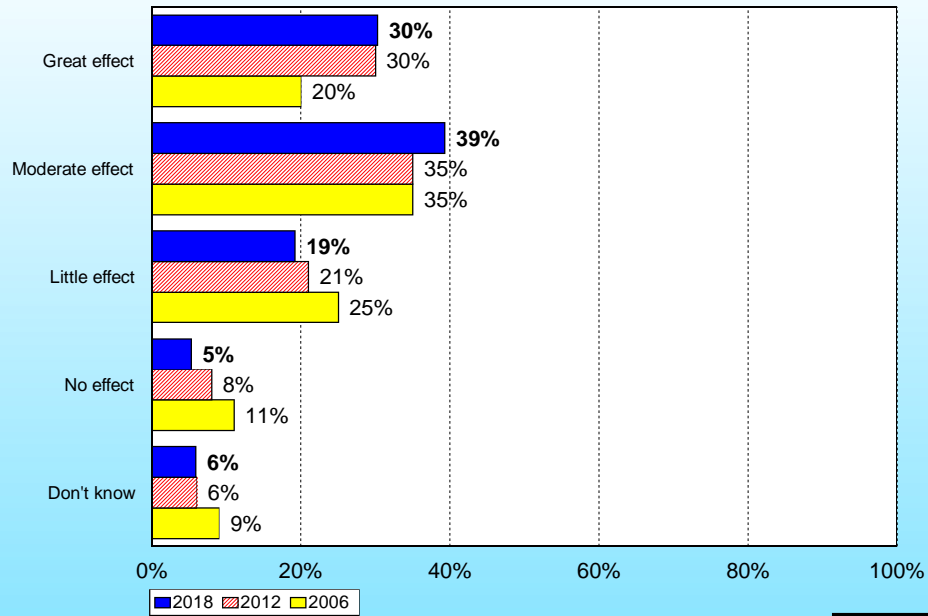
by percentage of respondents



Source: ETC Institute (2018)

Q3. How much do you think the way you maintain your home affects the quality of water in lakes and streams in the community where you live?

by percentage of respondents

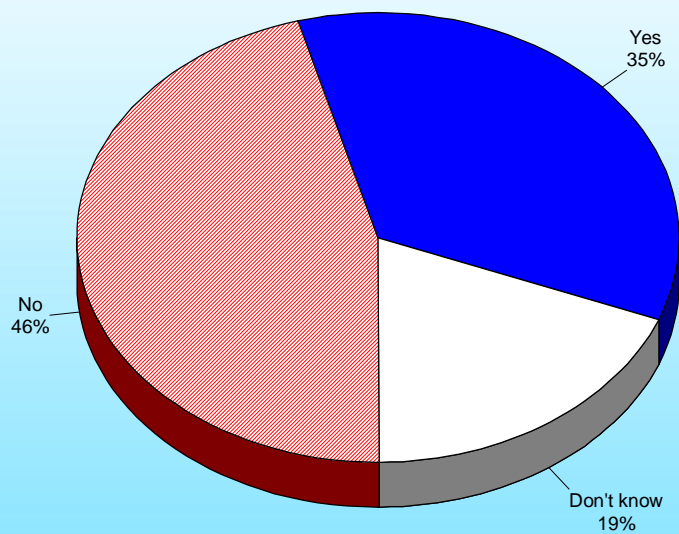


Source: ETC Institute (2018)

TRENDS

Q4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources?

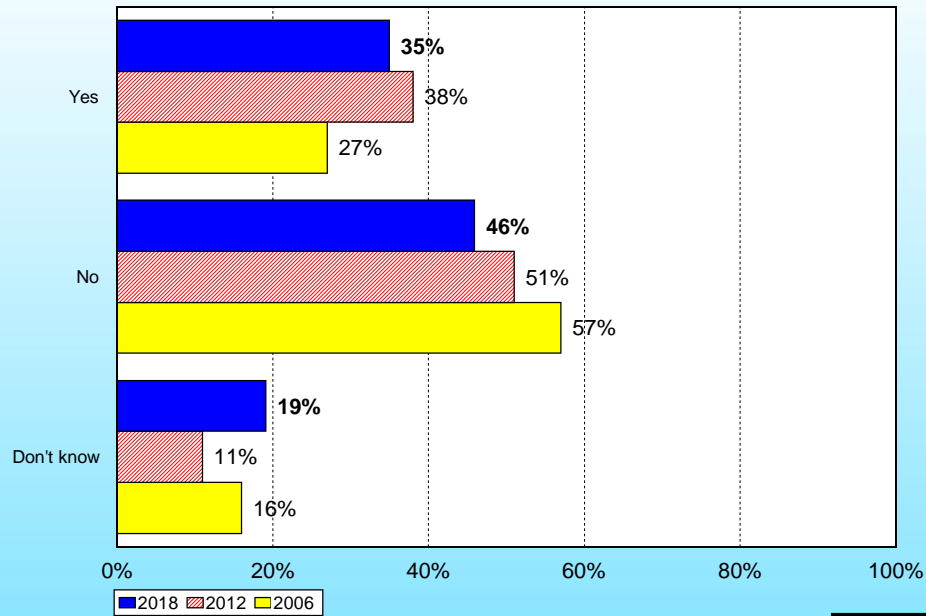
by percentage of respondents



Source: ETC Institute (2018)

Q4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources?

by percentage of respondents

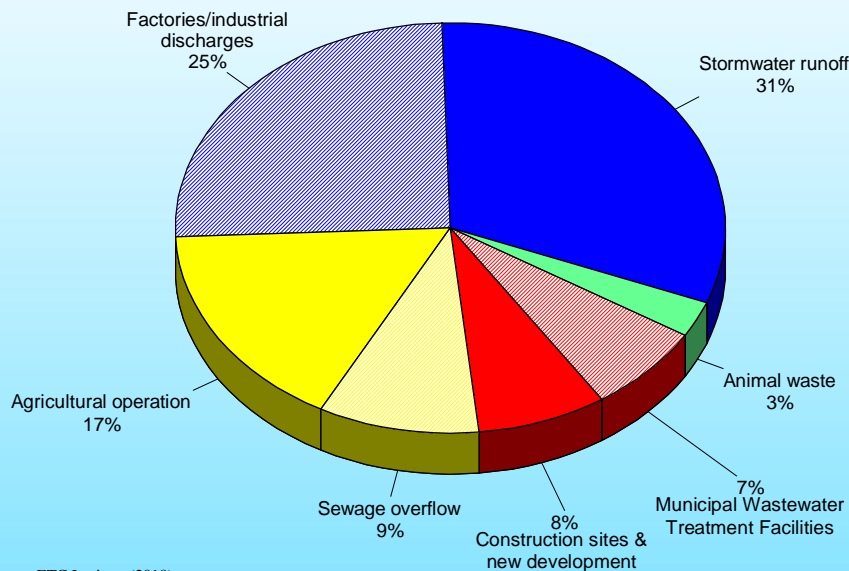


Source: ETC Institute (2018)

TRENDS

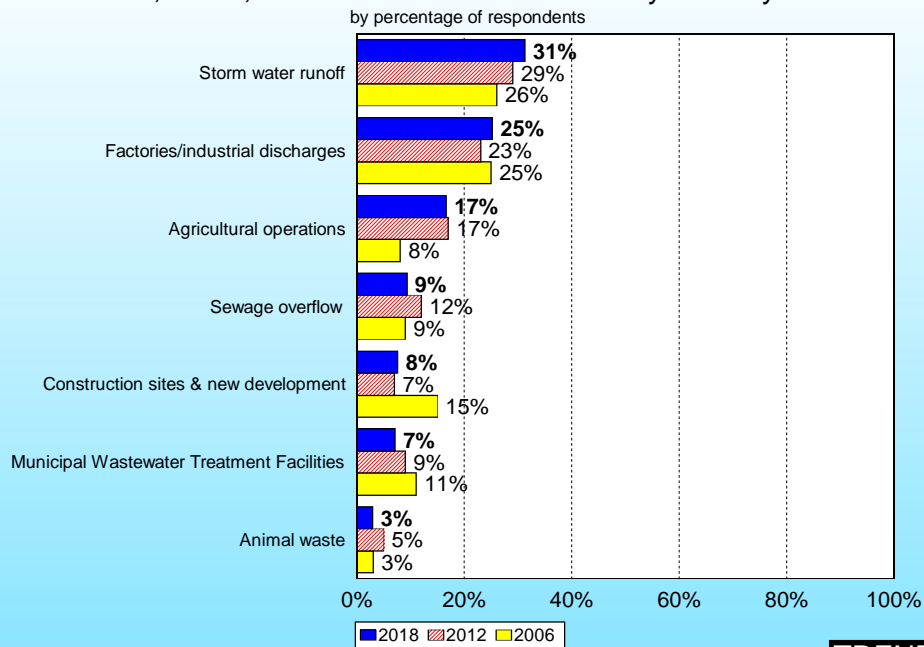
Q5. During the past year, which do you think contributed most to pollution in lakes, rivers, and streams in the community where you live?

by percentage of respondents

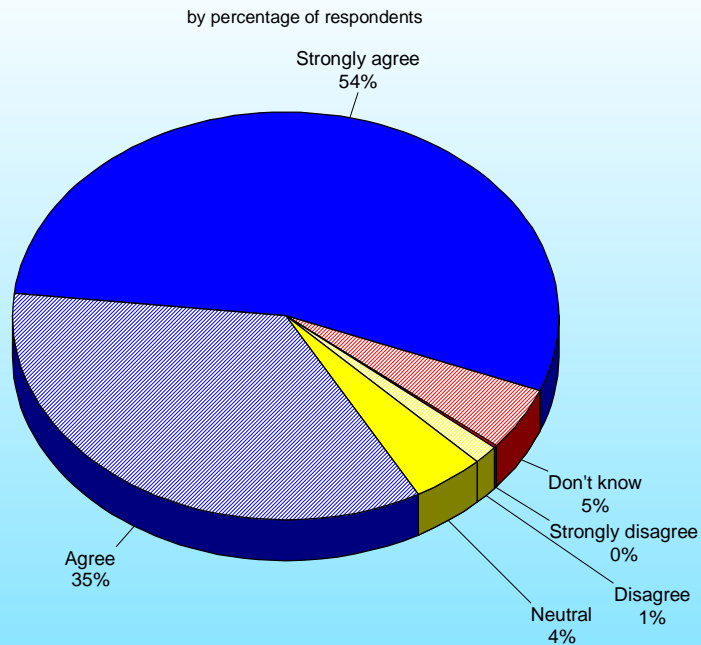


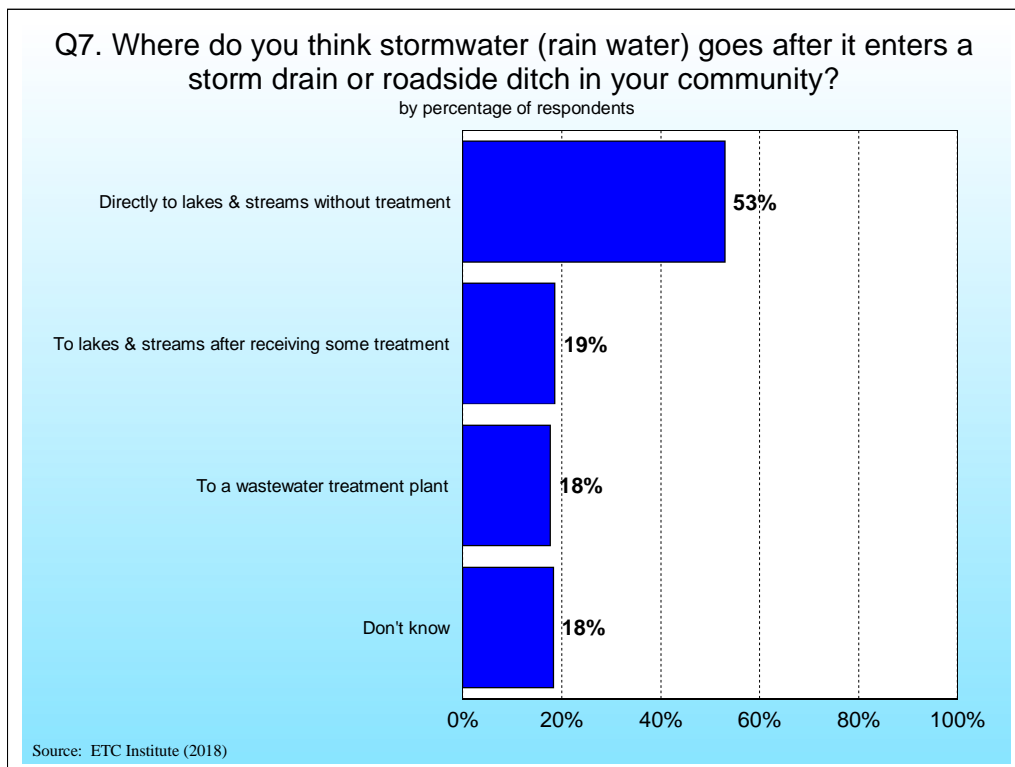
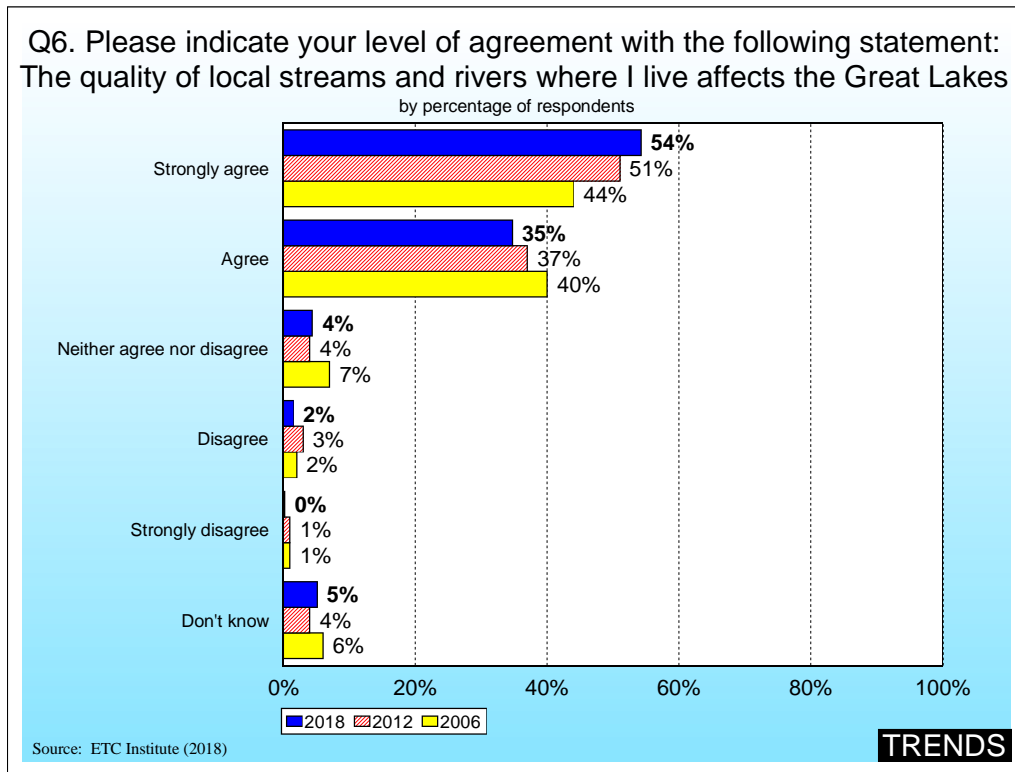
Source: ETC Institute (2018)

Q5. During the past year, which do you think contributed most to pollution in lakes, rivers, and streams in the community where you live?



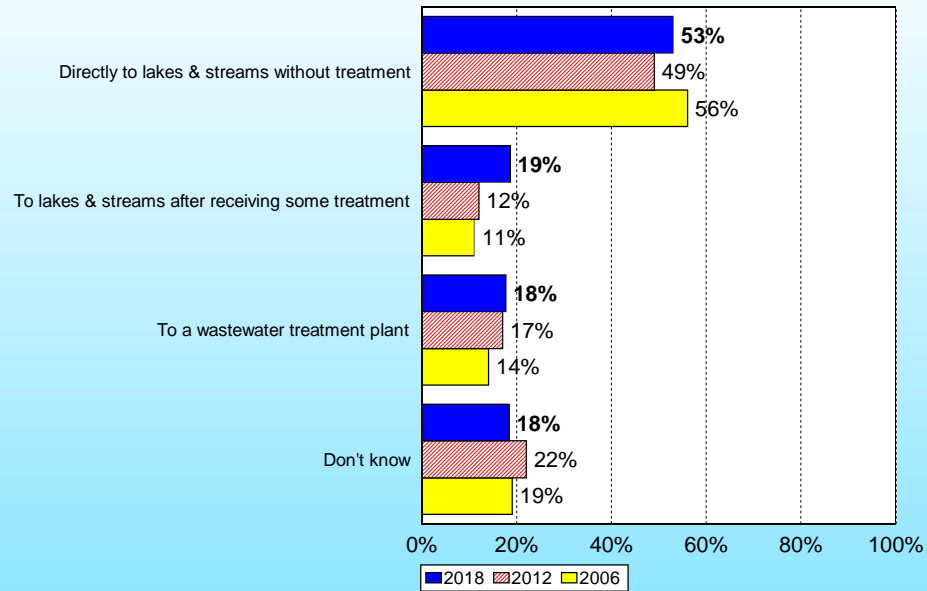
Q6. Please indicate your level of agreement with the following statement:
The quality of local streams and rivers where I live affects the Great Lakes





Q7. Where do you think stormwater (rain water) goes after it enters a storm drain or roadside ditch in your community?

by percentage of respondents

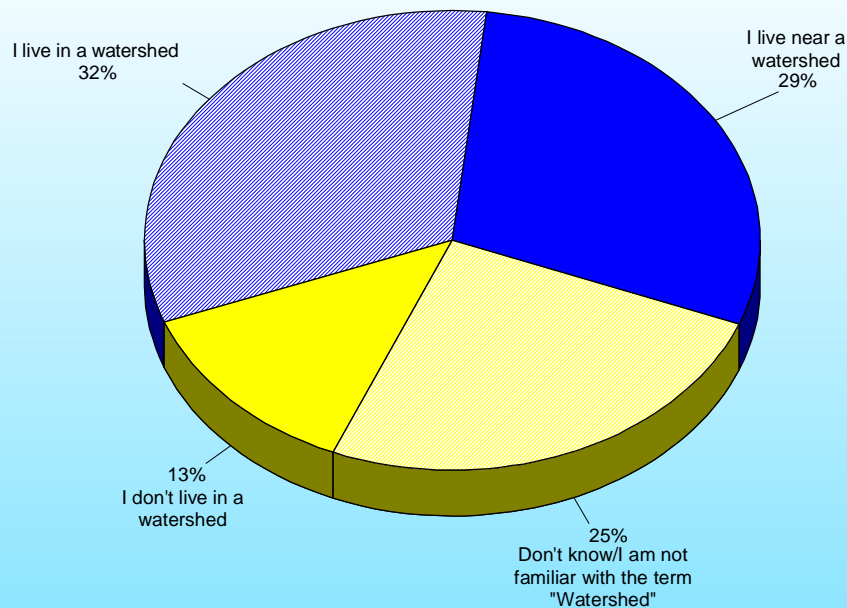


Source: ETC Institute (2018)

TRENDS

Q8. Which statement best describes the location where you live?

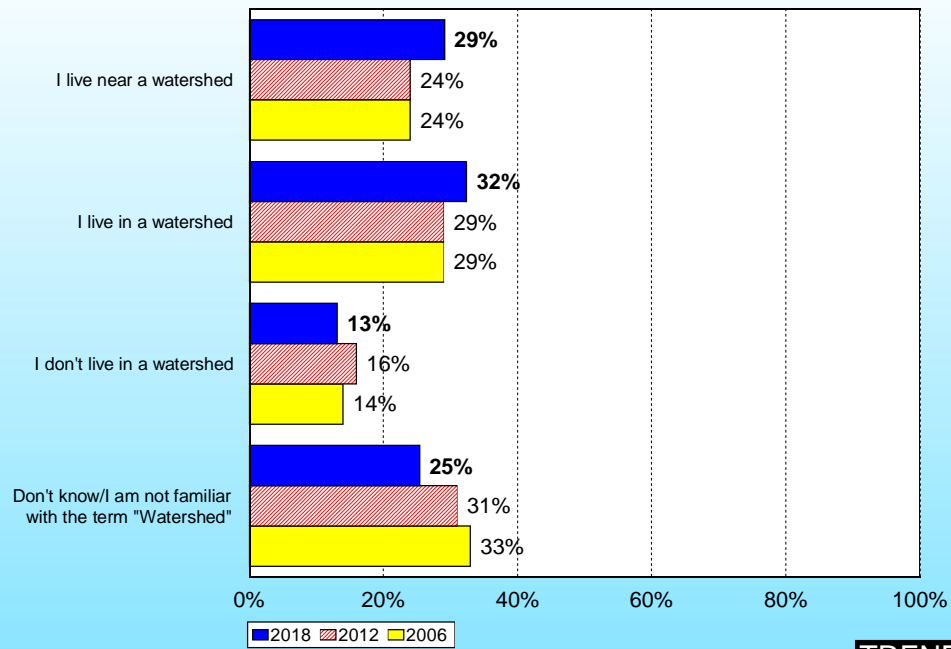
by percentage of respondents



Source: ETC Institute (2018)

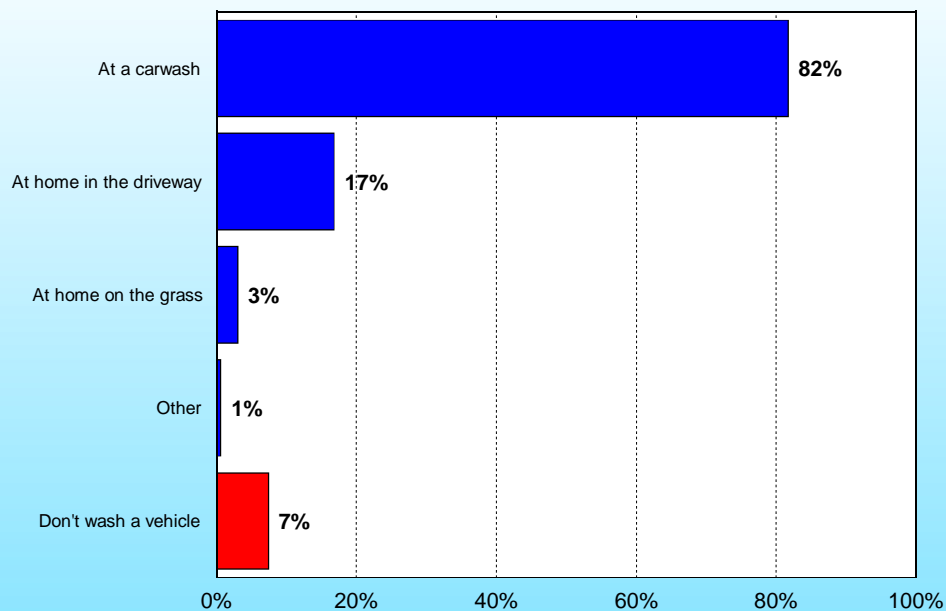
Q8. Which statement best describes the location where you live?

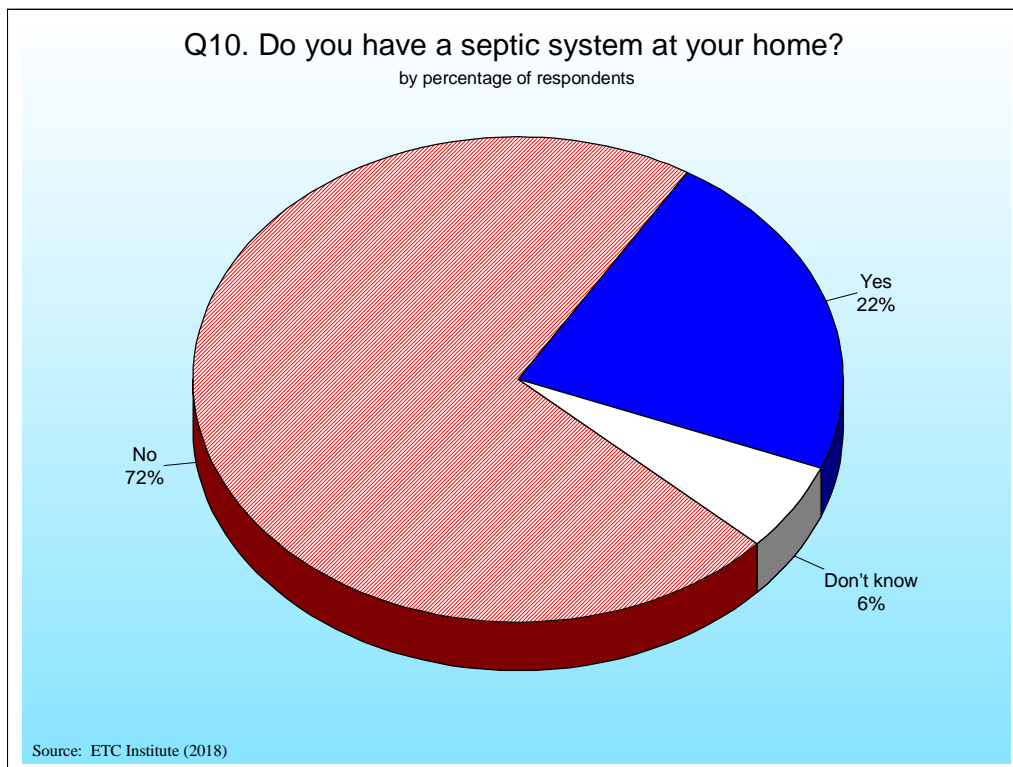
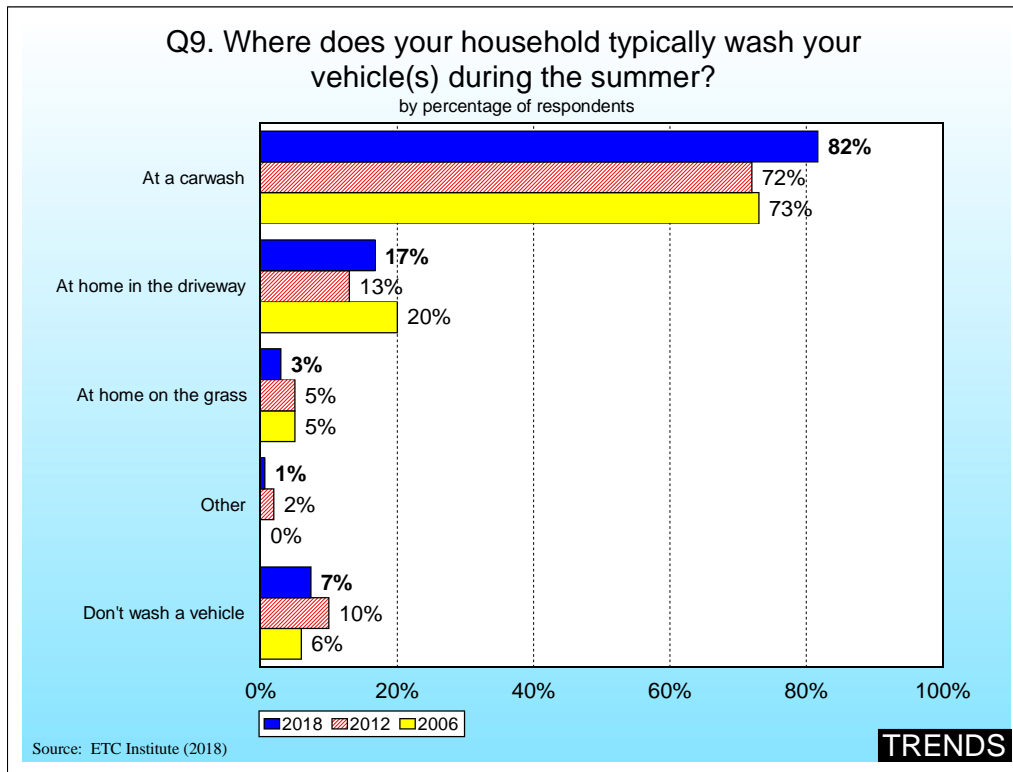
by percentage of respondents

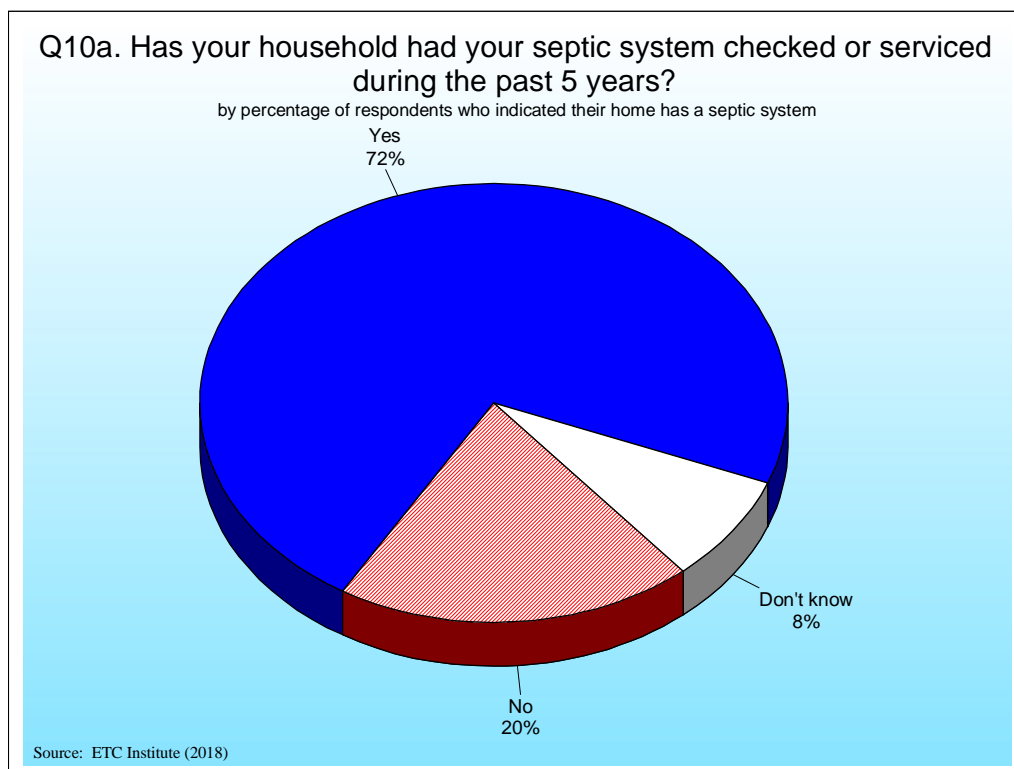
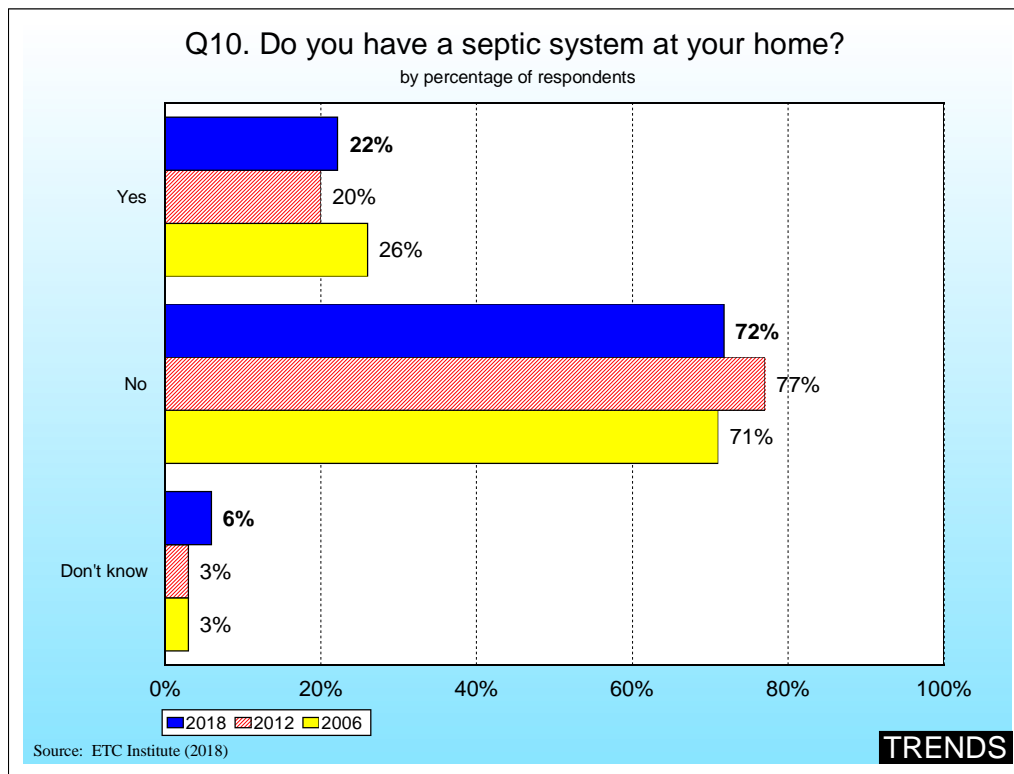


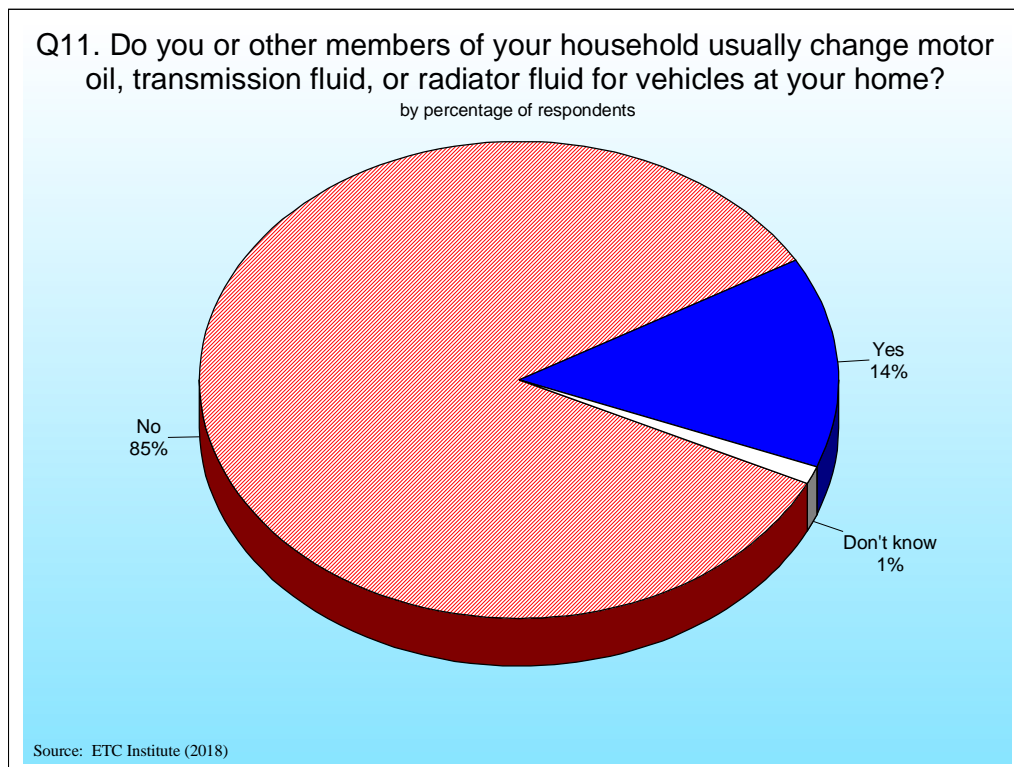
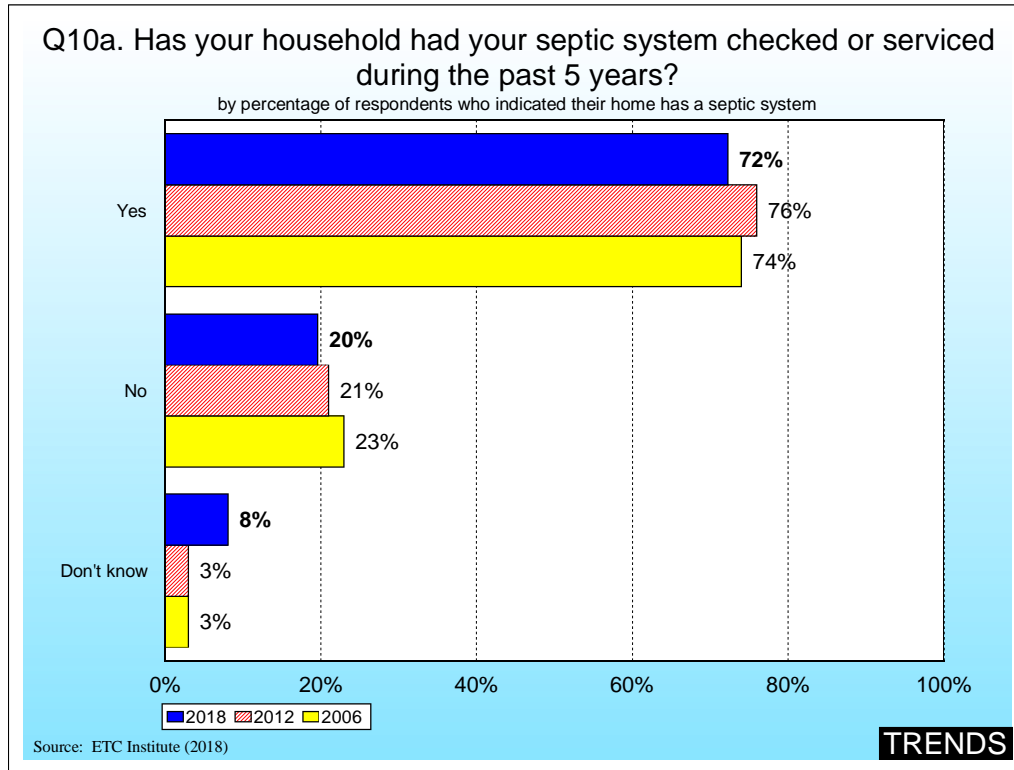
Q9. Where does your household typically wash your vehicle(s) during the summer?

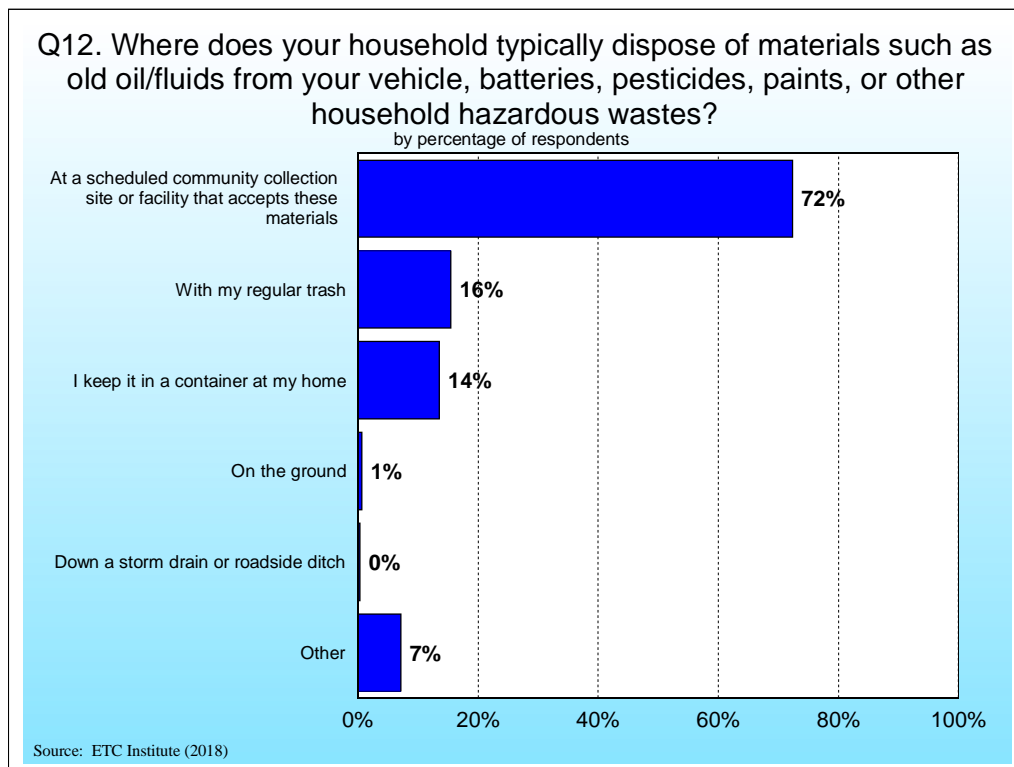
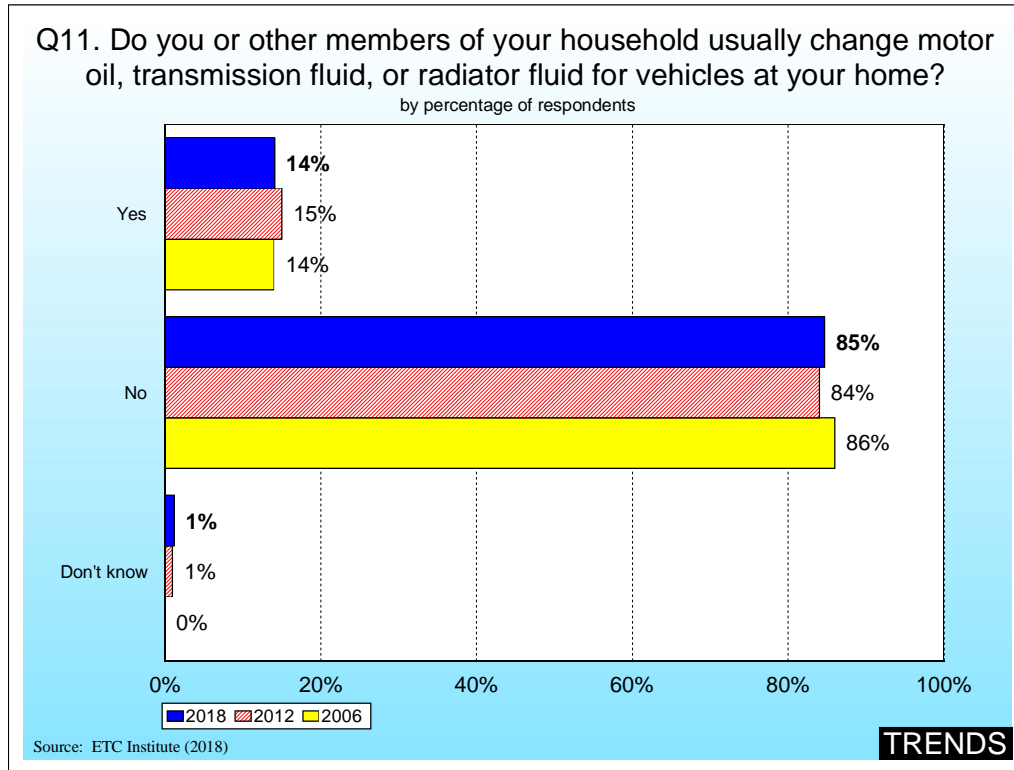
by percentage of respondents

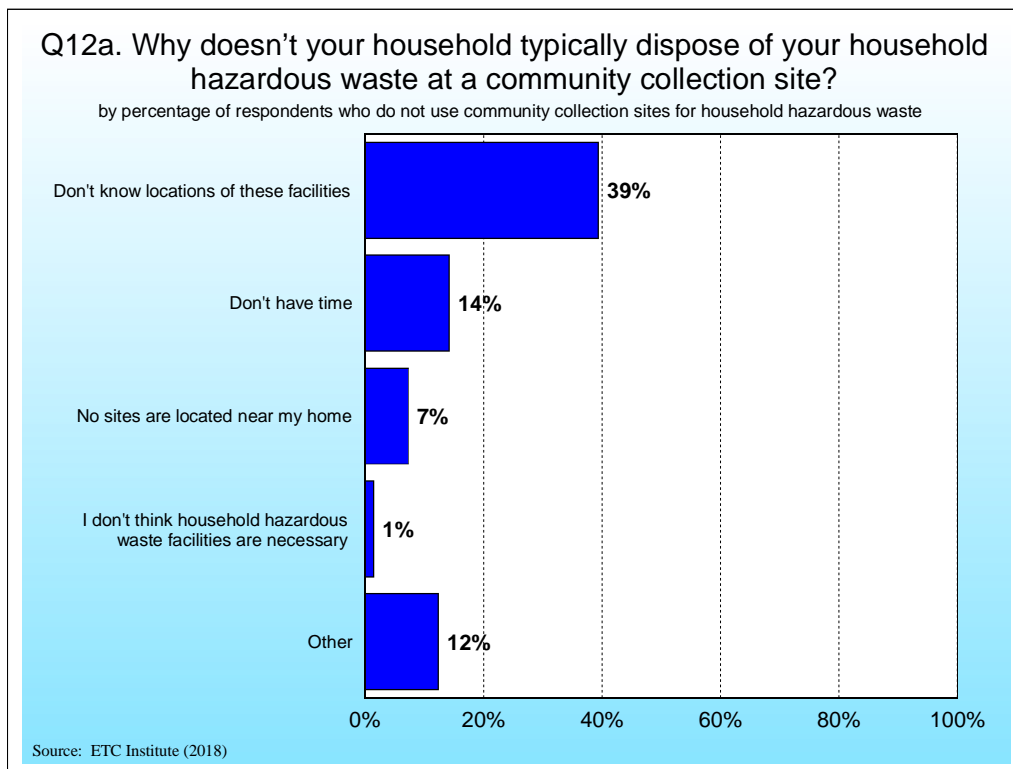
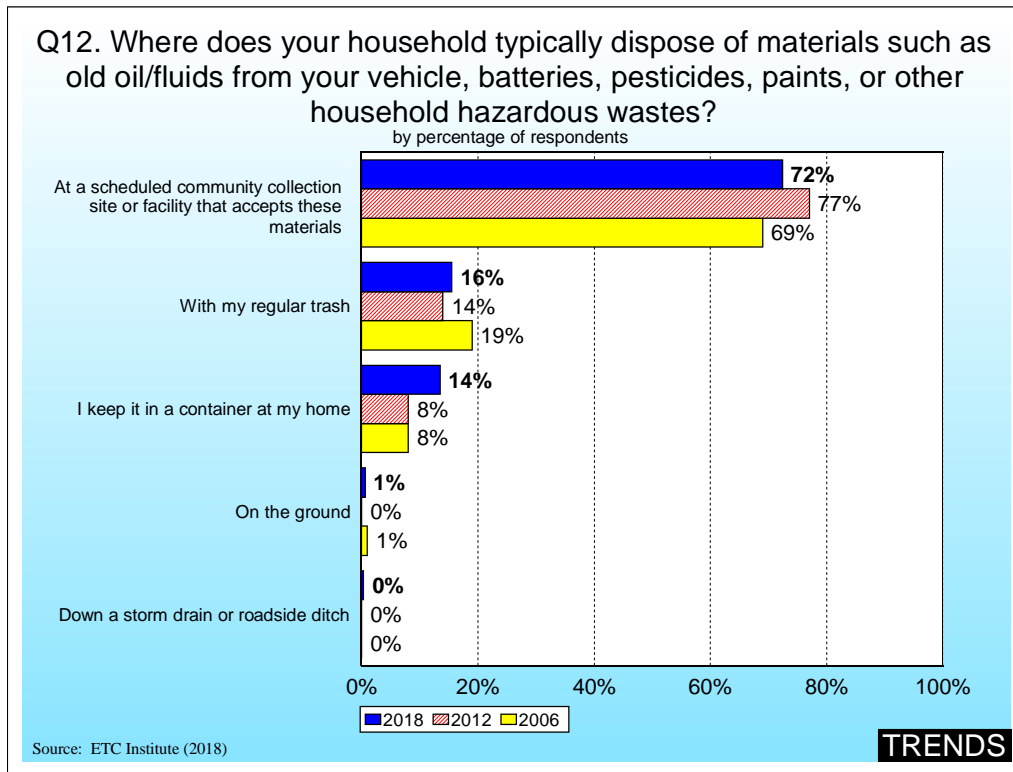






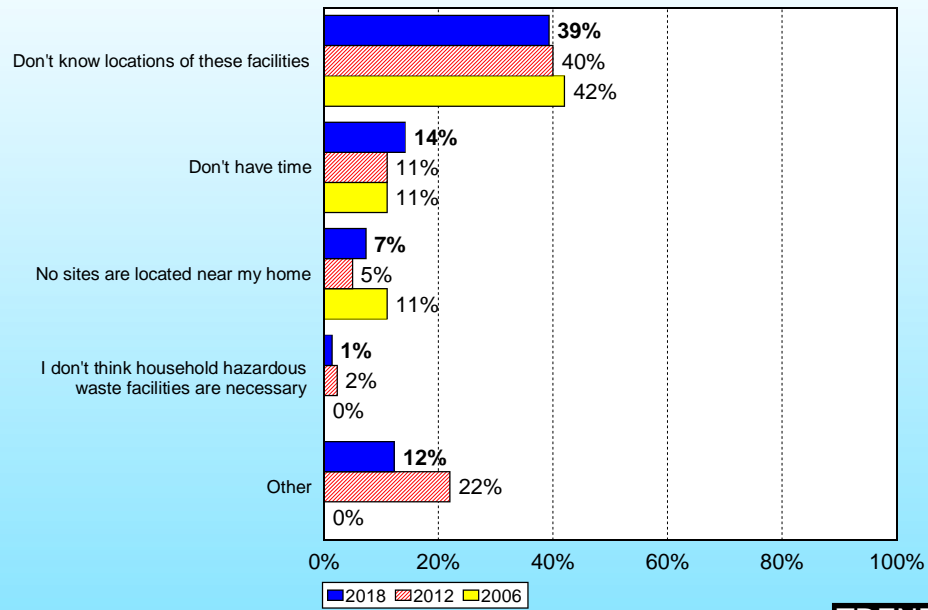






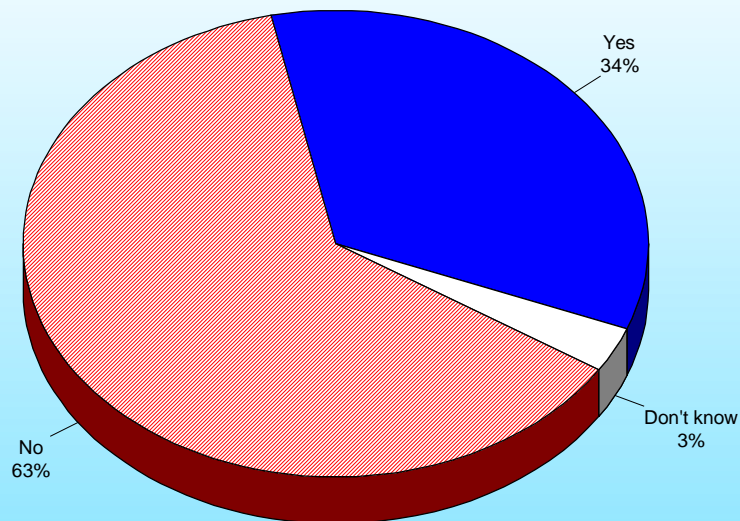
Q12a. Why doesn't your household typically dispose of your household hazardous waste at a community collection site?

by percentage of respondents who do not use community collection sites for household hazardous waste



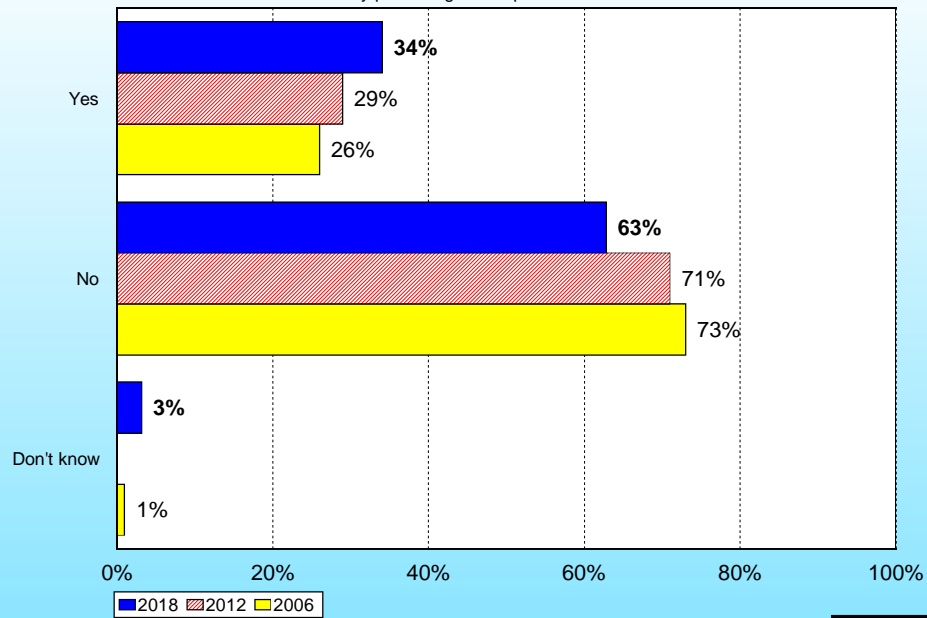
Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?

by percentage of respondents



Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?

by percentage of respondents

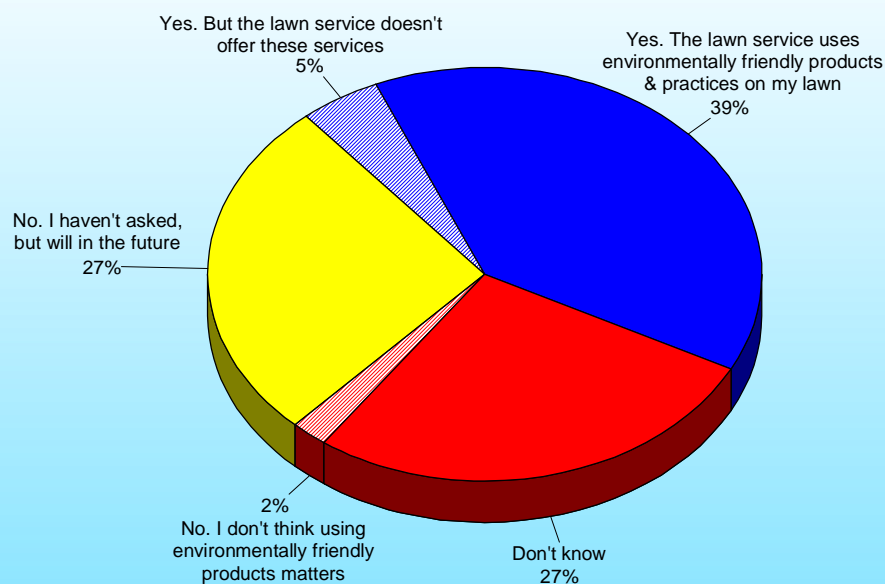


Source: ETC Institute (2018)

TRENDS

Q13a. Does your household ask your lawn service to use environmentally friendly/organic products and practices?

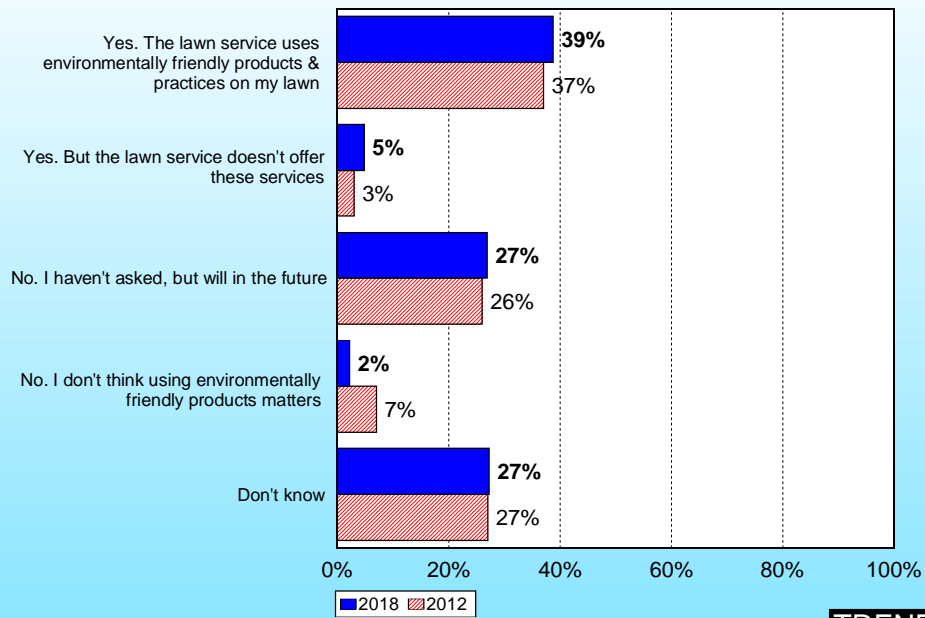
by percentage of respondents who use a lawn service



Source: ETC Institute (2018)

Q13a. Does your household ask your lawn service to use environmentally friendly/organic products and practices?

by percentage of respondents who use a lawn service

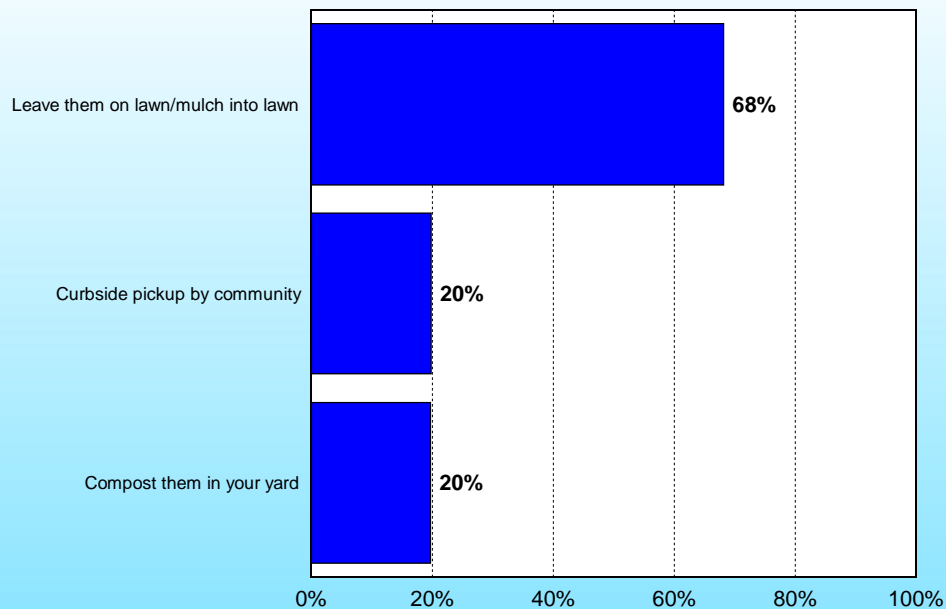


Source: ETC Institute (2018)

TRENDS

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves?

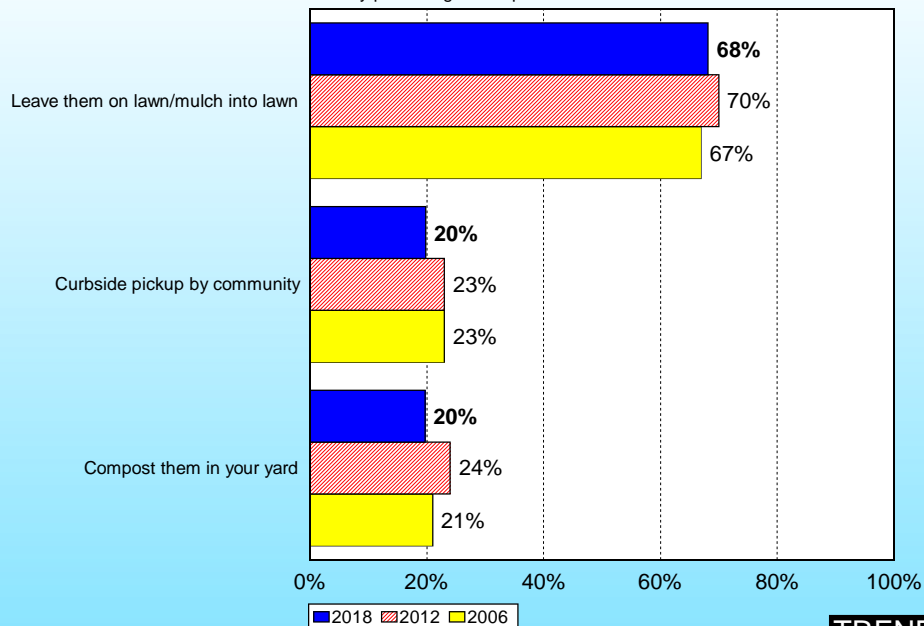
by percentage of respondents



Source: ETC Institute (2018)

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves?

by percentage of respondents

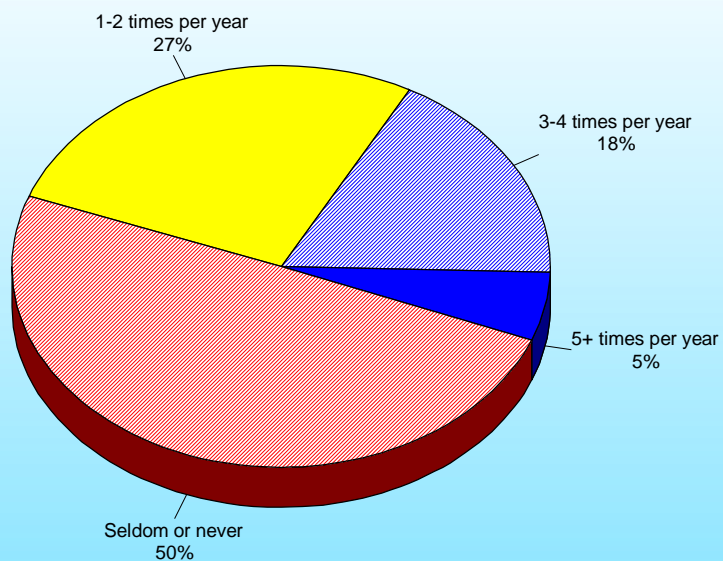


Source: ETC Institute (2018)

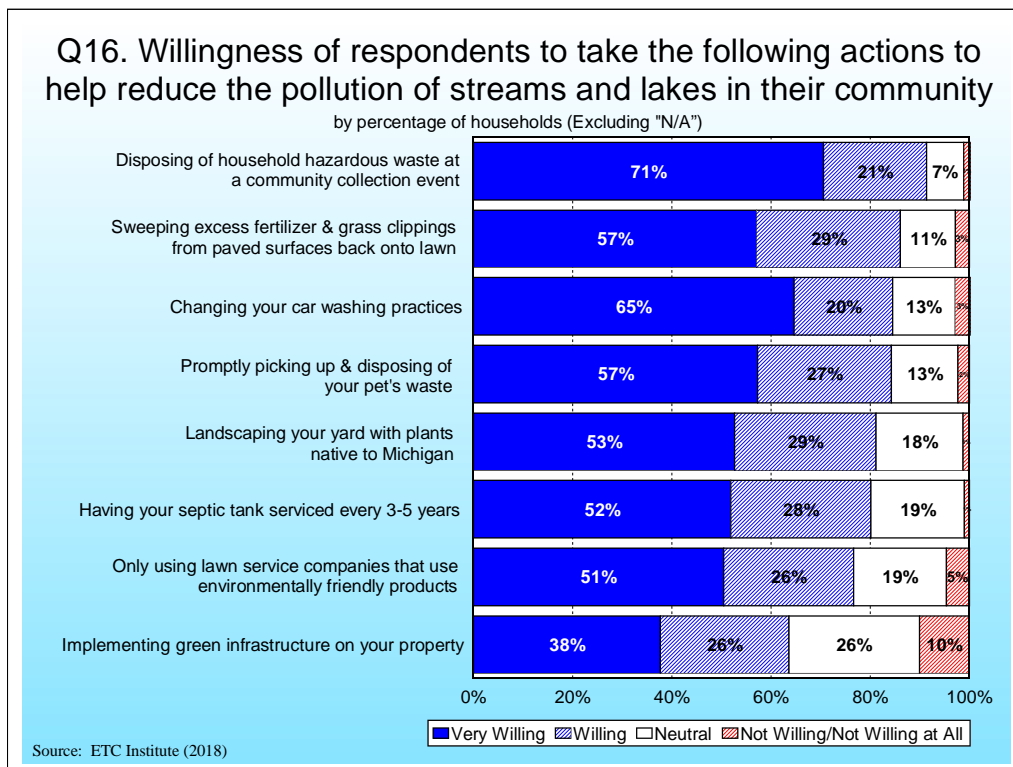
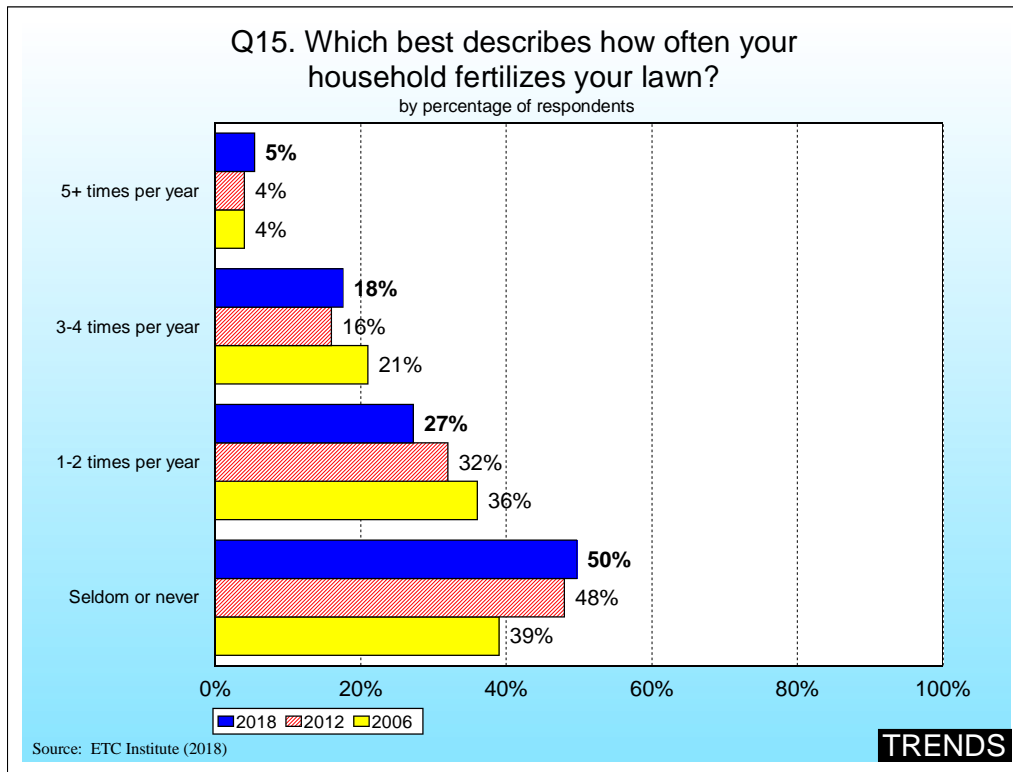
TRENDS

Q15. Which best describes how often your household fertilizes your lawn?

by percentage of respondents

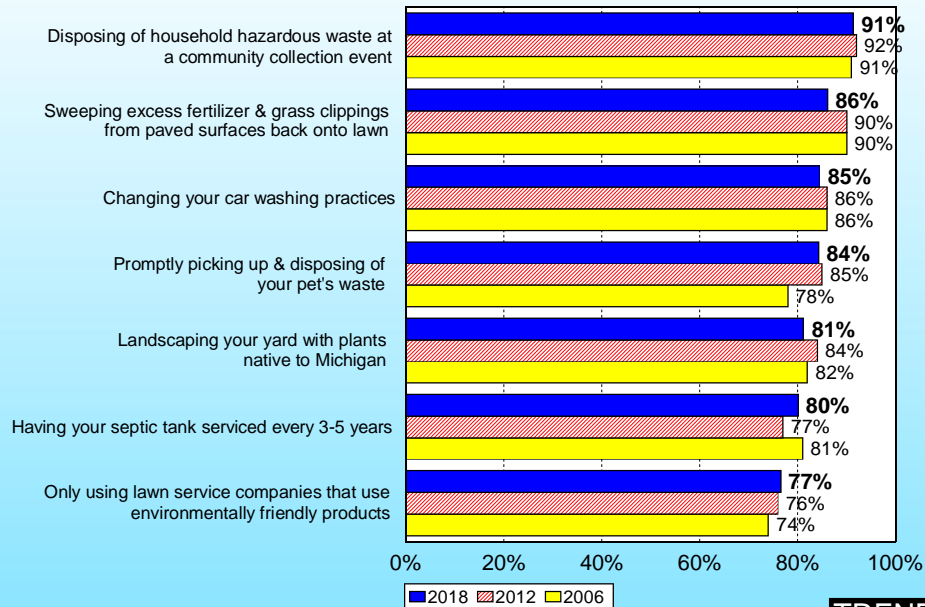


Source: ETC Institute (2018)



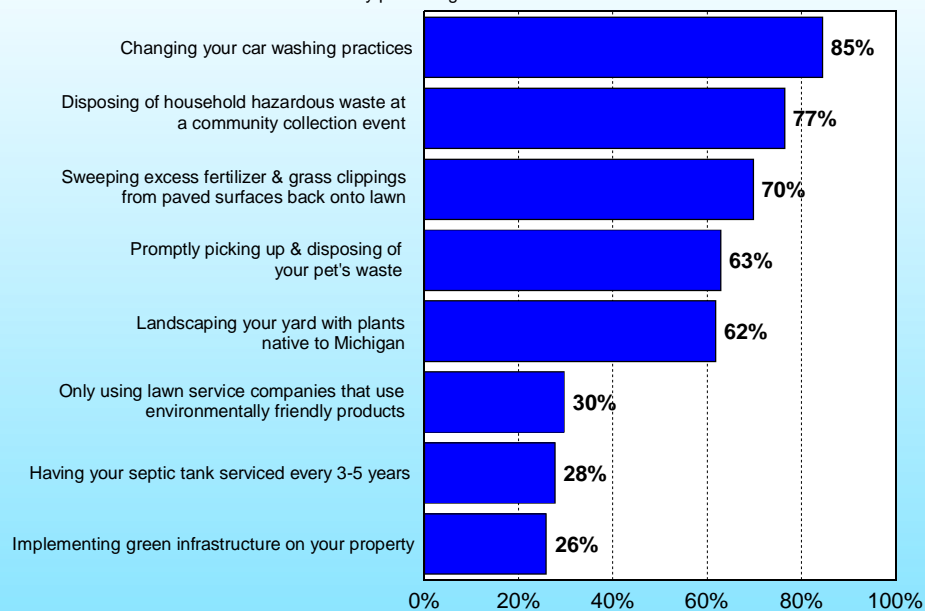
Q16. Willingness of respondents to take the following actions to help reduce the pollution of streams and lakes in their community

by percentage of households (Excluding "N/A")



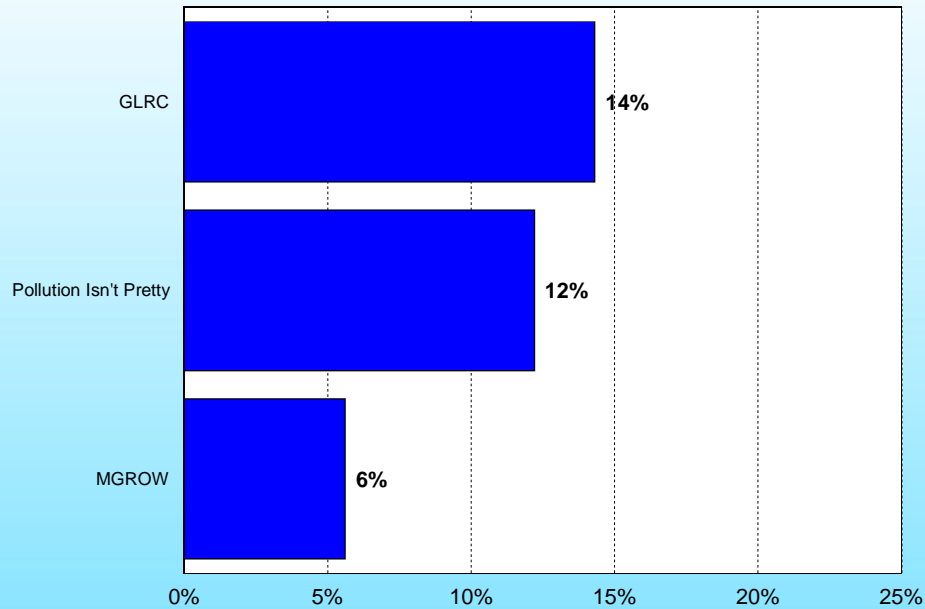
Q16-1. Percentage of respondents who indicated they currently take the following actions

by percentage of households



Q17. Percentage of respondents who indicated they have seen or heard any information from the following groups

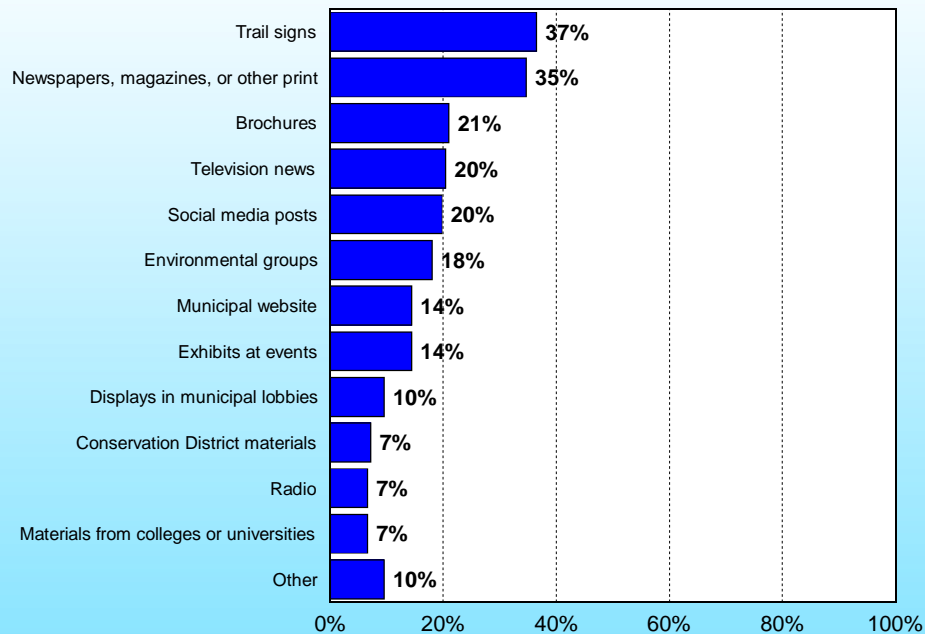
by percentage of households



Source: ETC Institute (2018)

Q18. Sources respondents used to get information

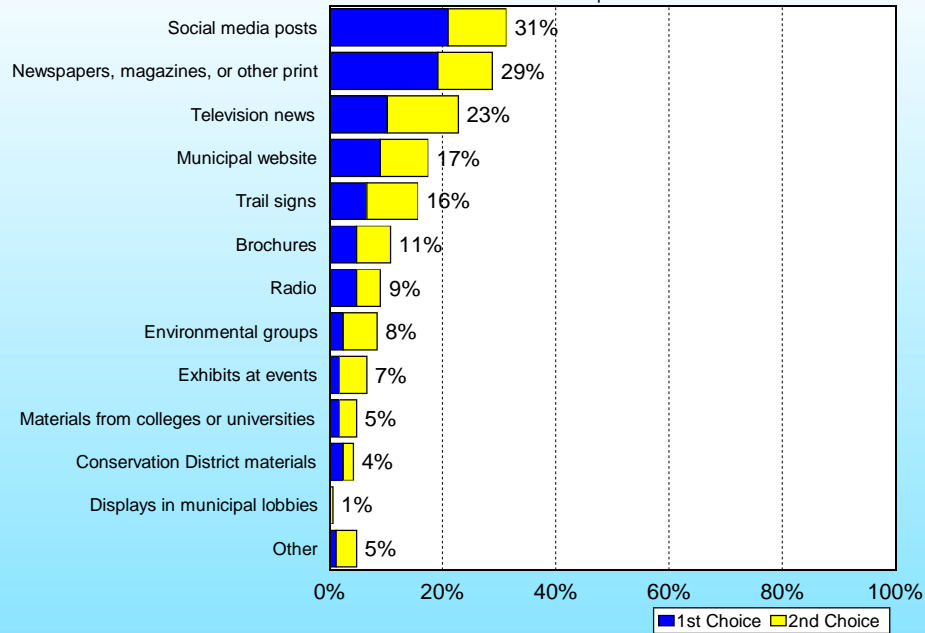
by percentage of households who indicated they have seen information from the three entities listed in Q17



Source: ETC Institute (2018)

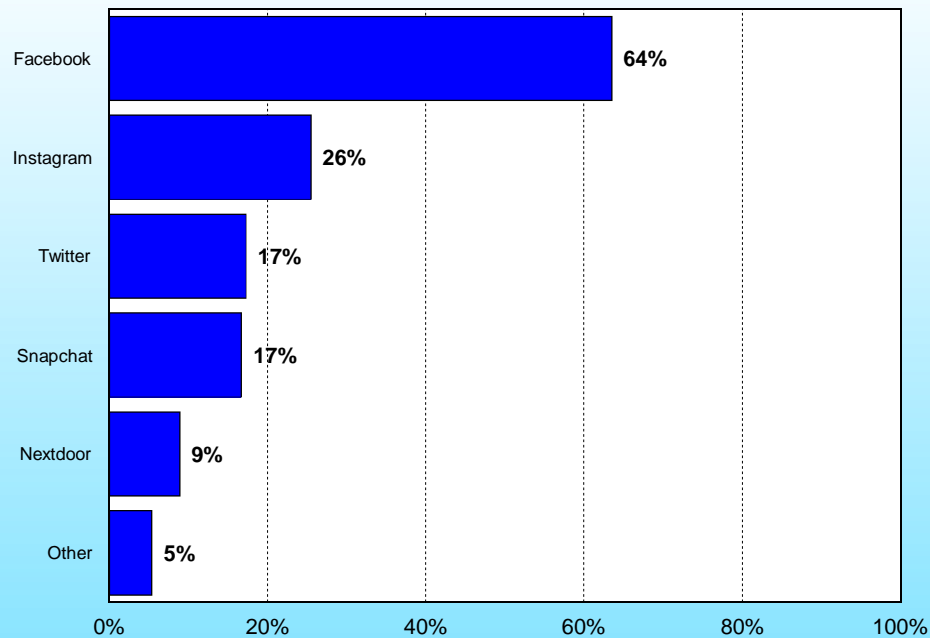
Q19. Sources respondents prefer to get information from

by percentage of households who indicated they have seen information from the three entities listed in Q17 and selected the item as one of their top 2 choices



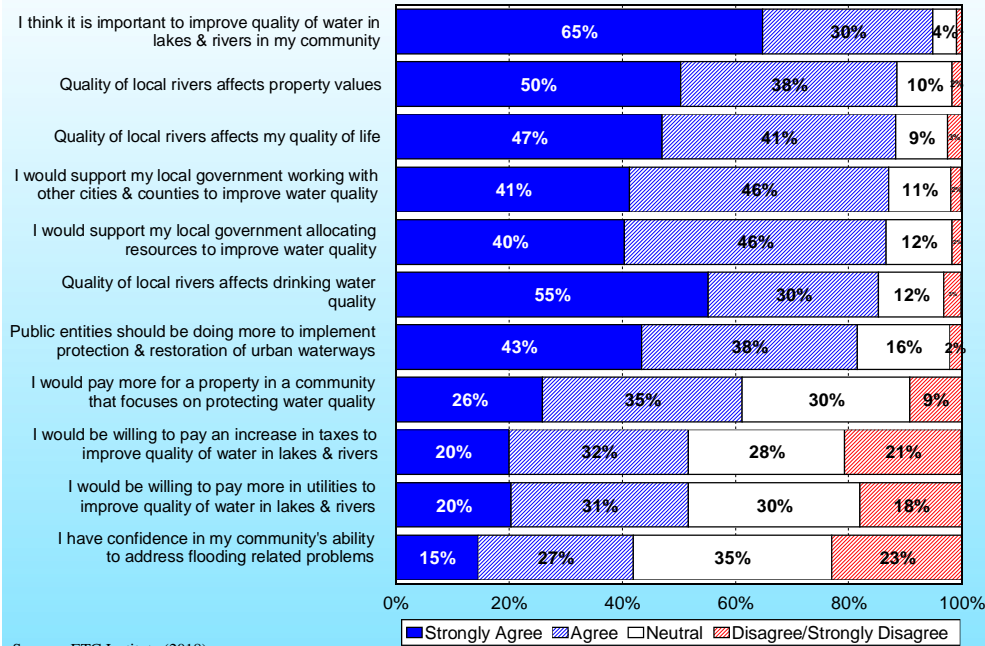
Q20. Which of the following social media platforms do you use?

by percentage of households



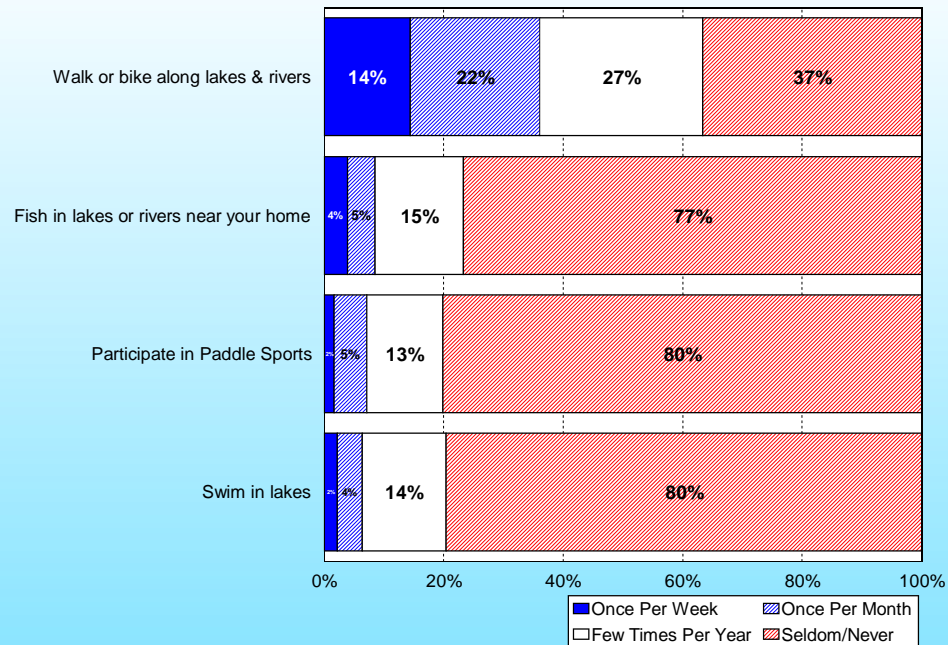
Q21. Level of Agreement with the Following Statements:

by percentage of households (Excluding "N/A")



Q22. How Often Respondents do Each of the Following

by percentage of households (Excluding "N/A")

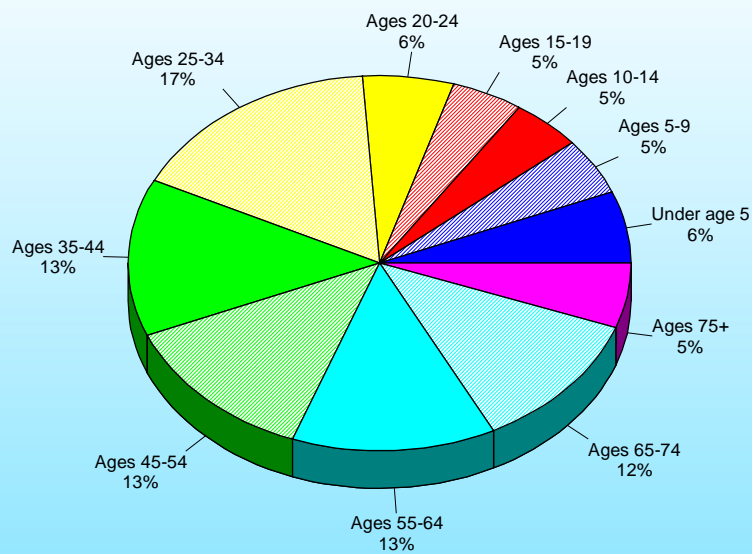


Demographics

Source: ETC Institute (2018)

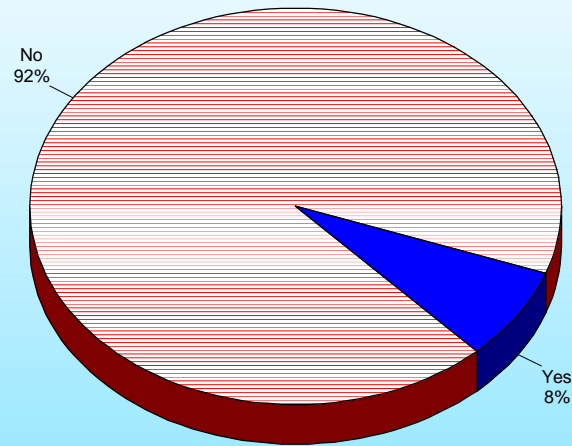
Q23. Demographics: Counting yourself, how many people in your household are the following ages?

by percentage of respondents



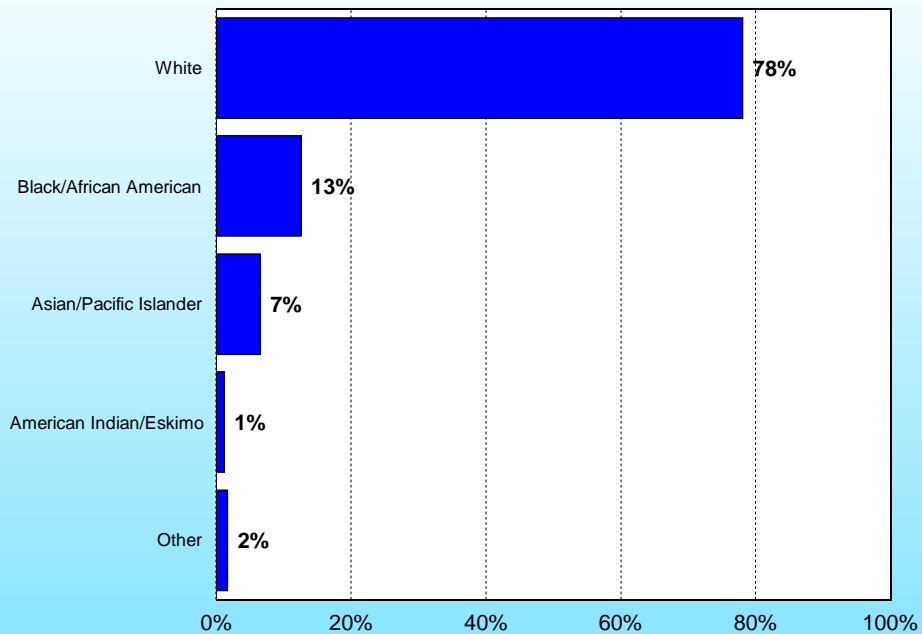
Source: ETC Institute (2018)

Q24. Demographics: Are you of Hispanic, Latino, or Spanish Ancestry?
by percentage of respondents



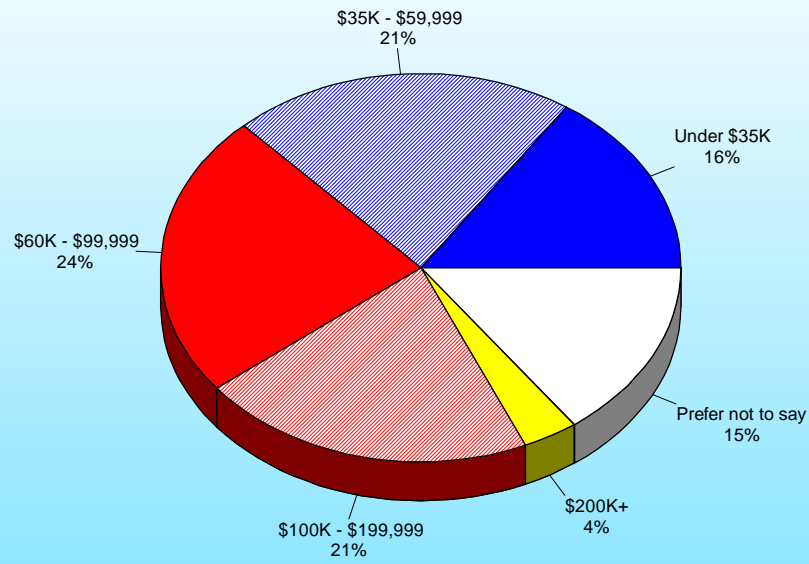
Source: ETC Institute (2018)

Q25. Demographics: Race/Ethnicity
by percentage of households



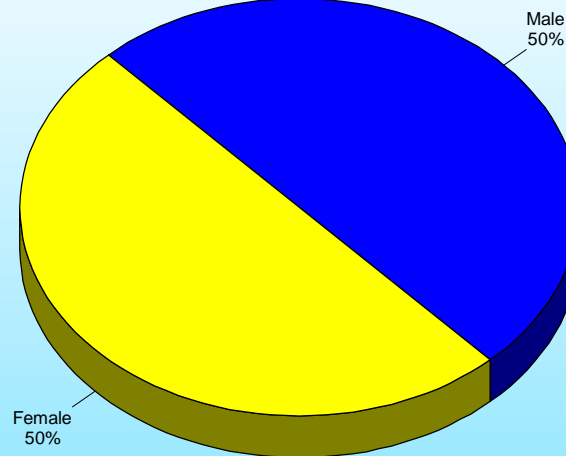
Source: ETC Institute (2018)

Q26. Demographics: What is your household income? by percentage of respondents



Source: ETC Institute (2018)

Q27. Demographics: Gender by percentage of respondents

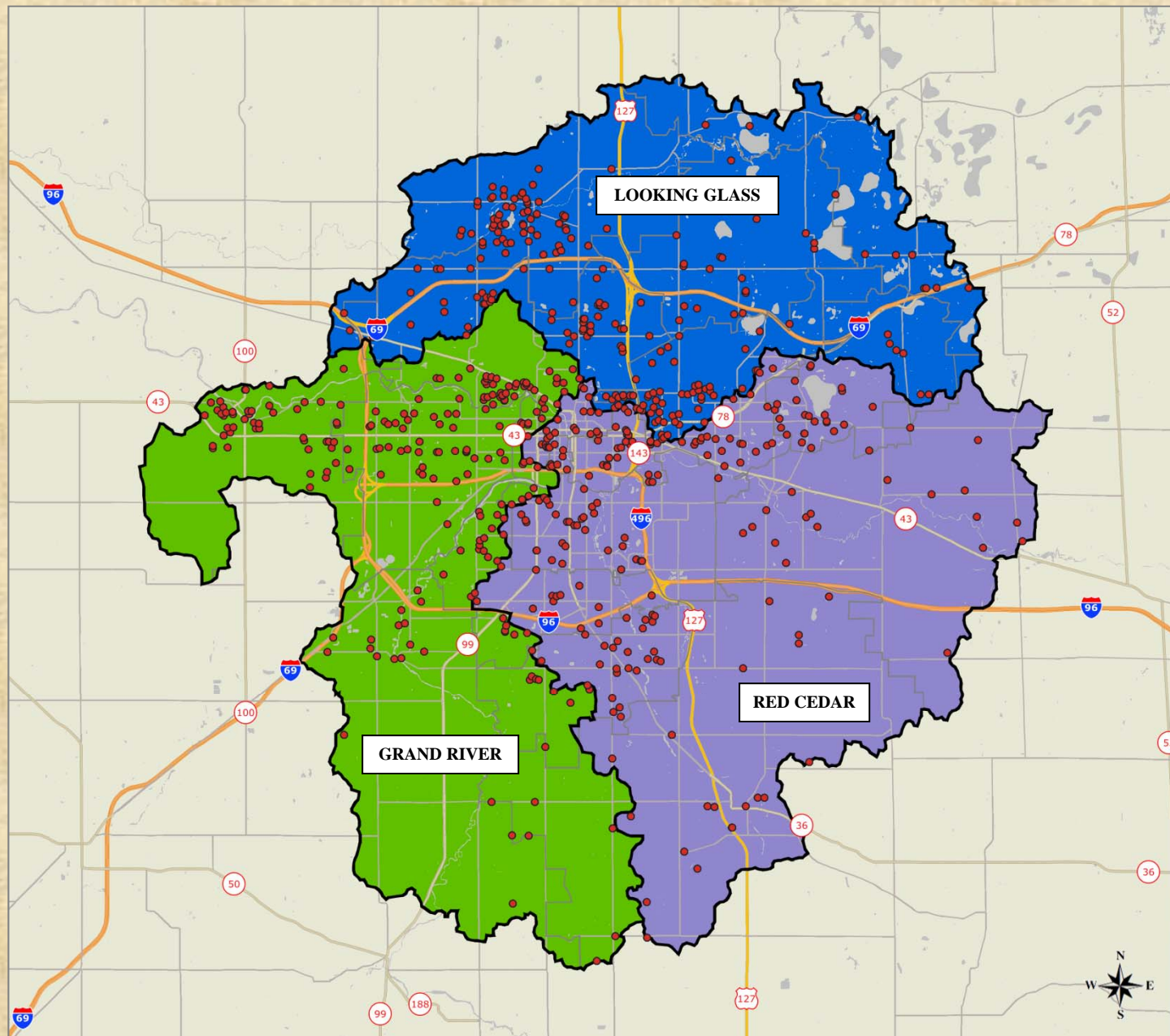


Source: ETC Institute (2018)

Section 2

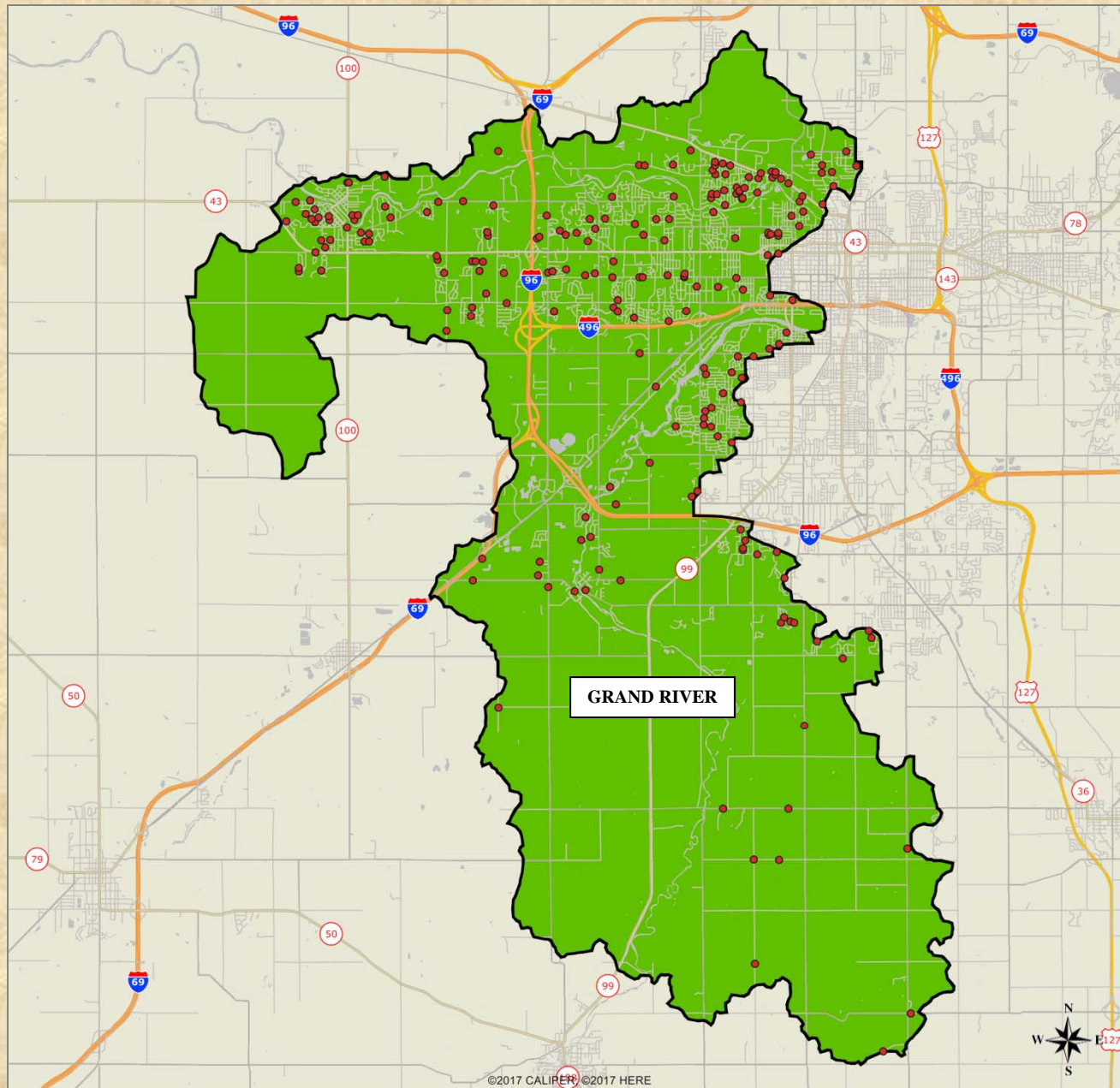
GIS Maps

Location of Survey Respondents



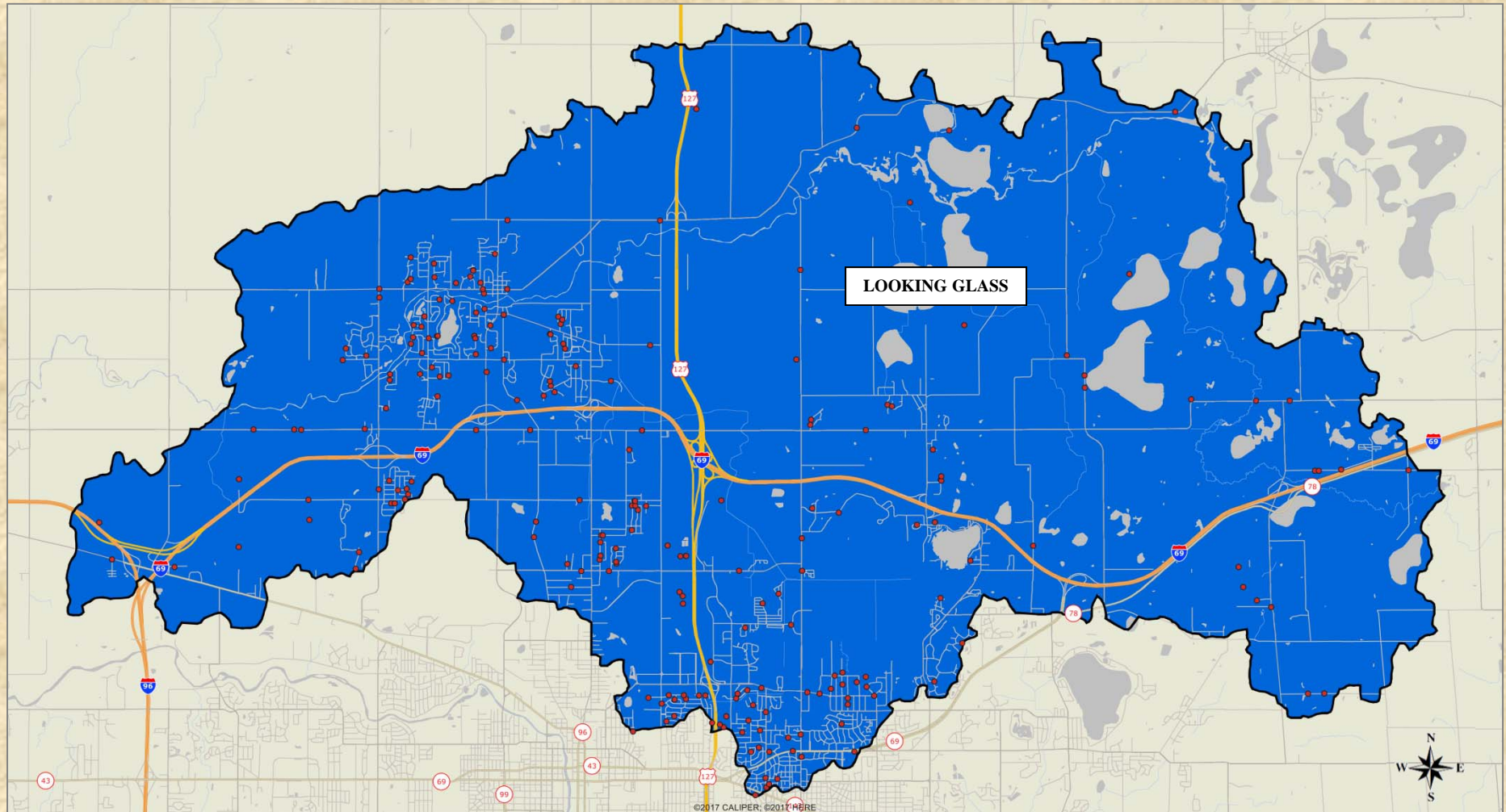
2018 Greater Lansing Regional Water Quality Survey

Location of Survey Respondents – Grand River Basin



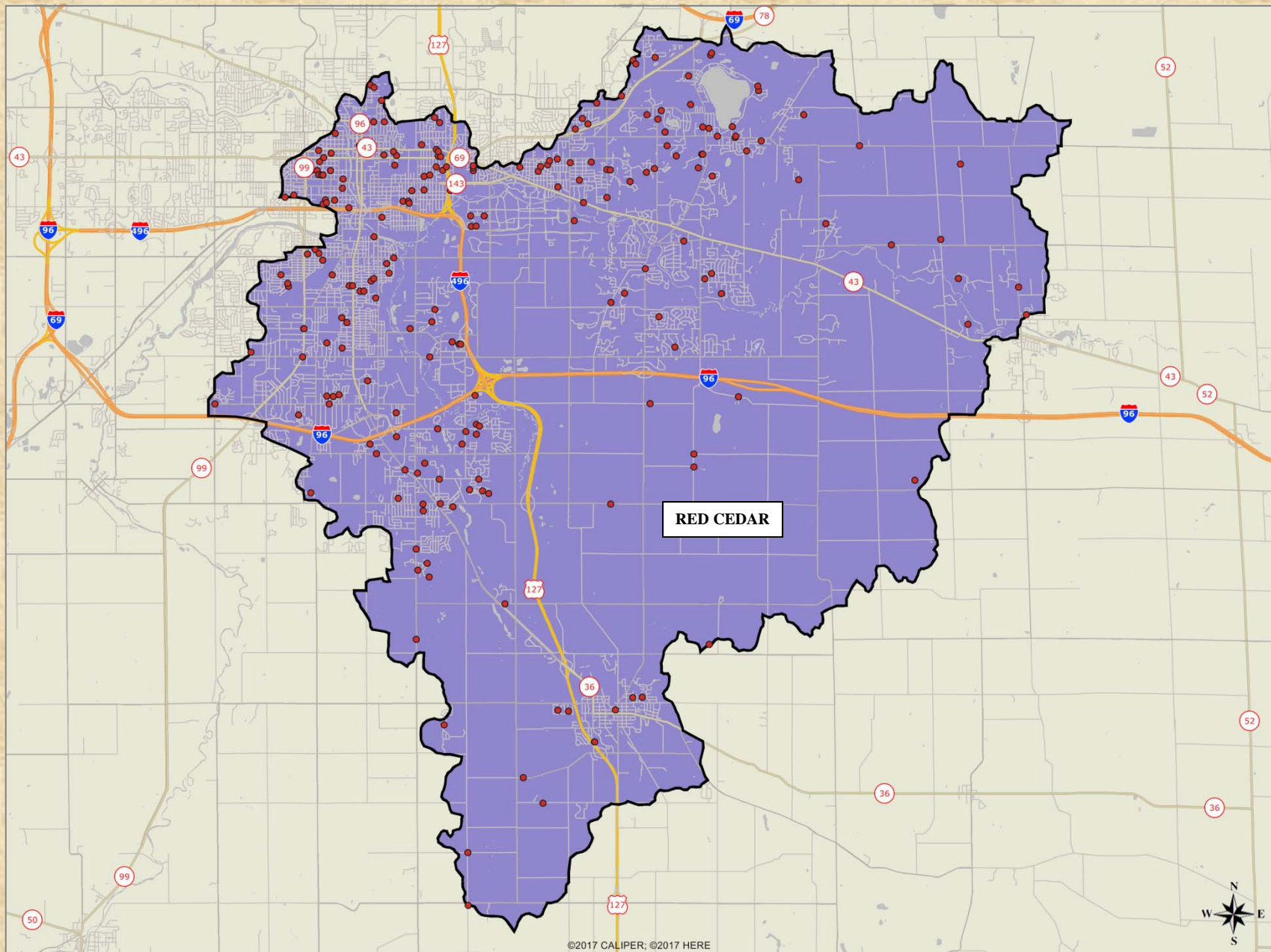
2018 Greater Lansing Regional Water Quality Survey

Location of Survey Respondents – Looking Glass Basin



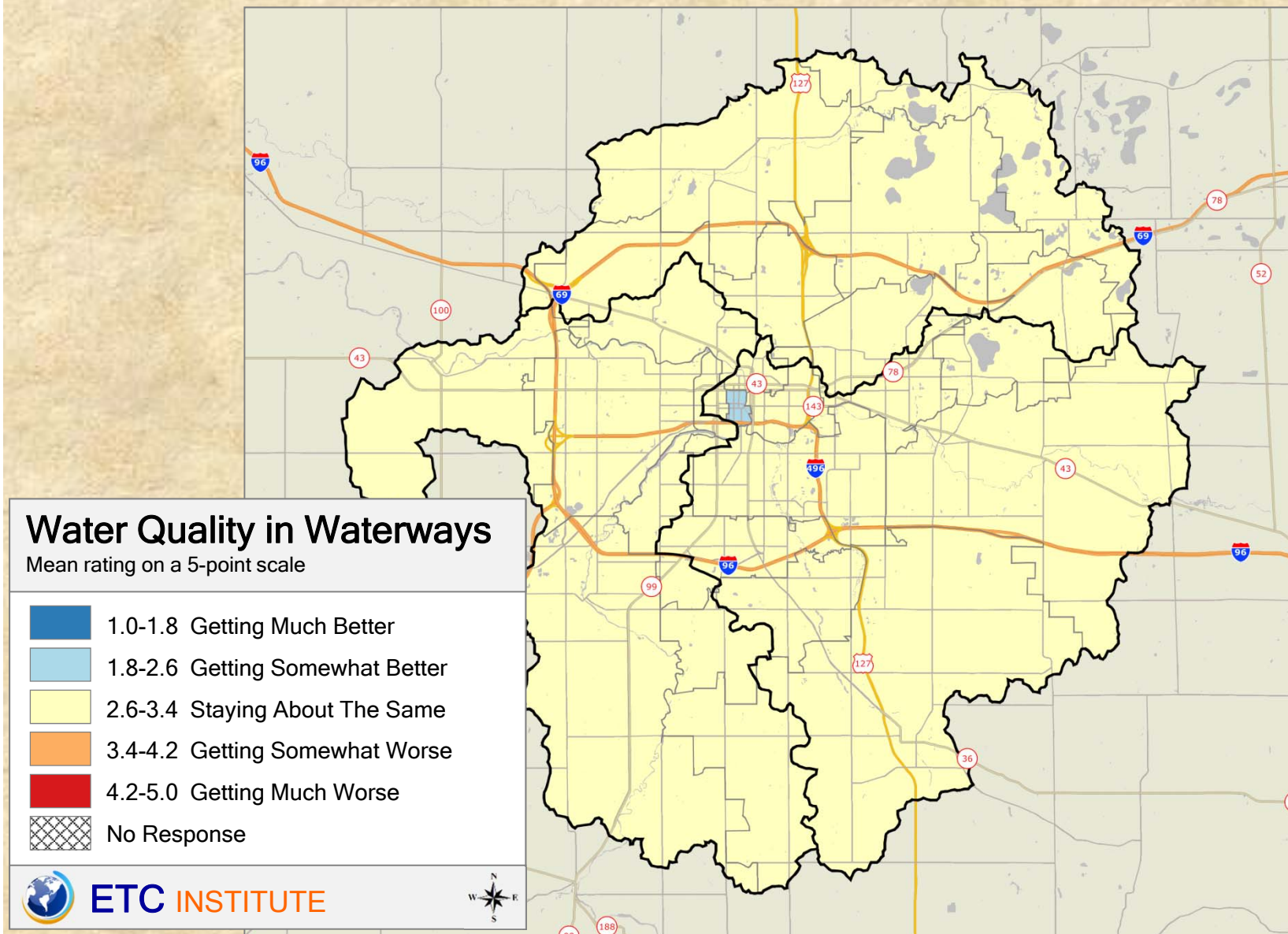
2018 Greater Lansing Regional Water Quality Survey

Location of Survey Respondents – Red Cedar Basin



2018 Greater Lansing Regional Water Quality Survey

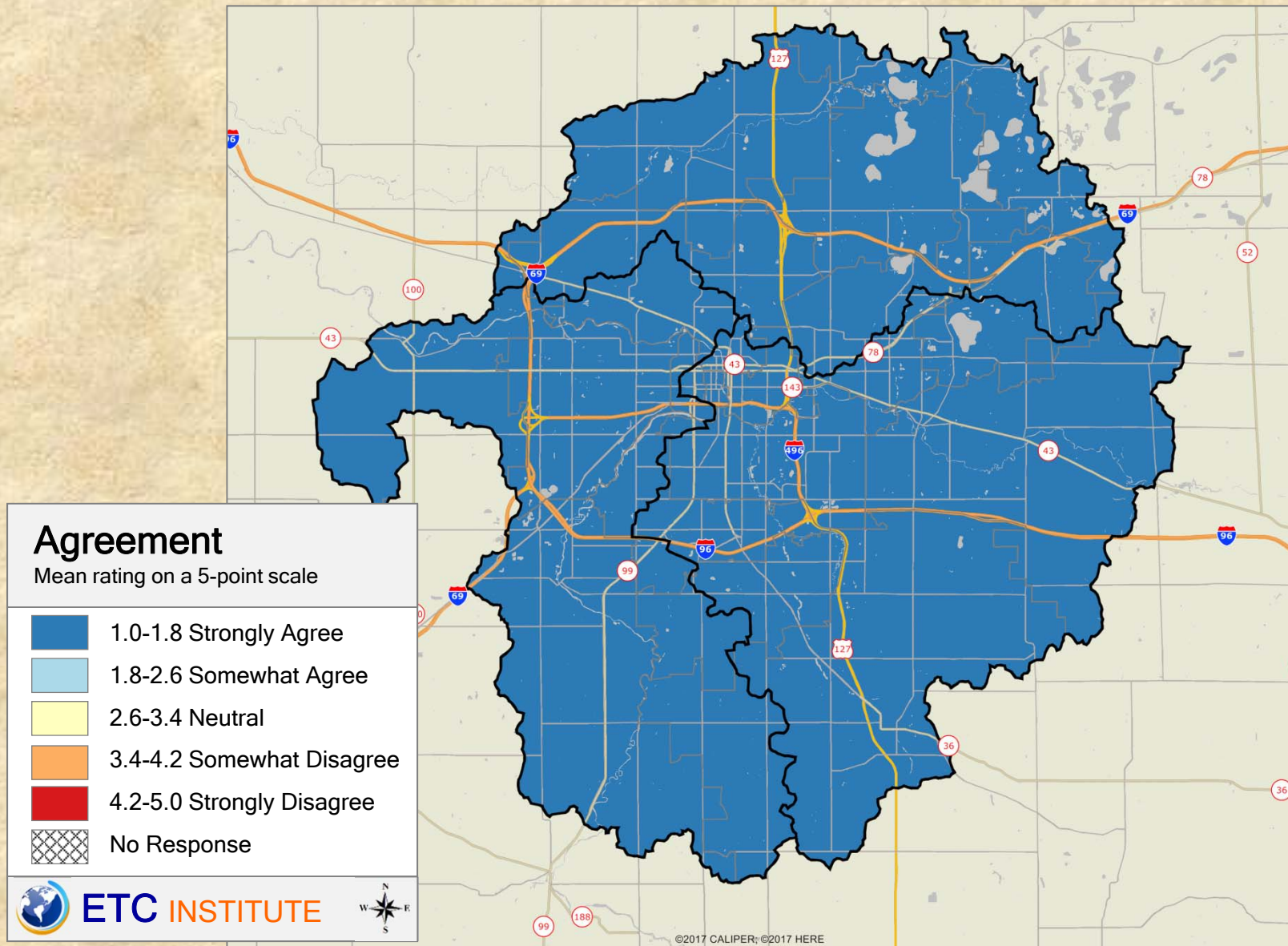
Q2 Do you think the quality of water in lakes, rivers, and streams in the community where you live is...



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

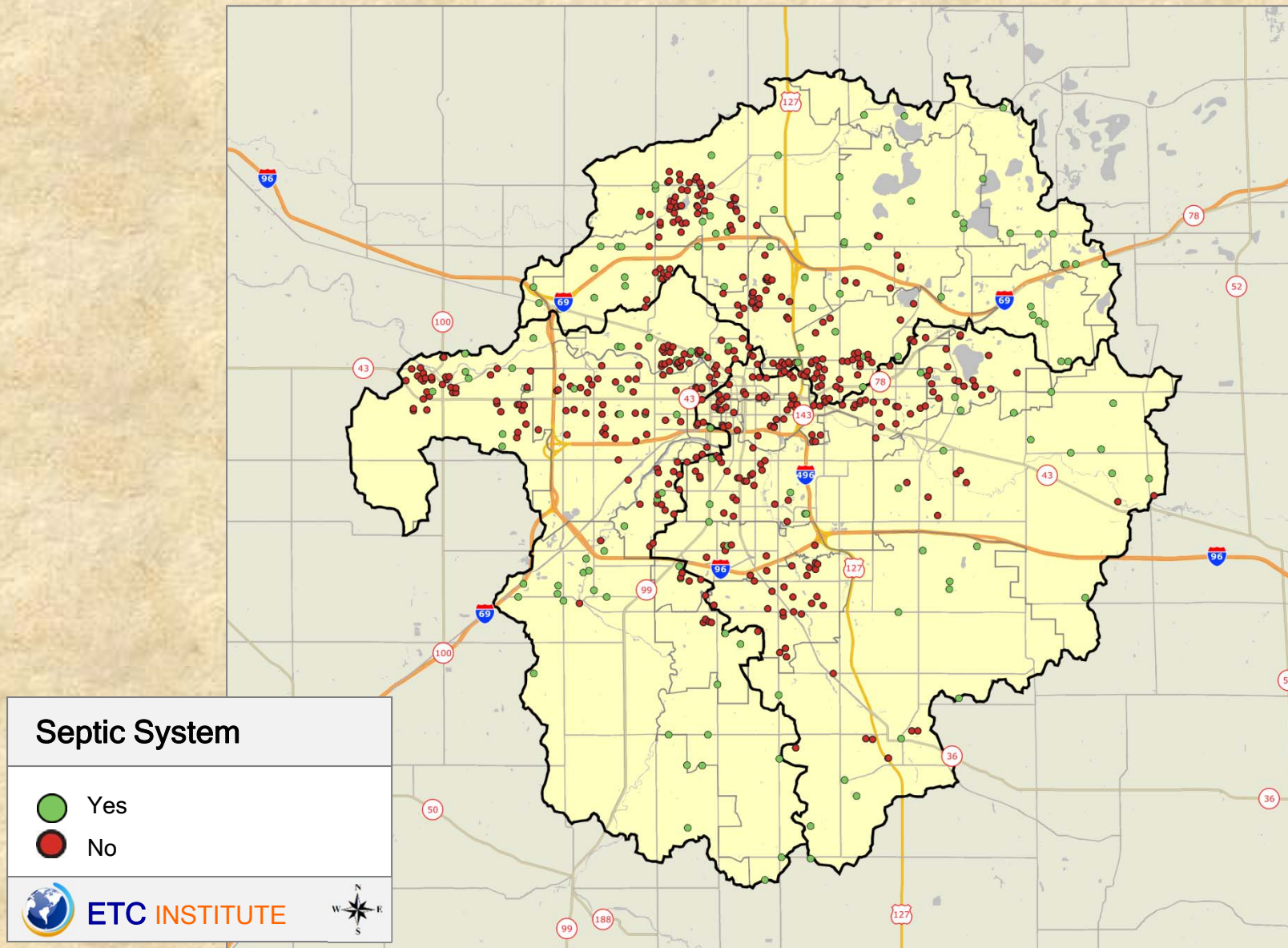
Q6 Level of agreement with the following statement:
"The quality of local streams and rivers where I live affects the Great Lakes."



2018 Greater Lansing Regional Water Quality Survey

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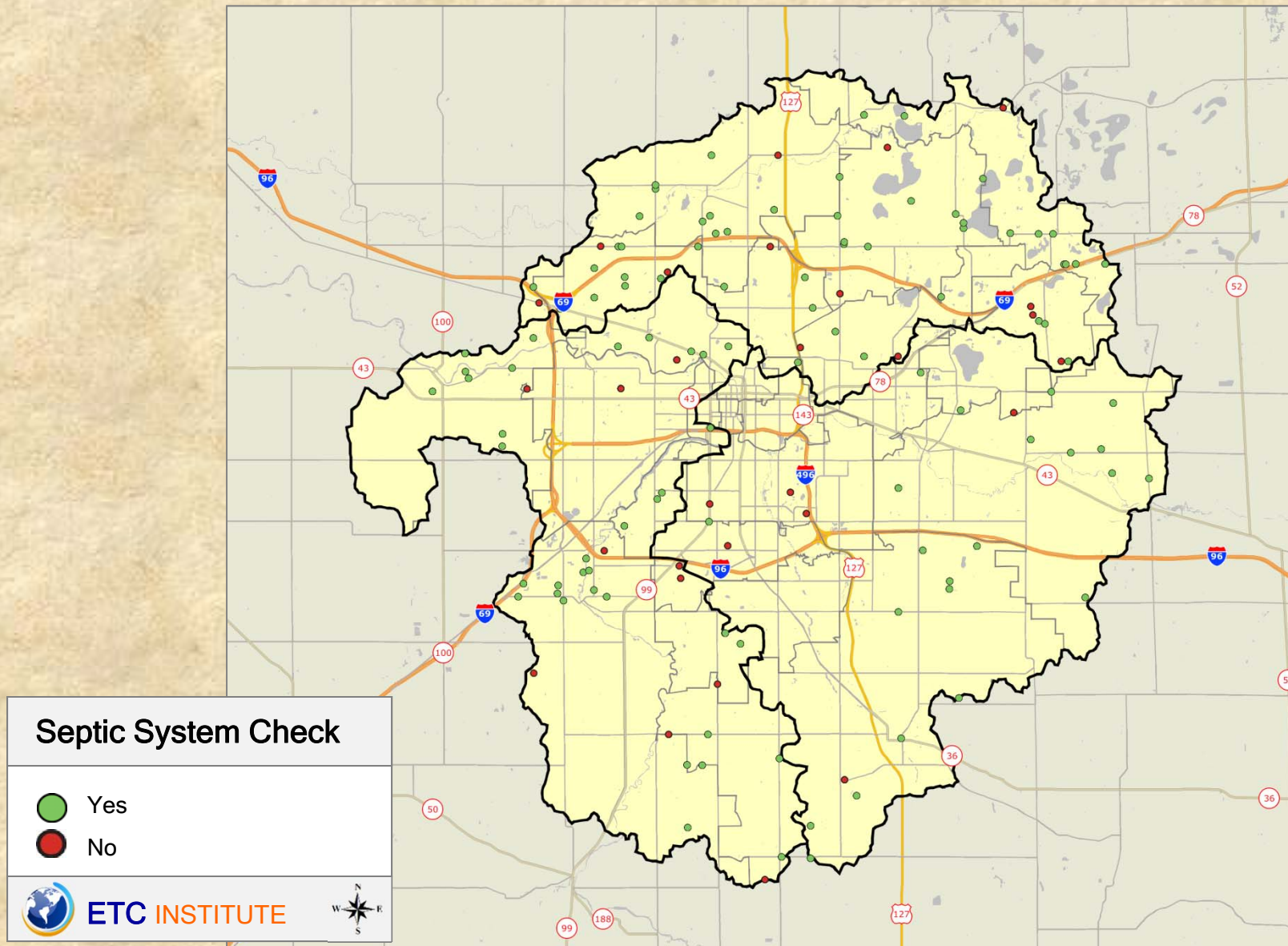
Q10 Do you have a septic system at your home?



2018 Greater Lansing Regional Water Quality Survey

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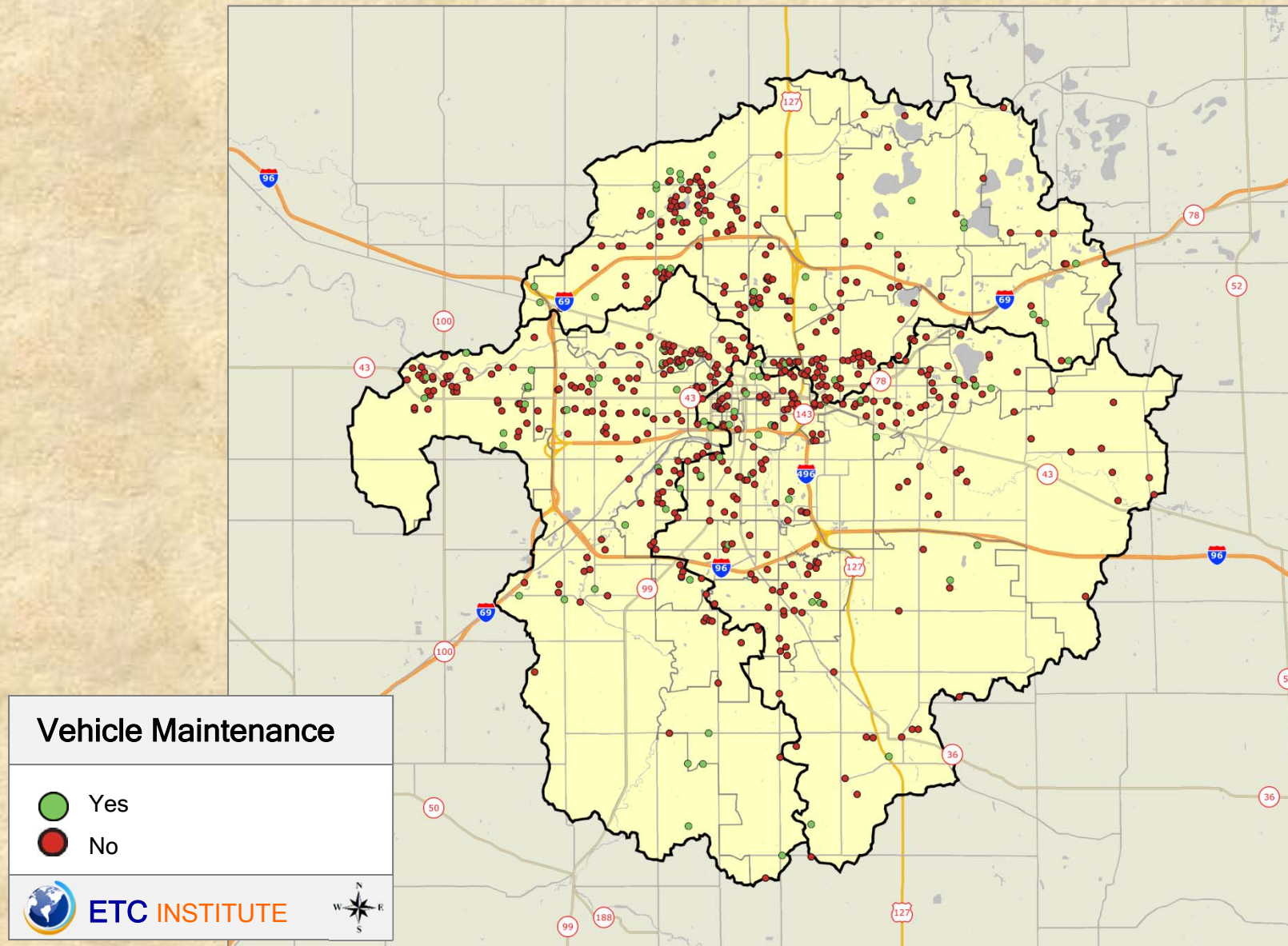
Q10a Has your household had your septic system checked or serviced during the past 5 years?



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

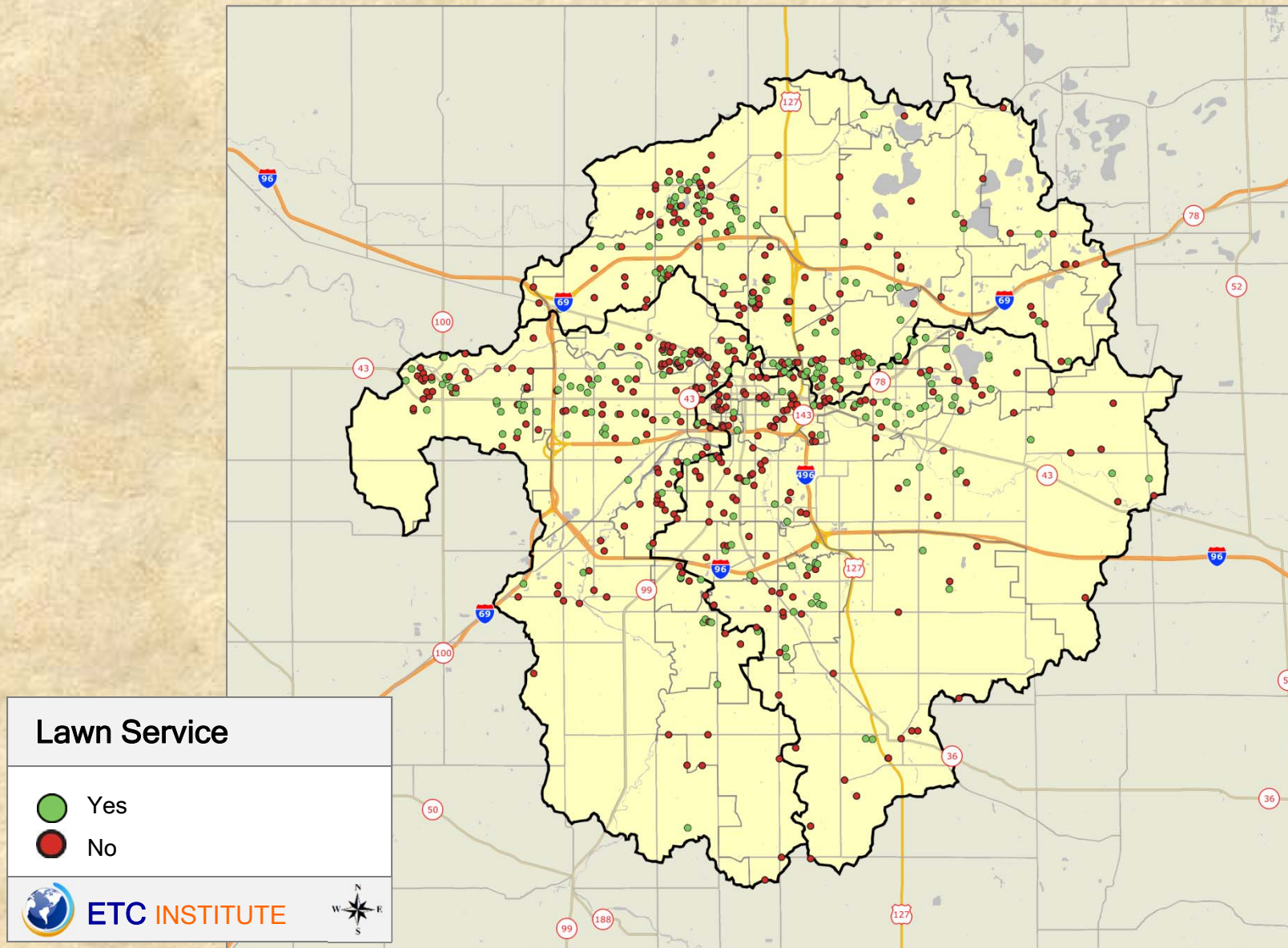
Q11 Do you or other members of your household usually change motor oil, transmission fluid, or radiator fluid for vehicles at your home?



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

Q13 Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?



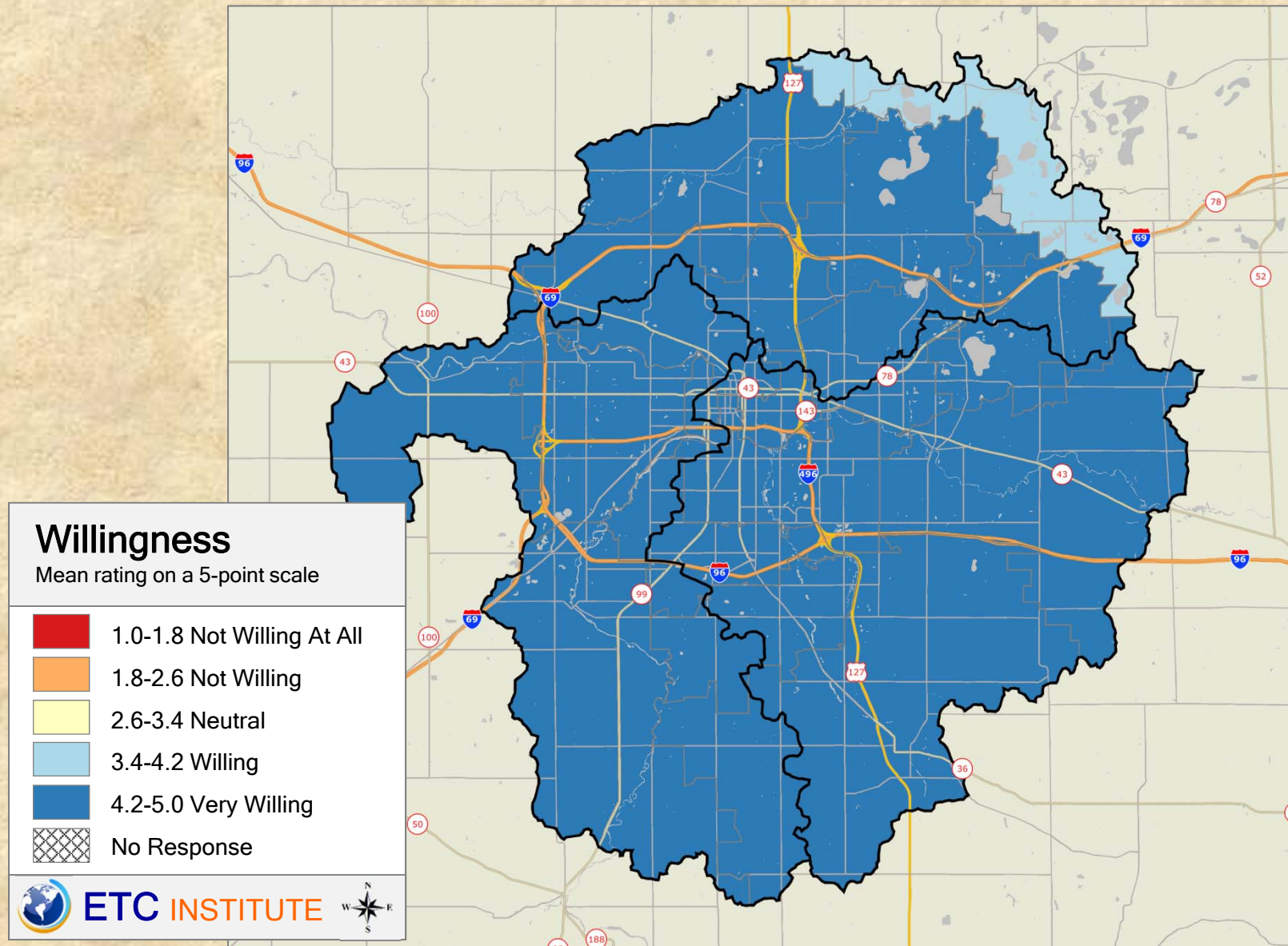
2018 Greater Lansing Regional Water Quality Survey

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Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

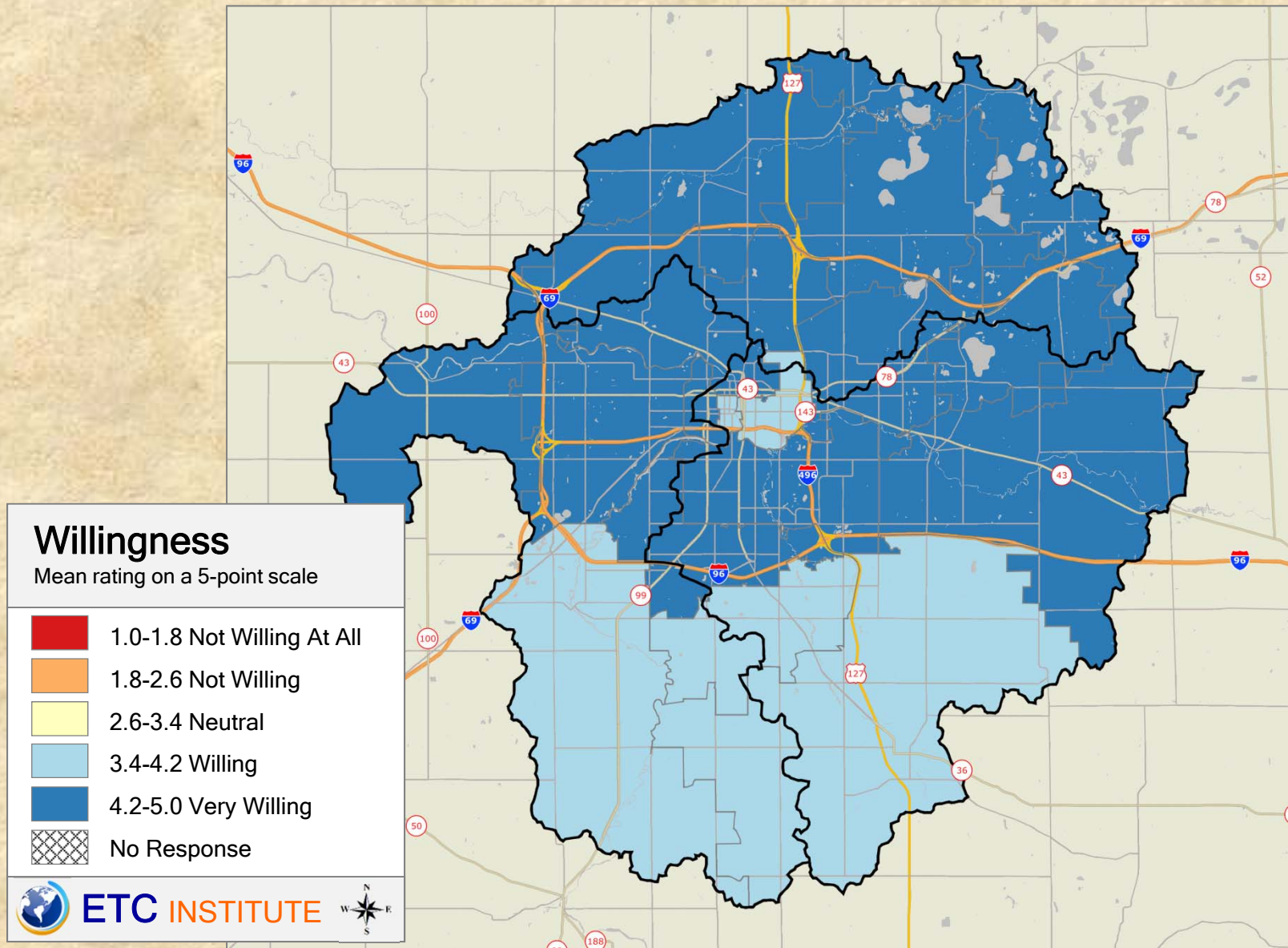
Q16-1 How willing you would be to be changing your car washing practices (using a car wash, washing your car on the grass, or using less soap)



2018 Greater Lansing Regional Water Quality Survey

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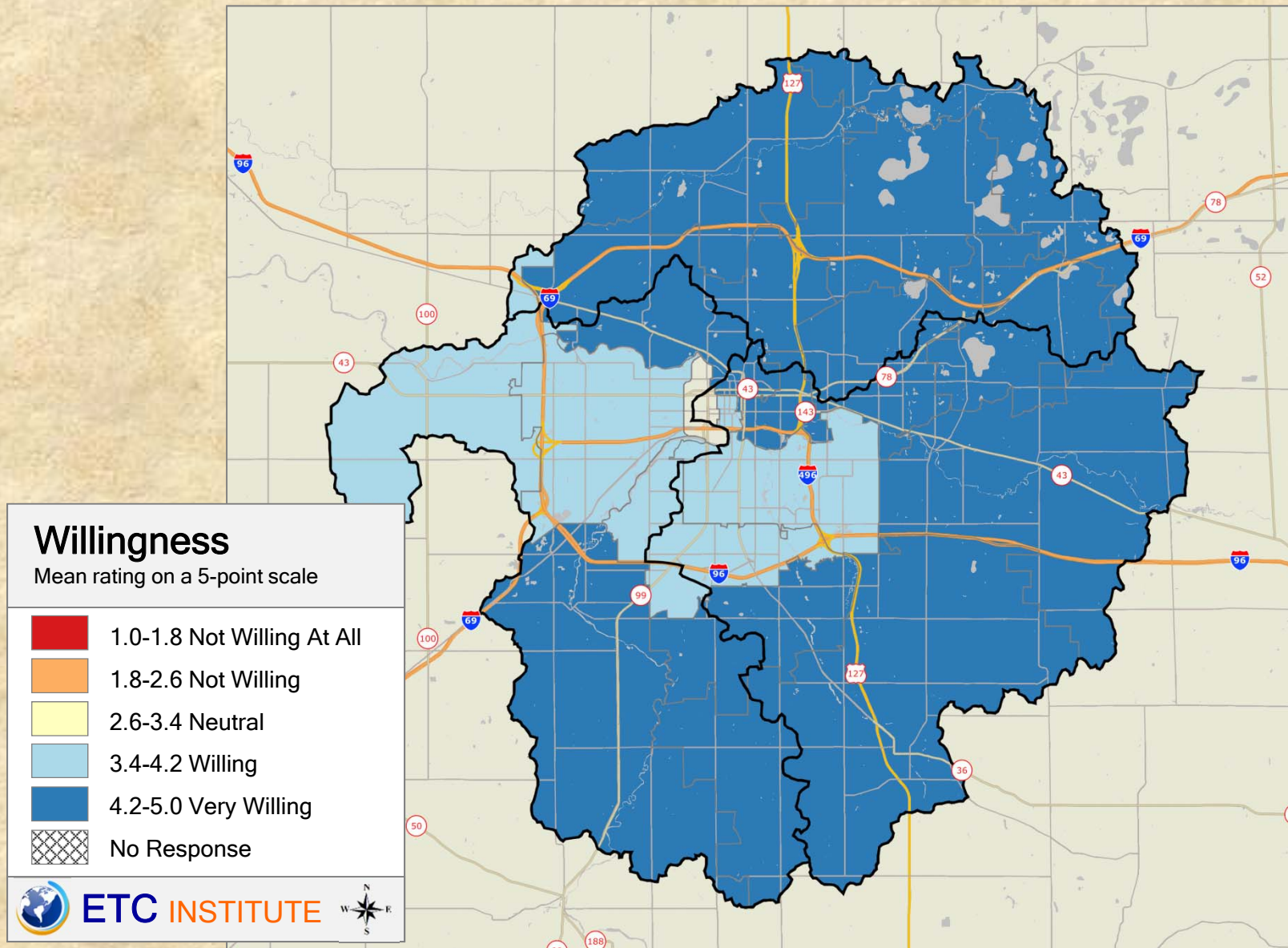
Q16-2 How willing you would be to be promptly picking up and disposing of your pet's waste



2018 Greater Lansing Regional Water Quality Survey

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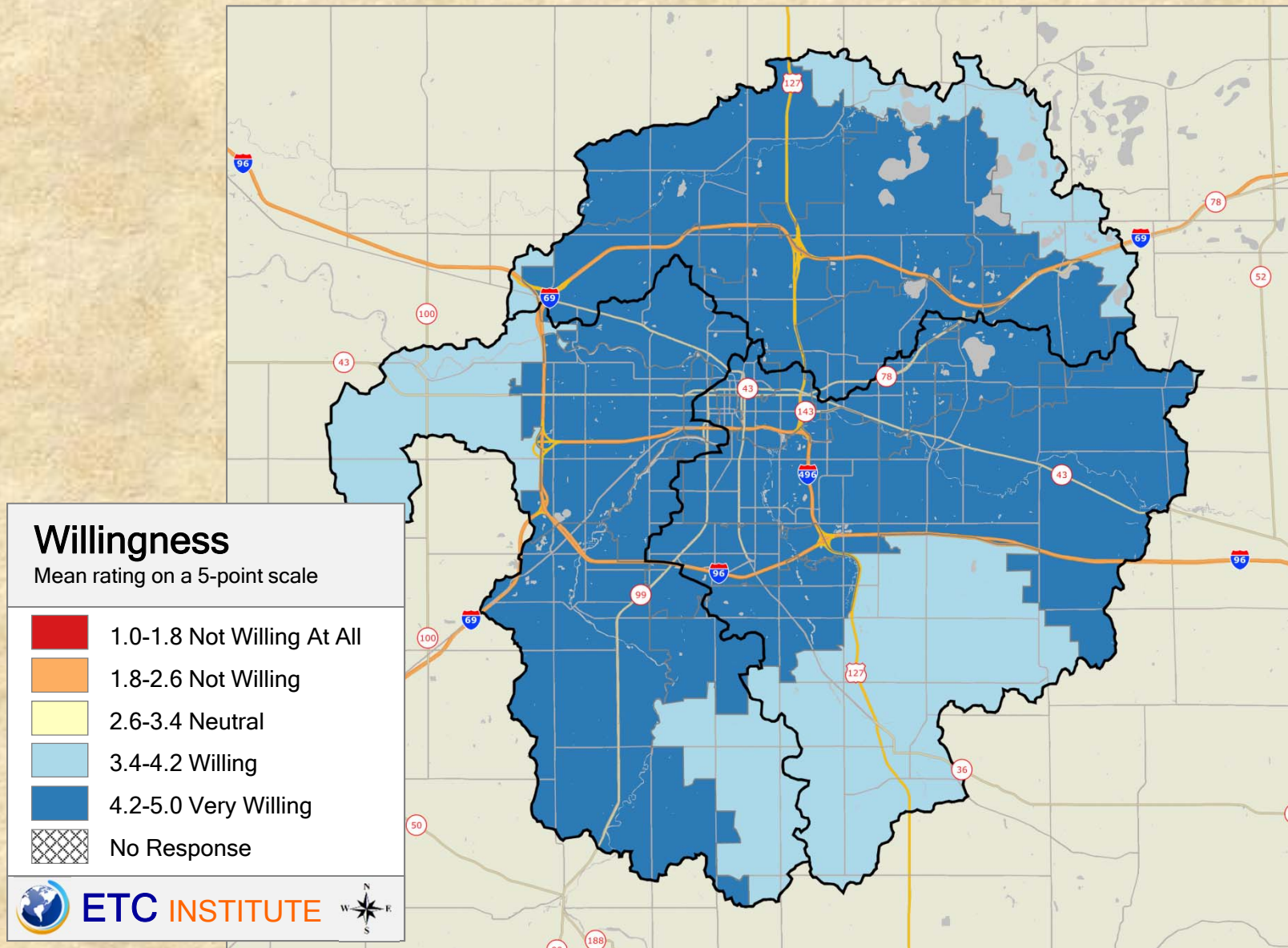
Q16-3 How willing you would be to be having your septic tank serviced every 3-5 years



2018 Greater Lansing Regional Water Quality Survey

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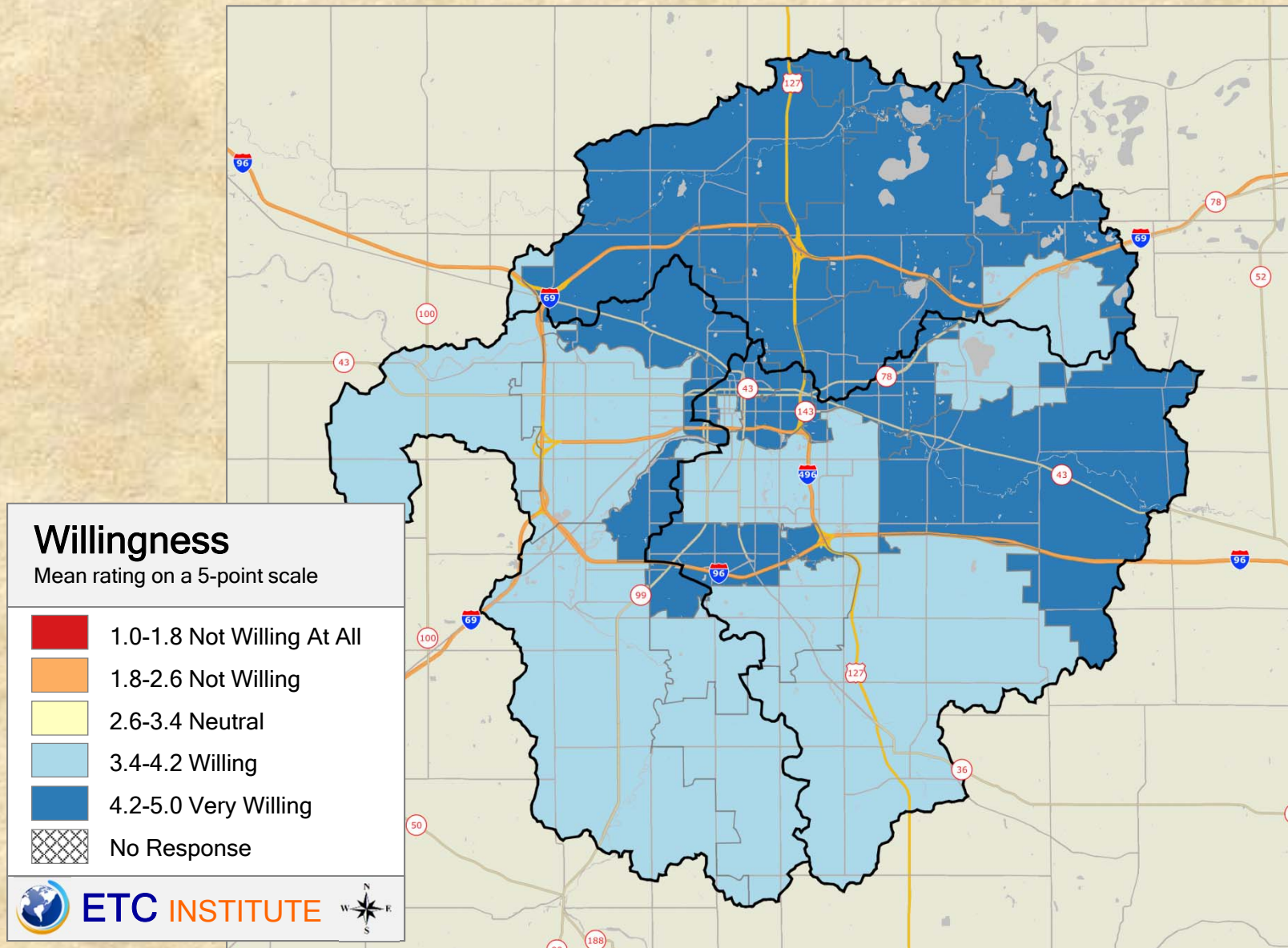
Q16-4 How willing you would be to be sweeping excess fertilizer and grass clippings from paved surfaces back onto the lawn



2018 Greater Lansing Regional Water Quality Survey

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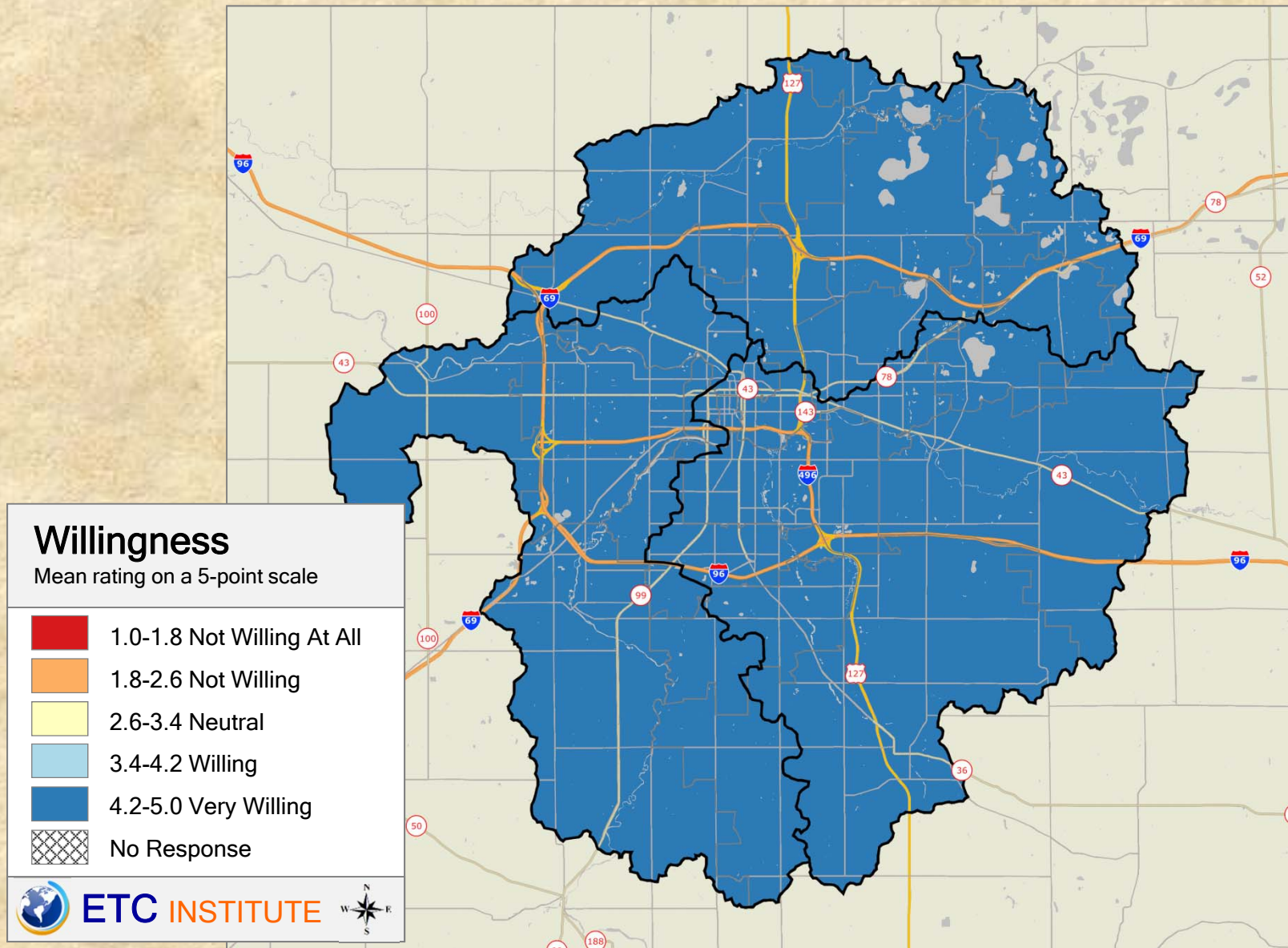
Q16-5 How willing you would be to be only using lawn service companies that use environmentally friendly products



2018 Greater Lansing Regional Water Quality Survey

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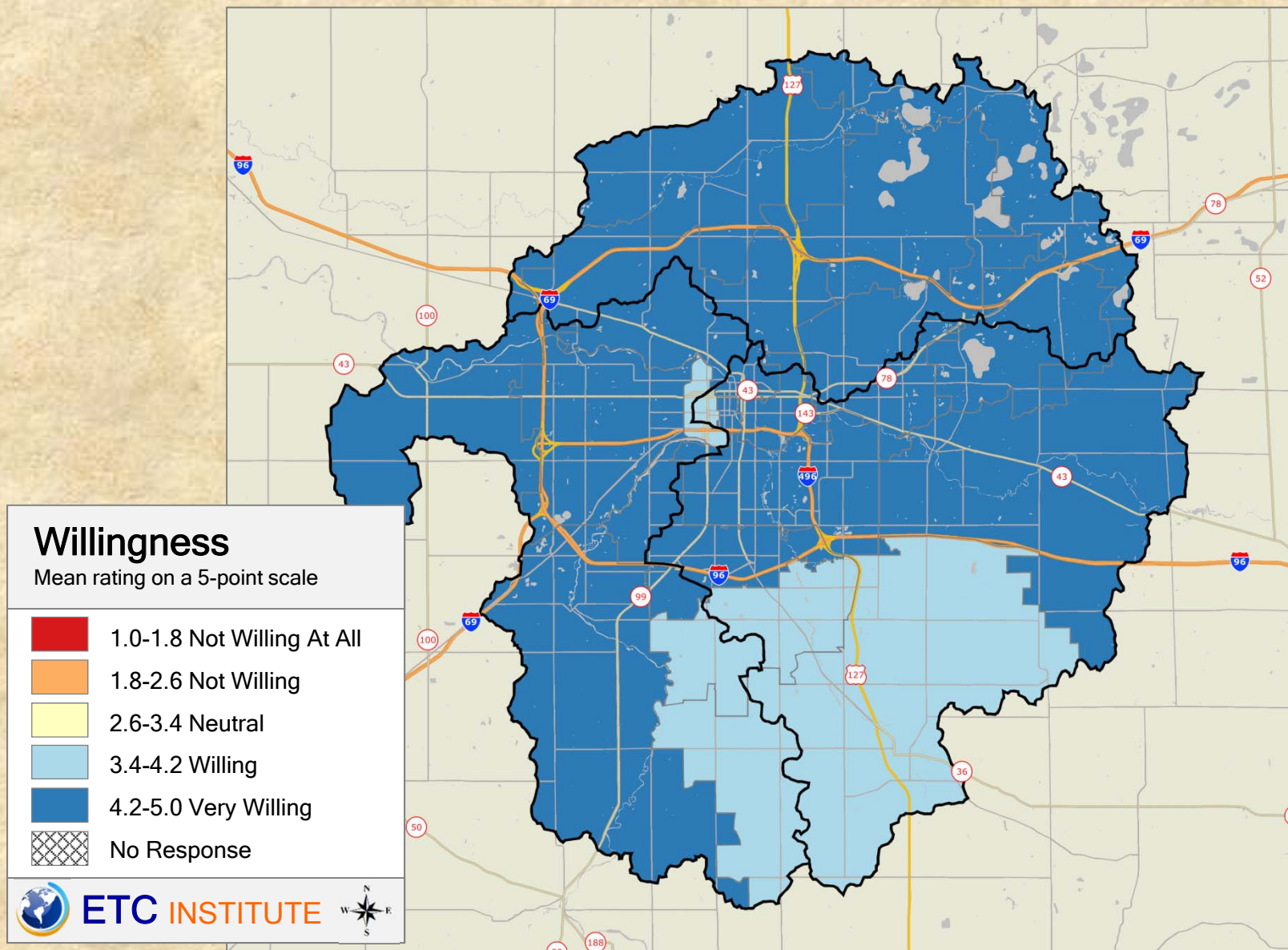
Q16-6 How willing you would be to be disposing of household hazardous waste (Motor oil, pesticides, paint) at a community collection event



2018 Greater Lansing Regional Water Quality Survey

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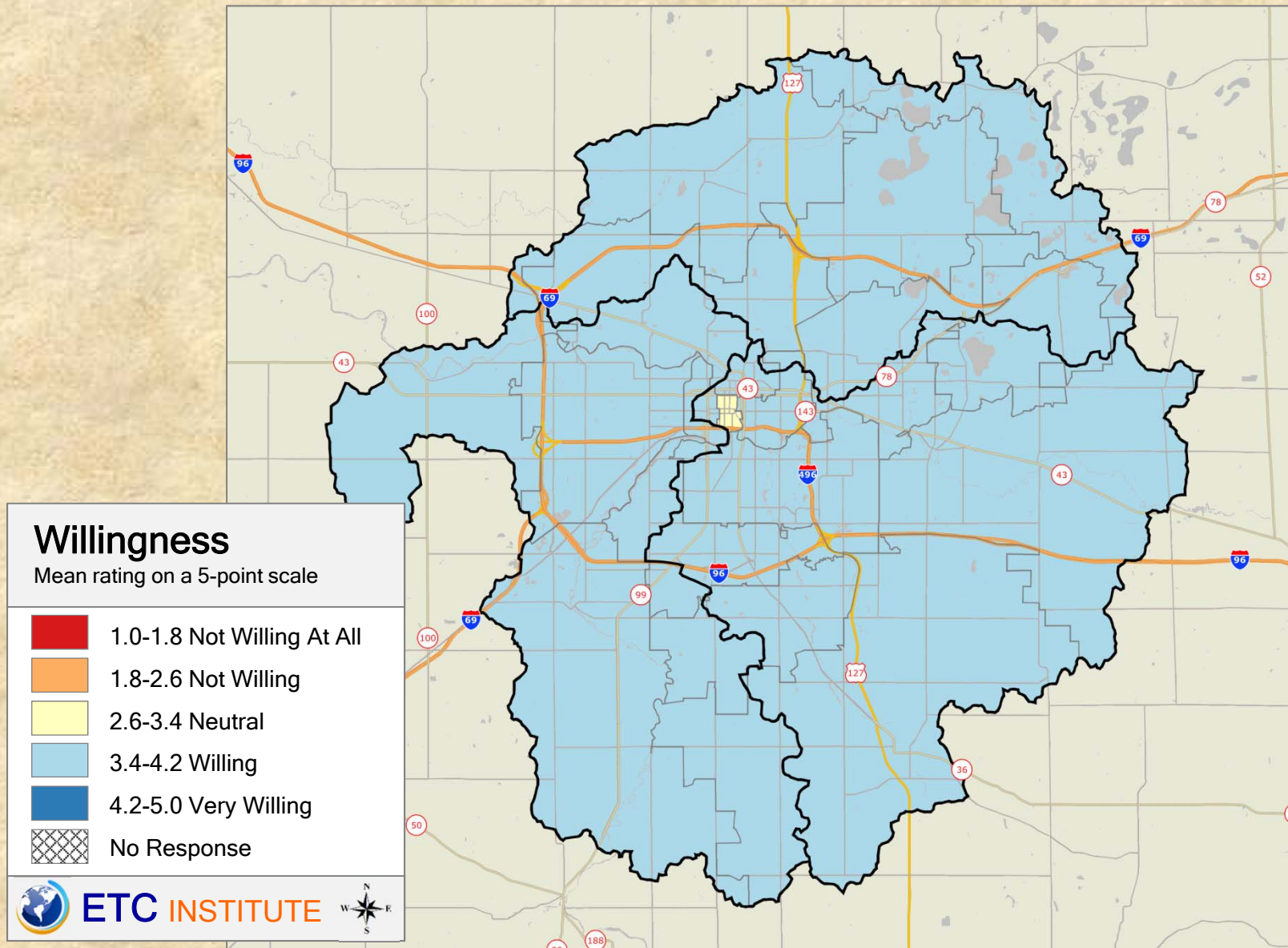
Q16-7 How willing you would be to be landscaping your yard with plants native to Michigan



2018 Greater Lansing Regional Water Quality Survey

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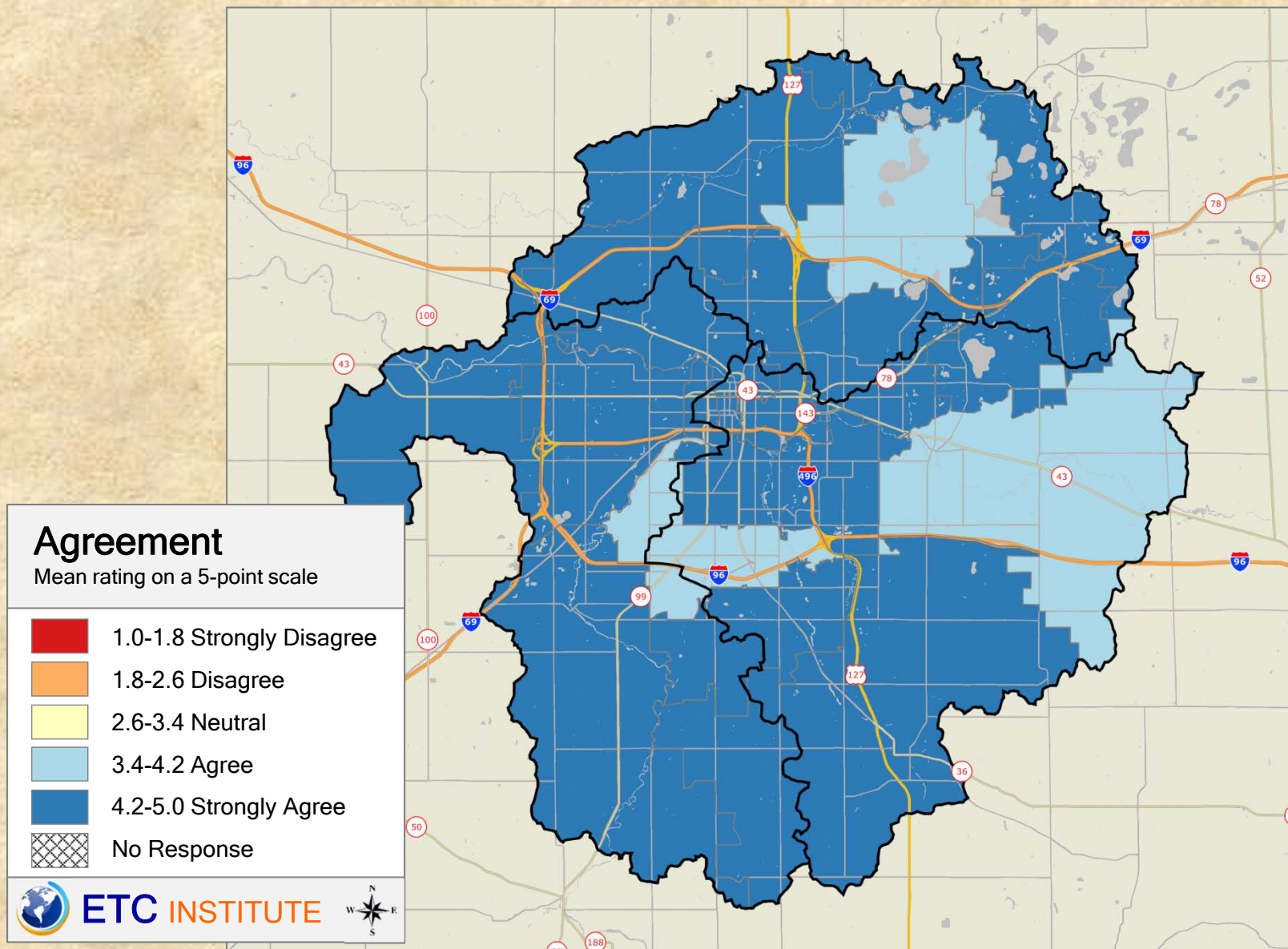
Q16-8 How willing you would be to be implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property



2018 Greater Lansing Regional Water Quality Survey

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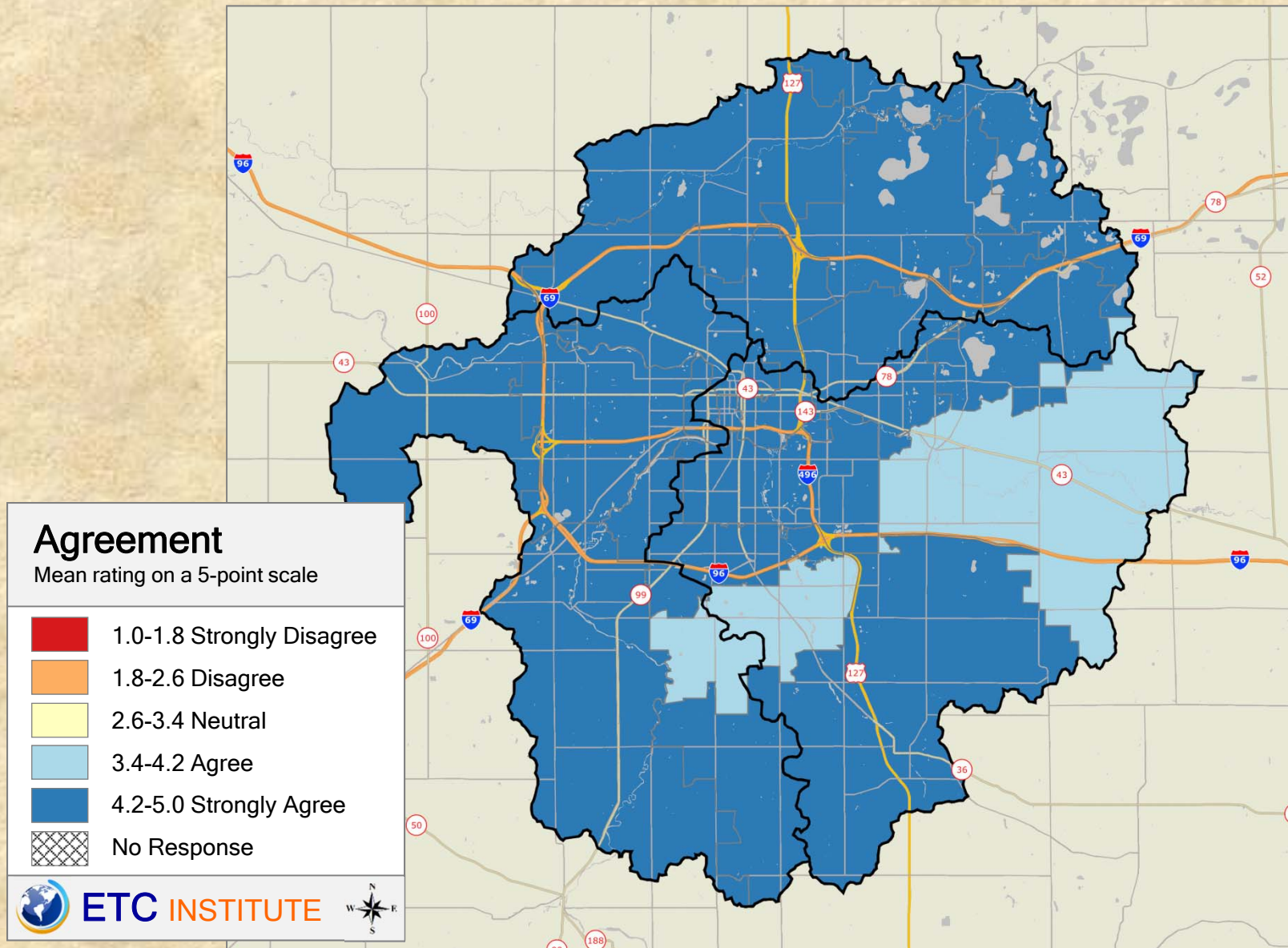
Q21-1 The quality of local rivers where I live affects my quality of life



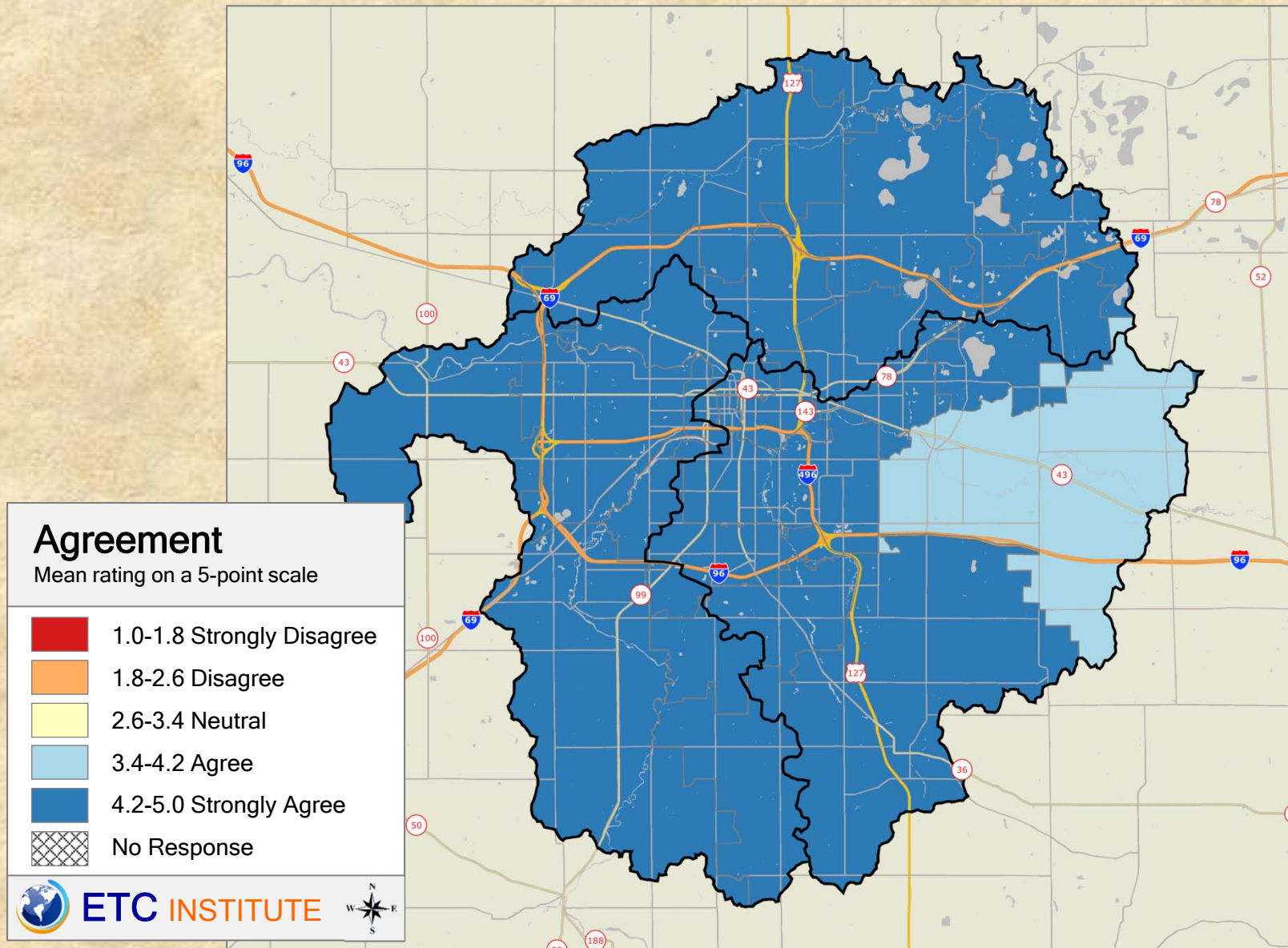
2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

Q21-2 The quality of local rivers where I live affects property values



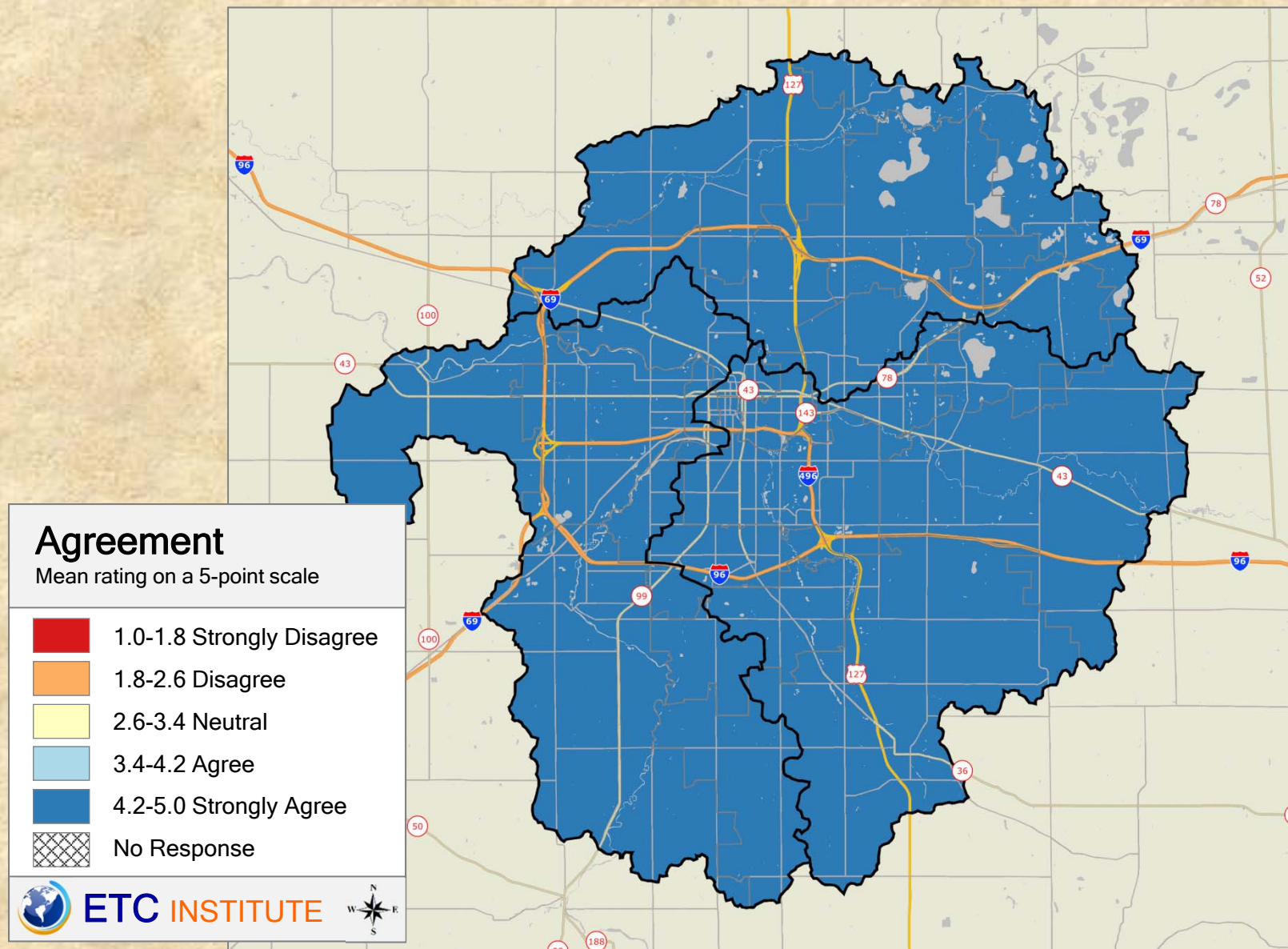
Q21-3 The quality of local rivers where I live affects drinking water quality



2018 Greater Lansing Regional Water Quality Survey

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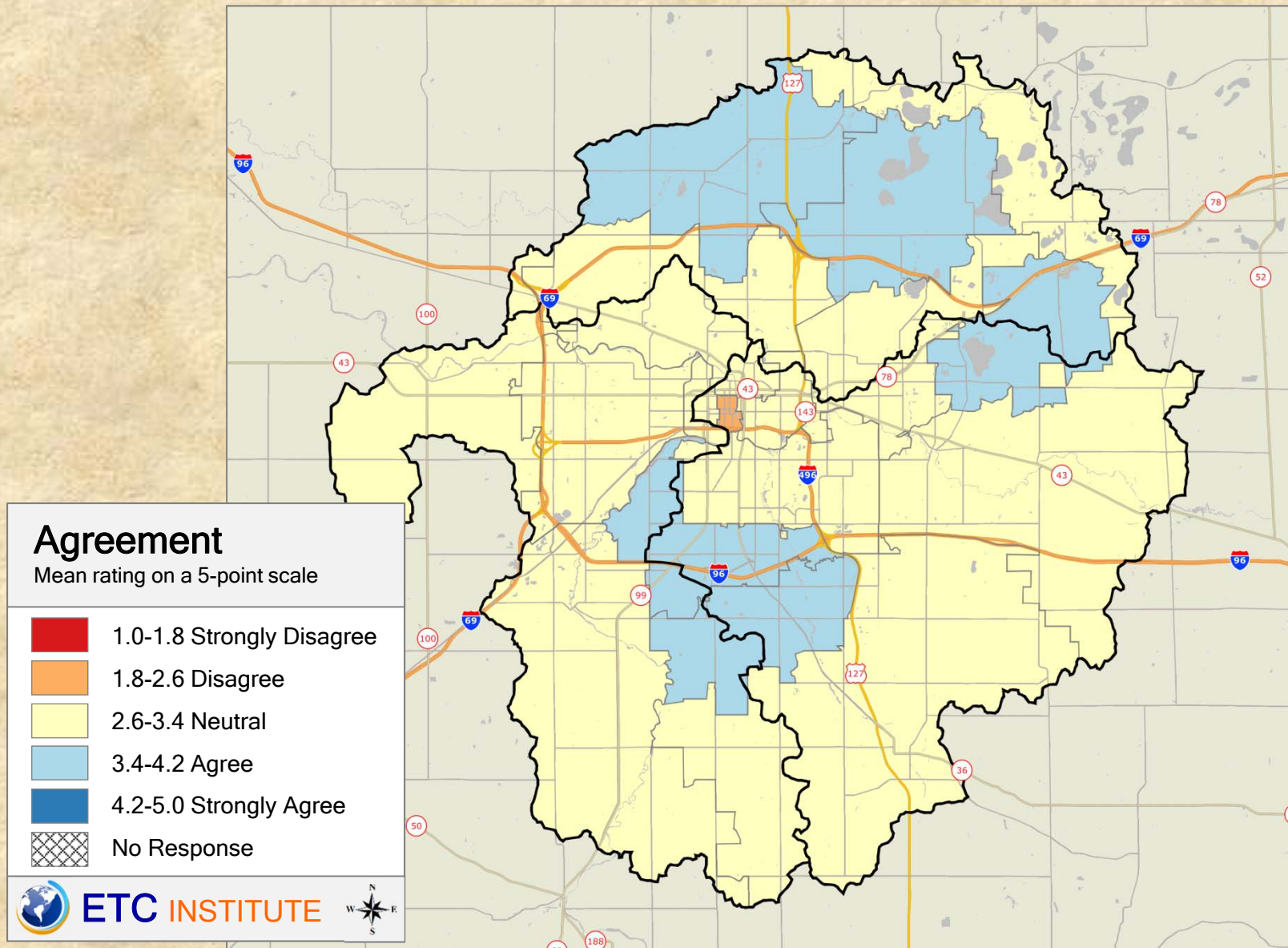
Q21-4 I think it is important to important to improve the quality of water in lakes and rivers in my community



2018 Greater Lansing Regional Water Quality Survey

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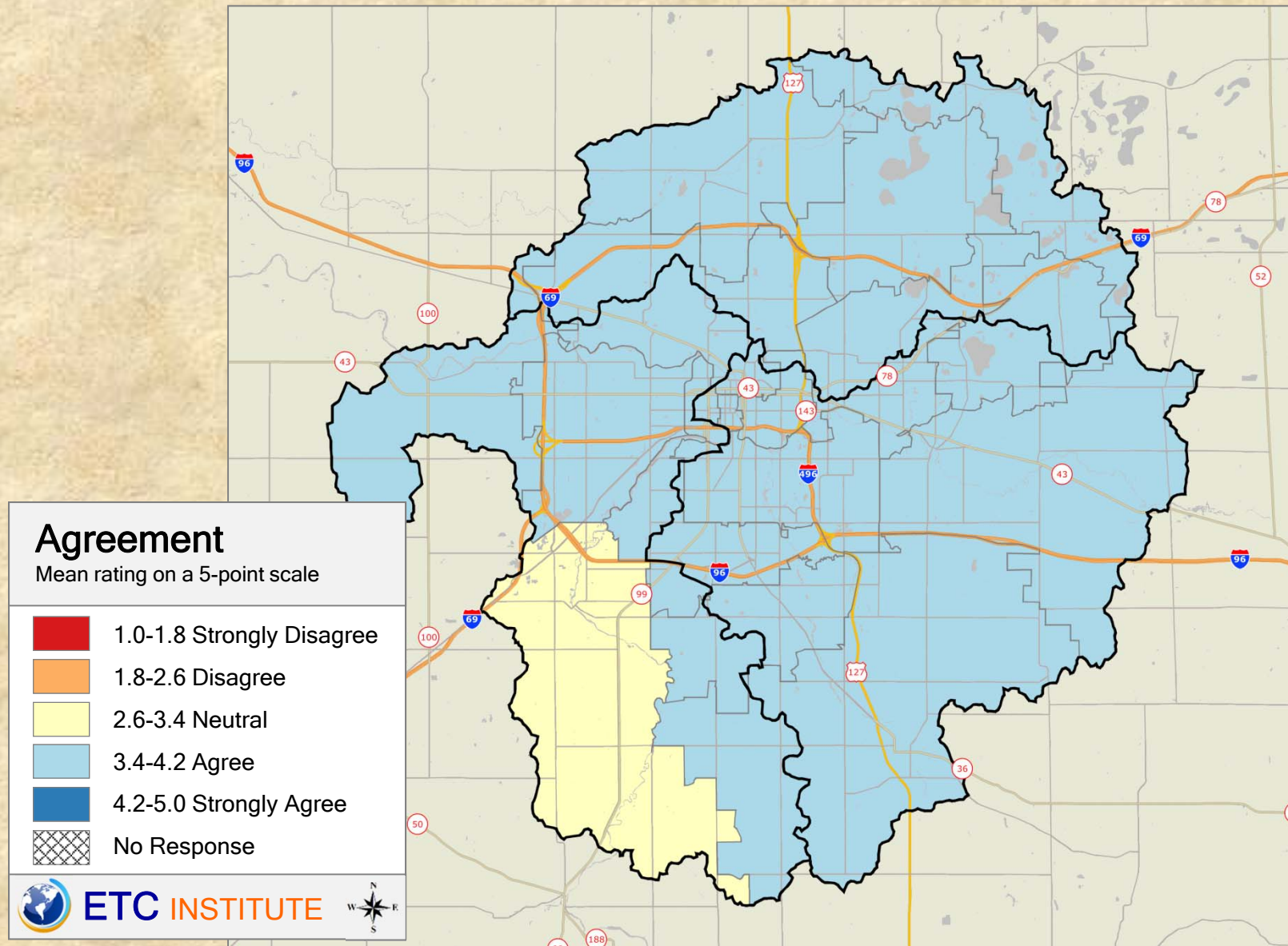
Q21-5 I have confidence in my community's ability to address flooding related problems



2018 Greater Lansing Regional Water Quality Survey

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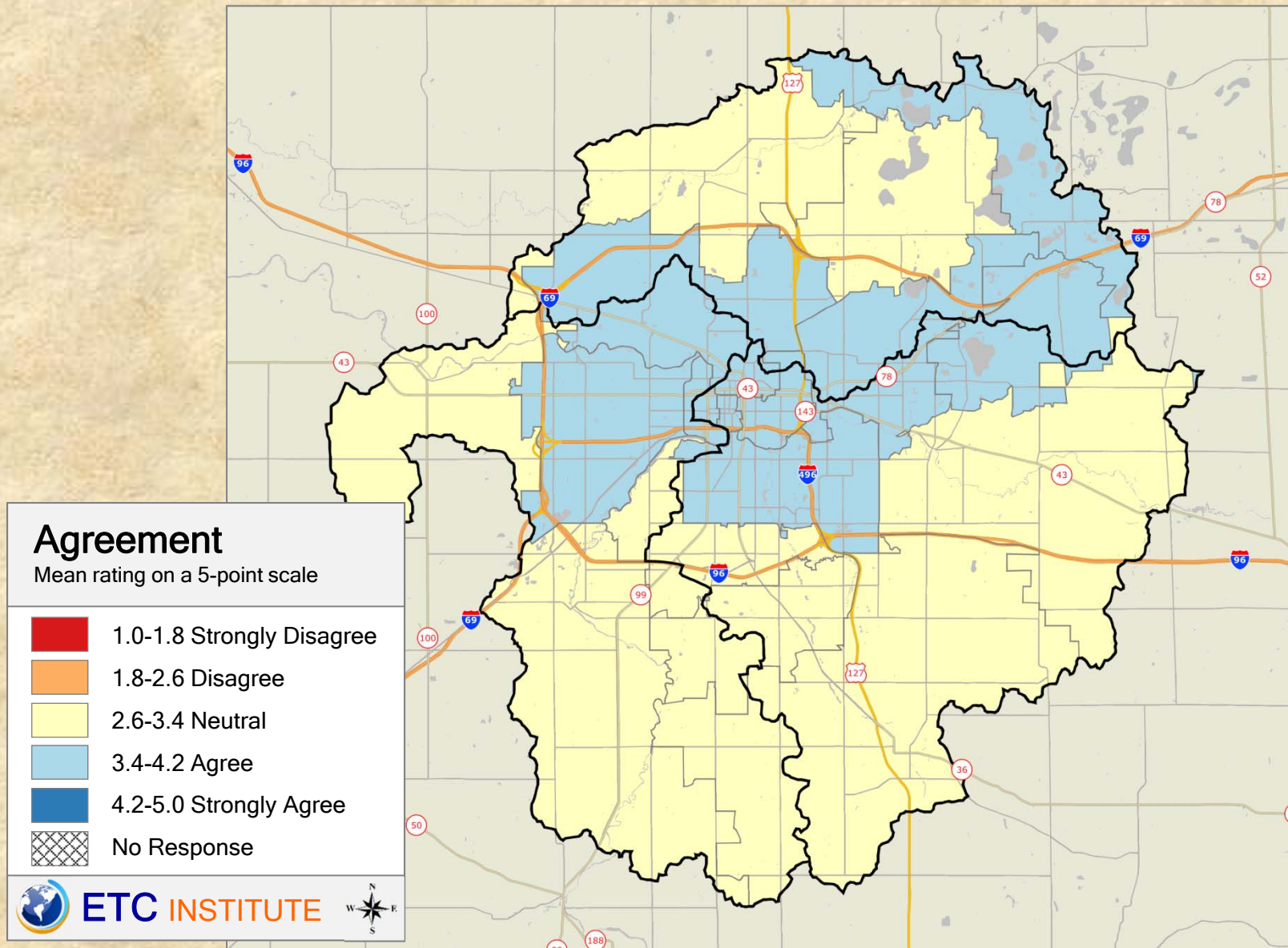
Q21-6 I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural area



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

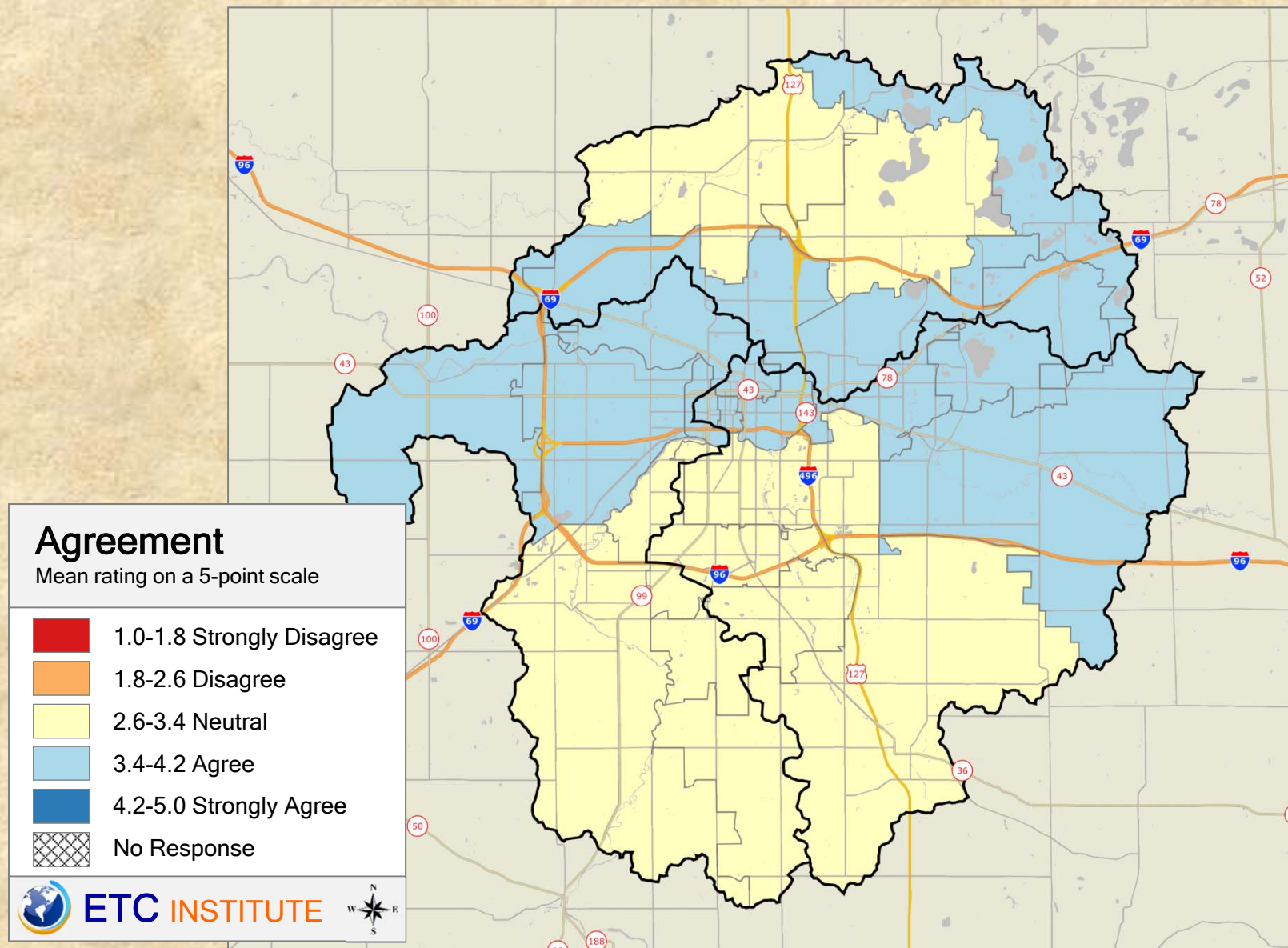
Q21-7 I would be willing to pay more in utilities to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

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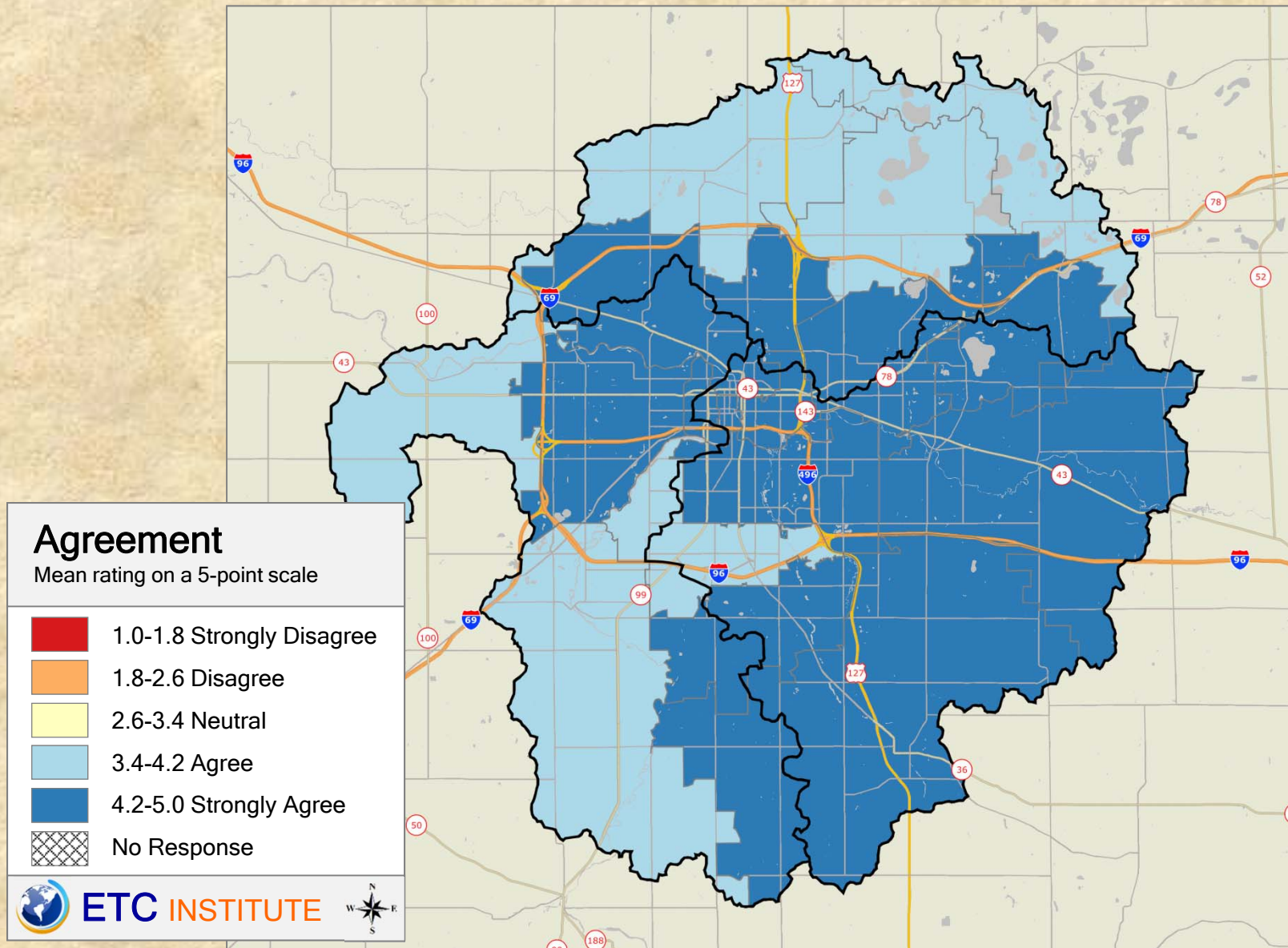
Q21-8 I would be willing to pay an increase in taxes to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

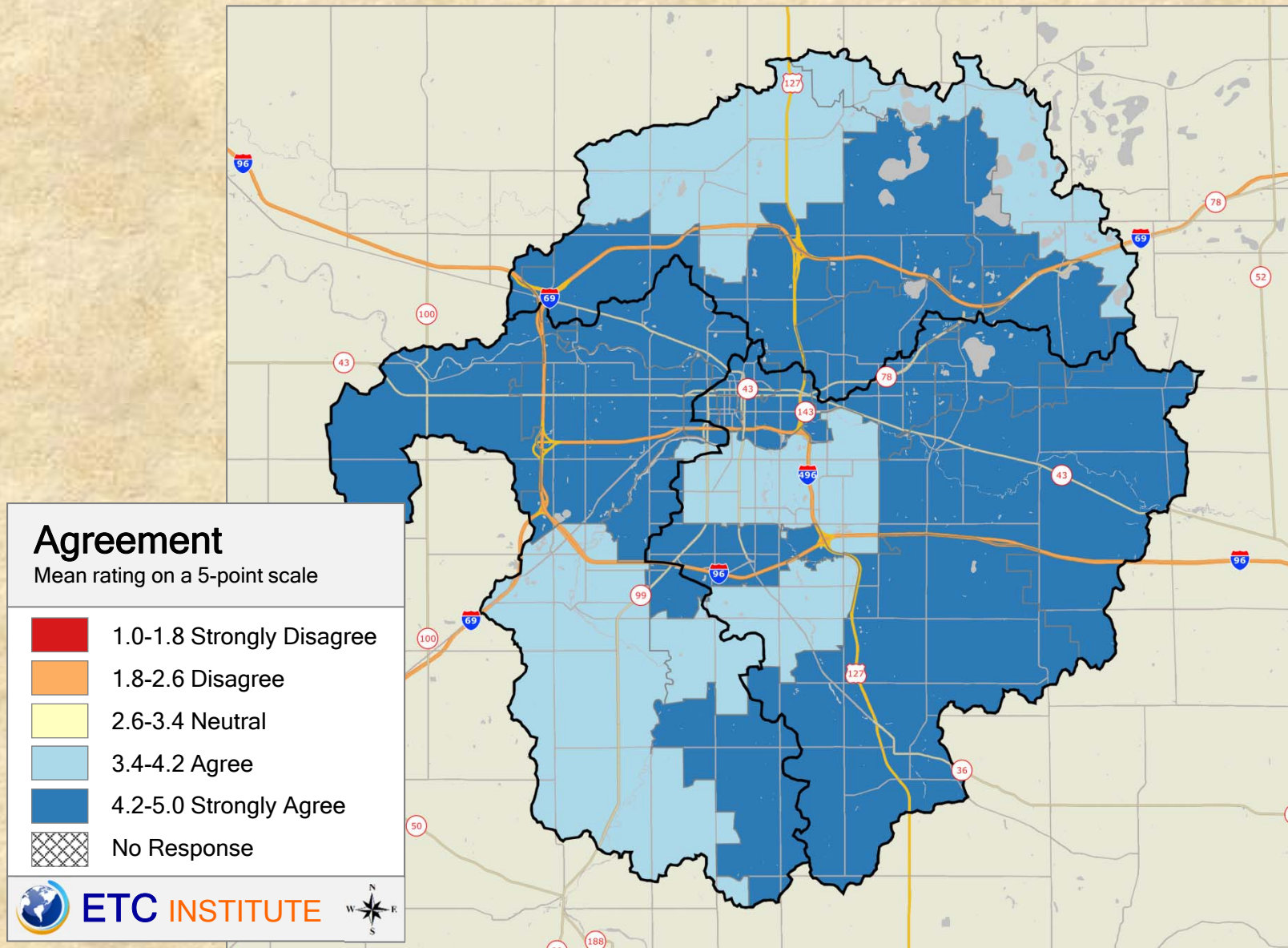
Q21-9 I would support my local government working with other cities and counties to improve water quality



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

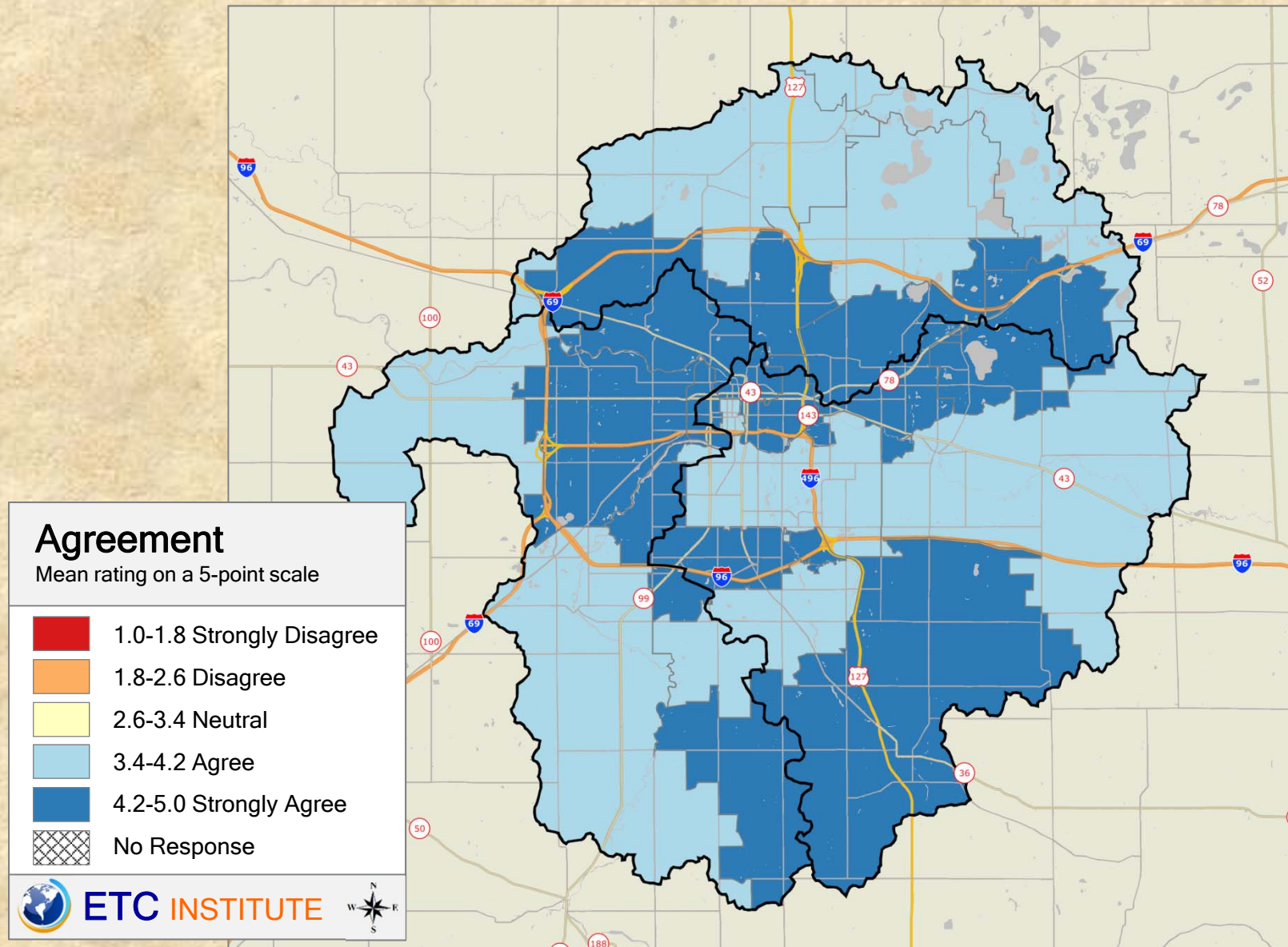
Q21-10 I would support my local government allocating resources to improve water quality



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

Q21-11 Public entities should be doing more to directly implement protection and restoration of urban waterways



2018 Greater Lansing Regional Water Quality Survey

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Section 3

Tabular Data

Watershed

Watershed	Number	Percent
1 – Grand River	229	34.4 %
2 – Looking Glass	217	32.6 %
3 – Red Cedar	220	33.0 %
Total	666	100.0 %

Q1. How concerned are you about pollution in lakes, rivers, and other waterways in the Greater Lansing area?

Q1. How concerned are you about pollution in lakes, rivers, & other waterways in Greater Lansing

Area	Number	Percent
Very concerned	366	55.0 %
Somewhat concerned	254	38.1 %
Not sure	31	4.7 %
Not concerned	12	1.8 %
Not provided	3	0.5 %
Total	666	100.0 %

WITHOUT “NOT PROVIDED”

Q1. How concerned are you about pollution in lakes, rivers, and other waterways in the Greater Lansing area? (without "not provided")

Q1. How concerned are you about pollution in lakes, rivers, & other waterways in Greater Lansing

Area	Number	Percent
Very concerned	366	55.2 %
Somewhat concerned	254	38.3 %
Not sure	31	4.7 %
Not concerned	12	1.8 %
Total	663	100.0 %

Q2. Do you think the quality of water in lakes, rivers, and streams in the community where you live is...

Q2. What do you think quality of water in lakes, rivers, & streams in community where you live is	Number	Percent
Getting much better	16	2.4 %
Getting somewhat better	129	19.4 %
Staying the same	225	33.8 %
Getting somewhat worse	126	18.9 %
Getting much worse	31	4.7 %
Don't know	139	20.9 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"**Q2. Do you think the quality of water in lakes, rivers, and streams in the community where you live is...
(without "don't know")**

Q2. What do you think quality of water in lakes, rivers, & streams in community where you live is	Number	Percent
Getting much better	16	3.0 %
Getting somewhat better	129	24.5 %
Staying the same	225	42.7 %
Getting somewhat worse	126	23.9 %
Getting much worse	31	5.9 %
Total	527	100.0 %

Q3. How much do you think the way you maintain your home (e.g. lawn care, trash disposal, pet care) affects the quality of water in lakes and streams in the community where you live?

Q3. How much does the way you maintain your home affect quality of water in lakes & streams in community where you live

	Number	Percent
Great effect	202	30.3 %
Moderate effect	262	39.3 %
Little effect	128	19.2 %
No effect	35	5.3 %
Don't know	39	5.9 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"

Q3. How much do you think the way you maintain your home (e.g. lawn care, trash disposal, pet care) affects the quality of water in lakes and streams in the community where you live? (without "don't know")

Q3. How much does the way you maintain your home affect quality of water in lakes & streams in community where you live

	Number	Percent
Great effect	202	32.2 %
Moderate effect	262	41.8 %
Little effect	128	20.4 %
No effect	35	5.6 %
Total	627	100.0 %

Q4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources?

Q4. Have you acted at your home or in your community to protect water resources during past 5 years

	Number	Percent
Yes	233	35.0 %
No	306	45.9 %
Don't know	127	19.1 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"

Q4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources? (without "don't know")

Q4. Have you acted at your home or in your community to protect water resources during past 5 years

	Number	Percent
Yes	233	43.2 %
No	306	56.8 %
Total	539	100.0 %

Q5. During the past year, which ONE of the following items do you think contributed MOST to pollution in lakes, rivers, and streams in the community where you live?

Q5. What do you think contributed most to pollution in lakes, rivers, & streams in community where you live during past year

	Number	Percent
Municipal Wastewater Treatment Facilities	46	6.9 %
Factories/industrial discharges	163	24.5 %
Storm water (rain water) runoff into storm drains & roadside ditches	202	30.3 %
Sewage overflow	60	9.0 %
Animal waste	19	2.9 %
Construction sites & new development	49	7.4 %
Agricultural operations	107	16.1 %
Not provided	20	3.0 %
Total	666	100.0 %

WITHOUT "NOT PROVIDED"

Q5. During the past year, which ONE of the following items do you think contributed MOST to pollution in lakes, rivers, and streams in the community where you live? (without "not provided")

Q5. What do you think contributed most to pollution in lakes, rivers, & streams in community where you live during past year

	Number	Percent
Municipal Wastewater Treatment Facilities	46	7.1 %
Factories/industrial discharges	163	25.2 %
Storm water (rain water) runoff into storm drains & roadside ditches	202	31.3 %
Sewage overflow	60	9.3 %
Animal waste	19	2.9 %
Construction sites & new development	49	7.6 %
Agricultural operations	107	16.6 %
Total	646	100.0 %

Q6. Please indicate your level of agreement with the following statement: "The quality of local streams and rivers where I live affects the Great Lakes."

Q6. Your level of agreement with "The quality of local streams & rivers where I live affects the Great Lakes"	Number	Percent
Strongly agree	361	54.2 %
Agree	231	34.7 %
Neither agree nor disagree	29	4.4 %
Disagree	10	1.5 %
Strongly disagree	1	0.2 %
Don't know	34	5.1 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"

Q6. Please indicate your level of agreement with the following statement: "The quality of local streams and rivers where I live affects the Great Lakes." (without "don't know")

Q6. Your level of agreement with "The quality of local streams & rivers where I live affects the Great Lakes"	Number	Percent
Strongly agree	361	57.1 %
Agree	231	36.6 %
Neither agree nor disagree	29	4.6 %
Disagree	10	1.6 %
Strongly disagree	1	0.2 %
Total	632	100.0 %

Q7. Where do you think stormwater (rain water) goes after it enters a storm drain or roadside ditch in your community?

Q7. Where does storm water (rain water) go after it enters a storm drain or roadside ditch in your community

	Number	Percent
Directly to lakes & streams without treatment	353	53.0 %
To lakes & streams after receiving some treatment	124	18.6 %
To a wastewater treatment plant	118	17.7 %
Don't know	122	18.3 %
Total	717	

WITHOUT "DON'T KNOW"

Q7. Where do you think stormwater (rain water) goes after it enters a storm drain or roadside ditch in your community? (without "don't know")

Q7. Where does storm water (rain water) go after it enters a storm drain or roadside ditch in your community

	Number	Percent
Directly to lakes & streams without treatment	353	64.9 %
To lakes & streams after receiving some treatment	124	22.8 %
To a wastewater treatment plant	118	21.7 %
Total	595	

Q8. Which ONE of the following statements BEST describes the location where you live?

<u>Q8. Where do you live</u>	<u>Number</u>	<u>Percent</u>
I live near a watershed	194	29.1 %
I live in a watershed	216	32.4 %
I don't live in a watershed	87	13.1 %
Don't know/I am not familiar with the term "Watershed"	169	25.4 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"**Q8. Which ONE of the following statements BEST describes the location where you live? (without "don't know")**

<u>Q8. Where do you live</u>	<u>Number</u>	<u>Percent</u>
I live near a watershed	194	39.0 %
I live in a watershed	216	43.5 %
I don't live in a watershed	87	17.5 %
Total	497	100.0 %

Q9. Where does your household typically wash your vehicle(s) during the summer?

Q9. Where does your household typically wash
your vehicle(s) during summer

	Number	Percent
At home in the driveway	112	16.8 %
At home on the grass	20	3.0 %
At a carwash	544	81.7 %
Other	4	0.6 %
Don't wash a vehicle	49	7.4 %
Total	729	

Q9. Other

Q9. Other	Number	Percent
Car dealership	2	66.7 %
God washes it	1	33.3 %
Total	3	100.0 %

Q10. Do you have a septic system at your home?

Q10. Do you have a septic system at home	Number	Percent
Yes	148	22.2 %
No	478	71.8 %
Don't know	40	6.0 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"**Q10. Do you have a septic system at your home? (without "don't know")**

Q10. Do you have a septic system at home	Number	Percent
Yes	148	23.6 %
No	478	76.4 %
Total	626	100.0 %

Q10a. If "Yes," has your household had your septic system checked or serviced during the past 5 years?

Q10a. Has your household had your septic system checked or serviced during past 5 years	Number	Percent
Yes	107	72.3 %
No	29	19.6 %
Don't know	12	8.1 %
Total	148	100.0 %

WITHOUT "DON'T KNOW"**Q10a. If "Yes," has your household had your septic system checked or serviced during the past 5 years? (without "don't know")**

Q10a. Has your household had your septic system checked or serviced during past 5 years	Number	Percent
Yes	107	78.7 %
No	29	21.3 %
Total	136	100.0 %

Q11. Do you or other members of your household usually change motor oil, transmission fluid, or radiator fluid for vehicles at your home?

Q11. Do you usually change motor oil,
transmission fluid, or radiator fluid for vehicles at
home

	Number	Percent
Yes	94	14.1 %
No	564	84.7 %
Don't know	8	1.2 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"

Q11. Do you or other members of your household usually change motor oil, transmission fluid, or radiator fluid for vehicles at your home? (without "don't know")

Q11. Do you usually change motor oil,
transmission fluid, or radiator fluid for vehicles at
home

	Number	Percent
Yes	94	14.3 %
No	564	85.7 %
Total	658	100.0 %

Q12. Where does your household typically dispose of materials such as old oil/fluids from your vehicle, batteries, pesticides, paints, or other household hazardous wastes?

Q12. Where does your household typically dispose of household hazardous wastes	Number	Percent
On the ground	4	0.6 %
With my regular trash	103	15.5 %
I keep it in a container at my home	90	13.5 %
Down a storm drain or roadside ditch	2	0.3 %
At a scheduled community collection site or facility that accepts these materials	482	72.4 %
Other	47	7.1 %
Total	728	

Q12. Other

Q12. Other	Number	Percent
Recycle centers	3	6.4 %
Recycle at Walmart	2	4.3 %
Place of work offers collections more then once a year	1	2.1 %
Waste oil burner	1	2.1 %
Service station	1	2.1 %
Person who maintains our car	1	2.1 %
We don't change anything related to cars at home	1	2.1 %
Car facility	1	2.1 %
OIL CHANGE GARAGES	1	2.1 %
AUTO ZONE	1	2.1 %
TAKE TO WORK FOR RECYCLE	1	2.1 %
CAR DEALERSHIP	1	2.1 %
TOWNSHIP	1	2.1 %
Batteries recycle	1	2.1 %
We have no waste	1	2.1 %
Call for special pick up	1	2.1 %
Disposal site	1	2.1 %
Oil change shop	1	2.1 %
Give to a local farmer that heats with the old oil	1	2.1 %
BURN	1	2.1 %
LOCAL OIL CHANGE PLACE THAT TAKES USED OIL	1	2.1 %
OIL CHANGED AT LOCAL BUSINESS	1	2.1 %
Service provider	1	2.1 %
At my oil change place	1	2.1 %
Don't have oil paint etc	1	2.1 %
At various businesses that take certain things for recycling	1	2.1 %
Designated area in subdivision	1	2.1 %
Take oil to dealer, battery to auto parts, paint dry up and trash it	1	2.1 %
Pesticides paints	1	2.1 %
Batteries are getting harder to recycle	1	2.1 %
No waste of this type except for batteries	1	2.1 %
VERY FEW BATTERIES, REGULAR TRASH NO OIL, CHEMICAL	1	2.1 %
Auto part stores	1	2.1 %
DON'T HAVE A VEHICLE	1	2.1 %
HAVE THESE THINGS DONE AT A SHOP	1	2.1 %
IN A CONTAINER TO PLACES THAT RECYCLE OIL	1	2.1 %
Dry all paints then trash in open containers	1	2.1 %
Auto zone oil, Lansing recycles paint & batteries	1	2.1 %
HAVEN'T HAD ANY TO DISPOSE OF	1	2.1 %
Mechanic shop	1	2.1 %
Do not dispose these	1	2.1 %
Transmission fluid back to auto shop	1	2.1 %
Not disposed of	1	2.1 %
An oil change business for recycling	1	2.1 %
Total	47	100.0 %

Q12a. Why doesn't your household typically dispose of your household hazardous waste at a community collection site?

Q12a. Why doesn't your household typically dispose of household hazardous waste at a community collection site

	Number	Percent
Don't know locations of these facilities	86	39.3 %
Don't have time	31	14.2 %
No sites are located near my home	16	7.3 %
I don't think household hazardous waste facilities are necessary	3	1.4 %
Other	27	12.3 %
Total	163	

Q12a. Other

Q12a. Other	Number	Percent
Have no hazardous waste	4	15.4 %
Not interested	1	3.8 %
Try to	1	3.8 %
No time	1	3.8 %
DON'T KNOW WHEN	1	3.8 %
NOT SOMETHING I THINK ABOUT	1	3.8 %
JUST MOVED HERE	1	3.8 %
HOURS OF WASTE FACILITIES	1	3.8 %
We have no waste	1	3.8 %
Confusing who takes paint, batteries, etc.	1	3.8 %
Charges apply	1	3.8 %
All vehicles maintained by professionals	1	3.8 %
Not sure what they accept	1	3.8 %
We do not have this type of service. I was told to throw it in the trash.	1	3.8 %
WE TRY TO BUT SOME OF THE RECYCLING EVENTS ARE INFREQUENT	1	3.8 %
I rarely throw out the materials mentioned	1	3.8 %
Batteries are returned for the core charge and oil is kept in a sealed bucke	1	3.8 %
TRANSPORTATION ISSUES	1	3.8 %
DON'T HAVE ANY THAT I KNOW OF	1	3.8 %
Irregular times don't fit with my times	1	3.8 %
Never heard of it	1	3.8 %
Lazy	1	3.8 %
Not common	1	3.8 %
Total	26	100.0 %

Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?

Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications	Number	Percent
Yes	227	34.1 %
No	418	62.8 %
Don't know	21	3.2 %
Total	666	100.0 %

WITHOUT "DON'T KNOW"**Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?
(without "don't know")**

Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications	Number	Percent
Yes	227	35.2 %
No	418	64.8 %
Total	645	100.0 %

Q13a. If "Yes," Does your household ask your lawn service to use environmentally friendly/organic products and practices?

Q13a. Does your household ask your lawn service to use environmentally friendly/organic products & practices	Number	Percent
Yes. The lawn service uses environmentally friendly products & practices on my lawn	88	38.8 %
Yes. But the lawn service doesn't offer these services	11	4.8 %
No. I haven't asked, but will in the future	61	26.9 %
No. I don't think using environmentally friendly products matters	5	2.2 %
Don't know	62	27.3 %
Total	227	100.0 %

WITHOUT "DON'T KNOW"

Q13a. If "Yes," Does your household ask your lawn service to use environmentally friendly/organic products and practices? (without "don't know")

Q13a. Does your household ask your lawn service to use environmentally friendly/organic products & practices	Number	Percent
Yes. The lawn service uses environmentally friendly products & practices on my lawn	88	53.3 %
Yes. But the lawn service doesn't offer these services	11	6.7 %
No. I haven't asked, but will in the future	61	37.0 %
No. I don't think using environmentally friendly products matters	5	3.0 %
Total	165	100.0 %

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves?

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves	Number	Percent
Leave them on lawn/mulch into lawn	454	68.2 %
Compost them in your yard	131	19.7 %
Sweep them into street or into a roadside ditch/stream/ wetland	9	1.4 %
Curbside pickup by community	132	19.8 %
Other	37	5.6 %
Do not have a yard	37	5.6 %
Total	800	

Q14. Other

Q14. Other	Number	Percent
Lawn service takes it away	5	15.2 %
Burn them	2	6.1 %
I take them to a City disposal place	1	3.0 %
Recycle	1	3.0 %
Take to recycle center	1	3.0 %
Let wind blow them away	1	3.0 %
Take to friends garden	1	3.0 %
We put all extra clippings spread out in the woods behind our house	1	3.0 %
PUT AT THE BACK OF OUR PROPERTY TO DECOMPOSE	1	3.0 %
WOODS	1	3.0 %
CURBSIDE PICKUP	1	3.0 %
Compost in woods nearby	1	3.0 %
Take to compost center	1	3.0 %
LEAVE AS MULCH ON FIELD	1	3.0 %
Dump in the woods behind our property	1	3.0 %
Private property disposal	1	3.0 %
LAWN WASTE COLLECTION SITE	1	3.0 %
CATCH GRASS WHEN POSSIBLE	1	3.0 %
Designated area	1	3.0 %
New service	1	3.0 %
Set in a backyard field	1	3.0 %
COMPOST	1	3.0 %
On my property	1	3.0 %
Bags and picked up by garbage company	1	3.0 %
TAKE TO COMMUNITY COMPOST	1	3.0 %
Local dump/recycle	1	3.0 %
Forest	1	3.0 %
Send to country to compost	1	3.0 %
Total	33	100.0 %

Q15. Which of the following BEST describes how often your household fertilizes your lawn?

Q15. How often does your household fertilize your lawn

	Number	Percent
5+ times per year	32	5.3 %
3-4 times per year	105	17.3 %
1-2 times per year	162	26.7 %
Seldom or never	296	48.8 %
Not provided	12	2.0 %
Total	607	100.0 %

WITHOUT "NOT PROVIDED"**Q15. Which of the following BEST describes how often your household fertilizes your lawn? (without "not provided")**

Q15. How often does your household fertilize your lawn

	Number	Percent
5+ times per year	32	5.4 %
3-4 times per year	105	17.6 %
1-2 times per year	162	27.2 %
Seldom or never	296	49.7 %
Total	595	100.0 %

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following.

(N=666)

	Very willing	Willing	Neutral	Not willing	Not willing at all	N/A
Q16-1. Changing your car washing practices (using a car wash, washing your car on grass, or using less soap)	50.0%	15.3%	9.8%	1.2%	1.1%	22.7%
Q16-2. Promptly picking up & disposing of your pet's waste	32.9%	15.5%	7.7%	0.8%	0.6%	42.6%
Q16-3. Having your septic tank serviced every 3-5 years	16.1%	8.7%	5.9%	0.3%	0.0%	69.1%
Q16-4. Sweeping excess fertilizer & grass clippings from paved surfaces back onto lawn	42.5%	21.6%	8.3%	0.6%	1.5%	25.5%
Q16-5. Only using lawn service companies that use environmentally friendly products	27.9%	14.4%	10.4%	1.2%	1.4%	44.7%
Q16-6. Disposing of household hazardous waste (motor oil, pesticides, paint) at a community collection event	58.7%	17.3%	6.2%	0.8%	0.3%	16.8%
Q16-7. Landscaping your yard with plants native to Michigan	43.8%	23.7%	14.6%	0.6%	0.5%	16.8%
Q16-8. Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property	31.7%	21.8%	22.1%	5.0%	3.5%	16.1%

WITHOUT "N/A"

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following. (without "N/A")

(N=666)

	Very willing	Willing	Neutral	Not willing	Not willing at all
Q16-1. Changing your car washing practices (using a car wash, washing your car on grass, or using less soap)	64.7%	19.8%	12.6%	1.6%	1.4%
Q16-2. Promptly picking up & disposing of your pet's waste	57.3%	27.0%	13.4%	1.3%	1.0%
Q16-3. Having your septic tank serviced every 3-5 years	51.9%	28.2%	18.9%	1.0%	0.0%
Q16-4. Sweeping excess fertilizer & grass clippings from paved surfaces back onto lawn	57.1%	29.0%	11.1%	0.8%	2.0%
Q16-5. Only using lawn service companies that use environmentally friendly products	50.5%	26.1%	18.8%	2.2%	2.4%
Q16-6. Disposing of household hazardous waste (motor oil, pesticides, paint) at a community collection event	70.6%	20.8%	7.4%	0.9%	0.4%
Q16-7. Landscaping your yard with plants native to Michigan	52.7%	28.5%	17.5%	0.7%	0.5%
Q16-8. Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property	37.7%	25.9%	26.3%	5.9%	4.1%

Q16. Please indicate whether or not you currently do that action.

(N=666)

	Yes	No
Q16-1. Changing your car washing practices (using a car wash, washing your car on grass, or using less soap)	84.5%	15.5%
Q16-2. Promptly picking up & disposing of your pet's waste	62.9%	37.1%
Q16-3. Having your septic tank serviced every 3-5 years	27.7%	72.3%
Q16-4. Sweeping excess fertilizer & grass clippings from paved surfaces back onto lawn	69.8%	30.2%
Q16-5. Only using lawn service companies that use environmentally friendly products	29.7%	70.3%
Q16-6. Disposing of household hazardous waste (motor oil, pesticides, paint) at a community collection event	76.5%	23.5%
Q16-7. Landscaping your yard with plants native to Michigan	61.8%	38.2%
Q16-8. Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property	25.9%	74.1%

Q17. Have you seen or heard any information in advertisements, brochures, outdoor advertisements, displays, or other promotional materials about water quality in lakes and rivers from the following groups/campaigns?

Q17. Have you seen or heard any information in advertisements, brochures, outdoor advertisements, displays, or other promotional materials about

<u>water quality</u>	<u>Number</u>	<u>Percent</u>
Greater Lansing Regional Committee for Stormwater Management (GLRC)	95	14.3 %
Pollution Isn't Pretty	81	12.2 %
MGROW (Middle Grand River Organizations of Watersheds)	37	5.6 %
Total	213	

Q18. If you indicated you have seen or heard information from any of the groups/campaigns in Question 17, what SOURCES did you use to obtain the information from?

Q18. What sources did you use to obtain information from	Number	Percent
Newspapers, magazines, or other print	58	34.7 %
Municipal website	24	14.4 %
Television news	34	20.4 %
Radio	11	6.6 %
Conservation District materials	12	7.2 %
Environmental groups	30	18.0 %
Materials from colleges or universities	11	6.6 %
Social media posts	33	19.8 %
Exhibits at events	24	14.4 %
Displays in municipal lobbies	16	9.6 %
Brochures	35	21.0 %
Trail signs	61	36.5 %
Other	16	9.6 %
Total	365	

Q18. Other

Q18. Other	Number	Percent
Internet	3	18.8 %
Billboards	3	18.8 %
Signs	3	18.8 %
MICHIGAN DEQ	1	6.3 %
Billboards & signs	1	6.3 %
Just saw it	1	6.3 %
Google	1	6.3 %
Person with a clipboard asking for signstures	1	6.3 %
Posters/billboards	1	6.3 %
MY JOB	1	6.3 %
Total	16	100.0 %

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content?

Q19. Top choice	Number	Percent
Newspapers, magazines, or other print	32	19.2 %
Municipal website	15	9.0 %
Television news	17	10.2 %
Radio	8	4.8 %
Conservation District materials	4	2.4 %
Environmental groups	4	2.4 %
Materials from colleges or universities	3	1.8 %
Social media posts	35	21.0 %
Exhibits at events	3	1.8 %
Brochures	8	4.8 %
Trail signs	11	6.6 %
Other	2	1.2 %
None chosen	25	15.0 %
Total	167	100.0 %

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content?

Q19. 2nd choice	Number	Percent
Newspapers, magazines, or other print	16	9.6 %
Municipal website	14	8.4 %
Television news	21	12.6 %
Radio	7	4.2 %
Conservation District materials	3	1.8 %
Environmental groups	10	6.0 %
Materials from colleges or universities	5	3.0 %
Social media posts	17	10.2 %
Exhibits at events	8	4.8 %
Displays in municipal lobbies	1	0.6 %
Brochures	10	6.0 %
Trail signs	15	9.0 %
Other	6	3.6 %
None chosen	34	20.4 %
Total	167	100.0 %

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content? (top 2)

Q19. Sum of top 2 choices	Number	Percent
Newspapers, magazines, or other print	48	28.7 %
Municipal website	29	17.4 %
Television news	38	22.8 %
Radio	15	9.0 %
Conservation District materials	7	4.2 %
Environmental groups	14	8.4 %
Materials from colleges or universities	8	4.8 %
Social media posts	52	31.1 %
Exhibits at events	11	6.6 %
Displays in municipal lobbies	1	0.6 %
Brochures	18	10.8 %
Trail signs	26	15.6 %
Other	8	4.8 %
None chosen	25	15.0 %
Total	300	

Q20. Which of the following social media platforms do you use?

Q20. What social media platforms do you use	Number	Percent
Facebook	423	63.5 %
Twitter	115	17.3 %
Instagram	170	25.5 %
Snapchat	111	16.7 %
Nextdoor	59	8.9 %
Other	36	5.4 %
Total	914	

Q20. Other

Q20. Other	Number	Percent
LinkedIn	4	11.4 %
Emails	3	8.6 %
Pinterest	3	8.6 %
Newspapers	2	5.7 %
Google	2	5.7 %
Reddit	2	5.7 %
TV	2	5.7 %
TV, radio	2	5.7 %
Word of mouth	2	5.7 %
CLUB PENGUIN	1	2.9 %
TV news	1	2.9 %
Netflix	1	2.9 %
News/ads on TV	1	2.9 %
Newspapers, ads	1	2.9 %
Emails, texts	1	2.9 %
Signs	1	2.9 %
Internet	1	2.9 %
PBS, WKAR, NPR	1	2.9 %
Pinterest, LinkedIn	1	2.9 %
MeWe	1	2.9 %
Newspaper/TV news	1	2.9 %
Tumblr	1	2.9 %
Total	35	100.0 %

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements.

(N=666)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
Q21-1. Quality of local rivers where I live affects my quality of life	45.2%	39.8%	8.9%	1.7%	0.8%	3.8%
Q21-2. Quality of local rivers where I live affects property values	48.5%	36.9%	9.3%	1.4%	0.3%	3.6%
Q21-3. Quality of local rivers where I live affects drinking water quality	52.6%	28.7%	11.0%	2.4%	0.6%	4.8%
Q21-4. I think it is important to improve quality of water in lakes & rivers in my community	62.5%	29.0%	4.1%	0.3%	0.6%	3.6%
Q21-5. I have confidence in my community's ability to address flooding related problems	13.8%	26.1%	33.5%	15.9%	6.2%	4.5%
Q21-6. I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas	24.5%	33.3%	27.9%	5.4%	3.3%	5.6%
Q21-7. I would be willing to pay more in utilities to improve quality of water in lakes & rivers in community where I live	19.5%	30.2%	29.1%	10.1%	7.4%	3.8%
Q21-8. I would be willing to pay an increase in taxes to improve quality of water in lakes & rivers in community where I live	19.1%	30.2%	26.3%	12.3%	7.4%	4.8%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements.

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree	N/A
Q21-9. I would support my local government working with other cities & counties to improve water quality	39.9%	44.3%	10.7%	0.9%	0.9%	3.3%
Q21-10. I would support my local government allocating resources to improve water quality	38.9%	44.6%	11.3%	0.9%	0.8%	3.6%
Q21-11. Public entities should be doing more to directly implement protection & restoration of urban waterways	41.4%	36.3%	15.6%	1.5%	0.6%	4.5%

WITHOUT "N/A"

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

(N=666)

	Strongly agree	Agree	Neutral	Disagree	Strongly disagree
Q21-1. Quality of local rivers where I live affects my quality of life	47.0%	41.3%	9.2%	1.7%	0.8%
Q21-2. Quality of local rivers where I live affects property values	50.3%	38.3%	9.7%	1.4%	0.3%
Q21-3. Quality of local rivers where I live affects drinking water quality	55.2%	30.1%	11.5%	2.5%	0.6%
Q21-4. I think it is important to improve quality of water in lakes & rivers in my community	64.8%	30.1%	4.2%	0.3%	0.6%
Q21-5. I have confidence in my community's ability to address flooding related problems	14.5%	27.4%	35.1%	16.7%	6.4%
Q21-6. I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas	25.9%	35.3%	29.6%	5.7%	3.5%
Q21-7. I would be willing to pay more in utilities to improve quality of water in lakes & rivers in community where I live	20.3%	31.4%	30.3%	10.5%	7.6%
Q21-8. I would be willing to pay an increase in taxes to improve quality of water in lakes & rivers in community where I live	20.0%	31.7%	27.6%	12.9%	7.7%
Q21-9. I would support my local government working with other cities & counties to improve water quality	41.3%	45.8%	11.0%	0.9%	0.9%
Q21-10. I would support my local government allocating resources to improve water quality	40.3%	46.3%	11.7%	0.9%	0.8%
Q21-11. Public entities should be doing more to directly implement protection & restoration of urban waterways	43.4%	38.1%	16.4%	1.6%	0.6%

Q22. Using a 5-point scale, where 5 means "At Least Once Per Week" and 1 means "Never," please indicate how often you do each of the following activities.

(N=666)

	At least once per week	At least once per month	A few times per year	Seldom	Never	N/A
Q22-1. Swim in lakes within Greater Lansing Area	2.1%	4.1%	13.5%	26.0%	51.1%	3.3%
Q22-2. Walk or bike along lakes & rivers in Greater Lansing Area	14.0%	21.0%	26.4%	19.7%	15.8%	3.2%
Q22-3. Participate in Paddle Sports within Greater Lansing Area	1.7%	5.1%	12.2%	17.3%	59.0%	4.8%
Q22-4. Fish in lakes or rivers near your home	3.8%	4.4%	14.1%	17.0%	56.3%	4.5%

WITHOUT "N/A"

Q22. Using a 5-point scale, where 5 means "At Least Once Per Week" and 1 means "Never," please indicate how often you do each of the following activities. (without "N/A")

(N=666)

	At least once per week	At least once per month	A few times per year	Seldom	Never
Q22-1. Swim in lakes within Greater Lansing Area	2.2%	4.2%	14.0%	26.9%	52.8%
Q22-2. Walk or bike along lakes & rivers in Greater Lansing Area	14.4%	21.7%	27.3%	20.3%	16.3%
Q22-3. Participate in Paddle Sports within Greater Lansing Area	1.7%	5.4%	12.8%	18.1%	62.0%
Q22-4. Fish in lakes or rivers near your home	3.9%	4.6%	14.8%	17.8%	59.0%

Q23. Including yourself, how many people in your household are...

	Mean	Sum
Under age 5	0.1	95
Ages 5-9	0.1	78
Ages 10-14	0.1	72
Ages 15-19	0.1	73
Ages 20-24	0.1	89
Ages 25-34	0.4	262
Ages 35-44	0.3	209
Ages 45-54	0.3	208
Ages 55-64	0.3	202
Ages 65-74	0.3	190
Ages 75+	0.1	86

Q24. Are you of Hispanic, Latino, or Spanish ancestry?

Q24. Are you of Hispanic, Latino, or Spanish
ancestry

	Number	Percent
Yes	51	7.7 %
No	611	91.7 %
Not provided	4	0.6 %
Total	666	100.0 %

WITHOUT "NOT PROVIDED"**Q24. Are you of Hispanic, Latino, or Spanish ancestry? (without "not provided")**

Q24. Are you of Hispanic, Latino, or Spanish
ancestry

	Number	Percent
Yes	51	7.7 %
No	611	92.3 %
Total	662	100.0 %

Q25. Which of the following best describes your race/ethnicity?

<u>Q25. Your race/ethnicity</u>	<u>Number</u>	<u>Percent</u>
Asian/Pacific Islander	43	6.5 %
Black/African American	84	12.6 %
American Indian/Eskimo	8	1.2 %
White	520	78.1 %
Other	11	1.7 %
Total	666	

Q25. Other

<u>Q25. Other</u>	<u>Number</u>	<u>Percent</u>
Hispanic	5	55.6 %
Mixed	1	11.1 %
European American	1	11.1 %
Pakistani	1	11.1 %
Cherokee	1	11.1 %
Total	9	100.0 %

Q26. Would you say your total annual household income is...

<u>Q26. Your total annual household income</u>	<u>Number</u>	<u>Percent</u>
Under \$35K	104	15.6 %
\$35K - \$59,999	142	21.3 %
\$60K - \$99,999	158	23.7 %
\$100K - \$199,999	139	20.9 %
\$200K+	23	3.5 %
Prefer not to say	100	15.0 %
Total	666	100.0 %

WITHOUT "PREFER NOT TO SAY"**Q26. Would you say your total annual household income is... (without "prefer not to say")**

<u>Q26. Your total annual household income</u>	<u>Number</u>	<u>Percent</u>
Under \$35K	104	18.4 %
\$35K - \$59,999	142	25.1 %
\$60K - \$99,999	158	27.9 %
\$100K - \$199,999	139	24.6 %
\$200K+	23	4.1 %
Total	566	100.0 %

Q27. What is your gender?

Q27. Your gender	Number	Percent
Male	332	49.8 %
Female	332	49.8 %
Not provided	2	0.3 %
Total	666	100.0 %

Q27. What is your gender? (without "not provided")

Q27. Your gender	Number	Percent
Male	332	50.0 %
Female	332	50.0 %
Total	664	100.0 %

Q28. Would you like the Greater Lansing Regional Committee to keep you informed about environmental and other planning issues in the region?

Q28. Would you like Greater Lansing Regional Committee to keep you informed about environmental & other planning issues in the region	Number	Percent
Yes	232	34.8 %
No	434	65.2 %
Total	666	100.0 %

Section 4

Tabular Data by Watershed

Q1. How concerned are you about pollution in lakes, rivers, and other waterways in the Greater Lansing area? (without "not provided")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q1. How concerned are you about pollution in lakes, rivers, & other waterways in Greater Lansing Area

Very concerned	59.4%	52.3%	53.6%	55.2%
Somewhat concerned	37.6%	38.8%	38.6%	38.3%
Not sure	0.9%	6.1%	7.3%	4.7%
Not concerned	2.2%	2.8%	0.5%	1.8%

Q2. Do you think the quality of water in lakes, rivers, and streams in the community where you live is... (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q2. What do you think quality of water in lakes, rivers, & streams in community where you live is

Getting much better	2.7%	2.9%	3.6%	3.0%
Getting somewhat better	26.1%	21.2%	26.0%	24.5%
Staying the same	40.4%	47.6%	40.2%	42.7%
Getting somewhat worse	23.4%	24.1%	24.3%	23.9%
Getting much worse	7.4%	4.1%	5.9%	5.9%

Q3. How much do you think the way you maintain your home (e.g. lawn care, trash disposal, pet care) affects the quality of water in lakes and streams in the community where you live? (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q3. How much does the way you maintain your home affect quality of water in lakes & streams in community where you live

Great effect	34.2%	29.1%	33.2%	32.2%
Moderate effect	41.6%	40.9%	42.9%	41.8%
Little effect	19.2%	21.7%	20.5%	20.4%
No effect	5.0%	8.4%	3.4%	5.6%

Q4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources? (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q4. Have you acted at your home or in your community to protect water resources during past 5 years

Yes	43.8%	43.8%	42.1%	43.2%
No	56.3%	56.2%	57.9%	56.8%

Q5. During the past year, which ONE of the following items do you think contributed MOST to pollution in lakes, rivers, and streams in the community where you live? (without "not provided")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q5. What do you think contributed most to pollution in lakes, rivers, & streams in community where you live during past year

Municipal Wastewater Treatment Facilities	7.7%	8.1%	5.6%	7.1%
Factories/industrial discharges	28.1%	16.2%	31.2%	25.2%
Storm water (rain water) runoff into storm drains & roadside ditches	28.1%	35.2%	30.7%	31.3%
Sewage overflow	9.0%	8.6%	10.2%	9.3%
Animal waste	1.8%	3.8%	3.3%	2.9%
Construction sites & new development	6.8%	8.1%	7.9%	7.6%
Agricultural operations	18.6%	20.0%	11.2%	16.6%

Q6. Please indicate your level of agreement with the following statement: "The quality of local streams and rivers where I live affects the Great Lakes." (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q6. Your level of agreement with "The quality of local streams & rivers where I live affects the Great Lakes"

Strongly agree	62.1%	53.2%	55.8%	57.1%
Agree	34.2%	40.0%	35.6%	36.6%
Neither agree nor disagree	1.8%	5.4%	6.7%	4.6%
Disagree	1.4%	1.5%	1.9%	1.6%
Strongly disagree	0.5%	0.0%	0.0%	0.2%

Q7. Where do you think stormwater (rain water) goes after it enters a storm drain or roadside ditch in your community? (without "don't know")

N=544

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q7. Where does storm water (rain water) go after it enters a storm drain or roadside ditch in your community

Directly to lakes & streams without treatment	61.3%	73.6%	60.0%	64.9%
To lakes & streams after receiving some treatment	21.0%	20.2%	27.0%	22.8%
To a wastewater treatment plant	26.5%	14.6%	23.8%	21.7%

Q8. Which ONE of the following statements BEST describes the location where you live? (without "don't know")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q8. Where do you live

I live near a watershed	38.9%	40.0%	38.1%	39.0%
I live in a watershed	37.6%	47.0%	45.2%	43.5%
I don't live in a watershed	23.6%	13.0%	16.8%	17.5%

Q9. Where does your household typically wash your vehicle(s) during the summer?

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q9. Where does your household typically wash your vehicle(s) during summer

At home in the driveway	14.0%	18.4%	18.2%	16.8%
At home on the grass	1.3%	5.1%	2.7%	3.0%
At a carwash	86.0%	81.6%	77.3%	81.7%
Other	0.9%	0.5%	0.5%	0.6%
Don't wash a vehicle	4.8%	6.5%	10.9%	7.4%

Q10. Do you have a septic system at your home? (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q10. Do you have a septic system at home

Yes	24.0%	29.0%	17.6%	23.6%
No	76.0%	71.0%	82.4%	76.4%

Q10a. If "Yes," has your household had your septic system checked or serviced during the past 5 years? (without "don't know")

N=148

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q10a. Has your household had your septic system checked or serviced during past 5 years

Yes	78.7%	80.0%	75.9%	78.7%
No	21.3%	20.0%	24.1%	21.3%

Q11. Do you or other members of your household usually change motor oil, transmission fluid, or radiator fluid for vehicles at your home? (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q11. Do you usually change motor oil, transmission fluid, or radiator fluid for vehicles at home

Yes	14.5%	14.9%	13.5%	14.3%
No	85.5%	85.1%	86.5%	85.7%

Q12. Where does your household typically dispose of materials such as old oil/fluids from your vehicle, batteries, pesticides, paints, or other household hazardous wastes?

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q12. Where does your household typically dispose of household hazardous wastes

On the ground	0.0%	1.4%	0.5%	0.6%
With my regular trash	14.8%	12.4%	19.1%	15.5%
I keep it in a container at my home	12.2%	13.8%	14.5%	13.5%
Down a storm drain or roadside ditch	0.4%	0.0%	0.5%	0.3%
At a scheduled community collection site or facility that accepts these materials	71.6%	77.9%	67.7%	72.4%
Other	7.9%	8.3%	5.0%	7.1%

Q12a. Why doesn't your household typically dispose of your household hazardous waste at a community collection site?

N=219

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q12a. Why doesn't your household typically dispose of household hazardous waste at a community collection site

Don't know locations of these facilities	39.2%	24.6%	52.6%	39.3%
Don't have time	13.5%	8.7%	19.7%	14.2%
No sites are located near my home	8.1%	5.8%	7.9%	7.3%
I don't think household hazardous waste facilities are necessary	2.7%	1.4%	0.0%	1.4%
Other	16.2%	13.0%	7.9%	12.3%

Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications? (without "don't know")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q13. Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications

Yes	31.8%	39.2%	34.8%	35.2%
No	68.2%	60.8%	65.2%	64.8%

Q13a. If "Yes," Does your household ask your lawn service to use environmentally friendly/organic products and practices? (without "don't know")

N=227

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q13a. Does your household ask your lawn service to use environmentally friendly/organic products & practices

Yes. The lawn service uses environmentally friendly products & practices on my lawn	59.2%	52.3%	49.0%	53.3%
Yes. But the lawn service doesn't offer these services	8.2%	7.7%	3.9%	6.7%
No. I haven't asked, but will in the future	30.6%	36.9%	43.1%	37.0%
No. I don't think using environmentally friendly products matters	2.0%	3.1%	3.9%	3.0%

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves?

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q14. What does your household (or lawn service) typically do with your grass clippings and/or leaves

Leave them on lawn/mulch into lawn	65.9%	76.0%	62.7%	68.2%
Compost them in your yard	18.8%	20.7%	19.5%	19.7%
Sweep them into street or into a roadside ditch/stream/wetland	0.4%	0.9%	2.7%	1.4%
Curbside pickup by community	21.0%	16.1%	22.3%	19.8%
Other	6.1%	4.6%	5.9%	5.6%
Do not have a yard	2.2%	3.7%	10.9%	5.6%

Q15. Which of the following BEST describes how often your household fertilizes your lawn? (without "not provided")

N=607

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q15. How often does your household fertilize your lawn

5+ times per year	5.2%	6.4%	4.4%	5.4%
3-4 times per year	12.4%	25.2%	15.3%	17.6%
1-2 times per year	28.6%	26.7%	26.2%	27.2%
Seldom or never	53.8%	41.6%	54.1%	49.7%

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q16-1. Changing your car washing practices (using a car wash, washing your car on grass, or using less soap)

Very willing	64.9%	62.0%	66.9%	64.7%
Willing	20.7%	24.1%	14.9%	19.8%
Neutral	11.5%	10.8%	15.4%	12.6%
Not willing	2.3%	1.2%	1.1%	1.6%
Not willing at all	0.6%	1.8%	1.7%	1.4%

Q16-2. Promptly picking up & disposing of your pet's waste

Very willing	52.2%	61.3%	59.1%	57.3%
Willing	30.1%	25.2%	25.2%	27.0%
Neutral	16.2%	10.9%	12.6%	13.4%
Not willing	1.5%	0.8%	1.6%	1.3%
Not willing at all	0.0%	1.7%	1.6%	1.0%

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q16-3. Having your septic tank serviced every 3-5 years

Very willing	41.8%	57.1%	56.5%	51.9%
Willing	29.9%	28.6%	26.1%	28.2%
Neutral	25.4%	14.3%	17.4%	18.9%
Not willing	3.0%	0.0%	0.0%	1.0%

Q16-4. Sweeping excess fertilizer & grass clippings from paved surfaces back onto lawn

Very willing	54.4%	58.8%	58.2%	57.1%
Willing	30.4%	30.0%	26.7%	29.0%
Neutral	14.0%	7.5%	11.5%	11.1%
Not willing	0.0%	1.9%	0.6%	0.8%
Not willing at all	1.2%	1.9%	3.0%	2.0%

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q16-5. Only using lawn service companies that use environmentally friendly products

Very willing	51.7%	49.2%	50.8%	50.5%
Willing	22.5%	29.5%	26.2%	26.1%
Neutral	21.7%	16.4%	18.3%	18.8%
Not willing	2.5%	1.6%	2.4%	2.2%
Not willing at all	1.7%	3.3%	2.4%	2.4%

Q16-6. Disposing of household hazardous waste (motor oil, pesticides, paint) at a community collection event

Very willing	67.4%	78.6%	66.5%	70.6%
Willing	21.4%	16.8%	23.7%	20.8%
Neutral	10.7%	3.5%	7.7%	7.4%
Not willing	0.5%	0.6%	1.5%	0.9%
Not willing at all	0.0%	0.6%	0.5%	0.4%

Q16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q16-7. Landscaping your yard with plants native to Michigan

Very willing	53.4%	57.0%	47.8%	52.7%
Willing	26.7%	22.9%	35.9%	28.5%
Neutral	19.9%	17.9%	14.7%	17.5%
Not willing	0.0%	0.6%	1.6%	0.7%
Not willing at all	0.0%	1.7%	0.0%	0.5%

Q16-8. Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property

Very willing	37.9%	38.0%	37.3%	37.7%
Willing	26.8%	27.2%	23.8%	25.9%
Neutral	30.0%	21.7%	27.0%	26.3%
Not willing	4.2%	7.6%	5.9%	5.9%
Not willing at all	1.1%	5.4%	5.9%	4.1%

Q16. Please indicate whether or not you currently do that action.

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q16-1. Changing your car washing practices (using a car wash, washing your car on grass, or using less soap)

Yes	84.4%	85.7%	83.4%	84.5%
No	15.6%	14.3%	16.6%	15.5%

Q16-2. Promptly picking up & disposing of your pet's waste

Yes	63.9%	62.0%	62.6%	62.9%
No	36.1%	38.0%	37.4%	37.1%

Q16-3. Having your septic tank serviced every 3-5 years

Yes	28.1%	34.3%	20.4%	27.7%
No	71.9%	65.7%	79.6%	72.3%

Q16-4. Sweeping excess fertilizer & grass clippings from paved surfaces back onto lawn

Yes	73.8%	71.8%	62.8%	69.8%
No	26.2%	28.2%	37.2%	30.2%

Q16. Please indicate whether or not you currently do that action.

N=666	Watershed			Total
	Grand River	Looking Glass	Red Cedar	
<u>Q16-5. Only using lawn service companies that use environmentally friendly products</u>				
Yes	28.8%	33.9%	26.6%	29.7%
No	71.2%	66.1%	73.4%	70.3%
<u>Q16-6. Disposing of household hazardous waste (motor oil, pesticides, paint) at a community collection event</u>				
Yes	77.2%	81.9%	70.5%	76.5%
No	22.8%	18.1%	29.5%	23.5%
<u>Q16-7. Landscaping your yard with plants native to Michigan</u>				
Yes	65.8%	61.7%	57.5%	61.8%
No	34.2%	38.3%	42.5%	38.2%
<u>Q16-8. Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property</u>				
Yes	28.7%	26.5%	22.2%	25.9%
No	71.3%	73.5%	77.8%	74.1%

Q17. Have you seen or heard any information in advertisements, brochures, outdoor advertisements, displays, or other promotional materials about water quality in lakes and rivers from the following groups/campaigns?

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q17. Have you seen or heard any information in advertisements, brochures, outdoor advertisements, displays, or other promotional materials about water quality

Greater Lansing Regional Committee for Stormwater Management (GLRC)	17.0%	13.8%	11.8%	14.3%
Pollution Isn't Pretty	11.8%	9.2%	15.5%	12.2%
MGROW (Middle Grand River Organizations of Watersheds)	5.2%	6.9%	4.5%	5.6%

Q18. If you indicated you have seen or heard information from any of the groups/campaigns in Question 17, what SOURCES did you use to obtain the information from?

N=167

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q18. What sources did you use to obtain information from

Newspapers, magazines, or other print	35.9%	31.9%	35.7%	34.7%
Municipal website	14.1%	21.3%	8.9%	14.4%
Television news	15.6%	31.9%	16.1%	20.4%
Radio	4.7%	6.4%	8.9%	6.6%
Conservation District materials	6.3%	4.3%	10.7%	7.2%
Environmental groups	14.1%	17.0%	23.2%	18.0%
Materials from colleges or universities	4.7%	4.3%	10.7%	6.6%
Social media posts	12.5%	19.1%	28.6%	19.8%
Exhibits at events	14.1%	8.5%	19.6%	14.4%
Displays in municipal lobbies	9.4%	6.4%	12.5%	9.6%
Brochures	15.6%	17.0%	30.4%	21.0%
Trail signs	29.7%	27.7%	51.8%	36.5%
Other	6.3%	12.8%	10.7%	9.6%

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content?

N=167

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q19. Top choice

Newspapers, magazines, or other print	21.9%	14.9%	19.6%	19.2%
Municipal website	12.5%	10.6%	3.6%	9.0%
Television news	9.4%	12.8%	8.9%	10.2%
Radio	3.1%	6.4%	5.4%	4.8%
Conservation District materials	1.6%	4.3%	1.8%	2.4%
Environmental groups	3.1%	0.0%	3.6%	2.4%
Materials from colleges or universities	1.6%	2.1%	1.8%	1.8%
Social media posts	18.8%	17.0%	26.8%	21.0%
Exhibits at events	3.1%	2.1%	0.0%	1.8%
Brochures	4.7%	4.3%	5.4%	4.8%
Trail signs	3.1%	4.3%	12.5%	6.6%
Other	1.6%	2.1%	0.0%	1.2%
None chosen	15.6%	19.1%	10.7%	15.0%

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content?

N=167

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	
Q19. 2nd choice				
Newspapers, magazines, or other print	9.4%	10.6%	8.9%	9.6%
Municipal website	1.6%	17.0%	8.9%	8.4%
Television news	12.5%	10.6%	14.3%	12.6%
Radio	4.7%	4.3%	3.6%	4.2%
Conservation District materials	1.6%	4.3%	0.0%	1.8%
Environmental groups	6.3%	2.1%	8.9%	6.0%
Materials from colleges or universities	3.1%	6.4%	0.0%	3.0%
Social media posts	9.4%	10.6%	10.7%	10.2%
Exhibits at events	4.7%	0.0%	8.9%	4.8%
Displays in municipal lobbies	1.6%	0.0%	0.0%	0.6%
Brochures	4.7%	6.4%	7.1%	6.0%
Trail signs	10.9%	2.1%	12.5%	9.0%
Other	1.6%	4.3%	5.4%	3.6%
None chosen	28.1%	21.3%	10.7%	20.4%

Q19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content? (top 2)

N=167

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q19. Sum of top 2 choices

Newspapers, magazines, or other print	31.3%	25.5%	28.6%	28.7%
Municipal website	14.1%	27.7%	12.5%	17.4%
Television news	21.9%	23.4%	23.2%	22.8%
Radio	7.8%	10.6%	8.9%	9.0%
Conservation District materials	3.1%	8.5%	1.8%	4.2%
Environmental groups	9.4%	2.1%	12.5%	8.4%
Materials from colleges or universities	4.7%	8.5%	1.8%	4.8%
Social media posts	28.1%	27.7%	37.5%	31.1%
Exhibits at events	7.8%	2.1%	8.9%	6.6%
Displays in municipal lobbies	1.6%	0.0%	0.0%	0.6%
Brochures	9.4%	10.6%	12.5%	10.8%
Trail signs	14.1%	6.4%	25.0%	15.6%
Other	3.1%	6.4%	5.4%	4.8%
None chosen	15.6%	19.1%	10.7%	15.0%

Q20. Which of the following social media platforms do you use?

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q20. What social media platforms do you use

Facebook	62.0%	59.0%	69.5%	63.5%
Twitter	12.2%	19.4%	20.5%	17.3%
Instagram	21.8%	23.5%	31.4%	25.5%
Snapchat	14.4%	17.5%	18.2%	16.7%
Nextdoor	6.6%	9.2%	10.9%	8.9%
Other	5.7%	4.1%	6.4%	5.4%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q21-1. Quality of local rivers where I live affects my quality of life

Strongly agree	45.8%	46.7%	48.4%	47.0%
Agree	40.2%	43.3%	40.6%	41.3%
Neutral	11.7%	8.6%	7.4%	9.2%
Disagree	1.4%	1.0%	2.8%	1.7%
Strongly disagree	0.9%	0.5%	0.9%	0.8%

Q21-2. Quality of local rivers where I live affects property values

Strongly agree	49.1%	47.6%	54.2%	50.3%
Agree	38.0%	43.3%	33.8%	38.3%
Neutral	11.6%	8.1%	9.3%	9.7%
Disagree	0.9%	1.0%	2.3%	1.4%
Strongly disagree	0.5%	0.0%	0.5%	0.3%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q21-3. Quality of local rivers where I live affects drinking water quality

Strongly agree	59.8%	53.6%	52.1%	55.2%
Agree	29.4%	26.3%	34.6%	30.1%
Neutral	10.7%	15.3%	8.5%	11.5%
Disagree	0.0%	3.8%	3.8%	2.5%
Strongly disagree	0.0%	1.0%	0.9%	0.6%

Q21-4. I think it is important to improve quality of water in lakes & rivers in my community

Strongly agree	64.7%	64.4%	65.3%	64.8%
Agree	29.8%	30.8%	29.6%	30.1%
Neutral	3.7%	4.3%	4.6%	4.2%
Disagree	0.5%	0.0%	0.5%	0.3%
Strongly disagree	1.4%	0.5%	0.0%	0.6%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

	Watershed			Total
	Grand River	Looking Glass	Red Cedar	

Q21-5. I have confidence in my community's ability to address flooding related problems

Strongly agree	14.9%	14.6%	14.0%	14.5%
Agree	25.6%	31.1%	25.6%	27.4%
Neutral	34.0%	36.4%	34.9%	35.1%
Disagree	19.5%	12.1%	18.1%	16.7%
Strongly disagree	6.0%	5.8%	7.4%	6.4%

Q21-6. I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas

Strongly agree	27.0%	27.3%	23.5%	25.9%
Agree	34.6%	35.1%	36.2%	35.3%
Neutral	29.9%	28.3%	30.5%	29.6%
Disagree	4.3%	6.3%	6.6%	5.7%
Strongly disagree	4.3%	2.9%	3.3%	3.5%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q21-7. I would be willing to pay more in utilities to improve quality of water in lakes & rivers in community where I live

Strongly agree	17.9%	24.2%	19.0%	20.3%
Agree	32.6%	31.4%	30.1%	31.4%
Neutral	32.6%	28.0%	30.1%	30.3%
Disagree	8.3%	9.2%	13.9%	10.5%
Strongly disagree	8.7%	7.2%	6.9%	7.6%

Q21-8. I would be willing to pay an increase in taxes to improve quality of water in lakes & rivers in community where I live

Strongly agree	20.4%	23.2%	16.7%	20.0%
Agree	30.1%	29.6%	35.3%	31.7%
Neutral	32.9%	26.6%	23.3%	27.6%
Disagree	8.8%	14.8%	15.3%	12.9%
Strongly disagree	7.9%	5.9%	9.3%	7.7%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q21-9. I would support my local government working with other cities & counties to improve water quality

Strongly agree	39.7%	41.0%	43.1%	41.3%
Agree	49.1%	43.4%	45.0%	45.8%
Neutral	8.9%	14.2%	10.1%	11.0%
Disagree	0.9%	0.9%	0.9%	0.9%
Strongly disagree	1.4%	0.5%	0.9%	0.9%

Q21-10. I would support my local government allocating resources to improve water quality

Strongly agree	40.7%	41.9%	38.5%	40.3%
Agree	48.6%	41.4%	48.6%	46.3%
Neutral	9.3%	14.3%	11.5%	11.7%
Disagree	0.5%	1.9%	0.5%	0.9%
Strongly disagree	0.9%	0.5%	0.9%	0.8%

Q21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q21-11. Public entities should be doing more to directly implement protection & restoration of urban waterways

Strongly agree	46.5%	43.7%	40.1%	43.4%
Agree	38.5%	34.5%	41.0%	38.1%
Neutral	12.7%	18.9%	17.5%	16.4%
Disagree	1.4%	1.9%	1.4%	1.6%
Strongly disagree	0.9%	1.0%	0.0%	0.6%

Q22. Using a 5-point scale, where 5 means "At Least Once Per Week" and 1 means "Never," please indicate how often you do each of the following activities. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q22-1. Swim in lakes within Greater Lansing Area

At least once per week	2.3%	1.4%	2.8%	2.2%
At least once per month	4.6%	2.4%	5.6%	4.2%
A few times per year	12.8%	13.7%	15.3%	14.0%
Seldom	26.1%	27.0%	27.4%	26.9%
Never	54.1%	55.5%	48.8%	52.8%

Q22-2. Walk or bike along lakes & rivers in Greater Lansing Area

At least once per week	15.1%	8.0%	20.1%	14.4%
At least once per month	19.6%	21.7%	23.8%	21.7%
A few times per year	26.9%	29.7%	25.2%	27.3%
Seldom	18.3%	23.6%	19.2%	20.3%
Never	20.1%	17.0%	11.7%	16.3%

Q22. Using a 5-point scale, where 5 means "At Least Once Per Week" and 1 means "Never," please indicate how often you do each of the following activities. (without "N/A")

N=666

Watershed			Total
Grand River	Looking Glass	Red Cedar	

Q22-3. Participate in Paddle Sports within Greater Lansing Area

At least once per week	0.0%	1.9%	3.3%	1.7%
At least once per month	6.5%	4.8%	4.8%	5.4%
A few times per year	13.4%	11.1%	13.9%	12.8%
Seldom	17.5%	19.7%	17.2%	18.1%
Never	62.7%	62.5%	60.8%	62.0%

Q22-4. Fish in lakes or rivers near your home

At least once per week	1.4%	6.3%	4.2%	3.9%
At least once per month	5.6%	3.4%	4.7%	4.6%
A few times per year	15.7%	16.4%	12.2%	14.8%
Seldom	17.1%	19.8%	16.4%	17.8%
Never	60.2%	54.1%	62.4%	59.0%

Section 5

Survey Instrument



GLRC Members:

City of DeWitt
City of East Lansing
City of Grand Ledge
City of Lansing
City of Mason
Clinton County
Delhi Charter Township
Delta Township
DeWitt Charter Township
Eaton County
Ingham County
Lansing Township
Lansing School District
Meridian Township
Michigan State University
Waverly Community Schools

Administrative Support:

Tri-County Regional
Planning Commission
3135 Pine Tree Road.
Suite 2C
Lansing, MI 48911
(517) 393-0342
Fax (517) 393-4424

May 2018

Dear Greater Lansing Area Resident:

We are writing to request your input on the enclosed survey. The Greater Lansing Regional Committee for Stormwater Management (GLRC) is working to implement a management plan that will help to protect water resources in our communities. Your feedback will be used by the GLRC to revisit specifics of our outreach and education campaign focusing on how individuals can play a role in protecting the quality of water in the Great Lansing area.

Since only a limited number of households in the region were selected at random to receive this survey, your participation is very important to ensure the needs of people in your area are well represented.

Your responses will remain completely confidential. You will notice that a sticker with your address has been placed on the last page of the enclosed survey. This information will only be used to tabulate responses by geographical area within the region. Your individual responses to the survey will not be released.

We greatly appreciate your time. We realize that this survey takes about 10 minutes to complete, but every question is important.

Please return your completed survey sometime during the next two weeks by using the enclosed postage-paid envelope addressed to ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061. You can also take the survey online at www.GLRCWaterSurvey.org. If you have any questions, please call Clifford Walls with the Tri-County Regional Planning Commission at 517-393-0342.

Thanks again for taking the time to help us protect our local water resources.

Sincerely,

A handwritten signature in black ink, appearing to read "Younes Ishraidi".

Younes Ishraidi, PE. CFM
Chief Engineer, Meridian Township
GLRC Chairman

2018 Greater Lansing Regional Water Quality Survey

Please take a few minutes to complete this survey. Your input will be used to implement a management plan that will help protect water resources in our communities. Your participation is very important to ensure the needs of people in your area are well represented. If you have questions about the survey, please contact Cliff Walls at (517) 393-0342.

1. How concerned are you about pollution in lakes, rivers, and other waterways in the Greater Lansing area?

____(1) Very Concerned ____ (2) Somewhat Concerned ____ (3) Not Sure ____ (4) Not Concerned

2. Do you think the quality of water in lakes, rivers, and streams in the community where you live is...

____(1) Getting much better ____ (3) Staying the same ____ (5) Getting much worse
____ (2) Getting somewhat better ____ (4) Getting somewhat worse ____ (9) Don't know

3. How much do you think the way you maintain your home (e.g. lawn care, trash disposal, pet care) affects the quality of water in lakes and streams in the community where you live?

____(1) Great effect ____ (3) Little effect ____ (9) Don't know
____ (2) Moderate effect ____ (4) No effect

4. During the past 5 years, have you or someone in your household acted at your home or in your community to protect water resources?

____(1) Yes ____ (2) No ____ (9) Don't know

4a. If "Yes," what action(s) have you or others in your household taken?

5. During the past year, which ONE of the following items do you think contributed MOST to pollution in lakes, rivers, and streams in the community where you live?

____(1) Municipal Wastewater Treatment Facilities	____(4) Sewage overflow
____(2) Factories/industrial discharges	____(5) Animal waste
____(3) Stormwater (rain water) runoff into storm drains and roadside ditches	____(6) Construction sites and new development
	____(7) Agricultural operations

6. Please indicate your level of agreement with the following statement: *"The quality of local streams and rivers where I live affects the Great Lakes."*

____(1) Strongly agree ____ (3) Neither agree nor disagree ____ (5) Strongly Disagree
____ (2) Agree ____ (4) Disagree ____ (9) Don't know

7. Where do you think stormwater (rain water) goes after it enters a storm drain or roadside ditch in your community? [Check all that apply.]

____(1) Directly to lakes and streams without treatment ____ (3) To a wastewater treatment plant
____ (2) To lakes and streams after receiving some treatment ____ (9) Don't know

8. Which ONE of the following statements BEST describes the location where you live?

____(1) I live near a watershed ____ (3) I don't live in a watershed
____ (2) I live in a watershed ____ (9) Don't know/I am not familiar with the term "Watershed"

9. **Where does your household typically wash your vehicle(s) during the summer?** *[Check all that apply.]*
 ____ (1) At home in the driveway ____ (3) At a carwash ____ (5) Don't wash a vehicle
 ____ (2) At home on the grass ____ (4) Other: _____
10. **Do you have a septic system at your home?** ____ (1) Yes ____ (2) No ____ (9) Don't know
- 10a. **If "Yes," Has your household had your septic system checked or serviced during the past 5 years?**
 ____ (1) Yes ____ (2) No ____ (9) Don't know
11. **Do you or other members of your household usually change motor oil, transmission fluid, or radiator fluid for vehicles at your home?**
 ____ (1) Yes ____ (2) No ____ (9) Don't know
12. **Where does your household typically dispose of materials such as old oil/fluids from your vehicle, batteries, pesticides, paints, or other household hazardous wastes?** *[Check all that apply.]*
 ____ (1) On the ground ____ (5) At a scheduled community collection site or facility that
 ____ (2) With my regular trash accepts these materials *[Skip to Q13.]*
 ____ (3) I keep it in a container at my home ____ (6) Other: _____
 ____ (4) Down a storm drain or roadside ditch
- 12a. **Why doesn't your household typically dispose of your household hazardous waste at a community collection site?** *[Check all that apply.]*
 ____ (1) Don't know the location of these facilities ____ (4) I don't think household hazardous waste
 ____ (2) Don't have the time facilities are necessary
 ____ (3) No sites are located near my home ____ (5) Other: _____
13. **Does your household use a lawn service for mowing, fertilizer, and/or pesticide applications?**
 ____ (1) Yes ____ (2) No ____ (9) Don't know
- 13a. **If "Yes," Does your household ask your lawn service to use environmentally friendly/organic products and practices?**
 ____ (1) Yes – The lawn service uses environmentally ____ (3) No – I haven't asked, but will in the future
 friendly products and practices on my lawn ____ (4) No – I don't think using environmentally
 ____ (2) Yes – But the lawn service doesn't offer these friendly products matters
 services ____ (9) Don't know
14. **What does your household (or lawn service) typically do with your grass clippings and/or leaves?** *[Check all that apply.]*
 ____ (1) Leave them on the lawn/mulch into lawn ____ (4) Curbside pickup by community
 ____ (2) Compost them in your yard ____ (5) Other: _____
 ____ (3) Sweep them into the street or into a roadside ____ (6) Do not have a yard *[Skip to Q16.]*
 ditch/stream/wetland
15. **Which of the following BEST describes how often your household fertilizes your lawn?**
 ____ (1) 5 or more times per year ____ (3) 1-2 times per year
 ____ (2) 3-4 times per year ____ (4) Seldom or never

16. Several ways that residents can help reduce the pollution of streams and lakes in their community are listed below. Using a 5-point scale, where 5 means "Very Willing" and 1 means "Not Willing at All," please indicate how willing you would be to do each of the following, and whether or not you currently do that action.

How willing are you to...		Very Willing	Willing	Neutral	Not Willing	Not Willing at All	N/A	Do you currently do this?	
1.	Changing your car washing practices (using a car wash, washing your car on the grass, or using less soap)	5	4	3	2	1	9	Yes	No
2.	Promptly picking up and disposing of your pet's waste	5	4	3	2	1	9	Yes	No
3.	Having your septic tank serviced every 3-5 years	5	4	3	2	1	9	Yes	No
4.	Sweeping excess fertilizer and grass clippings from paved surfaces back onto the lawn	5	4	3	2	1	9	Yes	No
5.	Only using lawn service companies that use environmentally friendly products	5	4	3	2	1	9	Yes	No
6.	Disposing of household hazardous waste (Motor oil, pesticides, paint) at a community collection event	5	4	3	2	1	9	Yes	No
7.	Landscaping your yard with plants native to Michigan	5	4	3	2	1	9	Yes	No
8.	Implementing green infrastructure (rain barrels, rain gardens, permeable pavers) on your property	5	4	3	2	1	9	Yes	No

17. Have you seen or heard any information in advertisements, brochures, outdoor advertisements, displays, or other promotional materials about water quality in lakes and rivers from the following groups/campaigns?



____(1) Greater Lansing Regional Committee for Stormwater Management (GLRC)



____(2) Pollution Isn't Pretty



____(3) MGROW (Middle Grand River Organizations of Watersheds)

18. If you indicated you have seen or heard information from any of the groups/campaigns in Question 17, what SOURCES did you use to obtain the information from? [Check all that apply.]

____(01) Newspapers, magazines, or other print
 ____ (02) Municipal website
 ____ (03) Television News
 ____ (04) Radio
 ____ (05) Conservation District materials
 ____ (06) Environmental groups
 ____ (07) Materials from colleges or universities

____(08) Social Media posts
 ____ (09) Exhibits at events
 ____ (10) Displays in municipal lobbies
 ____ (11) Brochures
 ____ (12) Trail Signs
 ____ (13) Other: _____

19. Which TWO of the information sources from the list in Question 18 do you MOST PREFER using to learn about environmental related content? [Write in your answers below using the numbers from the list in Question 18.]

1st: ____ 2nd: ____

20. Which of the following social media platforms do you use? [Check all that apply.]

____(1) Facebook ____ (3) Instagram ____ (5) NextDoor
 ____ (2) Twitter ____ (4) Snapchat ____ (6) Other: _____

21. Using a 5-point scale, where 5 means "Strongly Agree" and 1 means "Strongly Disagree," please rate your level of agreement with the following statements.

		Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree	N/A
01.	The quality of local rivers where I live affects my quality of life	5	4	3	2	1	9
02.	The quality of local rivers where I live affects property values	5	4	3	2	1	9
03.	The quality of local rivers where I live affects drinking water quality	5	4	3	2	1	9
04.	I think it is important to improve the quality of water in lakes and rivers in my community	5	4	3	2	1	9
05.	I have confidence in my community's ability to address flooding related problems	5	4	3	2	1	9
06.	I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas	5	4	3	2	1	9
07.	I would be willing to pay more in utilities to improve the quality of water in lakes and rivers in the community where I live	5	4	3	2	1	9
08.	I would be willing to pay an increase in taxes to improve the quality of water in lakes and rivers in the community where I live	5	4	3	2	1	9
09.	I would support my local government working with other cities and counties to improve water quality	5	4	3	2	1	9
10.	I would support my local government allocating resources to improve water quality	5	4	3	2	1	9
11.	Public entities should be doing more to directly implement protection and restoration of urban waterways	5	4	3	2	1	9

22. Using a 5-point scale, where 5 means "At Least Once Per Week" and 1 means "Never," please indicate how often you do each of the following activities.

How often do you...	At Least Once Per Week	At Least Once Per Month	A Few Times Per Year	Seldom	Never	N/A
1. Swim in lakes within the Greater Lansing Area	5	4	3	2	1	9
2. Walk or bike along lakes and rivers in the Greater Lansing Area	5	4	3	2	1	9
3. Participate in Paddle Sports within the Greater Lansing Area	5	4	3	2	1	9
4. Fish in lakes or rivers near your home	5	4	3	2	1	9

The demographic information below is being requested to validate the survey; all responses will remain confidential.

23. Including yourself, how many people in your household are...

Under Age 5: ____ Ages 15-19: ____ Ages 35-44: ____ Ages 65-74: ____
 Ages 5-9: ____ Ages 20-24: ____ Ages 45-54: ____ Ages 75+: ____
 Ages 10-14: ____ Ages 25-34: ____ Ages 55-64: ____

24. Are you of Hispanic, Latino, or Spanish ancestry? ____ (1) Yes ____ (2) No

25. Which of the following best describes your race/ethnicity? [Check all that apply.]

____ (1) Asian/Pacific Islander ____ (3) American Indian/Eskimo ____ (5) Other: ____
 ____ (2) Black/African American ____ (4) White

26. Would you say your total annual household income is...

- ☐ (1) Under \$35,000 ☐ (3) \$60,000 - \$99,999 ☐ (5) \$200,000 or more
☐ (2) \$35,000 - \$59,999 ☐ (4) \$100,000 - \$199,999 ☐ (6) Prefer not to say

27. Gender: ☐ (1) Male ☐ (2) Female**28. Would you like the Greater Lansing Regional Committee to keep you informed about environmental and other planning issues in the region?**

- ☐ (1) Yes [Answer Q28a.] ☐ (2) No

28a. Please provide the following contact information.

Email: _____ Phone: _____

This concludes the survey – Thank you for your time!

Please return your completed survey in the postage-paid envelope provided addressed to:
ETC Institute, 725 W. Frontier Circle, Olathe, KS 66061

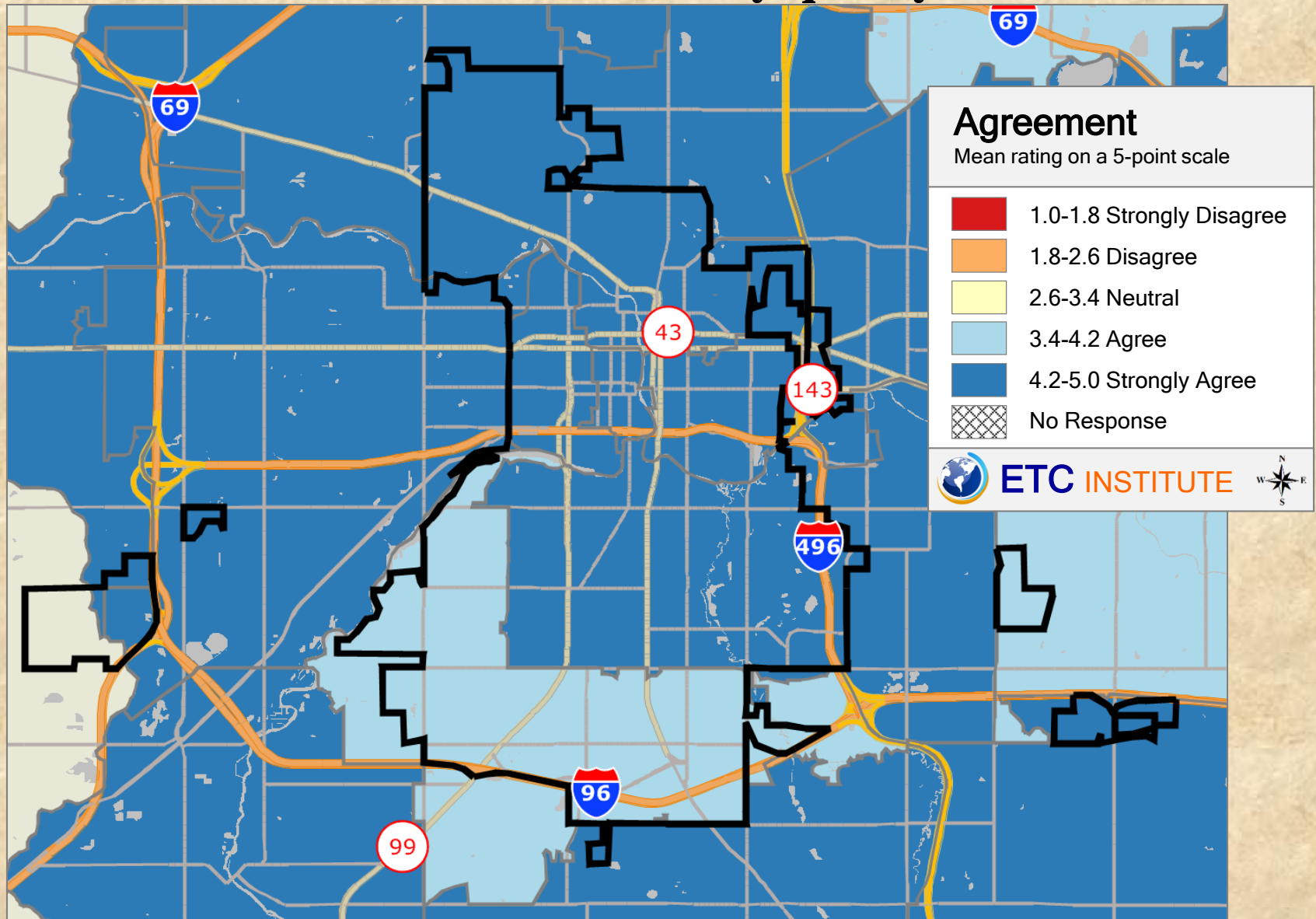
For more information about water quality issues in the Lansing area, please visit mywatersheds.org.

Your responses will remain completely confidential.
The information shown to the right will ONLY be used to help identify which areas of the region have concerns about water quality issues. If your address is not correct, please provide the correct information. Thank you.

Responses from Lansing Residents

Question #21

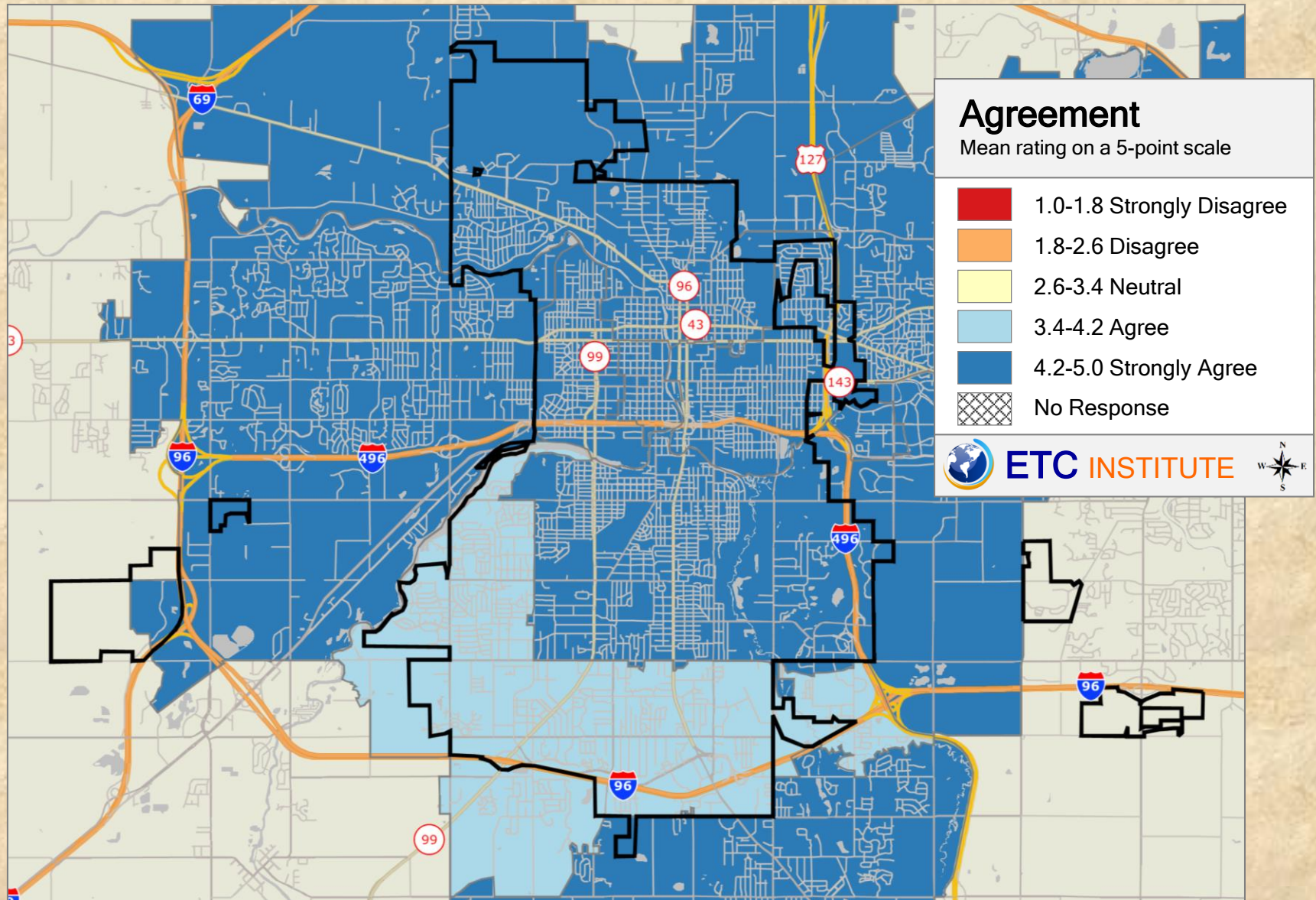
Q21.1 Level of Agreement: The quality of local rivers where I live affects my quality of life



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

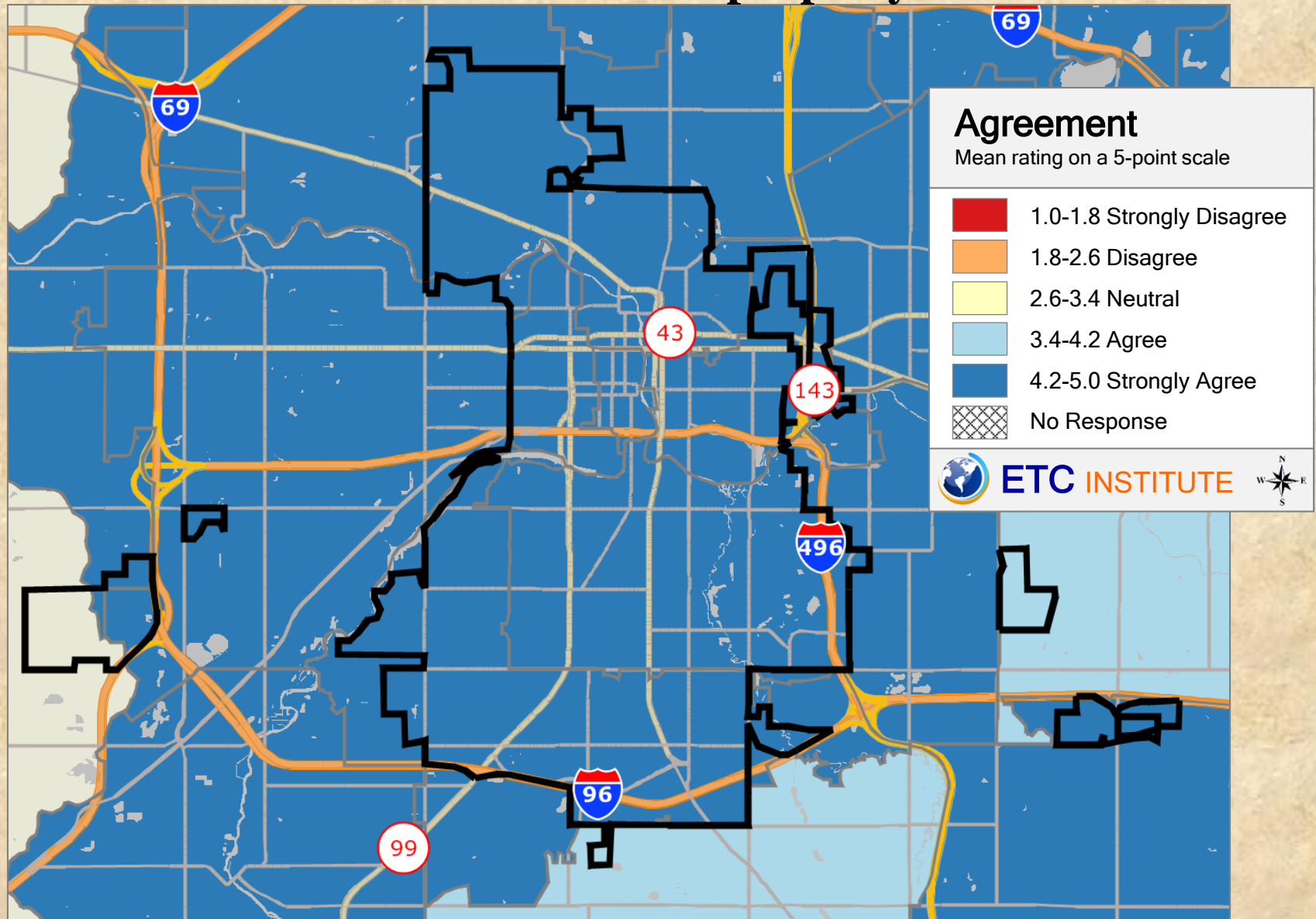
Q21.1 Level of Agreement: The quality of local rivers where I live affects my quality of life



2018 Greater Lansing Regional Water Quality Survey

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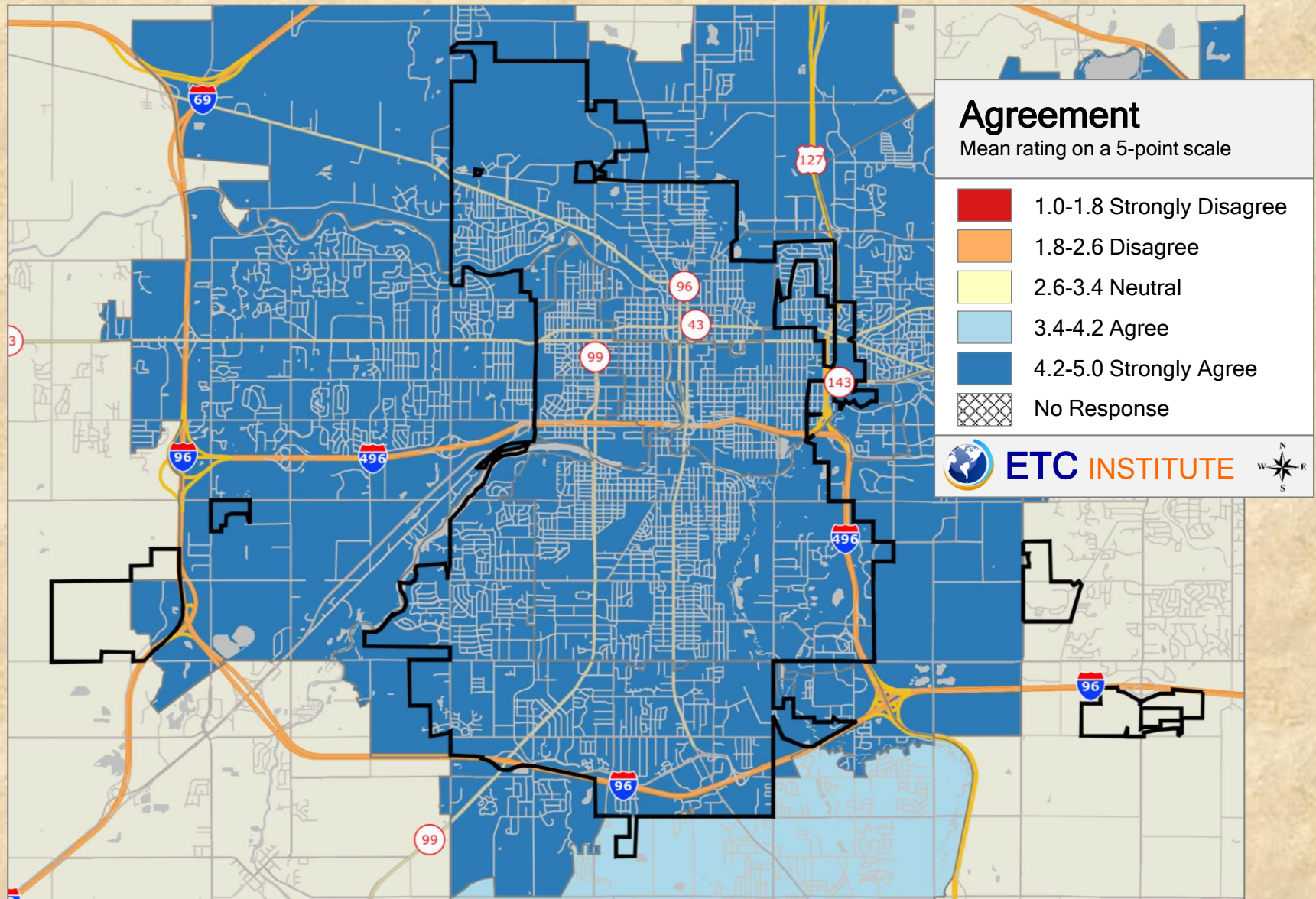
Q21.2 Level of Agreement: The quality of local rivers where I live affects property values



2018 Greater Lansing Regional Water Quality Survey

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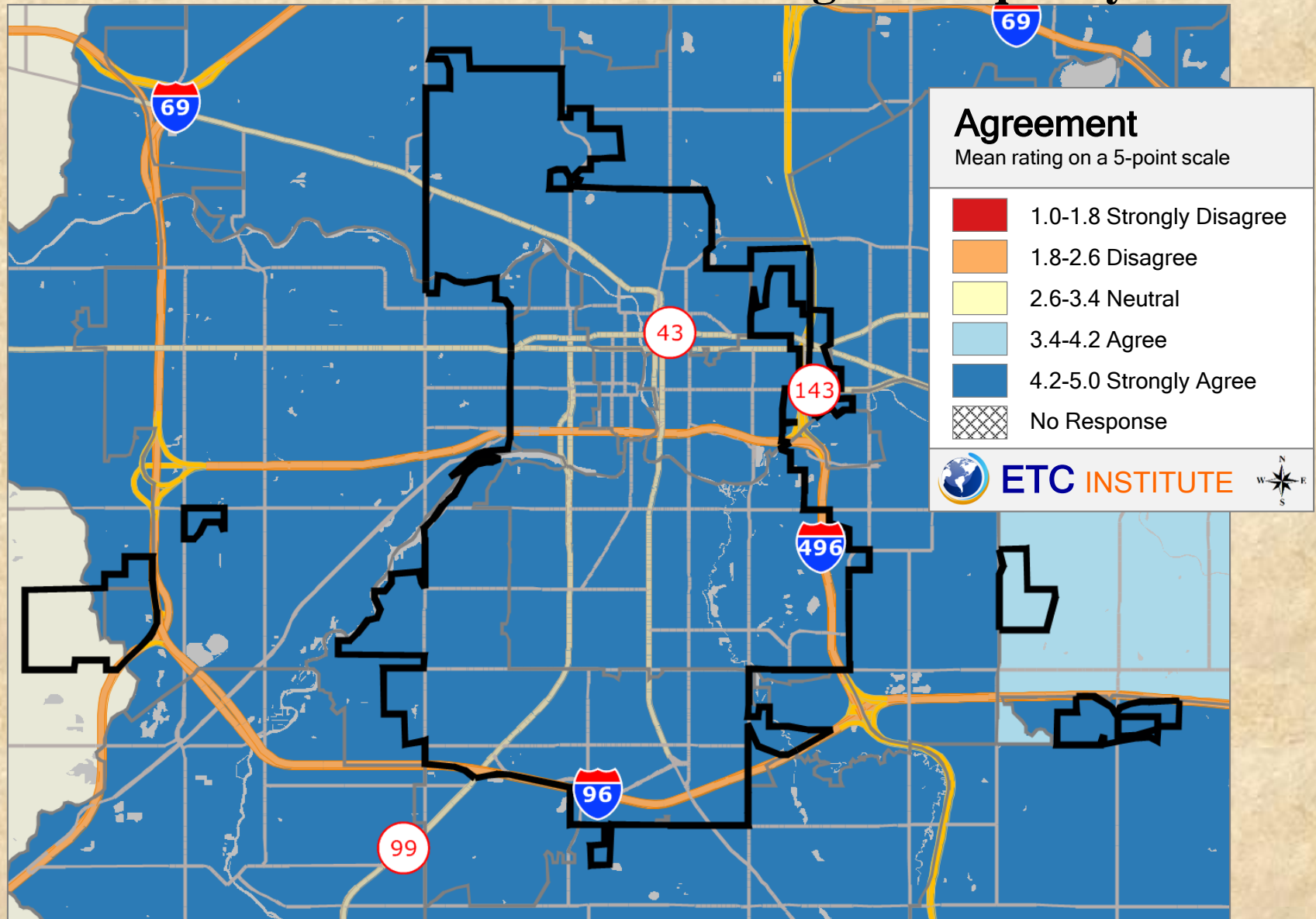
Q21.2 Level of Agreement: The quality of local rivers where I live affects property values



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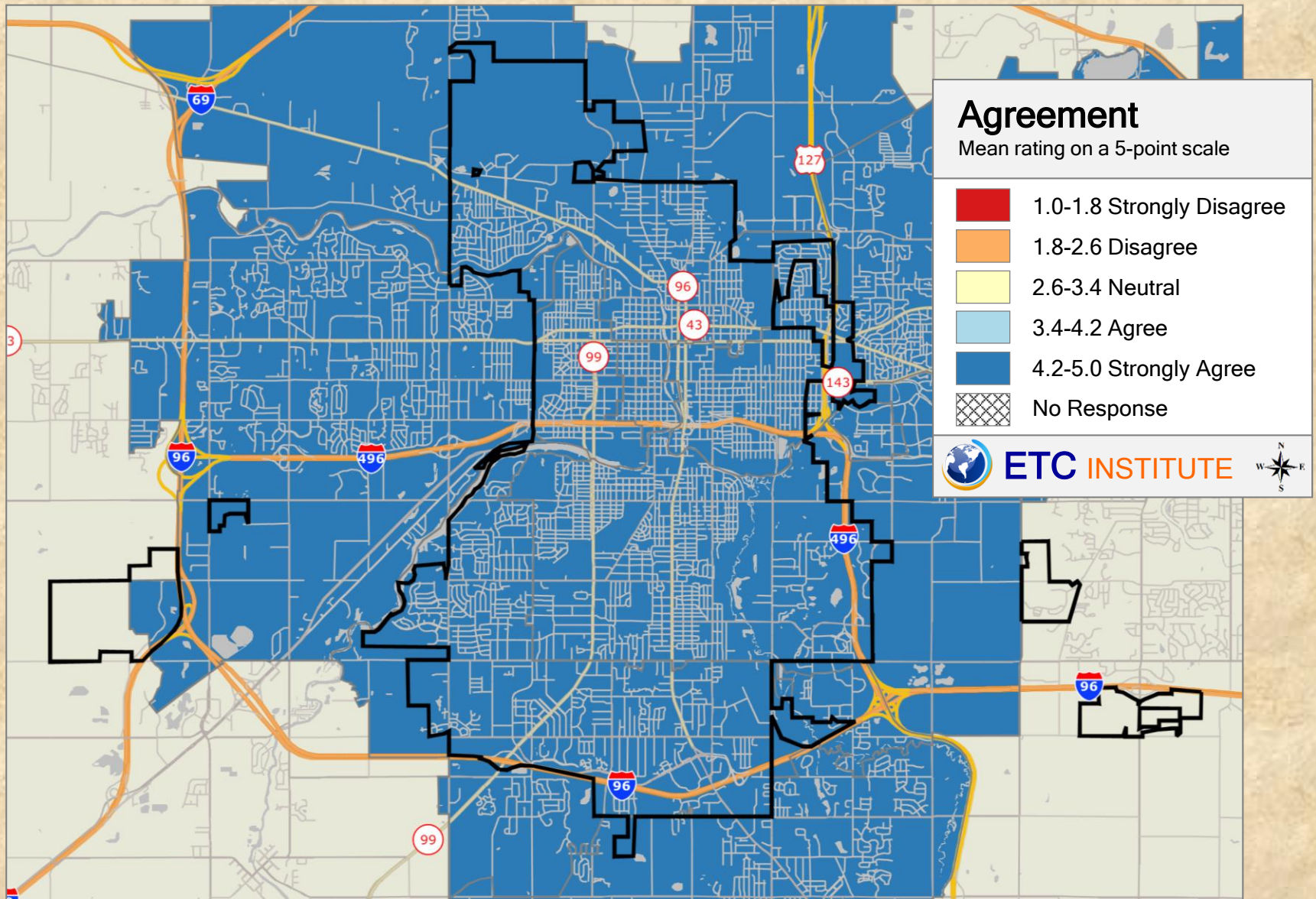
Q21.3 Level of Agreement: The quality of local rivers where I live affects drinking water quality



2018 Greater Lansing Regional Water Quality Survey

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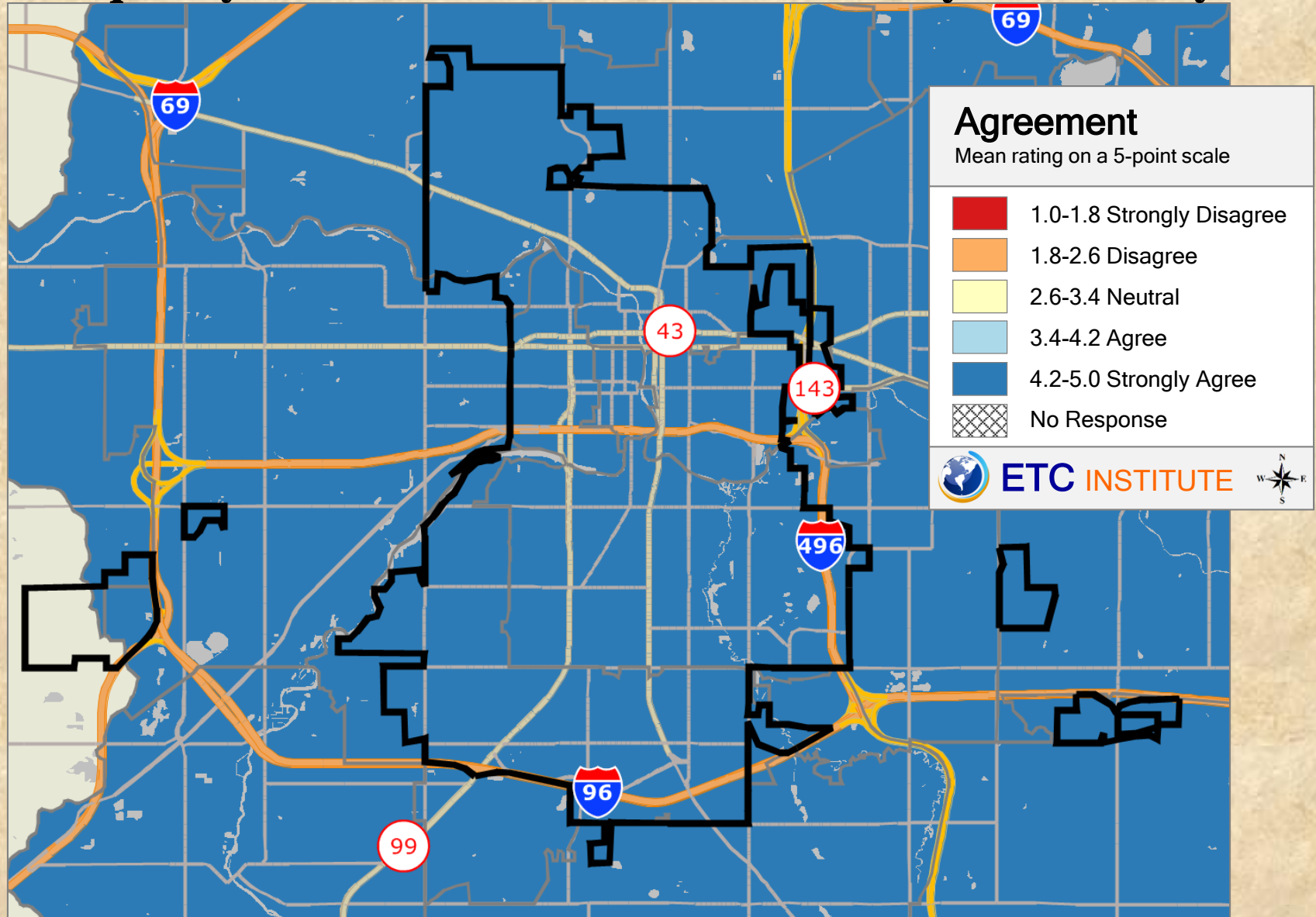
Q21.3 Level of Agreement: The quality of local rivers where I live affects drinking water quality



2018 Greater Lansing Regional Water Quality Survey

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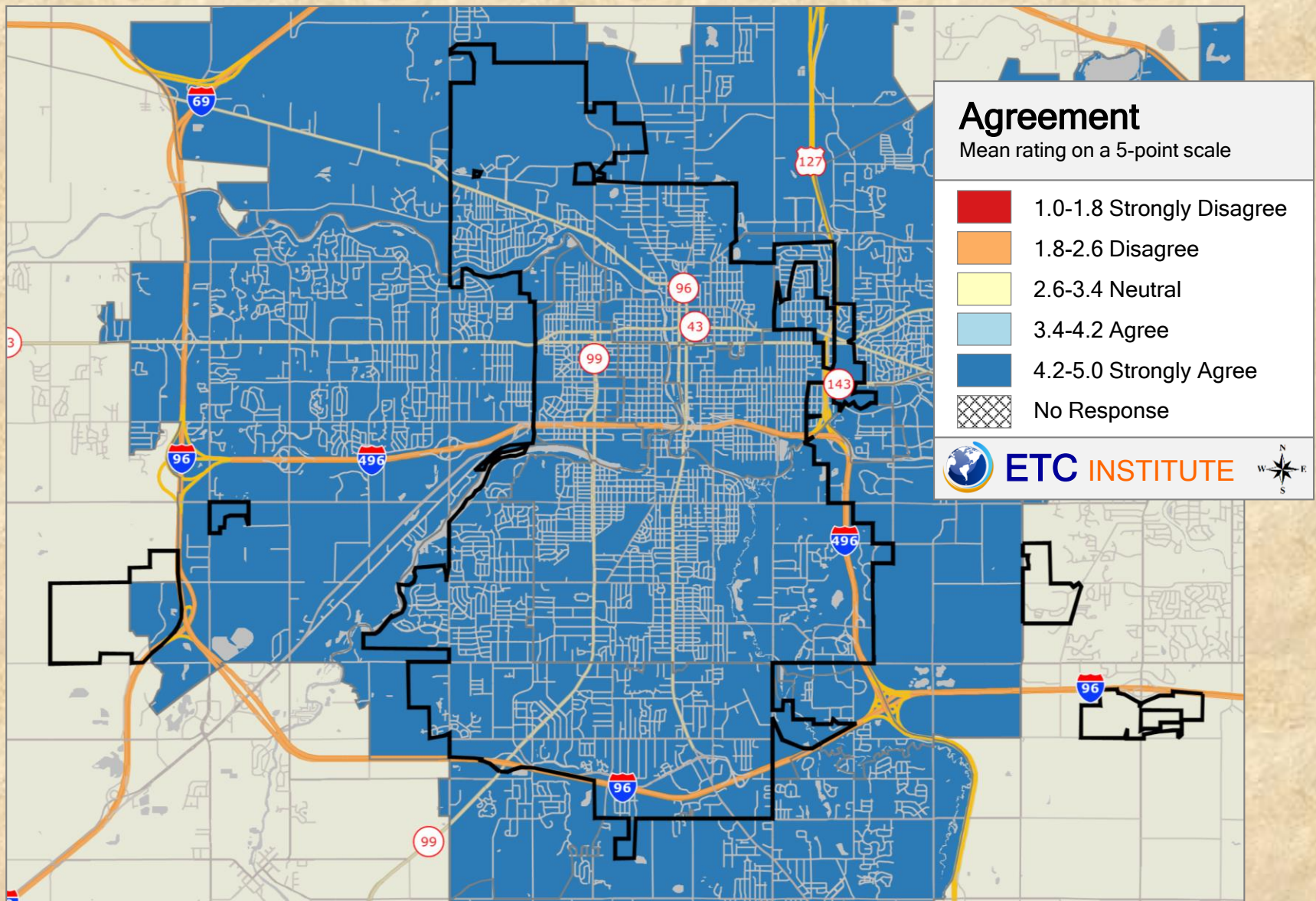
Q21.4 Level of Agreement: I think it is important to improve the quality of water in lakes and rivers in my community



2018 Greater Lansing Regional Water Quality Survey

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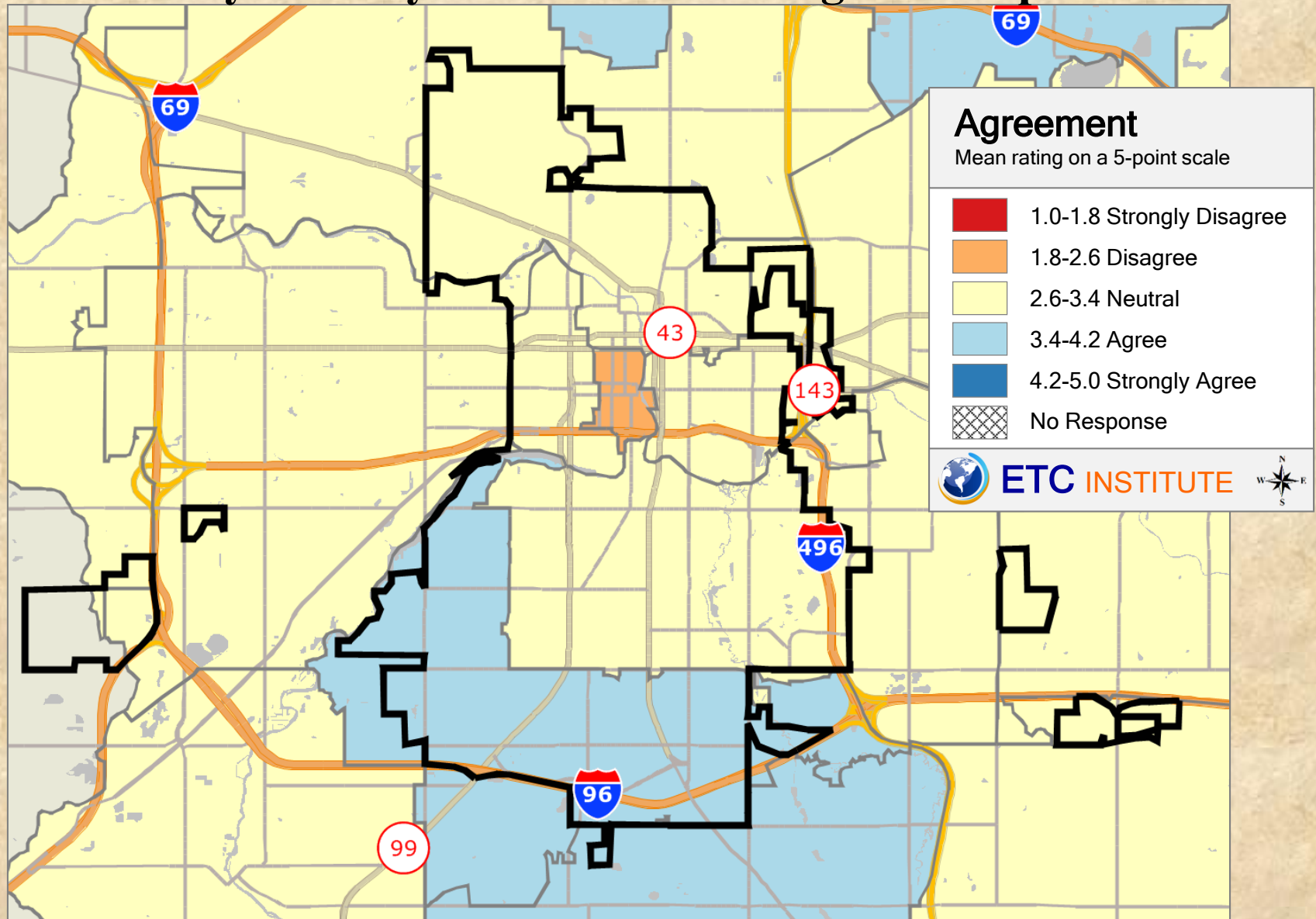
Q21.4 Level of Agreement: I think it is important to improve the quality of water in lakes and rivers in my community



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

Q21.5 Level of Agreement: I have confidence in my community's ability to address flooding related problems



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

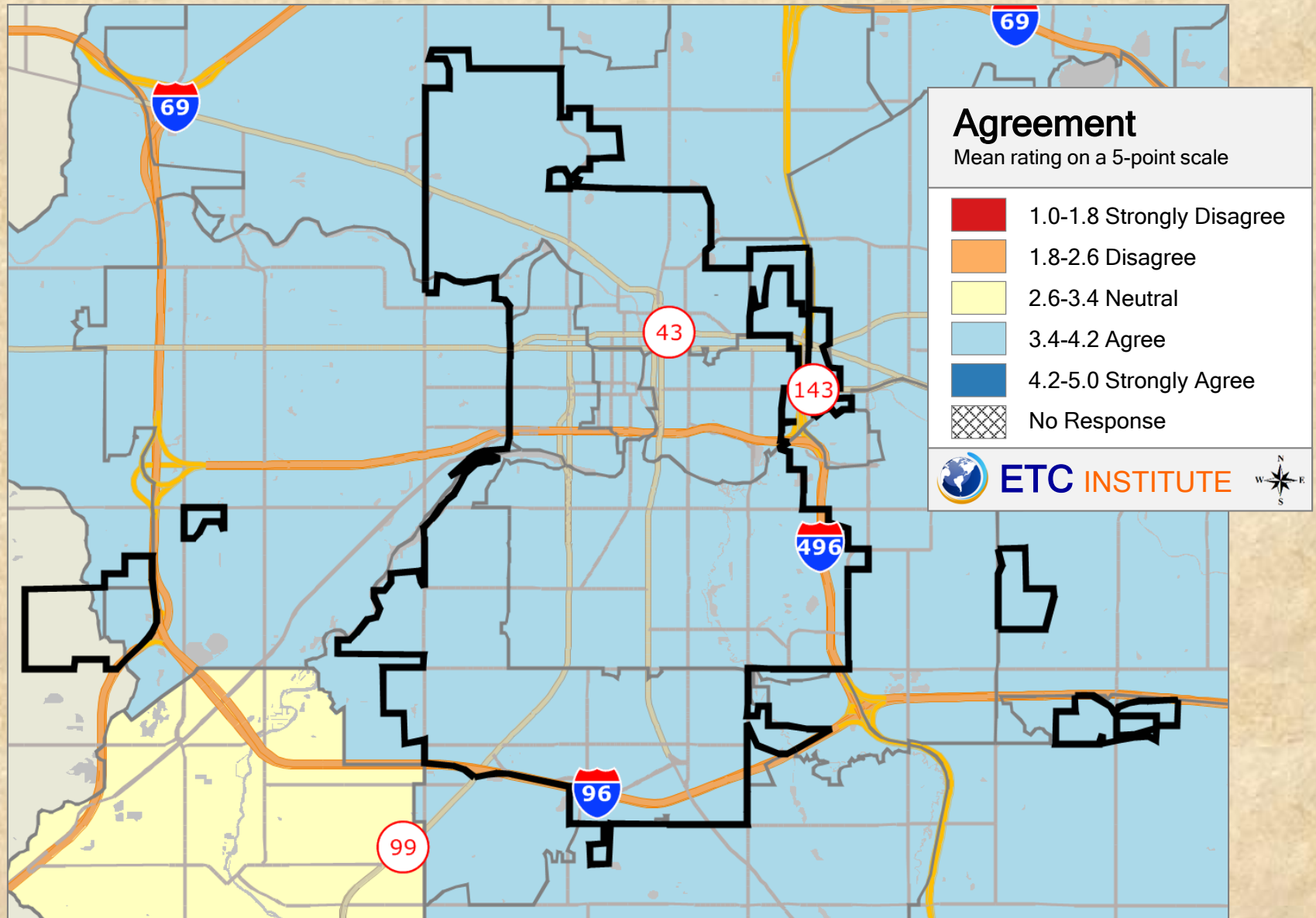
Agreement
Mean rating on a 5-point scale

- 1.0-1.8 Strongly Disagree
- 1.8-2.6 Disagree
- 2.6-3.4 Neutral
- 3.4-4.2 Agree
- 4.2-5.0 Strongly Agree
- No Response

ETC INSTITUTE

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

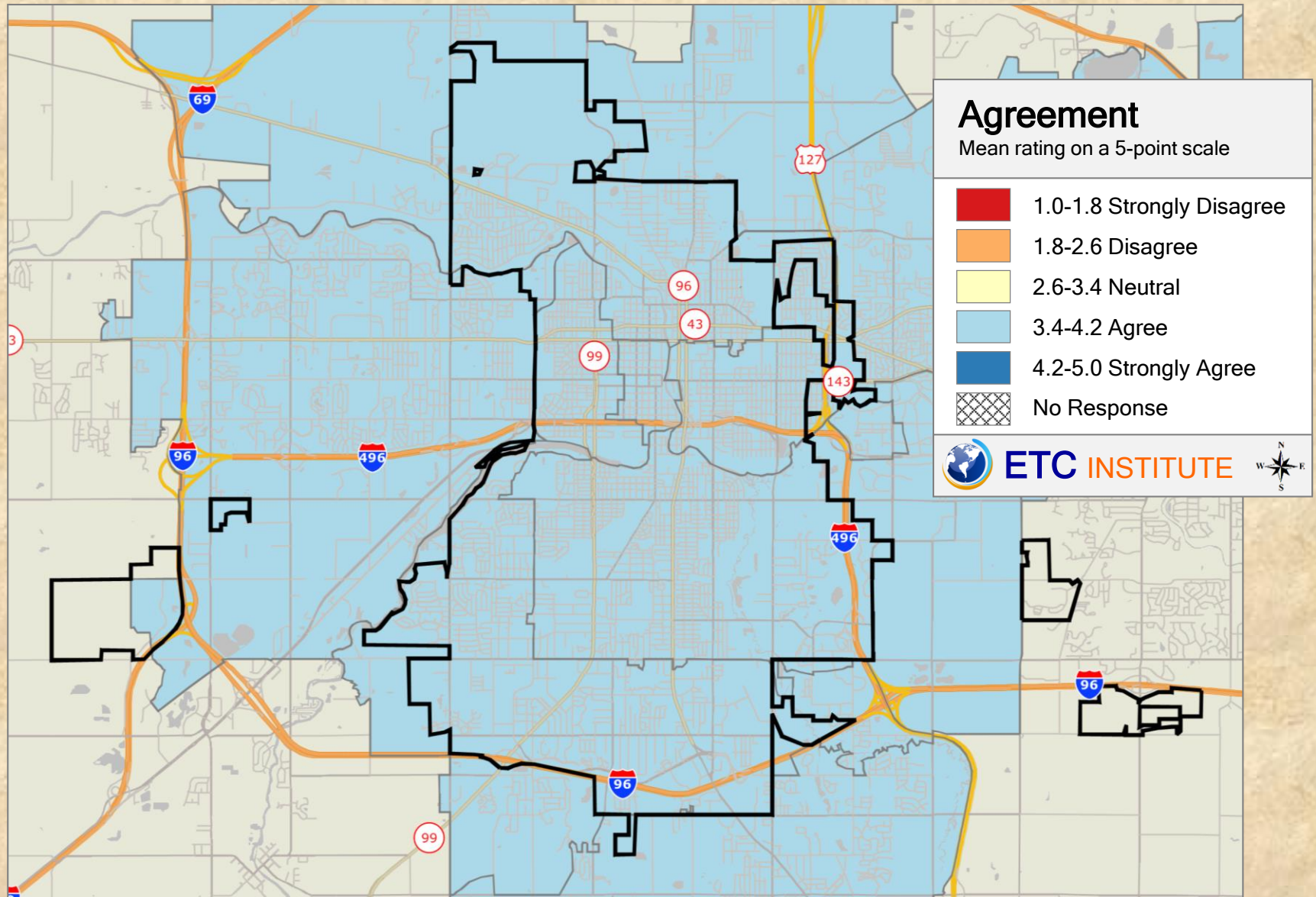
Q21.6 Level of Agreement: I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas



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Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

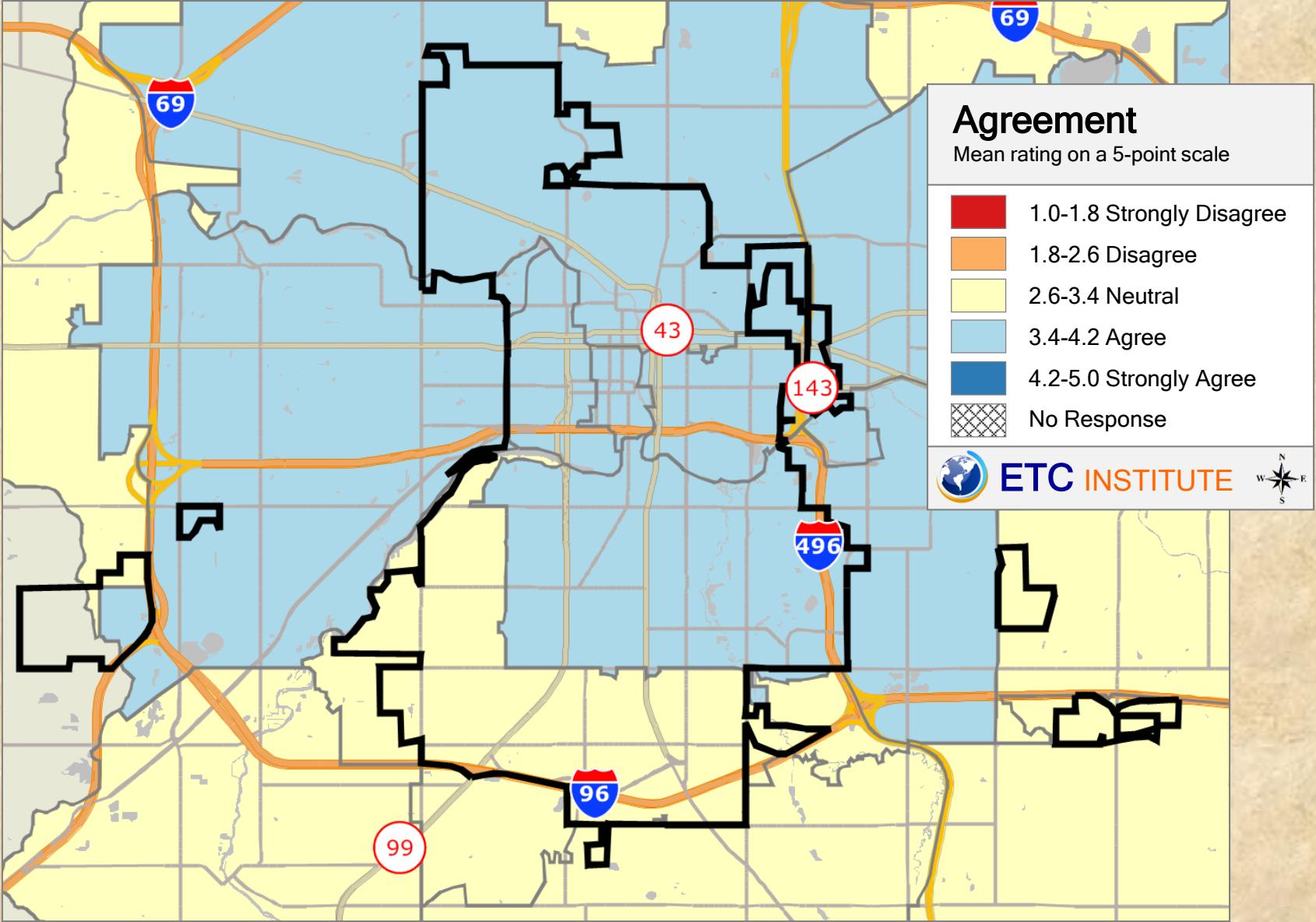
Q21.6 Level of Agreement: I would be willing to pay more for a property in a community that focuses on protecting water quality by conserving natural areas



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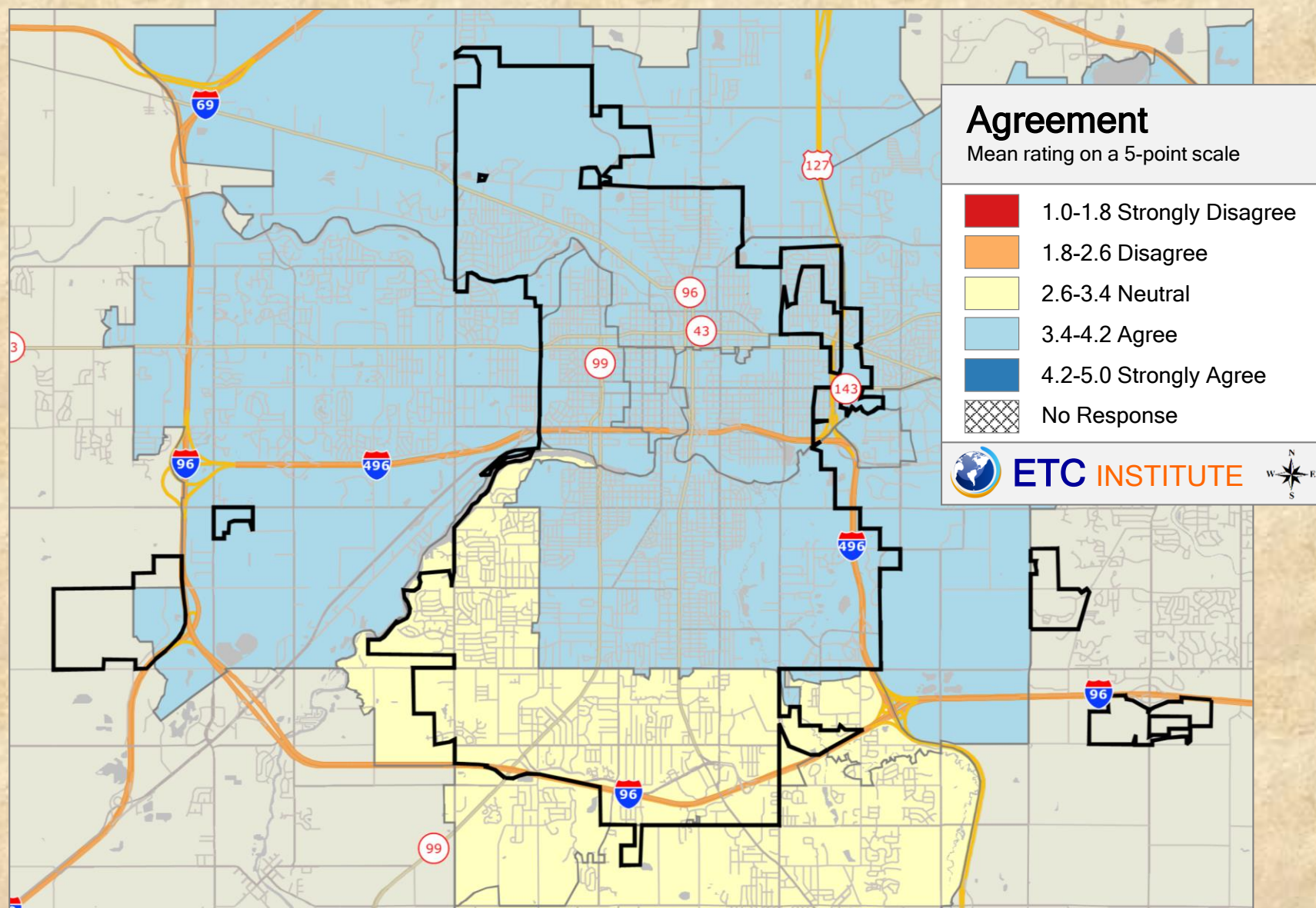
Q21.7 Level of Agreement: I would be willing to pay more in utilities to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

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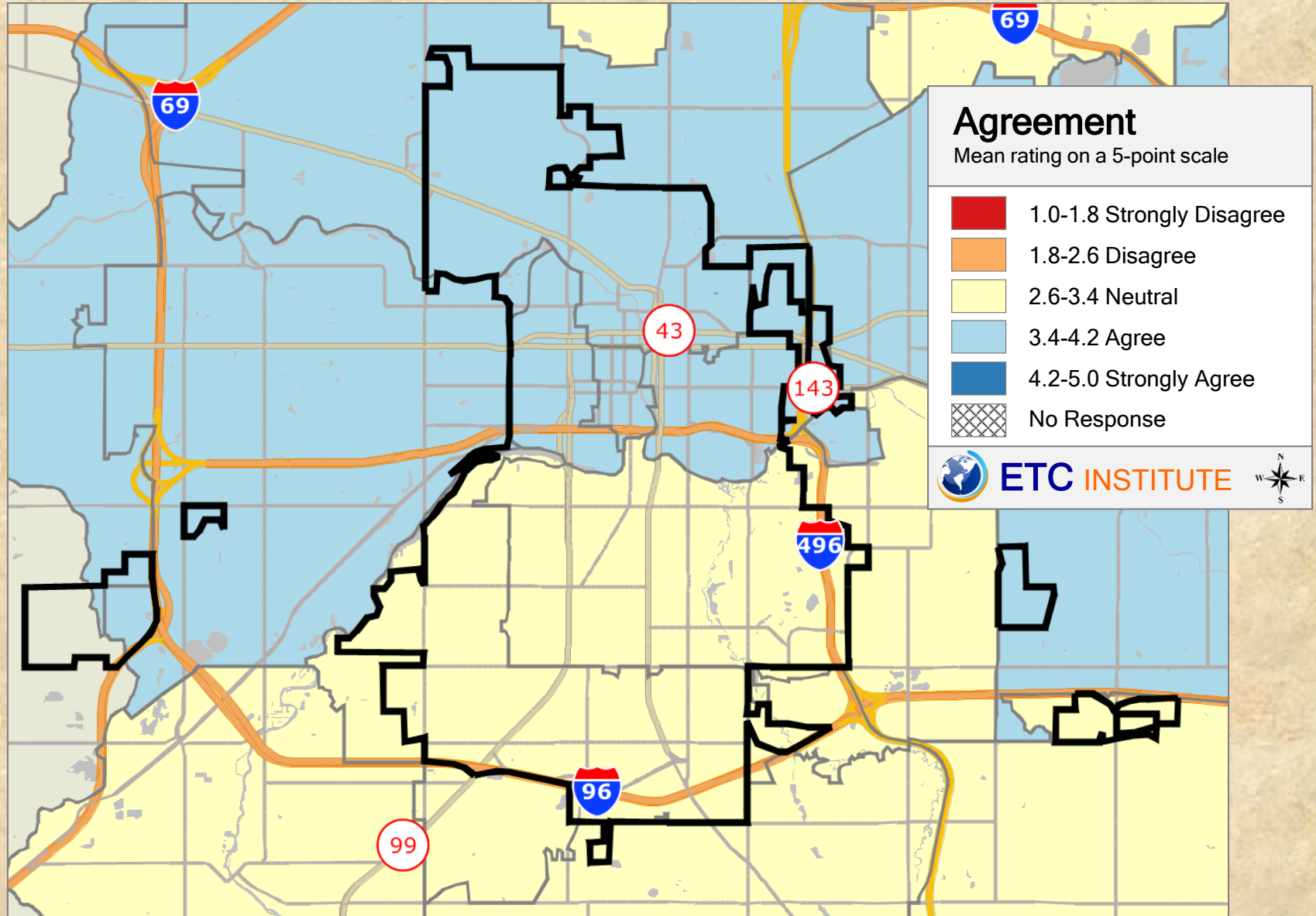
Q21.7 Level of Agreement: I would be willing to pay more in utilities to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

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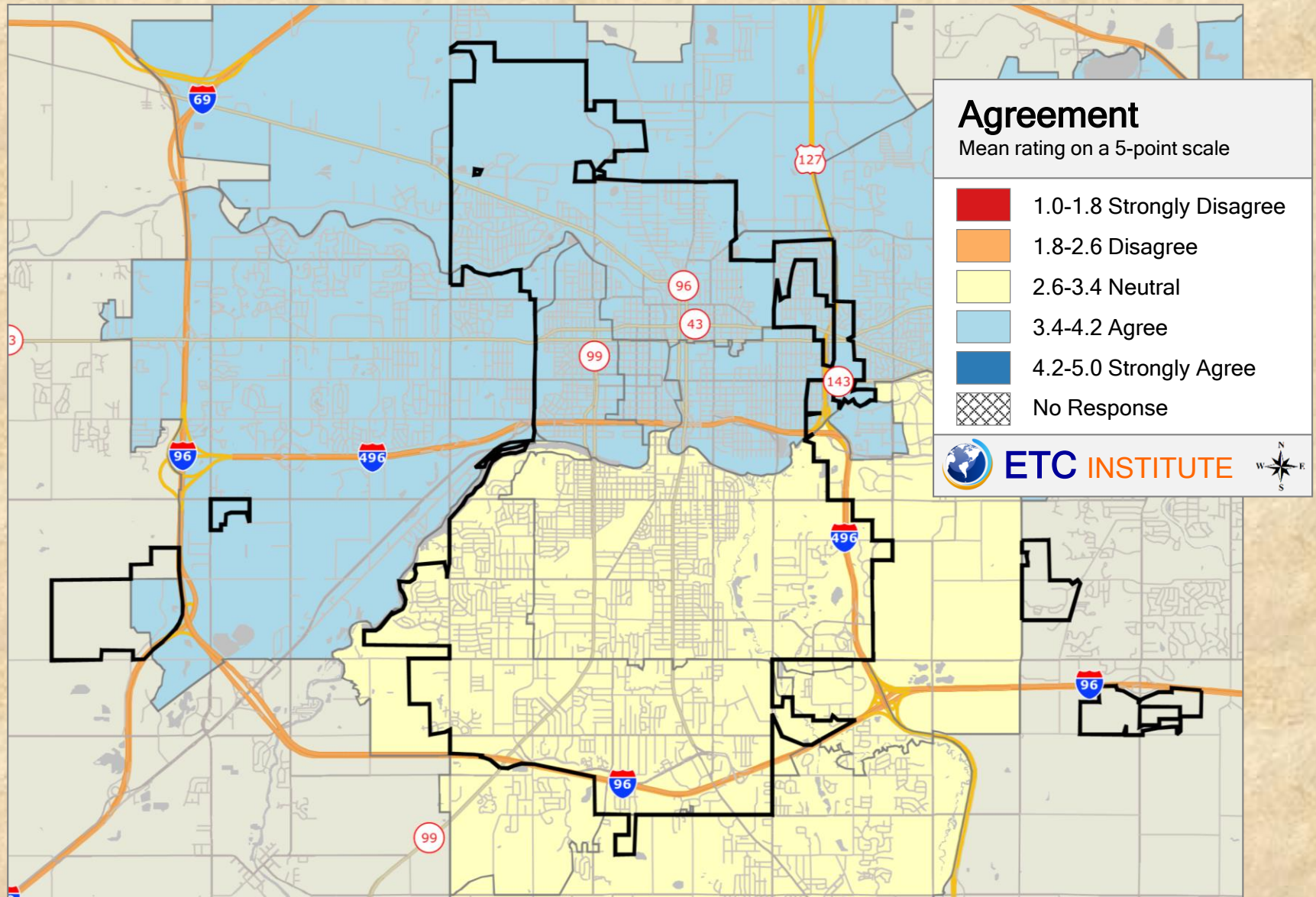
Q21.8 Level of Agreement: I would be willing to pay an increase in taxes to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

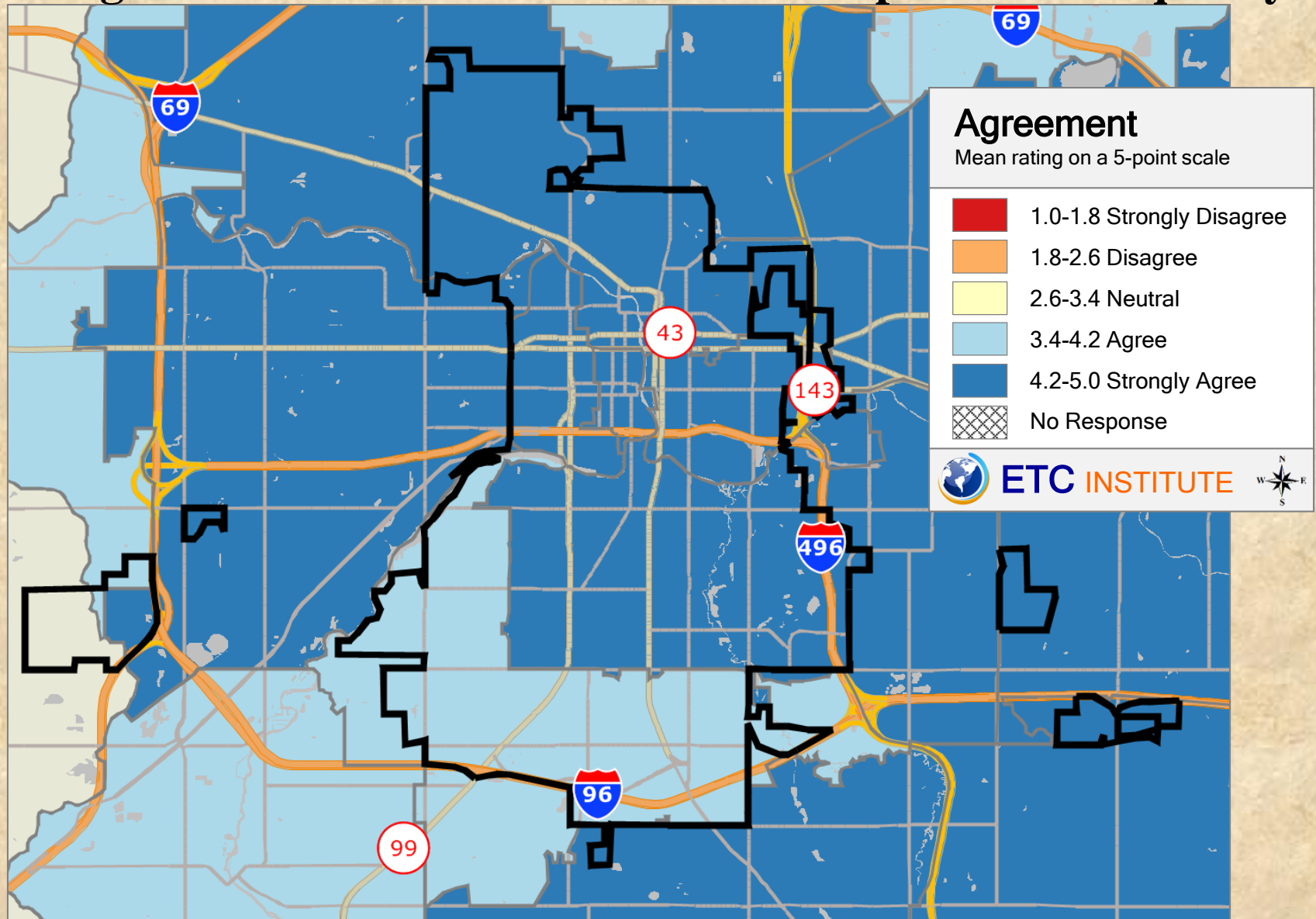
Q21.8 Level of Agreement: I would be willing to pay an increase in taxes to improve the quality of water in lakes and rivers in the community where I live



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

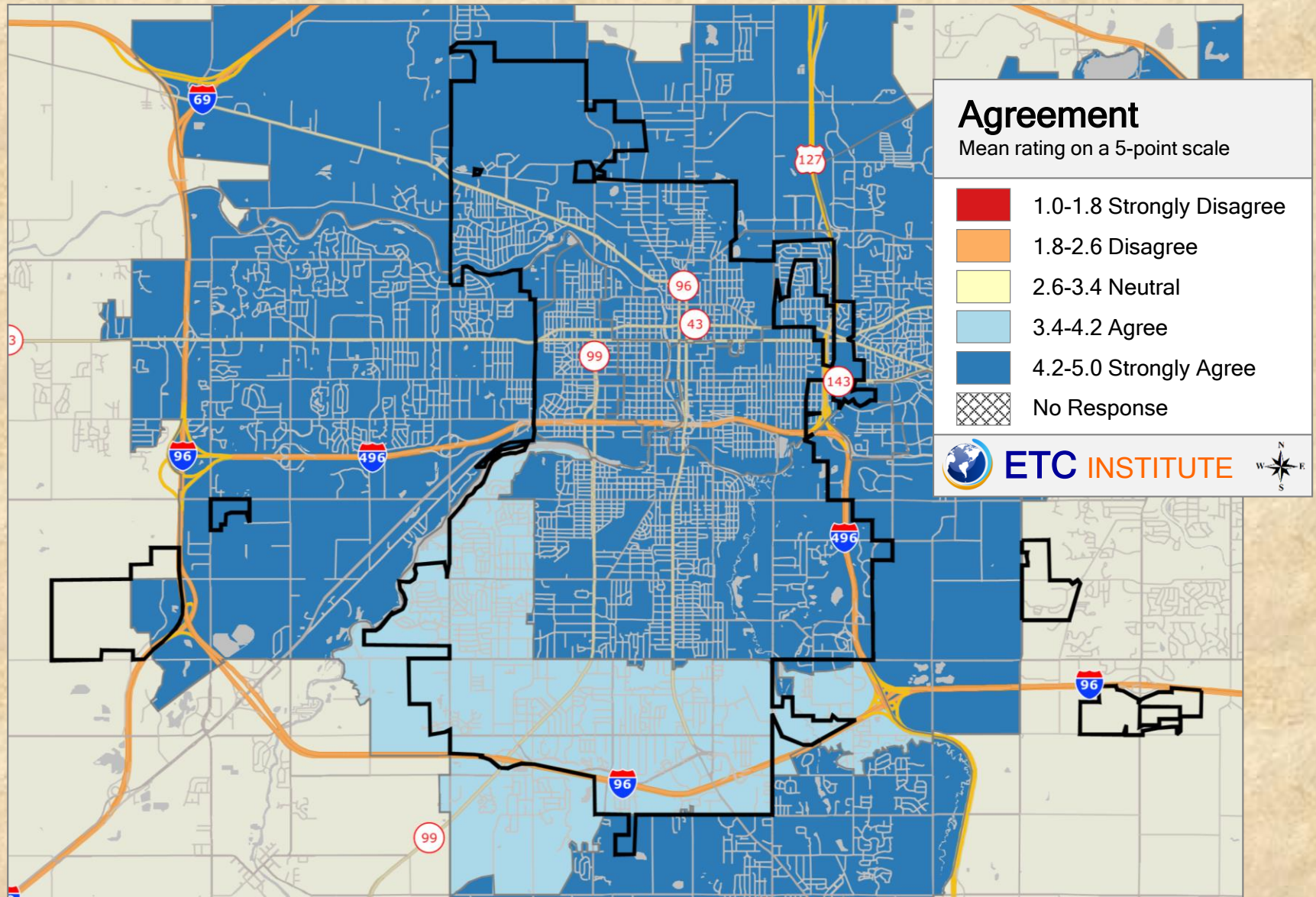
Q21.9 Level of Agreement: I would support my local government working with other cities and counties to improve water quality



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

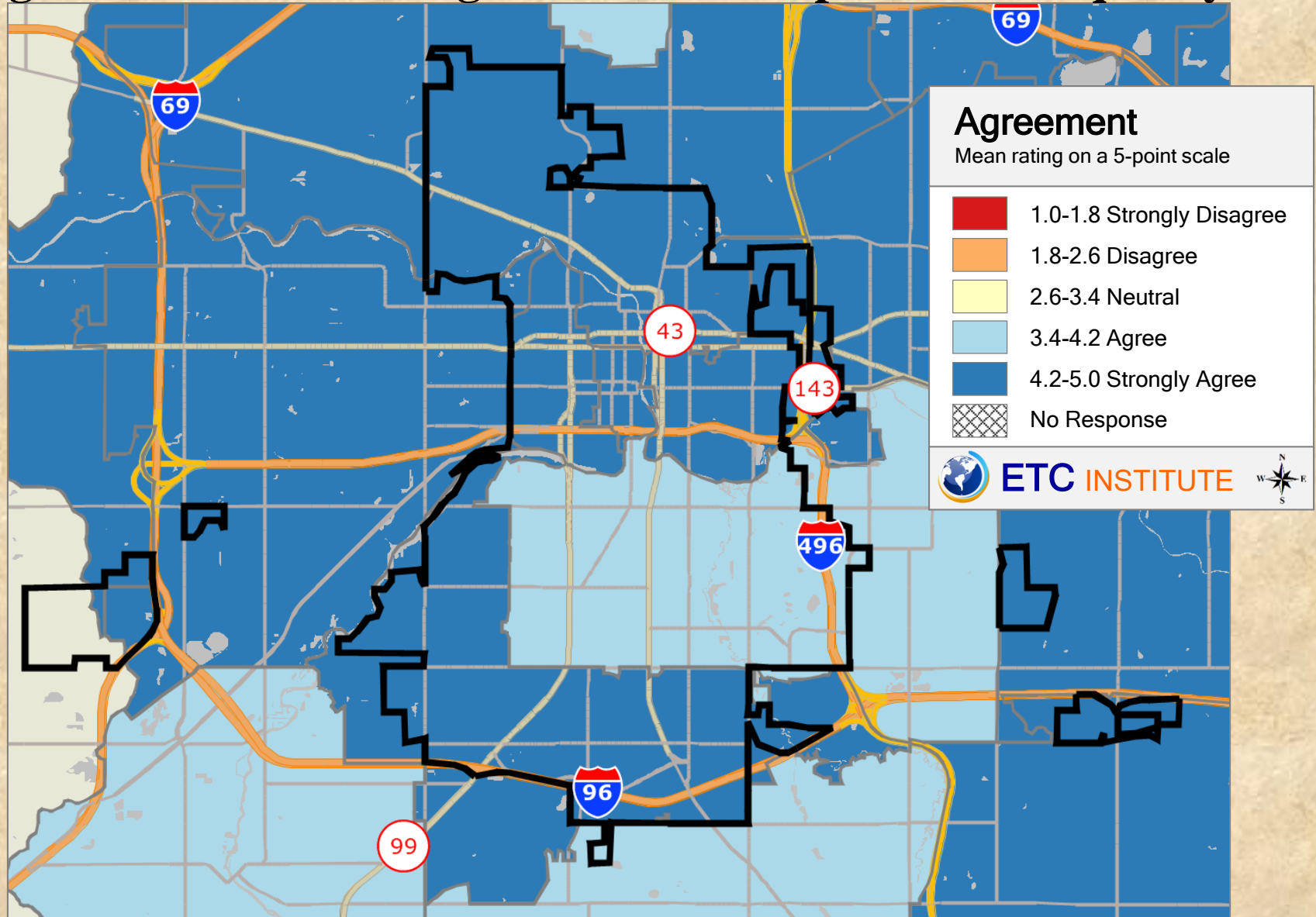
Q21.9 Level of Agreement: I would support my local government working with other cities and counties to improve water quality



2018 Greater Lansing Regional Water Quality Survey

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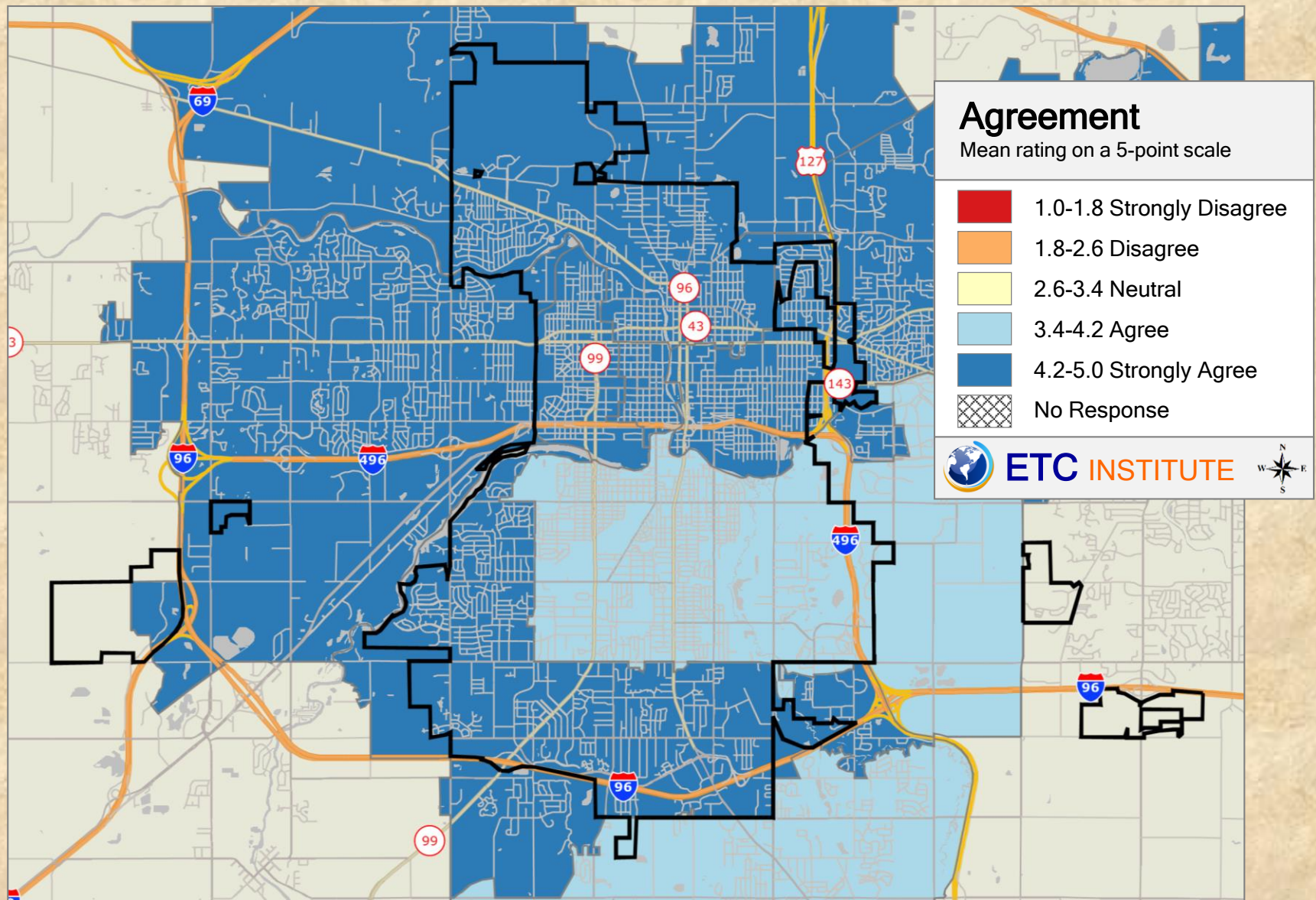
Q21.10 Level of Agreement: I would support my local government allocating resources to improve water quality



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

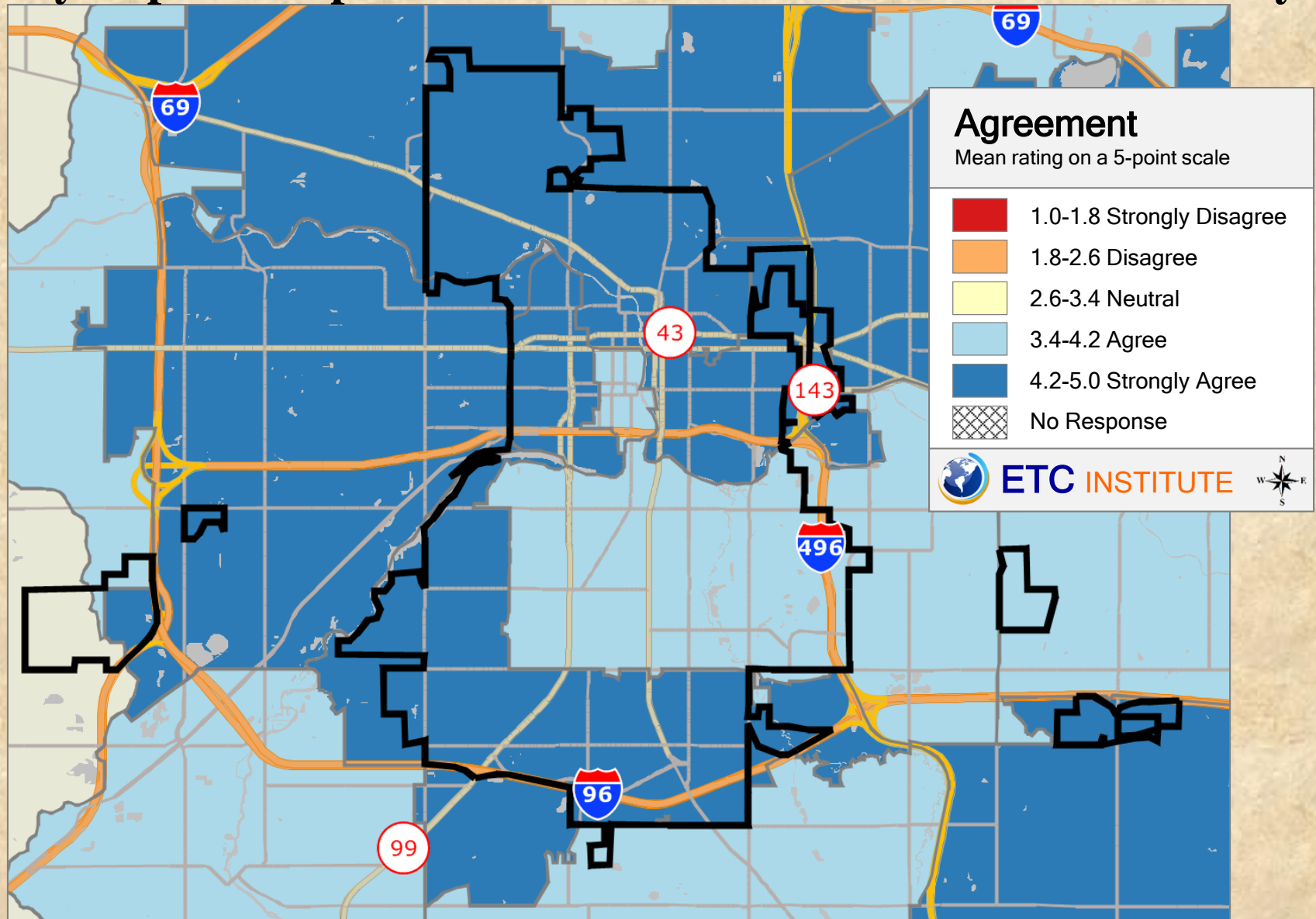
Q21.10 Level of Agreement: I would support my local government allocating resources to improve water quality



2018 Greater Lansing Regional Water Quality Survey

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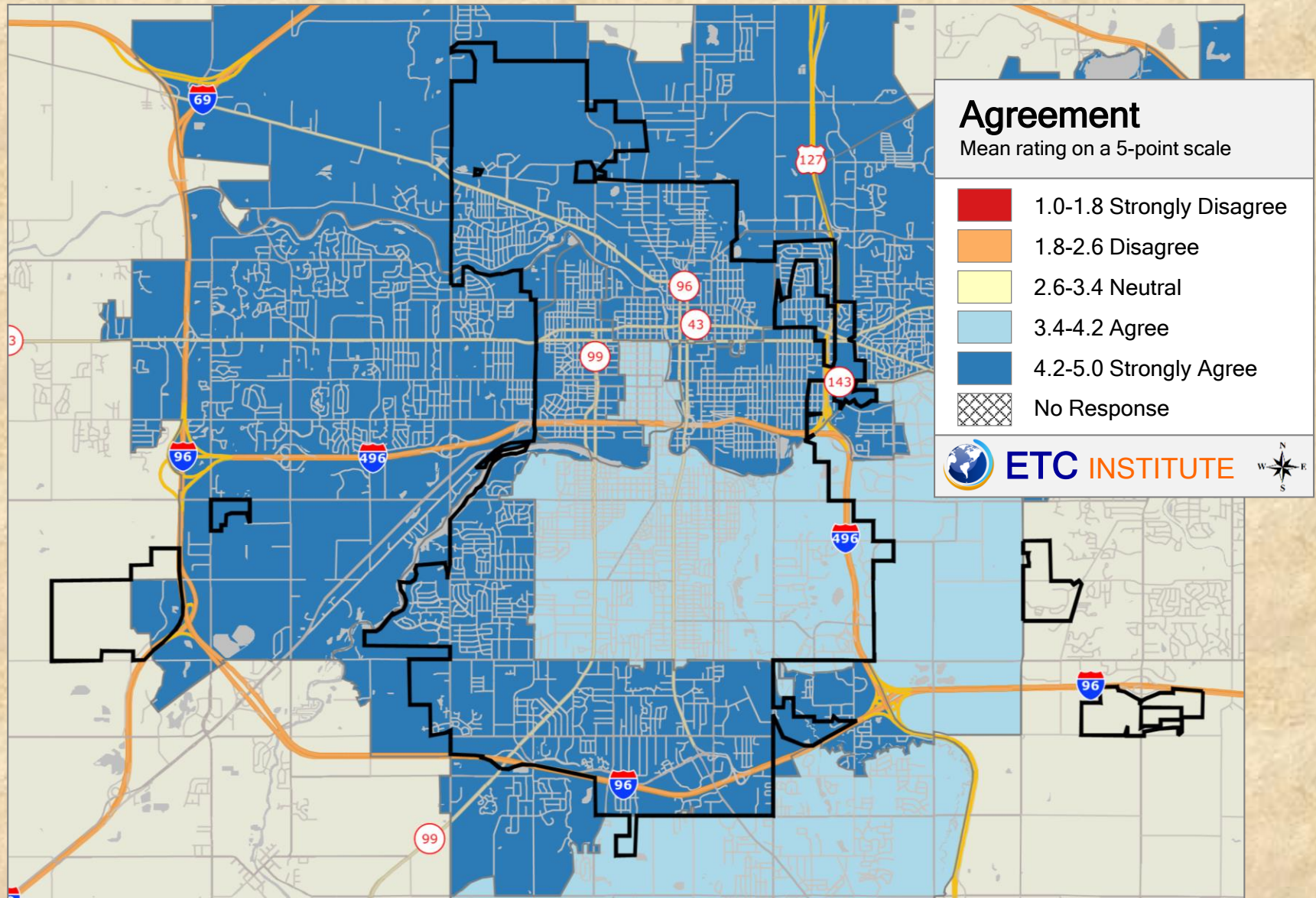
Q21.11 Level of Agreement: Public entities should be doing more to directly implement protection and restoration of urban waterways



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)

Q21.11 Level of Agreement: Public entities should be doing more to directly implement protection and restoration of urban waterways



2018 Greater Lansing Regional Water Quality Survey

Shading reflects the mean rating for all respondents by ZIP Code (merged as needed)