APPENDIX

Technical Appendix	X-2
Tabulated Questionnaire	
Supplemental Table	

TECHNICAL APPENDIX

ABOUT THE STUDY

The survey, conducted the 15th through the 18th of April, 2021, for Environmental Law & Policy Center (ELPC) by Selzer & Company of West Des Moines, Iowa, is based on telephone interviews with 506 Ohio registered voters living in the following four counties in northwestern Ohio: Erie, Lucas, Ottawa, and Sandusky. The sample was drawn from the Ohio voter registration list and was enhanced with telephone numbers from a look-up service.

Interviewers with Quantel Research contacted respondents using randomized landline and cell phone numbers from the sample. Interviews were administered in English and lasted approximately 18 minutes.

Percentages based on the full probability sample of 506 northwest Ohio registered voters may have a maximum margin of error of plus or minus 4.4 percentage points. This means that if this survey were repeated using the same questions and the same methodology, 19 times out of 20, the finding would not vary from the true population value by more than plus or minus 4.4 percentage points. Results based on smaller samples of respondents—such as by gender or age—have a larger margin of error.

The sample was weighted by age and county to reflect the proportions found in the Ohio registered voter list for the four-county area.

SURVEY SPECIFICATIONS

Sample: 506 registered voters from Erie, Lucas, Ottawa, and Sandusky counties in

northwestern Ohio

Weighting: The data were weighted by age and county to reflect the proportions found in

the Ohio registered voter list for the four-county area.

Margin of error: For the sample of 506 registered voters, the margin of error is plus or minus 4.4

percentage points.

Field dates: The 15th through the 18th of April, 2021.

Survey length: Approximately 18 minutes.

TABULATED QUESTIONNAIRE

ELPC Ohio Water Poll

Study #2233 506 registered voters in selected NW Ohio counties Margin of error: ± 4.4 percentage points SELZER & COMPANY April 15-18, 2021 Weighted by age and county

Percentages may not add to 100% due to rounding.

A. Are you a resident of [Pull county from sample: should be Erie, Lucas, Ottawa, or Sandusky] County in Ohio and registered to vote here?

	Yes	No	Not sure
Apr-21	100	-	-
Aug-19	100	-	-

1. I'm going to mention some issues facing Ohio. For each, please tell me how important it is to you personally that government action be taken—very important, fairly important, just somewhat important, or not important. (Rotate list.)

			Very/Fairly Important	Smwt/Not Important	, 61 3	Fairly Important	Just Somewhat Important	Not Important	Not Sure
A.	Climate change	Apr-21	56	43	42	13	23	20	1
		Aug-19	65	34	55	10	19	15	2
B.	Health care	Apr-21	82	17	72	10	11	6	1
		Aug-19	83	16	74	9	11	5	1
C.	FirstEnergy utility scandal	Apr-21	44	35	31	13	21	14	21
D.	Jobs and wages	Apr-21	78	19	64	14	14	6	3
E.	Access to safe clean water	Apr-21	93	7	87	6	4	3	-
	Safe clean water	Aug-19	92	8	88	4	8	1	-
F.	COVID-19 pandemic	Apr-21	75	24	66	9	12	11	2
G.	Cleaning up Lake Erie	Apr-21	86	13	71	15	12	1	1

2. I'm going to mention some elected officials and institutions. For each, please tell me if you approve or disapprove of the way each is handling the job. (**Rotate list.**)

			Approve	Disapprove	Not Sure
A.	Mike DeWine as governor	Apr-21	71	22	7
			17		
B.	Sherrod Brown as U.S. senator	Apr-21	54	26	19
		Aug-19	55	27	18
C.	Rob Portman as U.S. senator	Apr-21	43	35	22
		Aug-19	40	31	29

			Approve	Disapprove	Not Sure
D.	Marcy Kaptur as U.S. representative for the 9 th congressional	Apr-21	58	29	13
	district	Aug-19	63	23	13
E.	Jim Jordon as U.S. representative for the 4 th congressional district	Apr-21	36	36	29
		Aug-19	30	26	45
F.	The Ohio Farm Bureau		43	8	49
			45	13	42
G.	Joe Biden as president of the United States	Apr-21	56	39	5
	Donald Trump as president of the United States	Aug-19	34	59	6
H.	Wade Kapszukiewicz as mayor of Toledo	Apr-21	51	17	32

3. I'm going to mention some legislative topics that have been discussed in the past few years in Ohio. Some of these proposals have become law and some have not. For each, please tell me if this is something you strongly favor, mostly favor, mostly oppose, or strongly oppose. (**Rotate list.**)

			Favor	Oppose	Strongly Favor	Mostly Favor		Strongly Oppose	Not Sure
A.	Putting a freeze on new construction of CAFOs, meaning concentrated animal feeding operations in northwest Ohio, containing hundreds or thousands of hogs and chickens	Apr-21	46	35	21	25	19	16	19
	Putting a freeze on new construction of CAFOs, meaning concentrated animal feeding operations in northwest Ohio, containing thousands of hogs and chickens	Aug-19	44	33	23	21	20	13	23
В.	Spending tens of millions of taxpayer dollars on the H2Ohio program to pay incentives to voluntarily reduce agricultural water pollution	Apr-21	63	24	24	39	16	8	13
C.	Increasing public school funding	Apr-21	77	20	50	26	10	10	3
D.	Investigating the FirstEnergy utility scandal and enacting reforms	Apr-21	72	11	38	34	6	4	18
E.	Instituting new restrictions on early and absentee voting	Apr-21	43	52	29	14	12	40	4
F.	Regulating commercial fertilizers applied to corn and soybean fields	Apr-21	74	15	40	34	10	5	11

4. I'm going to mention some specific issues related to water quality in northwest Ohio. For each, please tell me how familiar you are with the issue as it relates to water quality—very familiar, fairly familiar, just somewhat familiar, or not familiar. (**Rotate list, but A must always be first.**)

			Very/Fairly Familiar				Just somewhat Familiar	Not Familiar	Not Sure
A.	Runoff from commercial or synthetic fertilizers applied to crop fields	Apr-21	42	57	24	18	34	23	1
	The use of fertilizer on large corn and soy crop fields	Aug-19	46	53	26	19	29	24	2
B.	Runoff from CAFO manure spread on crop fields	Apr-21	34	64	19	16	30	33	2
C.	Algae outbreaks in Lake Erie	Apr-21	68	31	50	18	24	7	1
	Algae blooms in Lake Erie	Aug-19	69	29	53	16	23	6	2
D.	Voluntary pollution reduction programs such as H2Ohio	Apr-21	18	80	8	10	27	52	2
	Voluntary programs to limit the amount of agricultural runoff of manure and fertilizer that flows into Lake Erie	Aug-19	34	63	21	14	28	35	3
E.	The sport fishing industry in Lake	Apr-21	39	60	24	15	28	32	1
L.	Erie	Aug-19	40	57	26	14	26	31	2
		riug 17	40	31	20	1-7	20	31	
F.	Water contamination from manure storage ponds at CAFOs	Apr-21	28	69	15	13	28	42	3
	Manure runoff pollution into the Lake Erie watershed from hog and poultry feeding operations	Aug-19	42	56	25	16	29	27	2

5. CAFOs are large facilities where hundreds or thousands of hogs, chickens, or cows are confined year-round. Construction has been on the rise in northwest Ohio over the last decade.

Currently, the number of CAFOs that can be built is not limited by the state of Ohio or by the Environmental Protection Agency. Given what you know at this point, would you say you strongly favor, mostly oppose, or strongly oppose a freeze on building new CAFOs?

[Aug-19 includes a previous question that defines pros and cons of CAFOs, then omits the first two sentences of this question.

Inserted question: CAFOs are large facilities where thousands of hogs, chickens, and other animals are confined year-round. Construction has been on the rise over the last decade. On the positive side, CAFOs can be profitable for their owners and efficient for the beef, pork, egg, chicken and dairy industries to supply products to a worldwide market. On the negative side, these CAFOs produce a huge amount of manure that is spread on fields. The excess manure can run off and get into rivers, streams, and eventually Lake Erie and can cause algae blooms, which can result in contaminated drinking water supplies and the closure of rivers and lakes as recreation areas.

Do you happen to know if these CAFOs are or are not regulated by the state in terms of the number or size of these operations that can be built in Ohio?

Omitted: CAFOs are large facilities where hundreds or thousands of hogs, chickens, or cows are confined year-round. Construction has been on the rise in northwest Ohio over the last decade.]

	Favor	Oppose	Strongly Favor	Mostly Favor	Mostly Oppose	Strongly Oppose	Not Sure
Apr-21	55	36	29	26	19	17	9
Aug-19	57	31	32	25	17	14	12

6. Currently, only the largest CAFOs—for example, those with more than 1000 cows or 2500 hogs—are required to get permits and file manure plans with the Department of Agriculture. Many CAFOs avoid the permit process by staying just under the size limits.

Would you say you strongly favor, mostly favor, mostly oppose, or strongly oppose requiring permits for all CAFOs regardless of size?

	Favor	Oppose	Strongly Favor	Mostly Favor	Mostly Oppose	Strongly Oppose	Not Sure
Apr-21	78	17	52	25	9	8	5

7. Currently, Ohio relies almost exclusively on voluntary programs and incentive payments for pollution reduction rather than enforceable regulations to reduce manure and fertilizer runoff from CAFOs. Given what you know at this point, would you say you strongly favor, mostly favor, mostly oppose, or strongly oppose putting in place enforceable regulations to limit runoff from CAFO waste and commercial fertilizer?

	Favor	Oppose	Strongly Favor	Mostly Favor	Mostly Oppose	Strongly Oppose	Not Sure
Apr-21	81	13	55	26	7	6	5

I'm going to read you some reasons for and against freezing the number of new CAFOs and more strictly regulating manure and fertilizer runoff so you can hear both sides. First,

(Alternate whether Q.8 or Q.9 is first every other interview.)

8. I'm going to read you some reasons to favor putting in place regulations on agriculture operations including a freeze on building new CAFOs in northwest Ohio. For each, please tell me if you think this is an excellent reason, a good reason, or not a good reason to favor adding regulations on agriculture operations. (**Read list. Rotate.**)

			Excellent Reason	Good Reason	Not a Good Reason	Not Sure	
A.	The situation is dangerous. Fertilizer and manure runoff can end up in Lake Erie, creating toxic algae outbreaks which contaminate drinking water and are poisonous to humans, fish, and animals.	Apr-21	54	34	8	3	
В.	The way we're trying to fix the problem isn't working. The state of Ohio has spent billions of taxpayer dollars to encourage voluntary pollution reduction, but virtually no progress has been made for cleaning up Lake Erie.	Apr-21	32	39	21	7	
C.	Agricultural operations should be held accountable for their runoff pollution from fertilizers and manure that flows into waterways. For every other industry, polluters pay to clean it up. Here, the taxpayers in Toledo, Oregon, and other cities along Lake Erie foot the bill.	Apr-21	40	40	15	5	_
D.	The problem hurts our economy. Lake Erie provides one-third of tourism revenues for the state including sport fishing. The lake creates over 100,000 jobs and brings in billions of dollars in revenue, so the state needs to protect Lake Erie from toxic algae outbreaks.	Apr-21	53	40	5	2	

[For the second set of questions asked, precede the question with the word, "Now, . . .]

9. I'm going to read you some reasons to oppose putting in place regulations on agriculture operations including a freeze on building new CAFOs in northwest Ohio. For each, please tell me if you think this is an excellent reason, a good reason, or not a good reason to oppose adding regulations on agriculture operations. (**Read list. Rotate.**)

			Excellent Reason	Good Reason	Not a Good Reason	Not Sure
A.	There are a lot of other problems affecting water quality in Lake Erie besides agricultural runoff—things such as lawn fertilizer, soil erosion, and leaking septic tanks. It is wrong to single out one potential problem to take all the blame.	Apr-21	19	31	45	5
В.	Instead of added regulation and a freeze on CAFOs, the better way forward would be to invest in research and technology to fix the current problems.	Apr-21	24	43	27	6
C.	Agriculture is a major job creator in northwest Ohio. If we freeze building new CAFOs and add regulation, that could slow down job growth. We can't risk that.	Apr-21	10	30	55	5
D.	If regulations are added for CAFOs and fertilizers, the price of food could go up.	Apr-21	9	29	57	4

10. Do you strongly favor, mostly favor, mostly oppose, or strongly oppose putting a freeze on building new CAFOs in northwest Ohio, containing hundreds or thousands of hogs, chickens, and cows?

[Aug-19: Do you strongly favor, mostly favor, mostly oppose, or strongly oppose putting a freeze on new construction of CAFOs, meaning concentrated animal feeding operations in northwest Ohio, containing thousands of hogs and chickens?]

	Favor	Oppose	Strongly Favor	Mostly Favor	Mostly Oppose	Strongly Oppose	Not Sure
Q.10 Apr-21	60	33	35	25	18	15	7
Aug-19	59	29	36	23	16	13	12
Q.5 Apr-21	55	36	29	26	19	17	9
Aug-19	57	31	32	25	17	14	12

11. Do you strongly favor, mostly favor, mostly oppose, or strongly oppose putting in place enforceable regulations to limit runoff from CAFO waste and commercial fertilizers?

	Favor	Oppose	Strongly Favor	Mostly Favor	Mostly Oppose	Strongly Oppose	Not Sure
Q.11 Apr-21	82	13	55	27	7	6	5
Q.7 Apr-21	81	13	55	26	7	6	5

12. In upcoming elections, which candidate are you more likely to support—the one who prioritizes cleaning up Lake Erie even if it means more regulation or the one who favors allowing current practices and voluntary programs?

	Prioritizes Lake Erie/	Favors current practice/	Neither	Not
	more regulation	voluntary programs	(VOL)	sure
Apr-21	77	11	3	10

13. Do you think questions of what should happen with cleaning up Lake Erie will be a major issue, a minor issue, or not much of an issue as you consider candidates you will support?

[Aug-19: In your own decision-making as the next general election approaches, do you think this will be a major issue, a minor issue, or not much of an issue as you consider candidates you will support?]

	Major issue	Minor issue	Not much of an issue	Not sure
Apr-21	54	34	10	3
Aug-19	40	36	11	13

14. I'm going to mention two phrases that describe how to reduce pollution from CAFOs—["Enforceable regulatory standards"], or ["enforceable regulations"]. Which one feels like the better approach, or does it not matter? (Rotate.)

	Standards	Regulations	Doesn't matter	Not sure
Apr-21	29	32	32	8

These final questions are asked just to see what cross-section of northwest Ohio residents we are interviewing.

100a. (**Record for all.**) Record age from sample

b. (CODE PROPER CATEGORY:)

	Under 25	25 to 34	35 to 44	45 to 54	55 to 64	65 and over	Refused/ not sure
Apr-21	3	15	16	17	19	31	-
Aug-19	6	20	16	15	18	25	1

101a. In politics as of today, do you consider yourself a Republican, Democrat, or independent?

	Republican	Democrat	Independent	Other (VOL)	Refused/not sure
Apr-21	26	33	34	1	6
Aug-19	19	27	35	1	18

101b. In the 2020 presidential election, did you vote for [Donald Trump] or [Joe Biden], for someone else, or did you not vote? [Rotate candidate names.]

	Donald Trump	Joe Biden	Someone else	Did not vote	Refused/not sure
Apr-21	35	46	3	6	10

102. What is the last grade of school you completed?

	High school graduate or less	Some college	Associate's (two- year) degree	Bachelor's (four- year) degree	Postgraduate work or degree	Refused/ not sure
Apr-21	23	19	12	25	18	3
Aug-19	24	19	12	21	10	15

103. Do you have children under the age of 18 living at home?

	Yes	No	Refused/not sure
Apr-21	24	72	4
Aug-19	24	61	15

104. With what racial or ethnic group do you identify most—White, Black, Hispanic, Asian, or some other group?

	White	Black	Hispanic	Asian	Other	Refused/not sure
Apr-21	74	12	2	1	4	7
Aug-19	68	8	2	1	1	20

105. Is your total annual household income before taxes above or below \$70,000 per year?

	\$100,000 +	\$70,000-\$99,999	\$50,000-\$69,999	<\$50,000	Refused/not sure
Apr-21	24	15	16	31	14
Aug-19	17	15	13	30	25

106. Phone type

	Cell phone only	Landline/other/ refused
Apr-21	54	46
Aug-19	47	53

107. **(Record for all.)** Record sex from sample

	Male	Female
Apr-21	47	53
Aug-19	48	52

108. (Record for all.) Record from sample in which election(s) respondent voted.

	Apr-21	Aug-19	
A.	88	n/a	Nov 2020 general (presidential)
В.	33	n/a	2020 primary
C.	74	74	Nov 2018 general (midterms)
D.	30	29	2018 primary
E.	83	84	Nov 2016 general (presidential)
F.	56	55	2016 primary
G.	52	54	Nov 2014 general (midterms)
H.	19	18	2014 primary

109. (Record for all.) Record county

	Erie	Lucas	Ottawa	Sandusky
Apr-21	12	71	7	10
Aug-19	14	71	7	8

SUPPLEMENTAL TABLES

Table 1.

Q.3: I'm going to mention some legislative topics that have been discussed in the past few years in Ohio. Some of these proposals have become law and some have not. For each, please tell me if this is something you strongly favor, mostly favor, mostly oppose, or strongly oppose.

	Favor %	%	Groups most likely
Increasing public school funding	77	88 87 84 84	Income <\$50K Democrats Age <45 Child <18
Regulating commercial fertilizers applied to corn and soybean fields	74	79	Age <45
Investigating the FirstEnergy utility scandal and enacting reforms	72	-	
Spending tens of millions of taxpayer dollars on the H2Ohio program to pay incentives to voluntarily reduce agricultural water pollution	63	70 70	Age <45 Child <18
Putting a freeze on new construction of CAFOs, meaning concentrated animal feeding operations in northwest Ohio, containing hundreds or thousands of hogs and chickens	46	54 54 53	Age <35 (n=84) Independents Movers Q.10 (n=85)
Instituting new restrictions on early and absentee voting	43	70 54 48	Republicans Movers Q.10 (n=85) Child <18

Table 2.

Q.8: I'm going to read you some reasons to favor putting in place regulations on agriculture operations including a freeze on building new CAFOs in northwest Ohio. For each, please tell me if you think this is an excellent reason, a good reason, or not a good reason to favor adding regulations on agriculture operations.

	Excellent Reason to Favor	%	Groups most likely
	, ,	, ,	oroups most miles
The situation is dangerous. Fertilizer and manure runoff can	54	60	Child <18
end up in Lake Erie, creating toxic algae outbreaks which		59	Democrats
contaminate drinking water and are poisonous to humans,			
fish, and animals.			
The problem hurts our economy. Lake Erie provides one-	53	60	Income <\$50K
third of tourism revenues for the state including sport		59	Age 65+
fishing. The lake creates over 100,000 jobs and brings in			
billions of dollars in revenue, so the state needs to protect			
Lake Erie from toxic algae outbreaks.			
Agricultural operations should be held accountable for their	40	46	Democrats
runoff pollution from fertilizers and manure that flows into		45	College degree or more
waterways. For every other industry, polluters pay to clean			
it up. Here, the taxpayers in Toledo, Oregon, and other			
cities along Lake Erie foot the bill.			
The way we're trying to fix the problem isn't working. The	32	38	Democrats
state of Ohio has spent billions of taxpayer dollars to		37	Income <\$50K
encourage voluntary pollution reduction, but virtually no			
progress has been made for cleaning up Lake Erie.			

Table 3.

Q.9: I'm going to read you some reasons to oppose putting in place regulations on agriculture operations including a freeze on building new CAFOs in northwest Ohio. For each, please tell me if you think this is an excellent reason, a good reason, or not a good reason to oppose adding regulations on agriculture operations.

	Excellent Reason to Oppose	0./	
	%	%	Groups most likely
Instead of added regulation and a freeze on CAFOs, the better way forward would be to invest in research and technology to fix the current problems.	24	33 29 29	Republicans Age 65+ Less than college degree
There are a lot of other problems affecting water quality in Lake Erie besides agricultural runoff—things such as lawn fertilizer, soil erosion, and leaking septic tanks. It is wrong to single out one potential problem to take all the blame.	19	29 27 25	Republicans Income \$100K+ Outside Lucas Co.
Agriculture is a major job creator in northwest Ohio. If we freeze building new CAFOs and add regulation, that could slow down job growth. We can't risk that.	10	16	Republicans
If regulations are added for CAFOs and fertilizers, the price of food could go up.	9	16	Republicans

Table 4.

Q.1: I'm going to mention some issues facing Ohio. For each, please tell me how important it is to you personally that government action be taken—very important, fairly important, just somewhat important, or not important.

	Very		
	<u>Important</u>	0/	Comment Plants
	%	%	Groups most likely
Access to safe clean water	87	96	Democrats
		94	Income <\$50K
		92	Child <18
Health care	72	86	Democrats
		85	Income <\$50K
		78	Less than college degree
		78	Women
Cleaning up Lake Erie	71	85	Income <\$50K
		81	Democrats
		76	Less than college degree
COVID-19 pandemic	66	90	Democrats
•		76	Age 65+
		75	Income <\$50K
		73	Women
Jobs and wages	64	79	Income <\$50K
_		76	Democrats
		70	Women
		69	Age <45
		69	Less than college degree
Climate change	42	72	Democrats
		51	Income <\$50K
		50	Age <35 (n=84)
		48	Women
		47	Lucas Co.
FirstEnergy utility scandal	31	37	Age 65+