

CHAPTER 7: SOURCES OF POLLUTION

I. SHORE RESIDENCES ENVIRONMENTAL HEALTH RISKS

PURPOSE

This section of the State of the Watershed Report describes the results of an environmental risk assessment survey of approximately 1000 lakeshore residents.

Prior to this survey, a limited amount of information was available on the health and environmental risks associated with nonpoint source pollution around the homes within the Seneca Lake watershed.

Information gathered in the survey was used to assess and quantify potential pollution risks from lakefront homes. Another component of the project was to distribute Home*A*Syst books to lakefront property homeowners to provide education and awareness of the potential risks around the home. The Home*A*Syst book is a do-it-yourself assessment guide that helps homeowners evaluate potential environmental health risks around the home. This book covers topics that deal with environmental risks such as stormwater, drinking water, wells, household wastewater, lead, liquid fuels, yard and garden care, hazardous household products, indoor air quality, cooling systems, and household waste disposal. The distribution of this document enabled homeowners to assess and evaluate their potential pollution risks and seek remedial action if needed. Public workshops were also used as a tool for educating the public about potential pollution risks in and around the home.

INTRODUCTION

Seneca Lake Area Partners in Five Counties (SLAP-5) was awarded two grants during the summer of 1998 for the Seneca Lake Watershed Residential Environmental Risk Home*A*Syst Survey. The funding for the project was provided by the Finger Lakes – Lake Ontario Watershed Protection Alliance (FL-LOWPA), Seneca Lake Pure Waters Association and the New York State Soil & Water Conservation Committee: 1998 Water Quality Mini-Grant.

The three primary objectives of the Home*A*Syst project were to:

- Conduct a survey to gather septic, well water and other information on residential land use for incorporation into The State of the Lake Report, and to identify potential pollution problems for Seneca Lake.
- Provide Home*A*Syst guides to 1,000 homeowners to use to evaluate their individual pollution risks, and
- Provide technical assistance to homeowners through one-on-one interviews and educational workshops to solve potential pollution problems.

RESULTS

The Home*A*Syst Summary Analysis, in Tables 7I.1. – 7I.9., provides the findings on lakeshore property information, drinking water, wastewater treatment, zebra mussels, yard and garden care, household waste, lead, household fuels and air quality. Table 7I. 10. illustrates the points assigned to each answer to obtain a “score”. Tables 7I.11. and 7I.12. summarizes the overall and individual rankings for drinking water, septic, zebra mussel, lawn care and fuel use of each subwatershed. Information in these final tables is illustrated in Figures 7I.1. through 7I.6.that follows the Conclusion.

Property Location and Housing Type

Property information shows that the Yates County area had the greatest concentration of survey participants. This is quite likely since this county encompasses a large portion of lake frontage. This set of data also shows that 57% of the survey responses were from seasonal properties.

Drinking Water

Answers to the drinking water questions could imply that most people are not concerned with the quality of their drinking water supply since 65% of the respondents do not treat their water, 77% claim that they have never noticed anything unusual and 54% have never had their water tested. However, at closer examination, 37% of survey respondents said that they drank bottled water. This suggests that homeowners may indeed be concerned but have avoided their concerns by simply changing to drinking bottled water.

Waste water

Wastewater treatment information shows that the majority of homeowners are aware of their system’s location and condition. Eighty-eight percent of survey sites had a septic system with an average age of 17.6 years. Almost one quarter (24.7%) of the residents used septic system additives. With more than 95% of the residences located less than 500 feet from the lakeshore and an unsettling 42.5% of all the homes within 50 feet, this large number of older individual septic systems in such close proximity to the lakeshore may lead to water pollution.

Zebra Mussels

Eighty-nine percent of all survey participants said they had observed zebra mussels on the lakeshore. In addition, the majority (92.2%) said that they have not taken any control measures even though 37% of survey respondents take water from the lake. Once control measures are needed, they are expensive: the most money spent on trying to control zebra mussels was \$3000 with the average cost around \$700.

Yard and Garden

The yard and garden care data collected shows that the majority of residences have environmentally low impact lawns: More than 80% of the lawn areas are completely vegetated (no “bare spots”) which would reduce erosion and 69% of lakefront properties responding to the survey are not fertilized thus reducing the likelihood of fertilizer runoff into the Lake. In addition, almost 30% of the residents compost.

Miscellaneous Household Issues

Most participants (90.5%) recycle their household waste rather than burn it. The most popular recycled items are paper, glass, metal and plastic. Recycling oil, cardboard and yard waste is less popular. Most homes including older homes (about 80%) indicated no presence of lead. About one half (47.2%) of lakefront homes are heated with either fuel oil or a gas furnace with 39% of the home heating fuels stored in above ground storage tanks with only a few underground tanks. Air quality data shows that 84% of the survey participants have never tested for Carbon Monoxide and 95% have never tested for Radon.

CONCLUSION

Figure 7I.6. shows a summary of the weighted points assigned to each source of pollution category by subwatershed. This overall pollution potential severity rank for each individual subwatershed is not intended for quantitative use, and may indeed mask the severity of the issues of concern, possibly eliminating an accurate portrayal of severity. With this caution in mind, the Catharine Creek, Sixteen Falls Creek DD and Indian Creek sub-watersheds and direct drainage appear to have the most “points” for environmental risks from all the factors. The Geneva DD has the lowest number which may reflect the availability of public water and sewer systems and other urban amenities. The Reed Point DD is also ranked low.

When looking at the severity of each individual issues of concern, Table 7I.11. shows the entire watershed’s severity rank as follows:

- Wastewater Treatment = High
- Water = Medium,
- Zebra Mussels = Medium
- Lawn Care = Medium
- Liquid Fuels = Low.

These severity levels single out the issues that are of concern and may also distinguish what issues are priorities within sub-watersheds and direct drainages. For example, the first priority for the specific sub-watersheds with a high rank for the wastewater treatment issue should be looked at more carefully.

Overall, the Home*A*Syst Pollution Potential Analysis states that most of the issues as well as most of the sub- watersheds fall within the medium range.

Although reported incidence of environmental concerns may be low, this may simply be related to the homeowners lack of knowledge about a potential problem. More than 70% of wells have not been inspected, 54% of water supplies have not been tested, and 94% of septic systems show no visible sign of failure, fewer than 10% of residents are taking any active measures to combat zebra mussels, 84% of the homes have no carbon monoxide detectors and about 95% of homes have not been tested for radon. From a public education perspective, it can be concluded that drinking water, wastewater treatment and air quality should be more carefully monitored in the home. While the other issues are equally important, these issues really need to be brought to the homeowners' attention. Upon review of the Home*A*Syst Summary Analysis, it can be noted that practically all of the homeowners that were surveyed are fairly knowledgeable about their property, but not necessarily aware of the potential risks involved. Secondly, most people are not all that concerned with their potential health risks due to the lack of any current problems. Lastly, most survey participants were more concerned with those risks directly associated with their health rather than being concerned about the environmental risks. Therefore, homeowners are not looking at the whole picture when assessing their potential risks around the home.

Furthermore, it is definite that there is a need for continued educational work related to the Home*A*Syst project. More specifically, there is the need to extend this education beyond lakefront properties and into the entire Seneca Lake Watershed, in order to stress the importance of a watershed wide awareness.

Figure 7I. 1. Home*A*Syst Survey

RECORDER: _____ **DATE:** _____ **TOWN & COUNTY:** _____

*What is the use of your property? **Year-round/permanent** **Seasonal/summer** **Rental**

*If seasonal how many times per year is the camp occupied? _____ **# of weekends** _____ **# of weeks**
 _____ **# of months**

*Approximately how far are you located from the lakefront shore? **<50'** **<100'** **<200'** **<500'**
>500 **?**

DRINKING WATER WELL MANAGEMENT

*What is your source of drinking water? **municipal** **lake** **well** **bottle** **cistern**
other _____

*What is your source for utility water? **municipal** **lake** **well** **bottle** **cistern**
other _____

*What type of well do you have? **drilled** **driven** **dug** **shore**
other _____ **?**

*Do you use any of these to treat or disinfect your water? **conditioners** **softeners** **ultraviolet light** **none**
other: _____ *Have you noticed any of these with your drinking water? **discoloration**
cloudiness **odor** **unusual tastes** **none**

*How old is your well? _____

*How deep is your well? _____

*Has your well ever been inspected? **Yes** **No**

*How long has it been since you tested your drinking water? **never** **annually** **2-3yrs**

*Do you have abandoned wells on your property, and have they been properly filled and capped? **Yes** **No**
Yes **No**

*Does your well casing extend less than 12 inches above the ground, so that rainwater won't collect around the well casing? **Yes** **No**

HOUSEHOLD WASTEWATER: SEPTIC SYSTEMS AND OTHER TREATMENT METHODS

*Do you have a: **septic tank** **cesspool** **composting** **aerobic** **outhouse** **holding tank** **municipal** **none**
other _____ *What type of tank do you have? **steel** **concrete** **plastic** **fiberglass** **none**

other _____

*Does your septic system handle: **black water** **grey water** **both** **?**

*How big is your tank? _____

*How many bedrooms does your home have? _____

*How old is your system? _____

*Do you know the exact location of your septic system? **Yes** **No**

*When was your septic tank last pumped? _____

*Have you noticed any signs of a failing septic system such as **slow drains, odors, or soggy ground** over the leach field? **Yes No**

*Do you have any sort of attachments that reduce the use of water and the strain put on your system, like:
low-flow toilets water saving faucets shower heads neither

*Do your drains ever back up or get clogged? **Yes No**

*How far is your leach field from your well? _____

*How far is your leach field from the lake shore? _____

*Is your leach field in an open area of your lawn, away from trees or plants? **YesNo**

*Do you use commercial septic tank additives? **Yes No**

ZEBRA MUSSEL

*Have you observed zebra mussels on your property? **Yes No**

*Have zebra mussels caused any problems on: **cut feet/hands required cleaning of boat clogged**
waterlines water smell or taste more weeds other - explain _____

*Have zebra mussels improved/enhanced anything at your property on Seneca Lake? **Yes No**
Please explain. _____

*What measures have you taken to control zebra mussels from clogging your water line? **none**
installed in-line filter near pump to protect interior plumbing have not installed protection for off shore
component have installed: ceramic or other intake filter shore well foam wrap packaged sand filter
infiltration gallery two-line system other _____

*Approximately how much have you invested in zebra mussel controls? _____

*When was it installed? _____

YARD AND GARDEN CARE

*Do you have areas of bare soil on your property that are susceptible to erosion? **Yes No**

*How close is the edge of your lawn to the lake front? _____

*Do you use fertilizers/pesticides, what do you use? **Yes No** _____

*How many applications of fertilizer/pesticides per year are applied to your lawn? _____

*Do you use a lawn care service, and do they follow Integrated Pest Management practices? **Yes No Yes No ?**

*Do you compost? **Yes No**

*What do you compost? **food & yard only food only yard wastes nothing**

*Where do you compost? **lawn next to lake shore next to stream bed**

MANAGING HOUSEHOLD WASTE: PREVENTING, REUSING, RECYCLING

*Do you participate in you local recycling program? **Yes No**

*Do you buy in bulk to avoid excess packaging? **Yes No**

*Do you burn trash in your backyard, and what do you burn? **all trash just papers don't burn trash**

*What items do you recycle? **paper glass metal oil plastic cardboard yard waste**
all

LEAD IN AND AROUND THE HOME: IDENTIFYING AND MANAGING ITS SOURCES

*Was your home built before 1978? **Yes No**
 *Do children under the age of six live or visit your home? **Yes No**
 *Are painted surfaces inside or outside your home peeling, chipping, or chalking? **Yes No**
 *Does drinking water flow through lead pipes or contact lead solder? **Yes No**
 *Have you had your water tested for pH? **Yes No RESULTS:_____**

LIQUID FUELS: SAFE MANAGEMENT OF GASOLINE, HEATING OIL, DIESEL, AND OTHER

*What do you own? **oil or gas furnace wood stove coal stove fireplace kerosene or gas space heaters electric gas ranges or water heaters none other_____**

*What kind of fuel storage tank do you own? **an aboveground underground basement tank**
neither

*How old is your fuel storage tank? _____
 *How far is you fuel storage tank from your well? _____
 *Do you have any in active or abandoned fuel storage tanks? **Yes No**
 *Do you change your own oil or other car fluids yourself, at home? **Yes No**

INDOOR AIR QUALITY: REDUCING HEALTH RISKS AND IMPROVING THE AIR YOU BREATHE

*Have you had a Carbon Monoxide detector in your home? **Yes No**
 *Have you ever had your home tested for Radon? **Yes No RESULTS:_____**

OPTIONAL HOMEOWNERS NAME & ADDRESS:

TABLE 7I.1. PROPERTY INFORMATION

SURVEY PARTICIPATION THROUGHOUT TOWNS WITHIN THE SENECA LAKE WATERSHED

	TOWNS	RESPONSES	%
BENTON		42	4.3
FAYETTE		67	6.9
GENEVA		95	9.8
HECTOR		121	12.5
LODI		93	9.6
MILO		47	4.8
OVID		9	0.9
READING		61	6.3
ROMULUS		7	0.7
STARKEY		169	17.4
TORREY		178	18.3
VARICK		82	8.4
TOTAL SURVEYS IN ALL TOWNS COLLECTED		971	100

COUNTIES SURVEYED IN THE HOME *A* SYST PROJECT

	COUNTIES	RESPONSES	%
YATES		441	45.4

SENECA	258	26.6
SCHUYLER	182	18.7
ONTARIO	89	9.2
COUNTY LOCATION UNKNOWN	1	0.1
TOTAL SURVEYS COLLECTED FROM ALL COUNTIES	971	100

RESIDENCY OF LAKE FRONT PROPERTY OWNERS

<i>TIME SPENT AT LAKEFRONT PROPERTY</i>	<i>RESPONSES</i>	<i>%</i>
SEASONAL /SUMMER	551	56.7
YEAR ROUND /PERMANENT	407	41.9
RENTAL	10	1.0
RESIDENCY TIME UNKNOWN	3	0.3
TOTAL SURVEYS COLLECTED FOR RESIDENCY	971	100

SEASONAL RESIDENCY USE IN A GIVEN YEAR

	<i>TIME</i>	<i>AVERAGE</i>	<i>AVERAGE IN WEEKS</i>
WEEKENDS		8.1	2.3
WEEKS		4.9	4.9
MONTHS		4.4	17.6
TOTAL AVERAGE		17.4	8.3

**TABLE 7I. 1. PROPERTY
INFORMATION**

DISTANCE HOME IS FROM THE LAKE SHORE

<i>DISTANCE</i>	<i>RESPONSES</i>	<i>%</i>
<50 FEET	413	42.5
<100 FEET	298	30.7
<200 FEET	167	17.2
<500 FEET	48	4.9
>500 FEET	26	2.7
DISTANCE FROM LAKE SHORE UNKNOWN	19	2
TOTAL COLLECTED DISTANCES	971	100

SURVEY PARTICIPATION THROUGHOUT SUBWATERSHEDS

<i>SUBWATERSHEDS</i>	<i>RESPONSES</i>	<i>%</i>
BENTON DRAINAGE	95	9.8
BIG STREAM SUBWATERSHED	37	3.8
CATHARINE CREEK SUBWATERSHED	7	0.7
GENEVA DRAINAGE	33	3.4
GLEN ELDRIDGE SUBWATERSHED	13	1.3
HECTOR FALLS CREEK SUBWATERSHED	9	0.9
INDIAN CREEK SUBWATERSHED	2	0.2
KASHONG CREEK SUBWATERSHED	27	2.8
KENDAIA SUBWATERSHED	2	0.2
KEUKA LAKE OUTLET SUBWATERSHED	27	2.8
LAMOREAUX LANDING DRAINAGE	24	2.5
LODI PT SUBWATERSHED	22	2.3
LONG PT DRAINAGE	116	11.9
MILL CREEK SUBWATERSHED	11	1.1
PLUM POINT SUBWATERSHED	8	0.8
READING DRAINAGE	62	6.4
REED PT DRAINAGE	24	2.5
REEDER CREEK SUBWATERSHED	12	1.2
SAMPSON STATE PARK DRAINAGE	2	0.2
SATTERLY HILL DRAINAGE	30	3.1
SAWMILL/BULLHORN CREEK SUBWATERSHED	33	3.4
SIXTEEN FALLS CREEK DRAINAGE	46	4.7
STARKEY DRAINAGE	146	15.0
SUNSET BAY DRAINAGE	82	8.4
VALOIS DRAINAGE	33	3.4
WILCOX CREEK DRAINAGE	55	5.7
WILSON CREEK SUBWATERSHED	13	1.3
TOTAL	971	100

TABLE 71. 2. DRINKING WATER

<u>SOURCE OF DRINKING WATER</u>		
<i>SOURCE</i>	<i>RESPONSES</i>	<i>%</i>
MUNICIPAL	253	26.1
LAKE	105	10.8
WELL	266	27.4
BOTTLED	363	37.4
CISTERN	1	0.1
SPRING	15	1.5
SHORE WELL	1	0.1

<u>SOURCE OF UTILITY WATER</u>		
<i>SOURCE</i>	<i>RESPONSES</i>	<i>%</i>
MUNICIPAL	254	26.2
LAKE	355	36.6
WELL	338	34.8
BOTTLE	5	0.5
CISTERN	21	2.2
SPRING	16	1.6
DUG WELL	1	0.1
TANKS	1	0.1
SOURCE UNKNOWN	2	0.2

<u>WELL TYPES ON LAKEFRONT PROPERTIES</u>		
<i>WELL TYPE</i>	<i>RESPONSES</i>	<i>%</i>
DRILLED	205	21.1
DRIVEN	56	5.8
DUG	36	3.7
SHORE	198	20.4
SPRING	24	2.5
PUMP PIPE	97	10.0
OTHER	11	1.1
UNKNOWN	51	5.3
NO WELL	293	30.2

<u>TREATMENTS USED TO DISINFECT WATER SUPPLIES</u>		
<i>TREATMENT METHODS</i>	<i>RESPONSES</i>	<i>%</i>
CONDITIONERS	7	0.7
SOFTENERS	37	3.8
ULTRAVIOLET LIGHT	67	6.9
CHLORINE	99	10.2
FILTER	80	8.2
OTHER	35	3.6
NONE	628	64.7
TREATMENT UNKNOWN	147	15.1

<u>PROBLEMS WITH WATER SUPPLIES</u>		
<i>PROBLEMS</i>	<i>RESPONSES</i>	<i>%</i>
DISCOLORATION	41	4.2
CLOUDINESS	33	3.3
ODOR	57	5.8
UNUSUAL TASTE	27	2.7

NONE

746

76.8

AGE OF WELLS

<i>AGE OF WELLS</i>	<i>YEARS</i>
AVERAGE AGE OF WELLS	20.2
NEWEST WELL FOUND	0.003
OLDEST WELL FOUND	175

DEPTH OF WELLS

<i>DEPTH OF WELLS</i>	<i>FEET</i>
AVERAGE DEPTH OF WELLS	62.5
SHORTEST DEPTH OF WELLS	2
DEEPEST DEPTH OF WELLS	350

WELL INSPECTION

<i>INSPECTED WELLS</i>	<i>RESPONSE</i>	<i>%</i>
	S	
WELLS THAT HAVE BEEN INSPECTED	154	15.8
WELLS THAT HAVE NOT BEEN INSPECTED	687	70.7
INSPECTION UNKNOWN	130	13.3
TOTAL	971	100

TESTED WATER SUPPLIES

<i>WATER TESTED</i>	<i>RESPONSE</i>	<i>%</i>
	S	
WATER HAS NEVER BEEN TESTED	526	54.1
WATER IS TESTED ANNUALLY	91	9.3
WATER IS TESTED EVERY 2-3 YEARS	150	15.4
UNKNOWN IF WATER HAS BEEN TESTED	204	21
TOTAL	971	100

ABANDONED WELLS ON LAKEFRONT PROPERTIES

<i>ABANDONED WELLS</i>	<i>RESPONSE</i>	<i>%</i>
	S	
YES, ABANDONED WELLS ARE PRESENT	139	14.3
NO, ABANDONED WELLS ARE NOT PRESENT	801	82.4
UNKNOWN IF ABANDONED WELLS ARE PRESENT	31	3.1
TOTAL	971	100

FILLED OR CAPPED WELLS, OUT OF 170 RESPONSES, TO HAVING ABANDONED WELLS

<i>ABANDONED WELLS FILLED OR CAPPED</i>	<i>RESPONSE</i>	<i>%</i>
	S	
YES, WELLS ARE FILLED OR CAPPED	102	10.5
NO, WELLS ARE NOT FILLED OR CAPPED	32	85.7
UNKNOWN IF THERE ARE WELLS & IF THEY ARE FILLED OR CAPPED	36	3.7
TOTAL	170	100

WELL CASING EXTENDS LESS THAN 12 INCHES FROM THE GROUND SURFACE

<i>WELL CASINGS</i>	<i>RESPONSE</i>	<i>%</i>
	S	
YES, CASING EXTENDS LESS THAN 12 INCHES	170	17.5
NO, CASING IS ABOVE 12 INCHES	686	70.6
CASING HEIGHT UNKNOWN	115	11.8
TOTAL	971	100

TABLE 7I. 3. WASTEWATER TREATMENT

TYPES OF WASTEWATER TREATMENT METHODS

<u>WASTEWATER TREATMENT METHODS</u>	RESPONSES	%
SEPTIC TANK	859	88.4
CESSPOOL	4	0.4
COMPOSTING	8	0.8
AEROBIC	15	1.5
OUTHOUSE	7	0.7
HOLDING TANK	48	4.9
MUNICIPAL	40	4.1
NONE	3	0.3
TWO TANKS	12	1.2
DRY WELL	7	0.7
PORTA POTTY	5	0.5
OTHER	11	1.1

SEPTIC TANK MATERIAL TYPE

<u>TYPE OF MATERIAL</u>	RESPONSES	%
STEEL	100	10.2
CONCRETE	637	65.6
PLASTIC	30	3
FIBERGLASS	23	2.3
NONE	45	4.6
CHICKEN WIRE MESH	1	0.1
GRAVEL SAND & STONE	1	0.1
STONE DRY WELL	1	0.1
DIRT (NO CASING)	1	0.1
BRICK	2	0.2

WATER HANDLED BY SEPTIC SYSTEM

<u>WATER</u>	RESPONSES	%
BLACK WATER	41	4.2
GREY WATER	1	0.1
BOTH	848	87.3
UNKNOWN WHAT SYSTEM HANDLES	81	8.3
TOTAL	971	100

SIZE OF SEPTIC TANK

<u>SIZE</u>	GALLONS
AVERAGE TANK SIZE	918.1
SMALLEST TANK SIZE	20
LARGEST TANK SIZE	5000
TANK SIZE UNKNOWN	324

NUMBER OF BEDROOMS

	NUMBER
AVERAGE NUMBER OF BEDROOMS	2.5
LEAST NUMBER OF BEDROOMS	0
LARGEST NUMBER OF BEDROOMS	22

AGE OF SEPTIC SYSTEMS ON LAKE FRONT PROPERTIES

<u>SYSTEM AGE</u>	YEARS
AVERAGE AGE OF SYSTEM	17.6
NEWEST SYSTEM	0.08
OLDEST SYSTEM	100

**TAB F 71.3. WASTEWATER TREATMENT
KNOWLEDGE OF LOCATION OF WASTEWATER TREATMENT**

KNOWLEDGE OF LOCATION	RESPONSES	%
YES, KNOW LOCATION OF SYSTEM	817	84.1
NO, DO NOT KNOW LOCATION OF SYSTEM	120	12.3
LOCATION OF SYSTEM IS UNKNOWN	34	3.5
TOTAL	971	100

TIME THAT THE SEPTIC SYSTEM WAS LAST PUMPED

TIME	YEARS
AVERAGE TIME SYSTEMS ARE PUMPED	3.1
SHORTEST TIME SYSTEM WENT WITHOUT PUMPING	0.003
LONGEST TIME SYSTEM HAS GONE WITHOUT PUMPING	20

SIGNS OF A FAILING SEPTIC SYSTEM

SIGNS OF SYSTEM	RESPONSES	%
YES, SIGNS THAT SYSTEM IS FAILING	22	2.2
NO, SIGNS THAT SYSTEM IS FAILING	915	94.2
UNKNOWN IF SYSTEM IS FAILING	34	3.5
TOTAL	971	100

WATER SAVING ATTACHMENTS

ATTACHMENTS	RESPONSES	%
LOW-FLOW TOILETS	368	37.8
WATER SAVING FAUCETS	161	16.5
WATER SAVING SHOWER HEADS	338	34.8
NEITHER	439	45.2

CLOGGED DRAINS

	RESPONSES	%
YES, DRAINS GET CLOGGED	22	2.2
NO, DRAINS DON'T GET CLOGGED	843	86.8
UNKNOWN IF DRAINS GET CLOGGED	106	10.9
TOTAL	971	100

DISTANCE FROM LEACHFIELD FROM THE WELL

DISTANCE	FEET
AVERAGE DISTANCE FROM LEACHFIELD TO WELL	120.4
SHORTEST DISTANCE FROM LEACHFIELD TO WELL	10
LONGEST DISTANCE FROM LEACHFIELD TO WELL	700

DISTANCE FROM LEACHFIELD TO LAKESHORE

DISTANCE	FEET
AVERAGE DISTANCE FROM LEACHFIELD TO LAKESHORE	147.8
SHORTEST DISTANCE FROM LEACHFIELD TO LAKESHORE	10
LONGEST DISTANCE FROM LEACHFIELD TO LAKESHORE	1200

LEACHFIELD IS IN OPEN AREA OUT OF 933 RESPONSES, TO HAVING A LEACHFIELD

LOCATION	RESPONSES	%
YES, LEACHFIELD IS IN AN OPEN AREA	603	62.1
NO, LEACHFIELD IS NOT IN AN OPEN AREA	260	26.7
LOCATION OF LEACHFIELD IS UNKNOWN	70	7.2
TOTAL	933	

USE OF COMMERCIAL SEPTIC SYSTEM ADDITIVES

USE OF ADDITIVES	RESPONSES	%
YES, ADDITIVES ARE USED	240	24.7
NO, ADDITIVES ARE NOT USED	688	70.8
USE OF ADDITIVES IS UNKNOWN	43	4.4
TOTAL	971	100

TABLE 7I. 4. ZEBRA MUSSEL

OBSERVATION OF ZEBRA MUSSELS

<i>OBSERVED ZEBRA MUSSELS</i>	<i>RESPONSES</i>	<i>%</i>
YES, ZEBRA MUSSELS HAVE BEEN SPOTTED	862	88.7
NO, ZEBRA MUSSELS HAVE NOT BEEN SPOTTED	104	10.7
OBSERVATION OF ZEBRA MUSSELS UNKNOWN	0.5	0.5
TOTAL	971	100

PROBLEMS CAUSED BY ZEBRA MUSSELS

<i>PROBLEMS</i>	<i>RESPONSES</i>	<i>%</i>
CUT HANDS & FEET	646	66.5
REQUIRED CLEANING OF BOAT	10	1
CLOGGED WATER LINES	20	3
WATERS SMELL OR TASTE	1	0.1
MORE WEEDS	215	22.1
BAD FISHING	11	1.1
ON DOCK	4	0.4
OTHER	11	1.1

IMPROVEMENTS TO LAKE PROPERTY DUE TO ZEBRA MUSSELS

<i>IMPROVEMENTS</i>	<i>RESPONSES</i>	<i>%</i>
YES, ZEBRA MUSSELS HAVE MADE IMPROVEMENTS	259	26.6
NO, ZEBRA MUSSELS HAVE NOT MADE IMPROVEMENTS	619	63.7
ZEBRA MUSSELS IMPROVEMENTS UNKNOWN	93	9.5
TOTAL	971	100

TYPES OF IMPROVEMENTS

<i>IMPROVEMENTS</i>	<i>RESPONSES</i>	<i>%</i>
CLARITY/ CLEANLINESS/ CLEAN WATER	238	24.5
BETTER FISHING	3	0.3
LESS WEEDS	3	0.3
OTHER	13	1.3

MEASURES TAKEN TO CONTROL ZEBRA MUSSELS

<i>MEASURES TAKEN</i>	<i>RESPONSES</i>	<i>%</i>
NONE	896	92.2
INSTALLED IN-LINE FILTER NEAR PUMP TO PROTECT INTERIOR PLUMBING	3	0.3
HAVE NOT INSTALLED PROTECTION FOR OFF SHORE COMPONENT	2	0.2
CERAMIC OR OTHER INTAKE FILTER	12	1.2
SHORE WELL	16	1.6
FOAM WRAP	2	0.2
PACKAGED SAND FILTER	2	0.2
INFILTRATION GALLERY	1	0.1
TWO-LINE SYSTEM	0	0
SCREEN FILTER	13	1.3
OTHER FILTERS	9	0.9
PUT A WELL IN	5	0.5

MONEY SPENT ON ZEBRA MUSSEL CONTROLS

	<i>\$</i>
AVERAGE MONEY SPENT ON ZEBRA MUSSEL CONTROLS	694.2
LEAST AMOUNT OF MONEY SPENT ON ZEBRA MUSSEL CONTROLS	0
MOST MONEY SPENT ON ZEBRA MUSSEL CONTROLS	3,000

TIME OF INSTALLATION OF ZEBRA MUSSEL CONTROL

	<u>TIME</u>	<u>YEARS</u>
AVERAGE NUMBER OF YEARS CONTROL HAS BEEN INSTALLED		2.6
NEWEST INSTALLATION		1
OLDEST INSTALLATION		6

TABLE 7I. 5. YARD AND GARDEN CARE

BARE SOIL AREAS SUSCEPTIBLE TO EROSION

<u>BARE SOIL</u>	<u>RESPONSE</u>	<u>%</u>
	<u>S</u>	
YES, THERE ARE AREAS OF BARE SOIL	148	15.2
NO, THERE ARE NOT AREAS OF BARE SOIL	813	83.7
UNKNOWN IF BARE SOIL IS PRESENT AT SITE	10	1
TOTAL	971	100

DISTANCE THAT LAWN IS FROM THE LAKE SHORE

<u>DISTANCE</u>	<u>FEET</u>
AVERAGE DISTANCE LAWN IS FROM LAKE SHORE	34
SHORTEST DISTANCE LAWN IS FROM THE LAKE SHORE	0
LONGEST DISTANCE LAWN IS FROM THE LAKE SHORE	500

USE OF FERTILIZERS AND PESTICIDES

<u>USE</u>	<u>RESPONSE</u>	<u>%</u>
	<u>S</u>	
YES, FERTILIZERS AND PESTICIDES ARE USED	209	21.5
NO, FERTILIZERS AND PESTICIDES ARE NOT USED	673	69.3
UNKNOWN IF FERTILIZERS AND PESTICIDES ARE USED	89	9.1
TOTAL	971	100

FERTILIZERS/PESTICIDES USED OUT OF 299 RESPONSES

<u>TYPES</u>	<u>RESPONSE</u>	<u>%</u>
	<u>S</u>	
FERTILIZER	45	4.6
WEED -N- FEED	15	1.5
5-10-5 / MILLORGANITE	10	1
ROUND-UP / DANDELION KILLER	9	0.9
ORGANIC FERTILIZER / MANURE	7	0.7
SCOTTS BRAND	5	0.5
PESTICIDES	5	0.5
MIRACLE GROW	5	0.5
OTHER	10	1
TYPE USED UNKNOWN	99	10.1
USAGE UNKNOWN	89	9.1
TOTAL	299	

NUMBER OF APPLICATIONS OF FERTILIZERS AND PESTICIDES

	<u>APPLICATIONS PER YEAR</u>
AVERAGE NUMBER OF APPLICATION PER YEAR	1.5
FEWEST NUMBER OF APPLICATIONS PER YEAR	0.05
LARGEST NUMBER OF APPLICATION PER YEAR	12

USE OF A LAWN CARE SERVICE

USE	RESPONSES	%
YES, LAWN CARE SERVICE IS USED	18	1.8
NO, A LAWN CARE SERVICE IS NOT USED	625	64.3
UNKNOWN IF A LAWN CARE SERVICE IS USED	328	33.7
TOTAL	971	100

USE OF IPM PRACTICES OUT OF 18 LAWN CARE SERVICE USERS

IPM	RESPONSES	%
YES, IPMS ARE FOLLOWED	8	0.8
NO, IPMS ARE NOT FOLLOWED	5	0.5
UNKNOWN IF IPMS ARE FOLLOWED	5	0.5
TOTAL	18	

COMPOSTING

	RESPONSES	%
YES, COMPOST	290	29.8
NO, DO NOT COMPOST	680	70
UNKNOWN IF COMPOSTING TAKES PLACE	1	0.1
TOTAL	971	100

MATERIALS COMPOSTED, OUT OF 290 RESPONSES TO COMPOSTING

MATERIALS	RESPONSES	%
FOOD AND YARD WASTES	153	15.7
ONLY FOOD	34	3.5
ONLY YARD WASTES	98	10
MATERIALS UNKNOWN	5	0.5
TOTAL	290	

LOCATION OF COMPOST, OUT OF 290 RESPONSES TO COMPOSTING

LOCATION	RESPONSES
LAWN	250
NEXT TO LAKE SHORE	7
NEXT TO STREAMBED	5
LOCATION UNKNOWN	28
TOTAL	290

TABLE 7I. 6 HOUSEHOLD WASTE

PARTICIPATION IN RECYCLING PROGRAMS

<i>PARTICIPATION</i>	<i>RESPONSES</i>	<i>%</i>
YES, RECYCLE	879	90.5
NO, DO NOT RECYCLE	85	8.7
PARTICIPATION UNKNOWN	7	0.7
TOTAL	971	100

BUY IN BULK

<i>PARTICIPATION</i>	<i>RESPONSES</i>	<i>%</i>
YES, BUY IN BULK	351	36.1
NO, DO NOT BUY IN BULK	582	59.9
PARTICIPATION UNKNOWN	38	3.9
TOTAL	971	100

BURN TRASH

<i>MATERIALS</i>	<i>RESPONSES</i>	<i>%</i>
ALL TRASH	17	1.7
JUST PAPERS	317	32.6
DON'T BURN TRASH	597	61.4
PARTICIPATION UNKNOWN	40	4.1
TOTAL	971	100

ITEMS RECYCLED

<i>MATERIALS</i>	<i>RESPONSES</i>	<i>%</i>
PAPER	795	81.8
GLASS	817	84.1
METAL	811	83.5
OIL	32	3.2
PLASTIC	791	81.4
CARDBOARD	91	9.3
YARD WASTE	6	0.6
ALL THE ABOVE	43	4.4

TABLE 7I. 7. LEAD IN THE HOME

HOME BUILT BEFORE 1978

<u>TIME OF CONSTRUCTION</u>	RESPONSES	%
YES, BUILT BEFORE 1978	682	70.2
NO, BUILT AFTER 1978	277	28.5
CONSTRUCTION TIME UNKNOWN	12	1.2
TOTAL	971	100

CHILDREN UNDER SIX PRESENT

	RESPONSES	%
YES, CHILDREN PRESENT	270	27.8
NO, CHILDREN NOT PRESENT	550	56.6
UNKNOWN IF CHILDREN ARE PRESENT	151	15.6
TOTAL	971	100

PAINTED SURFACES PEELING, CHIPPING AND CHALKING

	RESPONSES	%
YES, LEAD PAINTS ARE PRESENT	98	10
NO, LEAD PAINTS ARE NOT PRESENT	768	79
UNKNOWN IF LEAD PAINTS ARE PRESENT	105	10.8
TOTAL	971	100

WATER CONTACTS LEAD

	RESPONSES	%
YES, WATER CONTACTS LEAD	102	10.5
NO, WATER DOES NOT CONTACT LEAD	647	66.6
UNKNOWN IF WATER CONTACTS LEAD	222	22.8
TOTAL	971	100

WATER TESTED FOR pH

	RESPONSES	%
YES, WATER HAS BEEN TESTED	83	8.5
NO, WATER HAS NOT BEEN TESTED	619	63.7
UNKNOWN IF WATER HAS BEEN TESTED	269	27.7
TOTAL	971	100

pH RESULTS OUT OF 83 RESPONSES

RESULTS	RESPONSES	%
OKAY	12	1.2
NEUTRAL	7	0.7
ALKALINE	2	0.2
RESULTS UNKNOWN	62	6.3
TOTAL	83	

TABLE 7I. 8. LIQUID FUELS

TYPE OF HEATING SYSTEM

TYPE	RESPONSES	%
-------------	------------------	----------

OIL OR GAS FURNACE	459	47.2
WOOD STOVE	136	14
COAL STOVE	17	1.7
FIRE PLACE	59	6
KEROSENE OR GAS SPACE HEATERS	40	4.1
ELECTRIC	264	27.1
GAS RANGES OR WATER HEATERS	63	6.4
NATURAL GAS	95	7.4
NONE	72	9.7
OTHER	8	0.8

LOCATION OF FUEL STORAGE TANK

<i>LOCATION</i>	<i>RESPONSES</i>	<i>%</i>
ABOVEGROUND	378	38.9
UNDERGROUND	31	3.1
BASEMENT	68	7
NEITHER	468	48.1

AGE OF FUEL STORAGE TANK

<i>TANK</i>	<i>AGE IN YEARS</i>
AVERAGE AGE OF FUEL STORAGE TANKS	10.8
NEWEST FUEL STORAGE TANK	0.06
OLDEST FUEL STORAGE TANK	85

DISTANCE OF FUEL STORAGE TANK FROM WELL

<i>DISTANCE</i>	<i>FEET</i>
AVERAGE DISTANCE FROM TANK TO WELL	90
SHORTEST DISTANCE FROM TANK TO WELL	2
LONGEST DISTANCE FROM TANK TO WELL	700

ABANDONED FUEL STORAGE TANKS PRESENT

	<i>RESPONSES</i>	<i>%</i>
YES, ABANDONED TANKS ARE PRESENT	10	1
NO, ABANDONED TANKS ARE NOT PRESENT	941	96.9
UNKNOWN IF ABANDONED TANKS ARE PRESENT	20	2
TOTAL	971	100

AUTO MAINTENANCE AT HOME / CHANGING OIL

	<i>RESPONSES</i>	<i>%</i>
YES, OIL IS CHANGED AT HOME	46	4.7
NO, OIL IS NOT CHANGED AT HOME	914	94.1
UNKNOWN IF OIL IS CHANGED AT HOME	11	1.1
TOTAL	971	100

TABLE 7I. 9. INDOOR AIR QUALITY

CARBON MONOXIDE DETECTORS IN THE HOME

	<u>RESPONSES</u>	<u>%</u>
YES, THERE HAS BEEN A DETECTOR IN THE HOME	149	15.3
NO, THERE HAS NOT BEEN A DETECTOR IN THE HOME	818	84.2
UNKNOWN IF A DETECTOR HAS BEEN IN THE HOME	4	0.4
TOTAL	971	100

RADON TESTS IN THE HOME

	<u>RESPONSES</u>	<u>%</u>
YES, THE HOME HAS BEEN TESTED FOR RADON	41	4.2
NO, THE HOME HAS NOT BEEN TESTED FOR RADON	921	94.8
UNKNOWN IF THE HOME HAS BEEN TESTED FOR RADON	9	0.9
TOTAL	971	100

RADON TEST RESULTS OUT OF 41 RESPONSES TO RADON TESTS

<i>VARIOUS RESULTS</i>	<u>RESPONSES</u>	<u>%</u>
NORMAL, OR NO RADON PRESENT	11	1.1
VERY LOW LEVELS	3	0.3
NEGATIVE	2	0.2
READING OF 4.5	1	0.1
FAVORABLE	1	0.1
APPROX. 2.9, BORDERLINE	1	0.1
RADON IS PRESENT	1	0.1
RESULTS UNKNOWN	21	2.1
TOTAL	41	

TABLE 7I. 10. HOME*A*SYST POLLUTION POTENTIAL RANKING SYSTEM

QUESTION	RESPONSE OPTION	NUMERIC RANK	QUESTION	RESPONSE
Drinking Water Well Management			Septic/Wastewater Treatment	
1. Drinking water source?	Municipal	1	13. Treatment System?	Septic Tank 2
"	"		"	"
"	Lake	3	"	Cesspool 3
"	Well	2	"	Composting 1
"	Bottle	1	"	Aerobic 1
"	Cistern	3	"	"
"	"		"	Out house 3
2. Type of well?	Other	3	"	Holding Tank 3
"	Drilled	1	"	Municipal 1
"	Driven	1	"	None 1
"	Dug	3	"	Other 2
"	Shore	3	14. Tank type?	Steel 3
"	"		"	"
"	Other	3	"	Concrete 1
3. Treat your water with?	Don't Know	2	"	Plastic 1
"	Ultraviolet Light	1	"	Fiberglass 1
"	None	3	"	None 1
"	Chlorine	1	"	Other 3
"	OTHER	2	15. System handles?	Black water 2
4. Have you noticed?	Discoloration	3	"	Grey water 3
"	Cloudiness	3	"	Both 1
"	Odor	3	"	Don't know 2
"	Unusual Taste	3	16. Tank size?	>1000gal 1
"	None	1	"	<1000gal 3
5. Well age?	<20	1	17. System age?	<10 1
"	<40	2	"	10-25 2
"	>40	3	"	>25 3
6. Well depth?	<20	1	18. Tank last pumped?	<5 1
"	21-35'	2	"	5-10 2
"	>35	3	"	>10 3
7. Well inspected?	Yes	1	19. System failing?	Yes 3
"	No	3	"	No 1
8. Tested water?	Never	3	20. Leach-shore?	>100 1
"	Annually	1	"	50-100 2
"	2-3/yr	1	"	≤50 3
"	Don't know	2	Zebr a Mussel s	
9. Water contains lead?	Yes	3	21. Observe ZM?	Yes 3
"	No	1	"	No 1
10. Fuel tank-well?	>100'	1	22. Problems with ZM?	Cut feet 3
"	50-100'	2	"	Cleaboard 3
"	≤50'	3	"	Clog water lines 3
11. Leach-shore?	>100'	1	"	Water smell/taste 2
"	50-100'	2	"	More weeds 2
"	≤50'	3	"	Other 2
12. Leach-well?	≥100	1	"	None 1
"	<100	3	23. ZM Improvements	Yes 1
Lawn Care			"	No 3
25. Lawn-lake	>20	1	24. Control methods?	None 3
"	≤20	3	"	Inline filter 1
26. Use fert /pest?	Yes	3	"	No offshore 1
"	No	1	"	"
27. #of applications?	0	1	"	Ceramic 1
"	1-2	2	"	Shorewell 1
"	≥3	3	"	Foamwrap 1
"	"		"	Sand 1
28. Lawn care service?	Yes	3	"	"
"	No	1	"	infiltragallery 1
29. IPM?	Yes	1	"	2line 1
"	No	3	"	Other 1
"	Don't know	2	Liquid Fuel s	
30. Compost?	Yes	1	33. Fuel type?	Oil /gas 3
"	No	3	"	Wood 1
"	"		"	Coal 3

QUESTION	RESPONSE OPTION	NUMERIC RANK	QUESTION	RESPONSE OPTION
Drinking Water Well Management			Septic/Wastewater Treatment	
31. What compost?	Food/yard	1	"	"
"	Only food	3	"	Fireplace 1
"	Yard	2	"	Kerosene/gas space3
"	"		"	Electric 1

"	"	Nothing	3	"	"	Gas range	3
32. Where compost?		Lawn	1	"	"	None	1
"	"	Next to lake	3	"	"	Other	2
"	"	Next to stream	3	34. Tank location	Above	ABOVE	2
				"	"	Under	3
				"	"	Basement	2
				"	"	Neither	1
(1=Low, 2=Medium, & 3=High)				35. Tank age?	<10		1
				"	"	11-25	2
				"	"	>25	3
				36. Inactive tanks?	Yes		3
				"	"	No	1

TABLE 7I.11. POLLUTION POTENTIAL RANKING LEVELS FOR SUB-WATERSHEDS

Sub-Watershed or DD	Responses	Drinking Water	Septic Systems	Zebra Mussels	Lawn Care	Fuel Usage	Overall Ranking
Benton DD	95	HIGH	HIGH	MEDIUM	LOW	LOW	MEDIUM
Big Stream	37	MEDIUM	MEDIUM	HIGH	LOW	MEDIUM	MEDIUM
Catharine Creek	7	HIGH	HIGH	LOW	HIGH	MEDIUM	HIGH
Geneva DD	33	LOW	LOW	LOW	LOW	LOW	LOW
Glen Eldridge	13	MEDIUM	HIGH	HIGH	LOW	MEDIUM	MEDIUM
Hector Falls Creek	9	LOW	HIGH	HIGH	MEDIUM	LOW	NEDIUM
Indian Creek	2	HIGH	MEDIUM	MEDIUM	HIGH	HIGH	HIGH
Kashong Creek	27	MEDIUM	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
Kendaia Creek	2	LOW	MEDIUM	HIGH	MEDIUM	MEDIUM	MEDIUM
Keuka Lake Outlet	27	LOW	MEDIUM	LOW	LOW	LOW	LOW
Lamoreaux Landing DD	24	HIGH	HIGH	LOW	LOW	MEDIUM	MEDIUM
Lodi Point	22	HIGH	MEDIUM	HIGH	LOW	MEDIUM	MEDIUM
Long Point DD	116	MEDIUM	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
Mil Creek	11	HIGH	MEDIUM	LOW	LOW	LOW	MEDIUM
Plum Point Cr.	8	MEDIUM	MEDIUM	LOW	MEDIUM	MEDIUM	MEDIUM
Reading DD	62	MEDIUM	MEDIUM	MEDIUM	LOW	LOW	MEDIUM
Reed Point DD	24	LOW	MEDIUM	HIGH	MEDIUM	LOW	MEDIUM
Reeder Creek	12	MEDIUM	HIGH	LOW	MEDIUM	MEDIUM	MEDIUM
Sampson State Park DD	2	MEDIUM	LOW	HIGH	HIGH	HIGH	HIGH
Satterly Hill DD	30	HIGH	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
Sawmill/ Bullhorn Creek	33	MEDIUM	MEDIUM	MEDIUM	MEDIUM	LOW	MEDIUM
Sixteen Falls Creek DD	46	HIGH	HIGH	MEDIUM	MEDIUM	MEDIUM	HIGH
Starkey DD	146	MEDIUM	MEDIM	MEDIUM	LOW	LOW	MEDIUM
Sunset Bay DD	82	MEDIUM	HIGH	LOW	MEDIUM	MEDIUM	MEDIUM
Valois DD	33	HIGH	HIGH	MEDIUM	MEDIUM	LOW	MEDIUM
Wilcox Cr. DD	55	MEDIUM	HIGH	LOW	MEDIUM	MEDIUM	MEDIUM
Wilson Creek	13	MEDIUM	HIGH	HIGH	MEDIUM	LOW	MEDIUM
Total	971	MEDIUM	HIGH	MEDIUM	MEDIUM	LOW	MEDIUM

TABLE 71.12. SUB-WATERSHED OR DD RANKING BY ISSUE

Drinking Water

HIGH –

Direct Drainages - Benton, Lamoreaux Landing, Satterly Hill, Sixteen Falls Creek and Valois

Sub-watersheds - Catharine Creek, Indian Creek, Lodi Point and Mill Creek

MEDIUM –

Direct Drainages - Long Point, Reading, Sampson State Park, Starkey, Sunset Bay and Wilcox Creek

Sub-watersheds - Big Stream, Glen Eldridge, Kashong Creek, Plum Point, Reeder Creek, Sawmill/Bullhorn Creek and Wilson Creek

LOW –

Direct Drainages – Geneva and Reed Point

Sub-watersheds – Hector Falls Creek, Kendaia and Keuka Lake Outlet

Septic Systems

HIGH-

Direct Drainages – Benton, Lamoreaux Landing, Sixteen Falls Creek, Sunset Bay, Valois and Wilcox Creek

Sub-watersheds – Catharine Creek, Glen Eldridge, Hector Falls Creek, Reeder Creek and Wilson Creek

MEDIUM –

Direct Drainages – Long Point, Reading, Reed Point, Satterly Hill and Starkey

Sub-watersheds – Big Stream, Indian Creek, Kashong Creek, Kendaia, Keuka Lake Outlet, Lodi Point

Mill Creek, Plum Point and Sawmill/Bullhorn Creek

LOW –

Direct Drainages – Geneva and Sampson State Park

Zebra Mussels

HIGH –

Direct Drainages – Reed Point and Sampson State Park

Sub-watersheds – Big Stream, Glen Eldridge, Hector Falls Creek, Kendaia, Lodi Point and Wilson Creek

MEDIUM –

Direct Drainages – Benton, Long Point, Reading, Satterly Hill, Sixteen Falls Creek, Starkey and Valois

Sub-watersheds – Indian Creek, Kashong and Sawmill/Bullhorn Creek

LOW –

Direct Drainages – Geneva, Lamoreaux Landing, Sunset Bay and Wilcox Creek

Sub-watersheds – Catharine Creek, Keuka Lake Outlet, Mill Creek, Plum Point and Reeder Creek

Lawn

HIGH –

Direct Drainages – Sampson State Park
Sub-watersheds – Catharine Creek and Indian Creek

MEDIUM –

Direct Drainages – Long Point, Reed Point, Satterly Hill, Sixteen Falls Creek, Sunset Bay, Valois and Wilcox
Sub-watersheds – Hector Falls Creek, Kashong Creek, Kendaia, Plum Point, Reeder Creek, Sawmill/Bullhorn Creek and Wilson Creek

LOW –

Direct Drainages – Benton, Geneva, Lamoreaux Landing, Reading and Starkey
Sub-watersheds – Big Stream, Glen Eldridge, Keuka Lake Outlet, Lodi Point and Mill Creek

Fuel

HIGH –

Direct Drainages – Sampson State Park,
Subwatersheds – Indian Creek

MEDIUM –

Direct Drainages – Lamoreaux Landing, Sixteen Falls Creek, Sunset Bay and Wilcox Creek
Sub-watersheds – Big Stream, Catharine Creek, Glen Eldridge, Kendaia, Lodi Point, Plum Point and Reeder Creek

LOW –

Direct Drainages – Benton, Geneva, Long Point, Reading, Satterly Hill, Starkey and Valois
Sub-watersheds – Hector Falls Creek, Kashong Creek, Keuka Lake Outlet, Mill Creek, Reed Point, Sawmill/Bullhorn Creek and Wilson Creek

OVERALL SUBWATERSHED RANKING

HIGH -

Direct Drainages – Sampson State Park and Sixteen Falls Creek
Sub-watersheds – Indian Creek and Catharine Creek

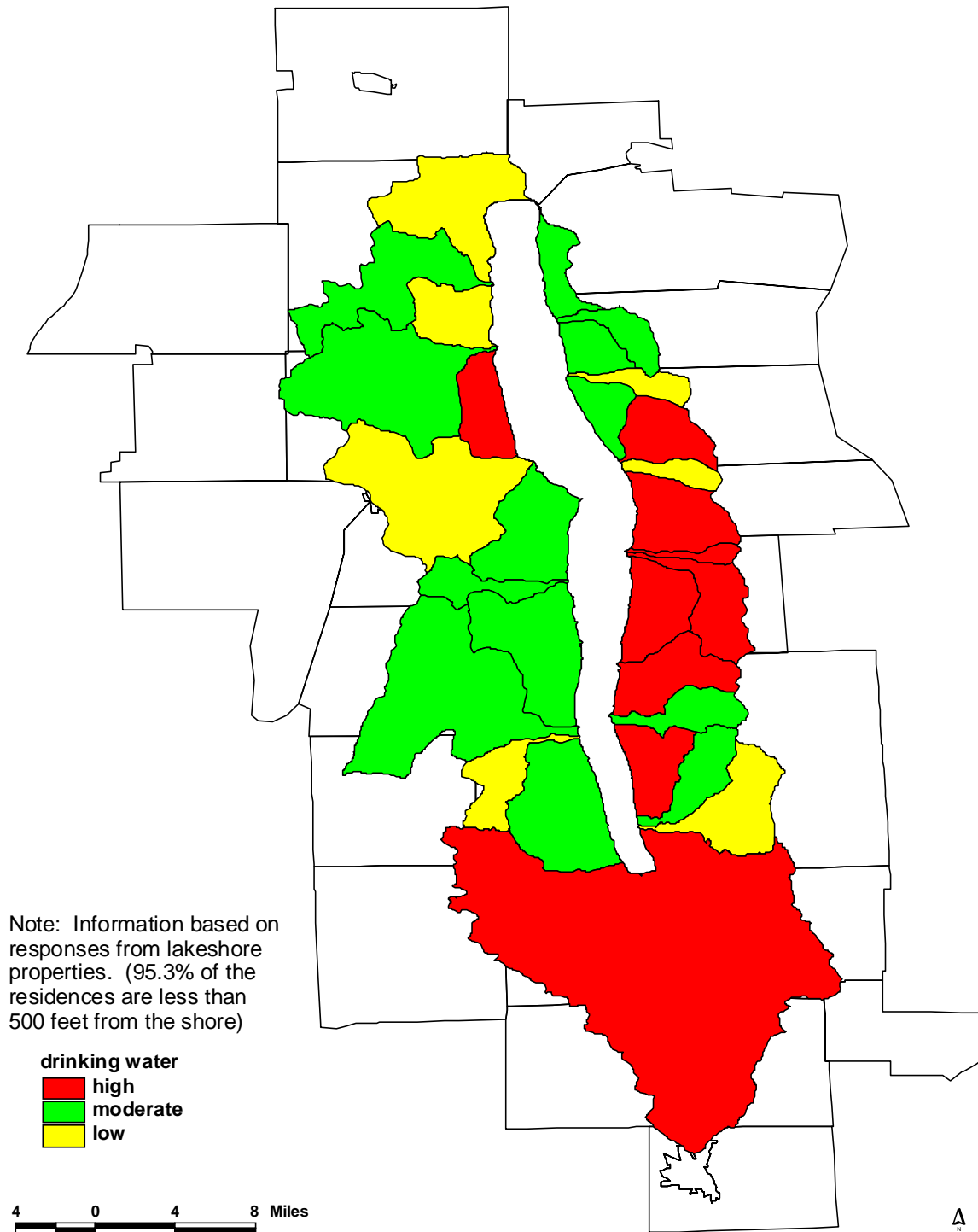
MEDIUM –

Direct Drainages – Benton, Lamoreaux Landing, Long Point, Reading, Reed Point, Satterly Hill, Starkey, Sunset Bay, Valois and Wilson Creek
Sub-watersheds – Big Stream, Glen Eldridge, Hector Falls Creek, Kashong Creek, Kendaia, Lodi Point, Mill Creek, Plum Point, Reeder Creek, Sawmill/Bullhorn Creek and Wilson Creek

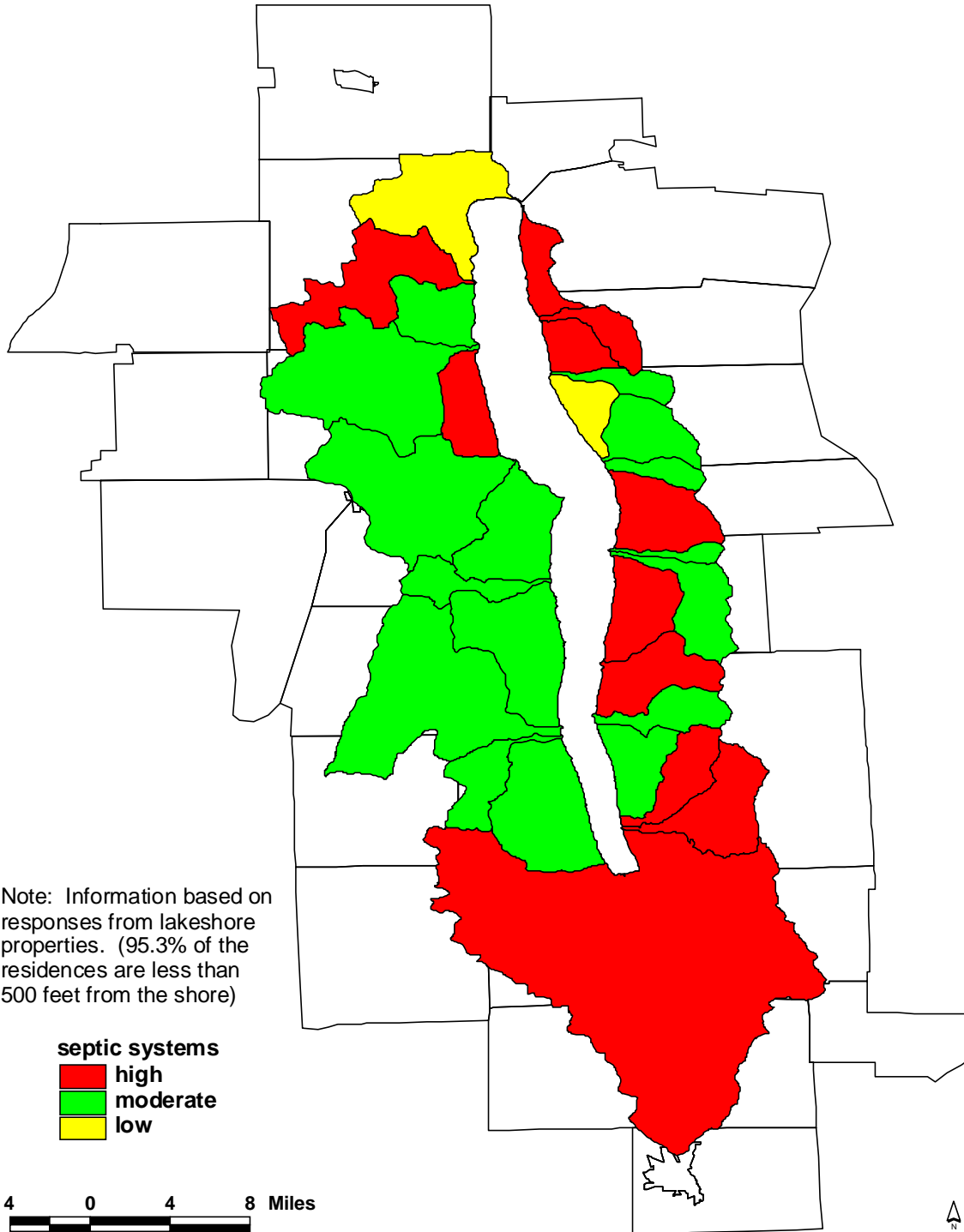
LOW –

Direct Drainages – Geneva
Sub-watersheds – Keuka Lake Outlet

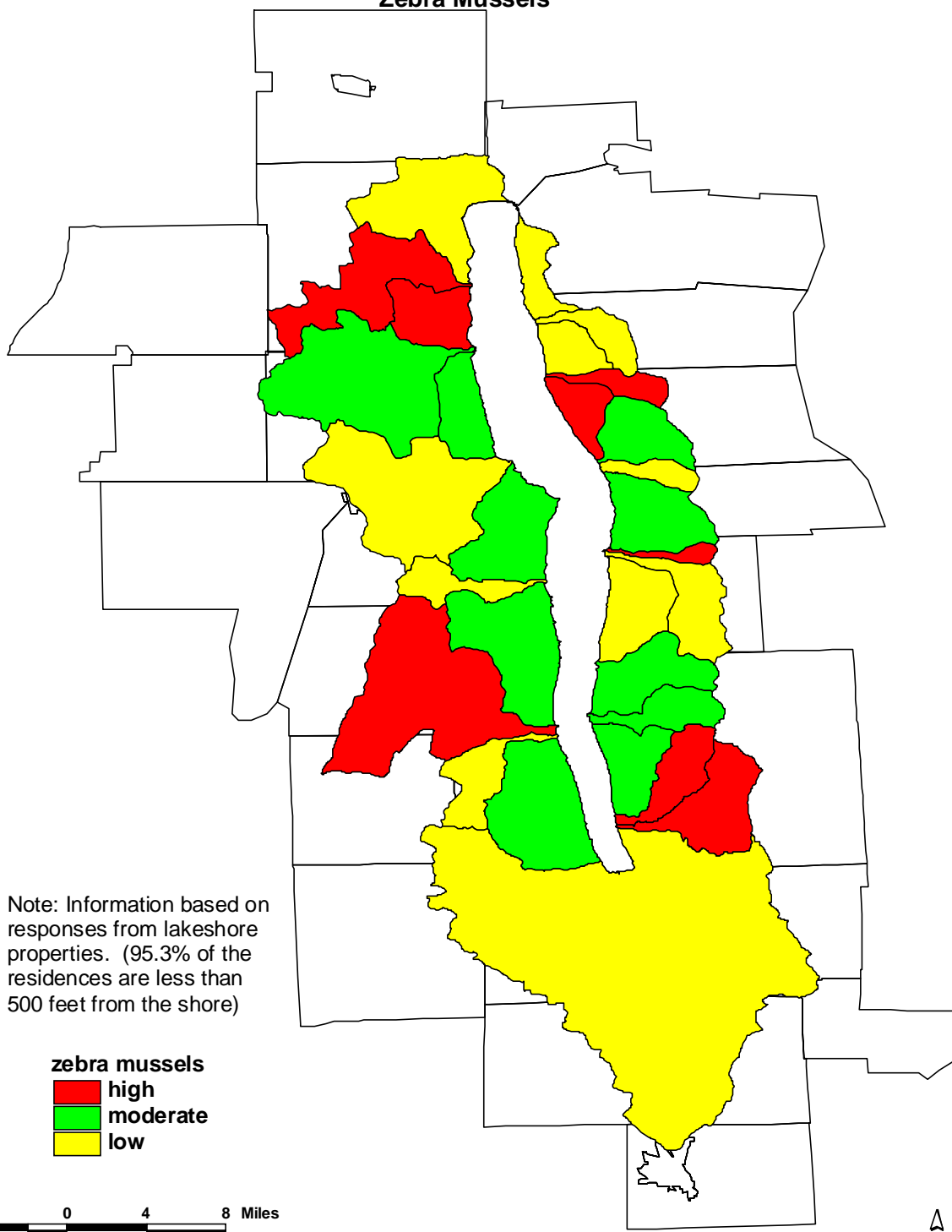
**Lakeside Residences With Potential Pollution Problems By Sub-Watershed
Drinking Water / Well Management**



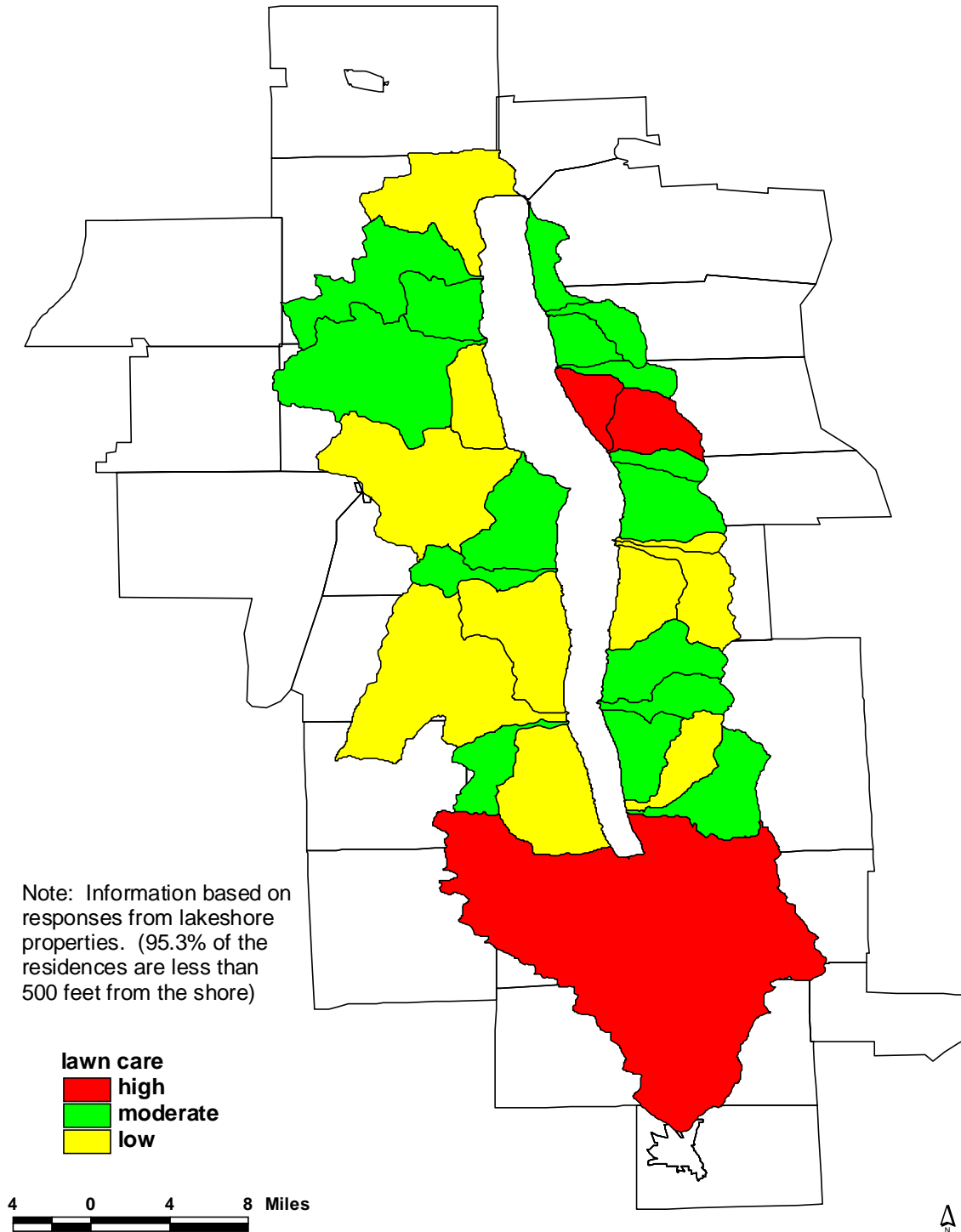
Lakeside Residences With Potential Pollution Problems By Sub-Watershed Septic Systems / Wastewater Treatment



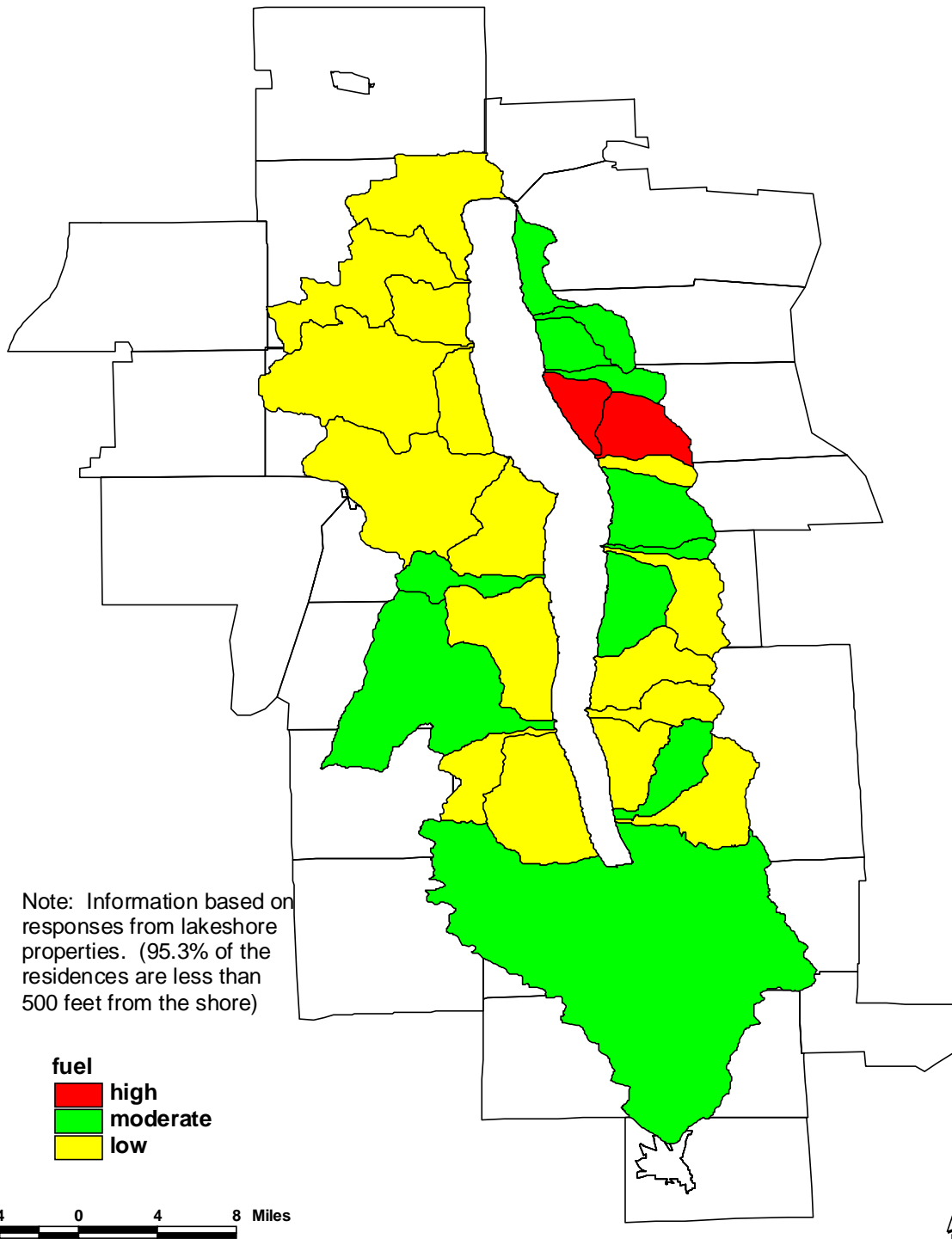
Lakeside Residences With Potential Pollution Problems By Sub-Watershed Zebra Mussels



Lakeside Residences With Potential Pollution Problems By Sub-Watershed Lawn Care



Lakeside Residences With Potential Pollution Problems By Sub-Watershed Liquid Fuel Management



Lakeside Residences With Potential Pollution Problems By Sub-Watershed Overall Ranking

