

Attachment E

PILOT EXPOSURE INVESTIGATION QUESTIONNAIRE

NOTE TO REVIEWERS

Readability has been calculated using the Flesch-Kincaid method for determining grade level at the 5.5th grade level.

**MICHIGAN DEPARTMENT OF COMMUNITY HEALTH
DIVISION OF ENVIRONMENTAL AND OCCUPATIONAL EPIDEMIOLOGY**

**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
U.S. PUBLIC HEALTH SERVICE
AGENCY FOR TOXIC SUBSTANCES AND DISEASE REGISTRY**

PILOT EXPOSURE INVESTIGATION QUESTIONNAIRE

Subject ID number: _____

Interviewer ID number: _____

Interview Date: (dd/mm/yyyy)

Interview Time: **Beginning** (hh:mm)
am/pm

(circle 1)
am/pm **Ending** (hh:mm)

(circle 1)

In this survey, instructions are in *ITALICS*, and readings are both in “quotes” and **BOLD** print.

SURVEY PARTICIPANT INFORMATION

The following questions should be asked beginning with: “What is your (Age)?”

1. Full/official Name	<div style="display: flex; justify-content: space-between; margin: 0;"> First Middle Last </div>
2. Date of Birth	(mm/dd/yyyy)
3. Age (in years) _____	<i>(*note: If Age is less than 18 years, then INELIGIBLE)</i>
4. Ethnicity (please circle only one)	1. Hispanic/Latino 2. Non-Hispanic 3. Don't Know (DK) 4. Refused
5. Race (please circle one or more)	1. White 2. Black, African American 3. American Indian, Alaska Native 4. Asian 5. Native Hawaiian, Other Pacific Islander 6. Other race Specify: _____ 7. DK 8. Refused
6. Home Address	Street Address: Apt/Lot #: City: State: Zip code:

7. Mailing Address (if different than the Home Address)	Mailing Address: Apt/Lot #: City: State: Zip code:	
8. Telephone and Internet Contact Information	Home: () Work: () Cell: () Other: () Internet Address	Ext:
<p>9. Contact Information: “We would like to get a little information to help us if we wanted to locate you in the future. Just in case you have moved to another residence, could we please have two names and addresses of people in separate locations who live outside of your household and who would always know how to find you?”</p> <p>1. Yes - continue - 2. No -Skip to Eligibility -</p>		
<p>If YES, then “Please provide the contact information now” under questions 10 and 11.</p>		
<p>10. First Name: Last Name: Mailing Address: Apt/Lot #: City: State: Zip code: Telephone number: () Relationship (circle 1)</p> <ul style="list-style-type: none"> 1. Parent 2. Grandparent 3. Friend 4. Neighbor 5. Coworker 6. Other <p>Specify: _____</p>	<p>11. First Name: Last Name: Mailing Address: Apt/Lot #: City: State: Zip code: Telephone number: () Relationship (circle 1)</p> <ul style="list-style-type: none"> 1. Parent 2. Grandparent 3. Friend 4. Neighbor 5. Coworker 6. Other <p>Specify: _____</p>	

ADDITIONAL PERSONAL INFORMATION

12. Have you lost weight in the last year? If **YES**, please indicate the amount. _____ pounds

13. Have you gained weight in the last year? If **YES**, please indicate the amount. _____ pounds

Have you ever lived at any other address(es) on the Tittabawassee River flood plain? If **YES**, please give the prior address(es) and the dates that you lived there:

<p>14. Dates lived at address (mm/dd/yyyy)</p> <p>From: _____ To: _____</p> <p>Street Address: _____</p> <p>Apt/lot #: _____</p> <p>City: _____</p> <p>Zip code: _____</p>	<p>15. Dates lived at address (mm/dd/yyyy)</p> <p>From: _____ To: _____</p> <p>Street Address: _____</p> <p>Apt/lot #: _____</p> <p>City: _____</p> <p>Zip code: _____</p>
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16. *WOMEN ONLY*: How many live-born children have you given birth to?
(if none, then please enter "0") _____ children

17. *WOMEN ONLY*: For each child, please provide the year of birth and an estimate of the number of months that your child was breast-fed as the main source of nutrition.

<p><i>*If more than 6 children, please use the margins or the back of the page.</i></p>	<p>(oldest to youngest) Birth Order : 1st 2nd 3rd 4th 5th 6th</p> <p style="text-align: center;">Birth Year : _____</p> <p>The Number of Months Breast Fed : _____</p>
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MISCILLANEOUS HOME INFORMATION

<p>17. Do you have pets IN your home other than fish?</p>	<p>1. Yes -continue - 2. No -SKIP to question # 24 - 3. DK -SKIP to question # 24 - 4. Refused -SKIP to question # 24 -</p>
<p>19. Please describe the species and numbers of each type of pet that live in your home: (Example: 2 dogs and 1 cat)</p> <p style="text-align: center;">-----</p>	
<p>20. In the past year, have you used <u>pesticides</u>, <u>herbicides</u>, or <u>fungicides</u>, in your home, garden or on your pets? (Examples: bug/weed killer; flea/tick sprays, collars, powders, or shampoo)</p> <p>1. Yes 2. No 3. DK 4. Refused</p>	
<p>21. Have you ever eaten fruits or vegetables that were grown in a garden located in the flood plain of the Tittabawassee River?</p> <p>1. Yes 2. No 3. DK 4. Refused</p>	
<p>22. Have you ever eaten eggs from fowl that were kept on property in the flood plain of the Tittabawassee River?</p> <p>1. Yes 2. No 3. DK 4. Refused</p>	<p>26b. IF YES, What species of bird eggs do you eat?</p> <p style="text-align: center;">-----</p>

23. Does your drinking or cooking water come from a <u>private well</u> ?	1. Yes -continue - 2. No - SKIP to Smoking History - 3. DK - SKIP to Smoking History - 4. Refused - SKIP to Smoking History -
24. Has the well pipe or casing that sticks out of the ground or out of your basement floor ever become submerged under water during a flooding of the Tittabawassee River? 1. Yes 2. No 3. DK 4. Refused	

SMOKING HISTORY

25. Have you ever smoked cigarettes?	1. Yes -Continue- 2. No - SKIP to Occupational History 3. DK - SKIP to Occupational History 4. Refused - SKIP to Occupational History
26. Have you smoked cigarettes in the past 5 yrs?	1. Yes 2. No 3. DK 4. Refused
27. Do you currently smoke cigarettes?	1. Yes -Continue - 2. No - SKIP to Occupational History 3. DK - SKIP to Occupational History 4. Refused - SKIP to Occupational History
28. How many cigarettes do you smoke in a day?	1. Up to ½ pack a day 2. Up to 1 pack a day 3. Up to 1 ½ packs a day 4. Up to 2 packs a day 5. Over 2 packs a day

OCCUPATIONAL HISTORY

29. Considering all the jobs or businesses you have ever had, what kind of work did you do the longest (including the Armed Forces)? (If you have NEVER worked, SKIP to <u>Dioxin Exposure</u>)	Occupation: _____
30. What were your most significant activities or duties when you were doing (<u>occupation in #33</u>)?	Activities/Duties: _____
31. How long did you work as a (<u>occupation in #33</u>)? (Enter '0' if less than 1 year)	_____ years
32. How old were you when you started your first job as a (<u>occupation in #33</u>)?	_____ Age (in years)
33. In what kind of business or industry did you do (<u>occupation in #33</u>) the longest? (Examples: TV/radio manufacturing, Farm, Retail shoe store, State Labor Dept.)	Industry: _____

<p>34. In THE PAST 12 MONTHS, have you worked at any job or business, not counting work around the house? (Includes unpaid work at family business or farm)</p>	<p>1. Yes, and still currently working -Skip to #40 2. Yes, but NOT currently working -continue- 3. No -continue -</p>
<p>35. How long has it been since you last worked at a job or business? (Please circle the <u>unit of time</u> wks/mo/yrs)</p>	<p>_____ weeks / months / years (circle 1)</p>
<p>36. Considering your current or most recent job/business, for whom do/did you work? (Name of company, business, organization etc.)</p>	<p>Employer: _____</p>
<p>37. What kind of business or industry is this? (Examples: TV/radio manufacturing, farm, retail shoe store, State Labor Dept.)</p>	<p>Industry: _____</p>
<p>38. What kind of work are/were you doing? (Examples: electrical engineer, stock clerk, farmer)</p>	<p>Occupation: _____</p>
<p>39. What are/were the most important activities or duties at your job? (Examples: typing, filing, sell cars, press operator)</p>	<p>Activities/Duties: _____</p>
<p>40. For how long did you work for (<u>employer in #40</u>) as a (<u>occupation in #42</u>)? (Please circle the <u>unit of time</u> wks/mo/yrs)</p>	<p>_____ weeks / months / years (circle 1)</p>
<p>41. Including <u>ALL</u> of your past employers, for how long did you work as a (<u>occupation in #42</u>)?</p>	<p>_____ weeks / months / years (circle 1)</p>
<p>42. How old were you when you started your first job as a (<u>occupation in #42</u>)?</p>	<p>_____ Age (in years)</p>

DIOXIN EXPOSURE

Have you EVER been employed...

(This includes all permanent, temporary, or seasonal; full-time or part-time work and military experience)

If **YES** for any job, please provide employment START and END dates, the Company name and a Job Title/Description.

Job Description/Activities	(Circle Answer)			START Date	END Date	Company Name	Job Title/Description
	YES	NO	DK				
43. In the commercial application manufacture, or formulation, of the herbicide 2,4-D, 2,4,5-T, or any other related compounds?	YES	NO	DK				
44. In the manufacture or formulation of hexachlorophene? (Examples: Phiso hex, Septisol, Septofen, Dermadex)	YES	NO	DK				
45. In the direct handling, transportation, or disposal of phenolic or pesticide hazardous waste? (Examples: Insecticide, Kill-A-Mite, Karbofos, Melathion, Parathion)	YES	NO	DK				
46. In the use of pentachlorophenol? (Examples: Fungifen, Liroprem, Lauxton, Permasan, Woodtreat)	YES	NO	DK				
47. In forestry brush control or hardwood eradication?	YES	NO	DK				
48. In highway or railroad right-of-way clearance?	YES	NO	DK				
49. In chemical warehouse operations?	YES	NO	DK				
50. In paper-mill pond management?	YES	NO	DK				
51. In hazardous or solid waste incineration?							
52. As a hazardous waste worker?	YES	NO	DK				

FOOD SECTIONS-

FISH CONSUMPTION Please circle your answer or fill in the blank when appropriate.

<p>53. Have you EVER <u>eaten</u> any sport-caught fish from Michigan lakes or streams? <i>(Sport-caught means not purchased; can be caught by you or a friend or relative, etc. It can be eaten fresh, frozen, smoked, etc. Getting it in a restaurant does not count.)</i></p>	<p>1. Yes -Continue-</p>	<p>2. No Go to Wild-Game Consumption</p>	<p>3. DK Go to Wild-Game Consumption</p>	<p>4. Refuse Go to Wild-Game Consumption</p>								
<p>54. For how many years have you been eating sport-caught fish? <i>(If you have NOT eaten any sport-caught fish in the past 5 years, please write '0' and skip to the next section; Wild-Game Consumption)</i></p>		<p>I have been eating sport-caught fish for about _____ years.</p>										
<p>55. Have you EVER <u>eaten</u> any sport-caught fish from the Saginaw River or the Saginaw Bay?</p>	<p>1. Yes -Continue-</p>	<p>2. No Go to Wild-Game Consumption</p>	<p>3. DK Go to Wild-Game Consumption</p>	<p>4. Refuse Go to Wild-Game Consumption</p>								
<p>56. What is your best estimate of the average number of meals of any fish that you have eaten from the Saginaw River or the Saginaw Bay in the past 5 years? <i>(Please write the average number of fish meals per month and then again per year)</i></p>	<p>_____ meals per month (x 12 =) _____ meals per year</p>											
<p>57. Have you EVER <u>eaten</u> any sport-caught fish from the Tittabawassee River within or between the cities of Midland and Saginaw?</p>	<p>1. Yes -Continue-</p>	<p>2. No Go to Wild-Game Consumption</p>	<p>3. DK Go to Wild-Game Consumption</p>	<p>4. Refuse Go to Wild-Game Consumption</p>								
<p>58. What is your best estimate of the average number of meals of any fish that you have eaten from the Tittabawassee River in the past 5 years? <i>(Please write the average number of fish meals per month and then again per year)</i></p>	<p>_____ meals per month (x 12 =) _____ meals per year</p>											
<p>59. Since you first began eating sport-caught fish from the Tittabawassee River, how has the amount of fish you have eaten changed in the past 5 years? <i>(If you have been eating these fish for less than or about 5 years, then circle choice #3 <u>Remained about the same.</u>)</i></p>	<table> <tr> <td>1. Increased a lot</td> <td>5. Decreased a lot</td> </tr> <tr> <td>2. Increased somewhat</td> <td>6. DK</td> </tr> <tr> <td>3. Remained about the same</td> <td>7. Refuse</td> </tr> <tr> <td>4. Decreased somewhat</td> <td></td> </tr> </table>				1. Increased a lot	5. Decreased a lot	2. Increased somewhat	6. DK	3. Remained about the same	7. Refuse	4. Decreased somewhat	
1. Increased a lot	5. Decreased a lot											
2. Increased somewhat	6. DK											
3. Remained about the same	7. Refuse											
4. Decreased somewhat												

FISH CONSUMPTION cont.

Please identify all fish species that you have eaten from the Tittabawassee River by checking the appropriate columns and also fill in the average number of meals per year for the past year, and for the past 5 years.	Currently	How Often this past year	Past History	How Often in the past	Never	
(Example) 999. Catfish	“I used to eat Catfish about once a week (4/month, 48/year) but in the past year, only about once a month (1/month, 12/yr).”	✓	12 meals/yr	✓	48 meals/yr	
60. Catfish/Bullhead						
61. Carp/Suckers						
62. Walleye/Perch						
63. Pike/Pickerel/Muskellunge						
64. Bass						
65. Pan fish (Bluegills, Sunfish, Crappie, etc.)						
66. Steelhead/Trout/Salmon						
67. Smelt						
68. Lamprey						
69. Other Species Specify: _____						

WILD GAME CONSUMPTION

Please circle your answer or fill in the blank when appropriate.

<p>70. Have you EVER eaten any locally harvested wild game? <i>(Locally harvested means not purchased; can be hunted by you or a friend or relative, etc. It can be eaten fresh, frozen, smoked, etc. Getting it in a restaurant does not count.)</i></p>	<p>1. Yes -Continue -</p>	<p>2. No -Go to Meat Consumption</p>	<p>3. Don't Know -Go to Meat Consumption</p>	<p>4. Refuse -Go to Meat Consumption</p>
<p>71. For how many years have you been eating wild game? <i>(If you have NOT eaten any game in the <u>past 5 years</u>, please <u>write '0'</u> and <u>skip to the next section; Meat Consumption</u>)</i></p>		<p>I have eaten sport-wild game for about ____ years.</p>		
<p>72. Have you EVER eaten any wild game harvested nearby to the Tittabawassee River Flood Plain between the cities of Midland and Saginaw?</p>	<p>1. Yes -Continue-</p>	<p>2. No -Go to Meat Consumption</p>	<p>3. Don't Know -Go to Meat Consumption</p>	<p>4. Refuse -Go to Meat Consumption</p>
<p>73. Since you first began eating wild game harvested from the Tittabawassee River Flood Plain, how has the amount of game you have eaten changed in the past 5 years? <i>(If you have been eating these game animals for less than or about 5 years, then circle choice #3 <u>Remained about the same.</u>)</i></p>		<p>1. Increased a lot 2. Increased somewhat 3. Remained about the same 4. Decreased somewhat 5. Decreased a lot 6. DK 7. Refuse</p>		
<p>74. What is your best estimate of the average number of meals of any wild game that you have eaten from the Flood Plain in the past 5 years? <i>(Please write the average number of game meals per month and then again per year)</i></p>	<p>_____ meals per month (x 12 =) _____ meals per year</p>			

WILD GAME CONSUMPTION cont.		Currently	How Often this past year	Past History	How Often in the past	Never
Please identify all game species that you have eaten from the Tittabawassee River Flood Plain area by checking the appropriate columns and also fill in the average number of meals per year for the past year, and for the past 5 years.		“I have eaten this species of game in the <u>past year</u> .”	The average number of meals per year in this past year.	“I have eaten this species of game before, but NOT in the past year.”	The avg number of meals/yr in the <u>past 5 years</u> .	“I have never eaten this species of game Flood Plain.”
(Example)						
999. Rabbit	“I used to eat rabbit about once a week (4/month, 48/year) but in the past year, only about once a month (1/month, 12/yr).”	✓	12 meals/yr	✓	48 meals/yr	
75. Rabbit/Squirrel						
76. Whitetail Deer						
77. Wild Turkey						
78. Wild Ducks/Geese						
79. Pheasant/Grouse/Quail						
80. Woodcock						
81. Raccoon/Opossum/Groundhog/Woodchuck						
82. Muskrat						
83. Frog/Turtle/Snake						
84. Other Species Specify: _____						

MEAT CONSUMPTION

Please circle your answer or fill in the blank when appropriate.

85. Have you EVER <u>eaten</u> any Home-Raised Meat ? <i>(Home-Raised means not purchased and not a wild animal; must be raised by you or a friend or relative for the purpose of human consumption. Getting it in a restaurant does not count.)</i>	1. Yes -Continue-	2. No -Go to END	3. Don't Know -Go to END	4. Refuse -Go to END
86. For how many years have you been eating home-raised meat? <i>(If you have NOT eaten any home-raised meat in the <u>past 5 years</u>, please <u>write '0'</u> and <u>skip to the END</u>)</i>	I have been eating home-raised meat for about ____ years.			
87. Have you EVER <u>eaten</u> any home-raised meat from your home or a friend or relative's home located on the Tittabawassee River Flood Plain within or between the cities of Midland and Saginaw.	1. Yes -Continue-	2. No -Go to END	3. Don't Know -Go to END	4. Refuse -Go to END
88. Since you first began eating home-raised meat from the Tittabawassee River Flood Plain, how has the amount of home-raised meat you have eaten changed in the past 5 years? <i>(If you have been eating home-raised meat for less than or about 5 years, then circle choice #3 <u>Remained about the same.</u>)</i>	1. Increased a lot 2. Increased somewhat 3. Remained about the same 4. Decreased somewhat 5. Decreased a lot 6. DK 7. Refuse			
89. What is your best estimate of the average number of meals of any home-raised meat that you have eaten from the Tittabawassee River Flood Plain in the past 5 years? <i>(Please write the average number of home-raised meat meals per month and then again per year)</i>	_____ meals per month (x 12 =) _____ meals per year			

MEAT CONSUMPTION cont.

MEAT CONSUMPTION cont.	Currently	How Often this past year	Past History	How Often in the past	Never
<p>Please identify all home-raised animal species that you have eaten that was raised on the Tittabawassee River Flood Plain by checking the appropriate columns and also fill in the average number of meals per year for the past year, and for the past 5 years.</p>	<p>“I have eaten meat from this species of animal, raised on the Flood Plain in the <u>past year</u>.”</p>	<p>The average number of meals per year in this past year.</p>	<p>“I have eaten meat from this species of animal, raised on the Flood Plain before, but NOT in the past year.”</p>	<p>The avg number of meals/yr in the <u>past 5 years</u>.</p>	<p>“I have never eaten meat from this species of animal, raised on the Flood Plain before.”</p>
<p>(Example) 999. Chicken</p>	<p>“I used to eat home-raised chicken about once a week (4/month, 48/year) but in the past year, only about once a month (1/month, 12/yr).”</p>	<p>✓</p>	<p>12 meals/yr</p>	<p>✓</p>	<p>48 meals/yr</p>
90. Chicken					
91. Turkey					
92. Domesticated Duck/Goose					
93. Cow (Beef/Steak/Burger)					
94. Pig (Pork)					
95. Rabbit					
96. Turtle/Frog					
97. Other Species Specify: _____					

-THE END –

“ Thank you for taking the time to answer these very important questions.

The questionnaire portion of this investigation is now finished. If you have any questions about this investigation or the questions that we have asked you, or if you would like to make a correction to any of your recorded answers, please contact the principal investigator as described on the Informed Consent form.”