

Appendix A
Draft National Fish Advisory Program Evaluation

**United States Environmental Protection Agency
Voluntary Information Collection for the
National Fish Advisory Program Evaluation**

EPA is collecting the following information from states¹ and tribes on a voluntary basis, once during the three-year period of this ICR. Specifically, EPA is interested in fish program information for the National Fish Advisory Program Evaluation, from state or tribal agencies responsible for issuing noncommercial (sportfishing/subsistence) fish/shellfish advisories or closures for chemical contamination in fish and shellfish.

EPA aims to advance efforts to support equity and environmental justice in fish advisory programs by ensuring that recreational and subsistence fishers and other underserved populations are protected from consumption of contaminated fish. EPA will analyze the collected information to determine what science, guidance, technical assistance, and nationwide information are needed to help state and tribes have equitable and effective fish advisory programs. In addition, EPA will also use the information provided to facilitate information sharing and to ensure guidance documents are useful and technically accurate.

EPA greatly appreciates your assistance and thanks you for your continued support of USEPA's National Fish Program. For questions regarding this program evaluation, please contact CDR Samantha Fontenelle at fontenelle.samantha@epa.gov.

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Office of Water, Office of Science and Technology
U.S. Environmental Protection Agency

Agency Name

Agency Address

Respondent's Name

Respondent's E-mail Address

Respondent's Phone Number

¹ "States" in this document includes the 50 states, the District of Columbia, Guam, the Commonwealth of Puerto Rico, the U.S. Virgin Islands, American Samoa, and the Commonwealth of the Northern Mariana Islands.

Fish Tissue Monitoring Program

1. **Did your state or tribal agency conduct routine monitoring in the last three years to obtain information about the concentrations of contaminants in fish tissue for assessing human health risks?**

Yes No Not applicable

2. **What kind of data does your state or tribal agency collect to evaluate contaminant levels in fish? (Please check all that apply.)**

- Captures fish and sends tissues to a lab to determine contaminant concentrations
 Monitors water quality and uses data to estimate contaminant concentrations in fish
 Monitor sediments and uses data to estimate contaminant concentrations in fish
 Other methods (please specify) _____
 Not applicable

3. **How does your state or tribe conduct monitoring of contaminants in fish tissue for fish advisories? (Please check all that apply)**

- Conducts one-time, nonrecurring or special surveys in particular fishing areas, watersheds, or basins
 Monitors the same fishing areas, watersheds, or basins at regular intervals
 Other methods (please specify) _____
 Not applicable

4. **In the last three years, please estimate the number of stations from which your state or tribal agency collected fish tissue that was analyzed for contaminants and/or was used for the fish advisory program.**

- | | |
|---|--|
| <input type="checkbox"/> 0 stations | <input type="checkbox"/> 31-50 stations |
| <input type="checkbox"/> 1-10 stations | <input type="checkbox"/> 51-100 stations |
| <input type="checkbox"/> 11-20 stations | <input type="checkbox"/> >100 stations |
| <input type="checkbox"/> 21-30 stations | <input type="checkbox"/> Not applicable |

5. **How frequently does your state or tribe typically resample fish from waterbodies where advisories are in effect?**

- Every year
 Every 2 years
 Every 3 years
 Every 4 years
 Every 5 years
 Every 6 to 10 years
 On an as-needed basis (no set schedule)
 Other (please specify) _____
 Not applicable

6. **In approximately how many waterbodies was fish tissue monitoring conducted within your state or tribe in the last three years?**

- 1-10 waterbodies
 11-20 waterbodies
 21-30 waterbodies
 31-40 waterbodies
 >40 (specify number) (please specify) _____
 Not applicable

7. **Please check how your state or tribe determines which sites to monitor contaminants in fish tissue (Please check all that apply)**
- | | |
|---|---|
| <input type="checkbox"/> Accessibility of site | <input type="checkbox"/> Fixed-station sites |
| <input type="checkbox"/> Area of concern | <input type="checkbox"/> High pollution potential at the site |
| <input type="checkbox"/> Citizen or Agency request | <input type="checkbox"/> Major fishery resource |
| <input type="checkbox"/> Degree of angling pressure the site receives | <input type="checkbox"/> Randomly selected sites |
| <input type="checkbox"/> Other method (please specify) _____ | <input type="checkbox"/> Not Applicable |

Answers to questions 8 through 11 should be based on your Agency's evaluation of fish tissue monitoring data. Sediment analysis or water quality monitoring data may be included in your evaluation only if they are used **as the basis for determining when an advisory is needed**. Note: For these questions, you may need to consult with other individuals in your state or tribal organization.

8. **How many river, stream, or canal miles were monitored at least once during the last three years specifically for the fish advisory program?**
 _____ miles
9. **How many lake or reservoir acres were monitored at least once during the past three years specifically for the fish advisory program?**
 _____ acres
10. **How many square miles of estuarine waters were monitored at least once during the past three years specifically for the fish advisory program?**
 _____ square miles
11. **How many miles of marine coastline (coastal waters) were monitored at least once during the past three years specifically for the fish advisory program?**
 _____ miles

Types of Fish Advisories

12. **Does your state or tribe issue fish consumption advisories advising individuals to restrict fish consumption for a particular waterbody?**
 Yes No Not applicable
13. **Does your state or tribe issue fish consumption advisories advising individuals not to consume any fish or any fish of a particular species from a particular waterbody?**
 Yes No Not applicable
14. **Fish consumption advisories issued in your state or tribe pertain to: (Please check all that apply)**
- | |
|---|
| <input type="checkbox"/> Specific fish species analyzed by the state (e.g., largemouth bass) |
| <input type="checkbox"/> Specified size class(es) for the given species analyzed (e.g., largemouth bass 15-20 inches) |
| <input type="checkbox"/> Selected trophic groups (e.g., game fish, bottom feeders, or panfish) |
| <input type="checkbox"/> The entire fish community (e.g., all fish) |
| <input type="checkbox"/> Certain fish species purchased in stores and restaurants |
| <input type="checkbox"/> Other (please specify) _____ |
| <input type="checkbox"/> Not applicable |

15. Does your state or tribe issue statewide or regionwide or tribal area-wide “blanket” advisories based on your sampling effort? (A regionwide advisory may be issued for an individual HUC, river drainage basin or portion of the state.)
 State or tribe wide: Yes No Not applicable
 Regionwide: Yes No Not applicable
16. Are there enforceable advisories or bans within your state or tribe (e.g., are fines or citations given for fishing in posted waters)?
 Yes No
17. Does your state or tribe issue fish and/or shellfish advisories (closures) for microbial contamination (e.g., bacteria or viruses) of a waterbody?
 Yes No Not applicable
18. Does your state or tribe also issue fish and/or shellfish advisories (closures) for algal toxin contamination (e.g., cyanotoxins) of a waterbody?
 Yes No Not applicable

Sample Preparation and Analyses Procedures

19. Fish consumption advisories (“no” consumption and/or restricted consumption advisories) issued in your state or tribe are based on the analysis of: (Please check all that apply)
- Fillet samples (skin on)
- Fillet samples (skin off)
- Muscle plug samples
- Whole-fish samples (skin on)
- Whole-fish samples (skin off)
- Other sample types (please specify) _____
- Not applicable
20. Does your state or tribe target the collection of particular indicator fish/shellfish species, and on what is this decision based? (Please check all that apply)
- State/Tribe does not target collection of indicator species
- State/Tribes targets collection of indicator species based on:
- Angler survey data
- Availability of the species
- Desire to maintain consistency with past collections
- EPA target species recommendations based on bioaccumulation potential/trophic groups
- Citizen requests
- Other reasons (please specify)
- Not applicable
21. Which particular indicator fish species does your state or tribe target for monitoring? (Please specify) _____
22. Does your state or tribe collect multiple size classes, by species, and submit these individual size classes for contaminant analyses?
 Yes No Not applicable

23. Are individual fish samples or composite samples submitted for contaminant analyses in your state or tribe?

- Individual fish samples only
- Composite samples only
- Both individual and composite samples are used
- Not applicable

24. If individual fish samples are used, how many “individual fish” typically are needed to support an advisory determination in a waterbody?

- 1 fish
- 3 fish
- 5 fish
- 6 to 10 fish
- 11 to 20 fish
- > 20 fish
- Other number (please specify) _____
- Not applicable; state uses only composite fish samples

25. If composite samples are used, how many “individual fish” typically are combined in each state or tribal composite samples for contaminant analysis?

- 2 fish
- 3 fish
- 4 fish
- 5 fish
- Other number (please specify) _____
- Not applicable; state uses only individual fish samples

26. If composite samples are used, how many composite samples are needed to support an advisory determination in a waterbody?

- 1 composite sample
- 2 composite samples
- 3 composite samples
- Variable; no set number
- Other number (please specify) _____
- Not applicable; state uses only individual fish samples

27. Assuming your state or tribe finds contaminant levels in fish/shellfish in exceedance of its benchmark or screening level, how many years of sampling are required at a given waterbody before a fish consumption advisory can be issued?

- 1 year
- 2 years
- 3 or more years
- Site-specific decision; no set time period established
- Other (please specify) _____
- Not applicable

28. Once an advisory is issued for a specific waterbody, what must occur for the state or tribe to rescind the advisory?

- Contaminant levels of the chemical must decline below the benchmark or screening level for at least 1 year
- Contaminant levels of the chemical must decline below the benchmark or screening level for at least 2 years
- Contaminant levels of the pollutant must decline below the benchmark or screening level for at least 3 years
- Site-specific decision; no set time period established
- Other schedule or procedure (please specify) _____
- Not applicable

29. In the last three years, please estimate the number of fish tissue samples that were submitted for chemical analyses by your state or tribal agency?

- <20 samples
- 21-30 samples
- 31-40 samples
- 41-50 samples
- 51-60 samples
- >60 samples (please specify number) _____
- Not applicable

30. What pollutants did your state or tribe screen for in fish tissue samples in the last three years? (Please check all that apply)

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Aldrin | <input type="checkbox"/> Dicofol | <input type="checkbox"/> Hexachlorobenzene | <input type="checkbox"/> PCBs |
| <input type="checkbox"/> Arsenic | <input type="checkbox"/> Dieldrin | <input type="checkbox"/> Lead | <input type="checkbox"/> PFAS |
| <input type="checkbox"/> Cadmium | <input type="checkbox"/> Dioxins/Furans | <input type="checkbox"/> Lindane | <input type="checkbox"/> Pentachloroanisole |
| <input type="checkbox"/> Chlordane | <input type="checkbox"/> Disulfoton | <input type="checkbox"/> Mercury | <input type="checkbox"/> Selenium |
| <input type="checkbox"/> Chlorpyrifos | <input type="checkbox"/> Endosulfan | <input type="checkbox"/> Methoxychlor | <input type="checkbox"/> Terbufos |
| <input type="checkbox"/> Chromium | <input type="checkbox"/> Endrin | <input type="checkbox"/> Mirex | <input type="checkbox"/> Toxaphene |
| <input type="checkbox"/> DDT and its metabolites | <input type="checkbox"/> Ethion | <input type="checkbox"/> Nonachlor | <input type="checkbox"/> Tributyltin |
| <input type="checkbox"/> Diazinon | <input type="checkbox"/> Heptachlor or Heptachlor epoxide | <input type="checkbox"/> Oxyfluorfen | <input type="checkbox"/> Trifluralin |
| | | <input type="checkbox"/> PAHs | <input type="checkbox"/> Other (please specify) |

31. Of the pollutants listed, which ones are of primary human health concern in your state or tribal waters (specify up to 5 pollutants).

- | | | | |
|--|---|--|---|
| <input type="checkbox"/> Aldrin | <input type="checkbox"/> Dicofol | <input type="checkbox"/> Hexachlorobenzene | <input type="checkbox"/> PCBs |
| <input type="checkbox"/> Arsenic | <input type="checkbox"/> Dieldrin | <input type="checkbox"/> Lead | <input type="checkbox"/> PFAS |
| <input type="checkbox"/> Cadmium | <input type="checkbox"/> Dioxins/Furans | <input type="checkbox"/> Lindane | <input type="checkbox"/> Pentachloroanisole |
| <input type="checkbox"/> Chlordane | <input type="checkbox"/> Disulfoton | <input type="checkbox"/> Mercury | <input type="checkbox"/> Selenium |
| <input type="checkbox"/> Chlorpyrifos | <input type="checkbox"/> Endosulfan | <input type="checkbox"/> Methoxychlor | <input type="checkbox"/> Terbufos |
| <input type="checkbox"/> Chromium | <input type="checkbox"/> Endrin | <input type="checkbox"/> Mirex | <input type="checkbox"/> Toxaphene |
| <input type="checkbox"/> DDT and its metabolites | <input type="checkbox"/> Ethion | <input type="checkbox"/> Nonachlor | <input type="checkbox"/> Tributyltin |
| <input type="checkbox"/> Diazinon | <input type="checkbox"/> Heptachlor or Heptachlor epoxide | <input type="checkbox"/> Oxyfluorfen | <input type="checkbox"/> Trifluralin |
| | | <input type="checkbox"/> PAHs | <input type="checkbox"/> Other (please specify) |

32. If your state or tribe analyzes for PCBs, what specifically is analyzed? (Please check all that apply)

- Individual congeners
- All 209 congeners
- All Aroclor groups
- Selected Aroclor groups
- A combination of both Aroclors and congeners
- Others (please specify) _____
- Not applicable

33. If your state or tribe analyzes for PFAS, which PFAS compound specifically is analyzed? Check all that apply.

- Perfluorobutyric acid (PFBA)
- Perfluorobutanesulfonic acid (PFBS)
- Perfluoropentanoic acid (PFPeA)
- Perfluorohexanoic acid (PFHxA)
- Perfluorohexanesulfonic acid (PFHxS)
- Perfluoroheptanoic acid (PFHpA)
- Perfluorooctanoic acid (PFOA)
- Perfluorooctane sulfonate (PFOS)
- Perfluorooctanesulfonamide (PFOSA)
- Perfluorononanoic acid (PFNA)
- Perfluorodecanoic acid (PFDA)
- Perfluoroundecanoic acid (PFUnA)
- Perfluorododecanoic acid (PFDoA)
- Other (please specify) _____

State or Tribal Fish Advisory Program Funding

34. How many dollars are spent annually in your state or tribe on routine fish tissue field collection activities?

- <\$1,000
- \$1,000 to \$4,999
- \$5,000 to \$9,999
- Not applicable
- \$10,000 to \$24,999
- \$25,000 to \$50,000
- >\$50,000 (please specify) _____

35. What was the funding source for your state or tribal fish tissue collection activities in the last three years? (Please check all that apply)

- State or tribal general funds
- State or tribal fishing license revenues
- State or tribal sales tax
- EPA Section 106 funds
- EPA Section 205j funds
- EPA Region funds
- EPA Grant funds
- Other (please specify) _____
- Not applicable

36. How many dollars are spent annually in your state or tribe on laboratory analyses of fish tissue samples?

- <\$1,000
- \$1,000 to \$4,999
- \$5,000 to \$9,999
- Not applicable
- \$10,000 to \$24,999
- \$25,000 to \$50,000
- >\$50,000 (please specify) _____

37. **What was the funding source for your state or tribal laboratory analyses of fish tissue samples in the last three years? (Please check all that apply)**

- State or tribal general funds
- State or tribal fishing license revenues
- State or tribal sales tax
- EPA Section 106 funds
- EPA Section 205j funds
- EPA Region funds
- EPA Grant funds
- Other (please specify) _____
- Not applicable

38. **If no funding is currently available, is your state or tribe seeking funding to conduct a fish tissue monitoring and assessment program?**

- Yes No Not applicable

Other Uses of State or Tribal Advisory Data

39. **For your state or tribal biennial 305(b) water quality report, what assignment is made for a waterbody with a fish consumption advisory?**

- | | |
|---|---|
| <input type="checkbox"/> Fully supporting | <input type="checkbox"/> Threatened |
| <input type="checkbox"/> Partially supporting | <input type="checkbox"/> Not supporting |
| <input type="checkbox"/> No assessments were made | <input type="checkbox"/> Not applicable |

40. **If fish consumption advisories have been issued for waterbodies in your state or tribe, does your state or tribe place these waterbodies on the 303(d) list of impaired waters?**

- Yes No Not applicable

41. **Is “fish consumption” an assigned designated use for waters in your state or tribe?**

- Yes No

Risk Assessment Methodology

42. **What method(s) does your state or tribe currently use to calculate “carcinogenic” health risks and issue advisories for individuals who consume fish harvested from state or tribal waters? (Please specify all current methods used)**

- EPA Fish Advisory Guidance Document
- State or Tribal developed risk assessment methodology
- Great Lakes Consortium Protocols and Best Practices for Uniform Fish Advisories
- Food and Drug Administration (FDA) action levels
- None
- Other approach (please specify) _____
- Not applicable

43. **What carcinogenic risk level (i.e., individual risk within an exposed population) does your state or tribe use to issue advisories?**

- 1:10,000 (10^{-4})
- 1:100,000 (10^{-5})
- 1:1,000,000 (10^{-6})
- Other (please specify) _____
- Not applicable

44. What source(s) does your state or tribe use to obtain cancer potency factors to help calculate “carcinogenic” health risks? (Please check all that apply)

- ATSDR Toxicological Profiles
- EPA Fish Advisory Guidance Document
- EPA Health Effects Assessment Summary Table (HEAST)
- EPA Integrated Risk Information System (IRIS)
- Great Lakes Consortium Protocols and Best Practices for Uniform Fish Advisories
- Hazardous Substance Data Bank (HSDB)/PubChem
- International Agency for Research on Cancer (IARC) Monographs
- Other sources (please specify) _____
- Not applicable

45. What method(s) does your state or tribe currently use to calculate “noncarcinogenic” benchmarks or screening levels for issuing fish advisories for individuals who consume fish harvested from state or tribal waters? (Please specify all current methods used)

- EPA Integrated Risk Information System (IRIS)
- EPA Fish Advisory Guidance Document
- ATSDR Toxicological Profiles
- FDA Action Levels
- Great Lakes Consortium Protocols and Best Practices for Uniform Fish Advisories
- Other approach (please specify) _____
- Not applicable
- None

46. If your state or tribe does not calculate its own benchmark or screening levels, what noncarcinogenic benchmark or screening level (i.e., individual risk within an exposed population) does your state use to issue advisories?

- Hazard index (please specify if hazard index is >, =, or < 1) _____
- FDA action levels
- Other (please specify) _____
- Not applicable

47. What source(s) does your state or tribe use to obtain reference dose to help calculate noncarcinogenic health benchmark or screening level? (Please check all that apply)

- ATSDR Toxicological Profiles
- EPA Integrated Risk Information System (IRIS)
- EPA Health Effects Assessment Summary Table (HEAST)
- EPA Fish Advisory Guidance Document
- Great Lakes Consortium Protocols and Best Practices for Uniform Fish Advisories
- Hazardous Substance Data Bank (HSDB)/PubChem
- Other sources (please specify) _____
- Not applicable

48. Of all the fish advisories currently in effect in your jurisdiction, including those issued last year and in earlier years, what percentage were issued based on each of these methods? (Please provide your best estimate of the percentage for each method)

- % of advisories now in effect were issued using EPA Fish Advisory Guidance document
- % of advisories now in effect were issued using FDA action levels.
- % of advisories now in effect were issued using state or tribal methods specified in question 42
- % of advisories now in effect were issued using other methods specified in question 42 and 44
- Not applicable

- 49. What default value does your state or tribe use in the risk assessments as a daily fish consumption rate for recreational fishers?**
- 6.5 g/day
 - 17.5 g/day
 - 22 g/day
 - 32 g/day (a nutritionally y focused fish consumption rate consistent with the Dietary Guidelines for Americans, equivalent to one eight-ounce meal of fish and shellfish per week)
 - 142 g/day (fish consumption rate for “high consumers” described in the EPA 2000 Human Health Methodology)
 - 175 g/day (fish consumption rate used by EPA and some states for high frequency consumers or subsistence fishers in the Pacific Northwest)
 - Other consumption rates (please specify value in g/day)_____
 - Not applicable

- 50. What default value does your state or tribe use in the risk assessments as a daily fish consumption rate for subsistence or high frequency fish consumers?**
- 6.5 g/day
 - 17.5 g/day
 - 22 g/day
 - 32 g/day (a nutritionally focused fish consumption rate consistent with the Dietary Guidelines for Americans, equivalent to one eight-ounce meal of fish and shellfish per week)
 - 142 g/day (fish consumption rate for “high consumers” described in the EPA 2000 Human Health Methodology)
 - 175 g/day (fish consumption rate used by EPA and some states/tribes for high frequency consumers or subsistence fishers in the Pacific Northwest in the Water Quality Standards Program)
 - Other consumption rates (please specify value in g/day)_____
 - Not applicable

- 51. What default value does your state or tribe use in the risk assessments as a daily fish consumption rate for children?**
- 2.0 g/day
 - 4.0 g/day
 - 6.5 g/day
 - Other consumption rates (please specify value in g/day)_____
 - Not applicable

- 52. What default value does your state or tribe use for exposure duration in its cancer risk assessments?**
- 30 years
 - 70 years
 - 75 years
 - Other exposure duration (please specify value in years)_____
 - Not applicable

- 53. What default value does your state or tribe use to estimate life expectancy in its risk assessments?**
- 70 years
 - 75 years
 - 80 years
 - Other life expectancy (please specify value in years)_____
 - Not applicable

- 54. Does your state or tribe recommend a meal frequency format or number of meals over time in its advisories (e.g., number of meals per month or meals per week)?**
- Yes N o Not applicable

55. What number of meals over time (e.g., per month) does your state or tribe use in its advisories?

- 1 meal per week
- 4 meals per month
- Other (please specify) _____

56. If the response to question 54 is yes, what assumption does your state or tribe make in its risk assessments about meal size or portion for adults? (Please specify all that apply)

- 4 oz (114 g)
- 8 oz (227 g)
- 12 oz (341 g)
- 16 oz (454 g)
- Other (please specify value in grams) _____
- Not applicable

57. If the response to question 54 is yes, what assumption does your state or tribe make in its risk assessments about meal size or portion for children? (Please specify all that apply)

- 4 oz (114 g)
- 8 oz (227 g)
- 12 oz (341 g)
- 16 oz (454 g)
- Other (please specify value in grams) _____
- Not applicable

58. What default value does your state or tribe use for body weight of an average adult consumer in its risk assessments?

- 80 kg
- 71 kg
- 70 kg
- 71 kg
- 65 kg
- Other weight (please specify value in kg) _____
- Not applicable

59. What default value does your state or tribe use for body weight of a pregnant person and nursing mothers in its risk assessments?

- 80 kg
- 75 kg
- 70 kg
- 65 kg
- 62 kg
- Other weight (please specify value in kg) _____
- Not applicable

60. What default value does your state or tribe use for body weight of a child in its risk assessments?

- 10 kg
- 14.5 kg
- 15.5 kg
- Other weight (please specify value in kg) _____
- Risk assessments not conducted for children
- Not applicable

61. Please specify what age range or ranges your state or tribe uses to calculate risk with respect to children. (Please specify all age ranges used in your state's risk assessments for children.)

- <1 year
- <6 years
- <7 years
- <12 years
- <15 years
- <18 years
- Other age ranges (please specify) _____
- Risk assessments not conducted for children
- Not applicable

62. Does your state or tribal agency have a plan to reevaluate data from sites where outdated assessment methods were used to issue fish advisories?

- Yes No Not applicable

63. Is your state or tribe currently re-evaluating the overall method or approach used to establish fish advisories?

- Yes No Not applicable

64. What assumption does your state make in its risk assessments about the amount of the pollutant absorbed by the body after ingestion (percent absorption by the gut) (e.g., in pharmacokinetic modeling)?

- 100% for all pollutants
- 75% for all pollutants
- 50% for all pollutants
- Chemical-specific % based on available data
- Other (please specify) _____
- Not applicable

65. Does your state or tribe use "contaminant reduction factors" in its risk calculations to account for contaminant losses of PCBs and other organochlorine pollutants from fish tissues during cleaning, preparation, and cooking of the fish?

- Yes No Not applicable

66. If yes, what are the pollutants and their associated contaminant reduction factors (% reduction in pollutant level resulting from cleaning, preparing, and cooking of fish) assumed by your state or tribe?

- | | |
|---|---|
| <input type="checkbox"/> % chlordane | <input type="checkbox"/> % mercury |
| <input type="checkbox"/> % DDE | <input type="checkbox"/> % mirex |
| <input type="checkbox"/> % DDT | <input type="checkbox"/> % total PCBs |
| <input type="checkbox"/> % dieldrin | <input type="checkbox"/> % toxaphene |
| <input type="checkbox"/> % heptachlor epoxide | <input type="checkbox"/> % other (please specify) _____ |
| <input type="checkbox"/> Not applicable | |

67. If contaminant reduction factors are used, what are their basis?

- EPA Fish Advisory Guidance Documents
- Great Lakes Consortium Protocols and Best Practices for Uniform Fish Advisories
- Scientific literature review
- Conducted own research
- Other (please specify) _____
- Not applicable

68. Is relative source contribution (RSC) used to account for other sources or pathways of exposure (e.g., drinking water, other foods) used in fish advisories?

- Yes No

69. If the response to question 68 is yes, specify the RSC used for the following contaminants:

_____ Hg _____ PCBs _____ PFAS

70. How does your state or tribe evaluate health risks for fish samples contaminated with multiple chemicals with the same human health endpoints (e.g., two organochlorine pesticides)?

- Cumulative risk (add individual contaminant risks from each chemical together)
- Calculate single contaminant risk based on the most conservative carcinogenic risk or noncancer benchmark value
- Either cumulative risk or single contaminant risk depending on the chemicals involved
- Other method (please specify) _____
- State or tribe does not evaluate health risks for multiple contaminants
- Not applicable

71. Regarding mercury, does your state or tribe use the EPA RfD (0.1 ug/kg/day) for different populations (i.e., for women of child-bearing age, children and adults in the general population)?

- Yes No (specify, women of child-bearing age) _____
(specify, children) _____
(specify, adults in the general population) _____

72. Regarding PFOS, does your state or tribe use the EPA RfD (0.02 ug/kg/day)?

- Yes No (specify) _____

73. Does your state or tribe use the cancer or non-cancer value for PCBs in fish advisories?

- Cancer Non-cancer Other (please specify) _____ Not applicable

74. When your state or tribe receives method detection limits (MDLs) as the reportable concentration for contaminants from the laboratory, what value are used for non-detects in your risk assessment?

- Zero
- Pollutant's MDL
- Half the pollutant's MDL
- Other value (please specify) _____
- Maximum likelihood indicator
- Not applicable

75. Does your state or tribe screen for some or all of the PFAS compounds in question 33 (excluding PFOS and PFOA) in its fish tissue samples?

- Yes No

76. What risk assessment method does your state or tribe use for these PFAS compounds since there are no associated reference doses developed by EPA? (Please specify assessment method used)

Not applicable

Targeting Fish Consumers

77. Are health risks being assessed by your state or tribe for target groups of people who may consume higher amounts of fish or prepare fish differently than the general population?

Yes No Not applicable

78. Has your state or tribe identified the primary waterbodies fished by these target population(s)?

Yes No Not applicable

79. Has your state or tribe made efforts to identify the fish species and the sizes of fish consumed by these target populations?

Yes No Not applicable

80. If yes, has your state or tribe used any of the following procedures to obtain information from these target populations? (Please check all that apply)

- Local fish consumption surveys (creel surveys)
- Fishing license surveys
- Anecdotal information from populations of interest
- Behavioral risk surveillance surveys funded by the Centers for Disease Control and Prevention
- Other (please specify) _____
- Not applicable

81. Has your state or tribe altered its monitoring approach to address the needs of these target populations?

Yes No Not applicable

82. If your state or tribe has altered its monitoring approach to address the needs of these target populations, what actions have been taken? (Please check all that apply)

- Added stations in waterbodies where the targeted populations frequently fish
- Collected species consumed by the target populations for contaminant analyses
- Other actions (please specify) _____
- Not applicable

83. If your state or tribe is not currently addressing the concerns of populations with a perceived higher risk, is there a plan to do so in the future?

Yes No Not applicable

Risk Management

84. Who prepares risk assessments on behalf of your state or tribal fish advisory program? (Please check all that apply)

- State or Tribal Environmental Agency/Department
- State or Tribal Public Health Agency/Department
- State or Tribal Fisheries Agency/Department
- Consultant
- University
- Other (please specify) _____
- Not applicable

85. Does your state or tribe have written procedures for evaluating the health risks associated with consumption of contaminated fish?

Yes No Not applicable

86. Does your state or tribe have a group or committee that oversees the fish advisory program/processes?

Yes No Not applicable

87. If the answer to question 86 is yes, what professional disciplines are represented on that committee? (Please check all that apply)

- Toxicology/epidemiology
- Fisheries biologist
- Water pollution assessment/control
- Hazardous waste management
- Analytical chemist
- Risk communication
- Other disciplines (please specify) _____
- Not applicable

88. Who in your state or tribe makes the ultimate risk management decision to issue, modify, or rescind fish advisories?

- Head of Environmental Agency/Department
- Head of Public Health Agency/Department
- Head of Fisheries Agency/Department
- Governor's Office or Tribal Chief's/President's Office
- Other (please specify) _____
- Not applicable

Risk Communication Procedures

89. Is your state or tribe aware of recently released update to [EPA's Risk Communication Guidance \(Volume 4\)](#) ?

Yes No

90. If your response to question 89 is yes, is the guidance useful?

Yes No

Provide Comments: _____

91. How often does your Agency revise the fish consumption advisory listings and release the information to the public? (Please check all that apply)

- Annually; released on _____ (specify date: Day/Month)
- Whenever data become available (on an as-needed basis)
- Other schedules (please specify) _____
- Not applicable

92. How are your Agency's fish advisories communicated to the public? (Please check all that apply)

- Social Media (specify) _____
- Mailed to public upon request
- Press releases distributed to media sources
- Targeted newspaper stories
- Published articles in ethnic newspapers
- Videos for ethnic groups
- Radio announcements
- Television announcements
- Radio/television talk shows
- Podcasts
- Internet site
- Agency telephone information service (i.e., hotlines)
- Agency magazine
- Posted signs (at boat launches, stream access points, public docks, etc.)
- Posted information where fishing licenses issued
- Posters in public places (libraries, town halls, etc)
- Annual fishing regulations booklet
- Generic statewide listing booklet separate from fishing regulations
- Printed pamphlets or fact sheets
- Information presented at public meetings
- Publication of articles in state medical journal
- Publication of articles in agency annual monitoring report
- Publication of information in state 305(b) report
- Flyers distributed with trout and salmon stamps
- GIS maps posted
- Other methods (please specify) _____
- Not applicable

93. Where can the public obtain copies of your agency's printed advisory materials? (Please check all that apply)

- Local public health departments
- State or tribal public health departments
- State or tribal Internet site
- Other State agencies
- Doctors' offices
- Local businesses (e.g., hair styling salons)
- Businesses that issue fishing licenses (e.g., bait and tackle shops)
- WIC (Women, Infants, and Children) clinics
- Welfare offices
- Organizations (e.g., sporting or women's clubs)
- Tourist offices
- State or tribal fisheries offices
- Town halls
- Law enforcement officers
- Other sources (please specify) _____
- Not applicable

94. Does your state or tribal fish advisory outreach or communication plan specifically target some populations to receive advisory information?

- Yes No Not applicable

95. If yes, please identify all targeted populations. (Please check all that apply)

- Sport fishers
- Subsistence fishers
- Specific racial/ethnic groups (please specify) _____
- Women of child-bearing age
- Pregnant or nursing women
- New parents
- Tourists
- Members of the general population
- Others (please specify) _____
- Not applicable

96. Are your state or tribal fish consumption advisories available to the public in languages other than English?

- Yes No Not applicable

97. If yes, please specify all languages that apply.

- | | |
|---|--|
| <input type="checkbox"/> Alaskan native languages | <input type="checkbox"/> Llacano |
| <input type="checkbox"/> Bosnian | <input type="checkbox"/> Ojibwa |
| <input type="checkbox"/> Cambodian | <input type="checkbox"/> Portuguese |
| <input type="checkbox"/> Chinese | <input type="checkbox"/> Russian |
| <input type="checkbox"/> Creole | <input type="checkbox"/> Spanish |
| <input type="checkbox"/> Hmong | <input type="checkbox"/> Tagalog |
| <input type="checkbox"/> Japanese | <input type="checkbox"/> Thai |
| <input type="checkbox"/> Korean | <input type="checkbox"/> Vietnamese |
| <input type="checkbox"/> Laotian | <input type="checkbox"/> Others (please specify) _____ |
| | <input type="checkbox"/> Not applicable |

98. Does your state or tribe evaluate the effectiveness of the fish consumption advisories?

- Yes No Not applicable

99. If yes, how is their effectiveness determined? (Please check all that apply)

- Feedback form/postcard in regulation pamphlet
- Questions included in creel census program
- Questions included in state BRFS (Behavior Risk Factor Survey)
- Focus groups
- Mailed questionnaires (to whom?) _____
- Telephone surveys (of whom?) _____
- Other methods (please specify) _____
- Not applicable

100. To your knowledge, have there been any studies in your state (including federal, tribal, and university-based studies) to evaluate the effectiveness of fish consumption advisories?

- Don't know
- No
- Yes (please specify) _____

101. To your knowledge, have there been any studies in your state (including federal, tribal, and university-based studies) to evaluate human tissue contaminant levels (e.g., in blood, urine, breast milk, or adipose tissues) or adverse human health effects related to fish consumption?

- Don't know
- No
- Yes (please specify organization or agency) _____