

# Update

## Tribal Governments in Idaho

### Fish Consumption Surveys

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IDAHO NEGOTIATED RULEMAKING MEETING  
JULY 8, 2015

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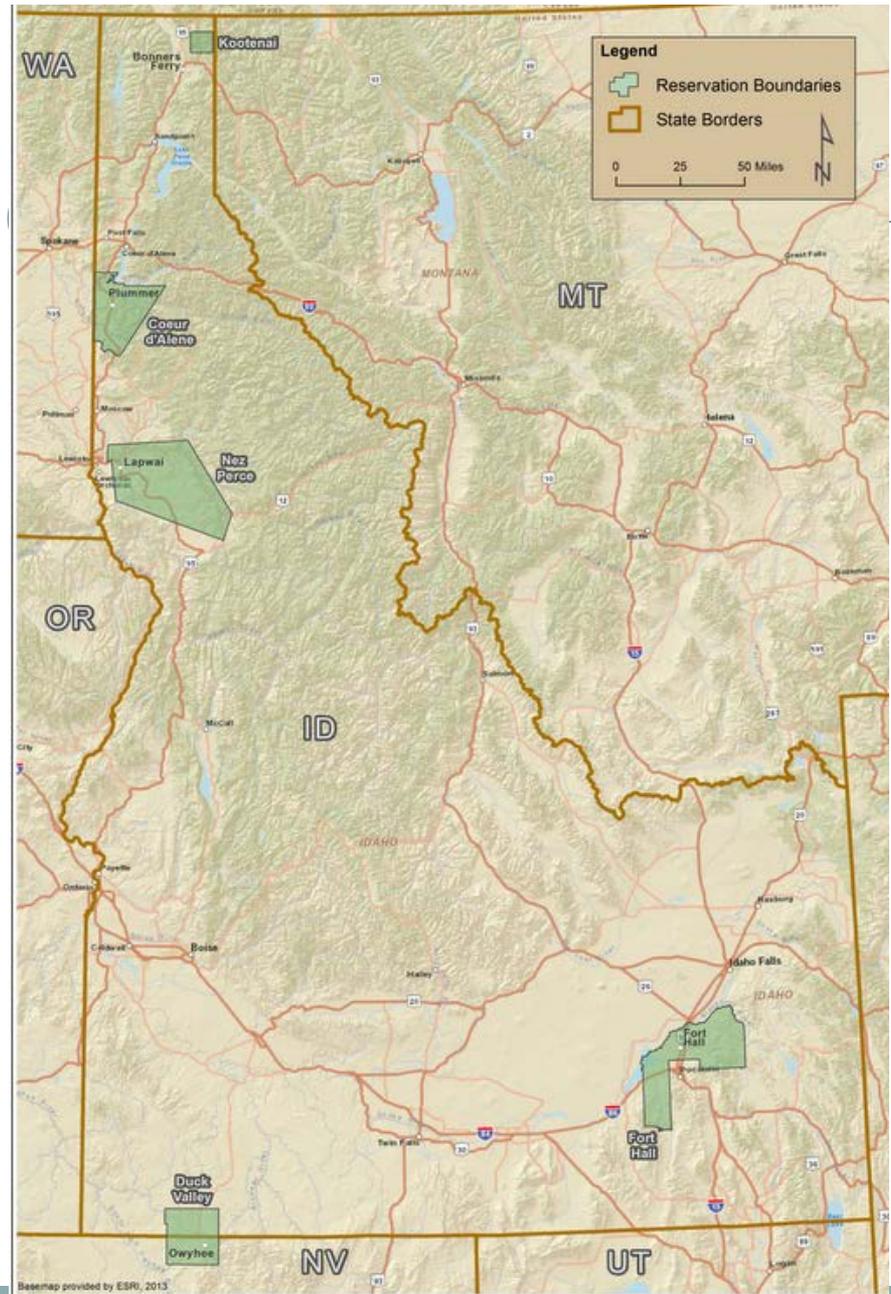
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7/8/2015

# TRIBES IN IDAHO

- Kootenai Tribe of Idaho
- Coeur D'Alene Tribe
- Nez Perce Tribe
- Shoshone-Bannock Tribes (Fort Hall)
- Shoshone-Paiute Tribes (Duck Valley)



# Understanding Tribal Fish Consumption

## General Background

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- Tribal Governments in ID have been working w/ EPA and EPA contractors on a 2014-2015 survey on types and amounts of fish consumed by tribal people
- Support provided through EPA Indian General Assistance Program funds, administered through an EPA contract
- Outcome - build tribal environmental capacity and inform future tribal/EPA WQS decisions
- Ongoing EPA commitment to share information on Tribal work @ ID DEQ Negotiated Rulemaking Meetings

# Purpose of Surveys

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## **Purpose of the Tribal Surveys**

- Tribal environmental capacity building
- Determine current & heritage fish consumption rates
- Understand causes of & reasons for suppression & hopes for the future
- Potential use in development of Tribal water quality standards
- Potential use by Idaho DEQ

## **Differences in Surveys**

- ✦ Only Shoshone Bannock and Nez Perce are participating in the quantitative survey

# Tribal Survey Design

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## Current Rate/Quantitative Study

- Food Frequency Questionnaire: Individuals estimate their fish consumption over a calendar year.
- 24 Hour Recall/NCI Method:
  - ✦ Individuals provide information on their fish consumption over the past 24 hours.
  - ✦ 24 hour recall data is analyzed using the National Cancer Institute methodology to develop long term fish consumption rates.
  - ✦ Approximately 1 hour in person interviews with Tribal members which include the use of 3-D portion models
  - ✦ For NCI Method - Follow up 20 minute phone call, the interview repeats a subset of questions on the 24-hour dietary recall

# Interview Approaches

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- **Issues**

- Tribal enrollment records not complete, considerable effort required to locate individuals.
- Travel to homes of individuals time consuming.
- Many individuals not immediately receptive to be interviewed.
- Interviewing challenging for part time staff.

- **Solutions**

- Interviews conducted at central locations.
- Interviews conducted at special events.
- Nez Perce granted tribal employees (from sample list) time to participate in interviews.
- Non-tribal interviewers from EPA and Columbia River Intertribal Fish Commission granted permission to interview tribal employees

# Process Used for EPA/CRITFC Interviews

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- All day training conducted in December
- EPA/CRITFC interviews in Lapwai: Dec. 15-19 2014; March 16-20 and April 1-3 2015
- EPA/CRITFC staff conduct follow up interviews
- Tribal and non-tribal interview methodology identical
- Results of tribal and non-tribal interviewers will be compared.

# Tribal Heritage Rate Studies

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- Heritage rate studies will be completed for four ID Tribes
- Survey implementation team compiled a list of historical and recent literature to inform the heritage rate studies.
- Draft heritage studies provided to tribes.
- Tribal Governments have been conducting appropriate review of studies.
- Final studies will provide a range of rates specific to each Tribe – expected July 2015.

# Heritage Studies: Content

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- **Summary of Historical Fish Harvest and Consumption**
- **Summary of Causes of Decline in Fish Populations**
- **Discussion of Heritage Fish Consumption**
- **Columbia Basin-Wide Heritage Rates**
- **Proposed Tribal Heritage Rates**
- **References**

## Review of EPA Commitment to Share Tribal Fish Consumption Information w/ID DEQ

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EPA/ID DEQ commitment to NCI methodology, however, ID DEQ time schedule & time required to get ID Tribal survey implemented and study required schedule compromises.

EPA committed to get preliminary FFQ data to ID DEQ to meet ID DEQ schedule in May 2015.

EPA committed to get non-peer reviewed NCI data to ID DEQ in July 2015.

EPA will provide final report to ID DEQ in September as part of public comment period.

# Key Information about Draft Interim Report

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- Nez Perce and Shoshone Bannock collected from 4/14 to 5/15.
- Preliminary information validates belief that Tribes are high fish consumers.
- Tribes reported consumption of near coastal and inland fish including salmon from all sources.
- The 90<sup>th</sup> percentile for the new Idaho tribal surveys ranges from 166 to 456 grams per day, the 95<sup>th</sup> percentile ranges from 245 to 768 grams per day depending on the fish groups.
- Oregon and Washington have used a fish consumption rate of 175 grams per day to derive water quality criteria, which is the 95<sup>th</sup> percentile FCR from the CRITFC survey, a 1994 study of Columbia River Tribes.
- The new survey indicates Idaho tribes consume more fish than previously documented for the Columbia River Tribes approximately 20 years ago in the CRITFC survey.
- Tribal members attribute increased fish consumption, in part, due to habitat improvements and an increased availability of fish in local rivers and lakes.

# Reported on Two Groups



<b>Species Group</b>	<b>Description</b>	<b>Species and Groups Included</b>
Group 1	All finfish and shellfish	All group 2 species, marine finfish (cod, halibut, pollock, tuna, herring, sardines, mackerel, mahi mahi, orange roughy, red snapper, seabass, hamachi, kipper and shark) and other marine shellfish (lobster, crab and shrimp)
Group 2	Near coastal, estuarine, freshwater and anadromous	Any salmon, steelhead, any resident trout, lamprey, other freshwater finfish (sturgeon, whitefish, sucker, bass, bluegill, carp, catfish, crappie, sunfish, tilapia, walleye and yellow perch), freshwater shellfish (crayfish, clams and mussels), geoduck, razor clam, scallops, oysters, octopus and squid

# Revised Group 2



- Reviewed species habitat assignments noted in: “Estimated Fish Consumption Rates for the U.S. Population and Selected Subpopulations (NHANES 2003-2010), Final Report April 2014, EPA-820-R-14-002,  
<http://water.epa.gov/scitech/swguidance/fishshellfish/fishadvisories/upload/Estimated-Fish-Consumption-Rates-for-the-U-S-Population-and-Selected-Subpopulations-NHANES-2003-2010.pdf>
- **Determined that**
  - Squid were not a coastal marine species & should be removed from Group 2.
  - Clams, crab, lobster, and shrimp were either estuarine or near coastal species & should be added to Group 2

# Nez Perce Tribe Fish Consumption Rates



Species	N Consumers	Mean	Percentiles			
			50%	90%	95%	99%
Group 1	375	125.4	74.2	260.0	402.8	794.1
Group 2	370	86.6	49.3	195.7	245.0	660.3
Revised Group 2	**	**	**	**	**	**

# Shoshone Bannock Tribe Fish Consumption Rates



Species	N Consumers	Mean	Percentiles			
			50%	90%	95%	99%
Group 1	156	178.7	69.8	456.1	768.8	156
Group 2	154	63.8	22.0	166.3	310.4	154
Revised Group 2	**	**	**	**	**	**

# Peer Review

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- Peer review for FFQ and NCI survey results
- Using peer review contract in EPA Office of Water
- Peer reviewers have several areas of needed expertise
- Heritage information will not be included
- Peer reviewed results will be provided to ID DEQ as a part of public comment

# Peer Review



- Letter peer review
- 4 Candidate peer reviewers
- Peer reviewers have multiple areas of expertise in:
  - Statistical modeling of short term nutritional survey data
  - Computation of food consumption statistics from FFQ instruments
  - Nutritional survey design
  - Nutritional survey implementation and use of computer assisted interview software
- Candidate peer reviewers from:
  - Academia
  - Government
  - Consulting

# Release of Final Data



- Elements to be included in the final report are still under discussion.
- Will incorporate:
  - NCI and FFQ Final Report for Nez Perce and Shoshone Bannock Tribe
  - Heritage Reports for 4 Tribes
  - Peer review
  - Response to peer review
- Target date is late September

# Schedule



- **Mid to late July: Draft final report available for tribal/EPA review and ID DEQ**
- **Late July: Report sent to peer reviewers**
- **Late Aug: Peer review comments sent to EPA**
- **Late Aug: EPA/tribes deliver their assessment of peer review comments to contractors.**
- **Late Sept: Final report sent to DEQ**

Questions?