



Contaminants and Tribal Water Programs

Sarah Ryan, Big Valley Band of
Pomo Indians

California Native American Tribes

- 109 federally recognized in 34 counties in California
- 78 petitioning for recognition
- Federal treaties from the 1860's were signed but never ratified by Congress, leaving Tribes unprotected.
- Some are now “landless” because of a series of policies that allowed the land to be sold from under them.

California Indian Pre-contact Tribal Territories



7 Language families with 83 known languages spoken

Tribal Water Monitoring Programs

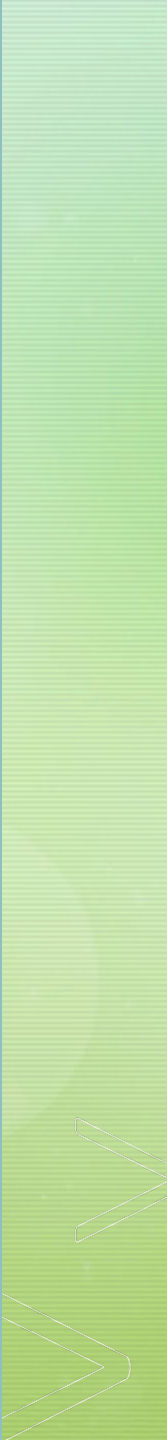
- Federally reviewed and approved Quality Assurance Program Plans
- Annual Water quality assessment reports are required
- 56 Tribes in California have water quality monitoring data in the federal WQX (Water Quality Exchange) database.
- Can be funded with a variety of sources including USEPA CWA 106, USEPA NPS 319, BIA Water Resources, BOR and other state or local sources.
- Each funding source has its own requirements and restrictions about QAPPs, monitoring locations.

Tribal Water Monitoring Programs

- In USEPA funded water monitoring programs, Tribes evaluate their data against existing uses to determine impairment in annual WQX (Water Quality Assessment Reports).
- Tribes are piloting reporting impairments to ATTAINS (Assessment, Total Maximum Daily Load (TMDL) Tracking and Implementation System).
- Tribes have site specific and time specific uses of water – more than ‘recreation’
 - Tribal Traditional Uses and Tribal Subsistence Fishing (adopted May 2017 by the State Water Resources Control Board)
https://www.waterboards.ca.gov/about_us/public_participation/tribal_affairs/beneficial_uses.html



Tribal Water Data

- Exists in WQX, CEDEN and local databases
 - Is “final” or preliminary in WQX. Final is queryable by public
 - Tribal data runs the gamut of datalogger to project grab samples
 - Queryable data can be used in integrated reports and other regional or state evaluation efforts
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Tribes as Water Quality Data Partners

- Tribes are monitoring waterbodies throughout California to protect their uses and resources
- Their data is legally defensible and available
- Tribal programs should be partnered with to enhance monitoring throughout the state

Tribal Beneficial Uses

- **Tribal Tradition and Culture (CUL):** Uses of water that support the cultural, spiritual, ceremonial, or traditional rights or LIFEWAYS of CALIFORNIA NATIVE AMERICAN TRIBES, including, but not limited to: navigation, ceremonies, or fishing, gathering, or consumption of natural aquatic resources, including fish, shellfish, vegetation, and materials.
- **Tribal Subsistence Fishing (T-SUB):** Uses of water involving the non-commercial catching or gathering of natural aquatic resources, including fish and shellfish, for consumption by individuals, households, or communities of California Native American Tribes to meet needs for sustenance.

Tribal Cultural Use Conceptual Freshwater Harmful Algal Bloom (FHAB) Impact Pathway

Native peoples were given their land by Creator and honor Creator and their Ancestors by maintaining traditions and cultural landscapes. This is the connection between the land and the people. Uses can be repetitive, gender assigned and long term. Exposures can occur second hand through the use and trade of plants and animals that have been in contact with HABs.



Reviewing Contaminants for Tribal Impacts

FISH CONSUMPTION



INVENTORY NAME	SITE ID	DATE COLLECTED (see seasonal color chart at bottom of spreadsheet)	SPECIES NAME *species are categorized by different colors	Microcystin RESULT TISSUE (ng/g)	Microcystin RESULT LIVER (ng/g)
83	M4	4/21/2015	CRAYFISH	5.94	
84	609	4/22/2015	BLACK CRAPPIE	4	59.75
85	762	4/23/2015	TULE PERCH	3.02	6.18
86	609	4/22/2015	TULE PERCH	4.56	ND
87	AC1	3/25/2010	HITCH	13.34	52.42
88	AC1	3/25/2010	HITCH	16.5	10.89
89	AC1	3/25/2010	HITCH	9.08	1.65
90	AC1	MAY, 2010	HITCH	8.47	7.51
91	215	5/26/2015	LM BASS	1.94	8.04
93	BVCL6	12/12/2017	MUSSEL	28.6	
100	BVCL6	12/12/2017	MUSSEL	17.25	
101	BVCL6	12/12/2017	MUSSEL	15.21	
103	CP	12/14/2017	MUSSEL	12.73	
104	CP	12/14/2017	MUSSEL	19.53	
105	CP	12/14/2017	MUSSEL	22.95	

Table 12: Sport Fish and Shellfish Action Levels for Consumption (ng/g, ww¹)

	Microcystins	Anatoxin-a	Cylindrospermopsin
Sport fish tissue level	★ 10	5000	70

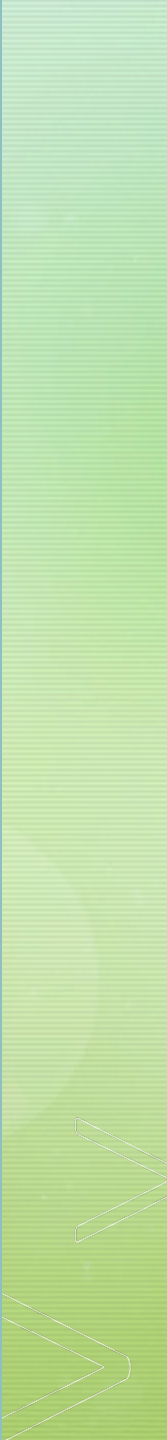


6PPD and other Emerging Contaminants

- Impacts on fish availability
- Impacts on fish consumption
- Water quality impacts?
- Other species impacts?



Collaborating with Tribes

- Tribes will protect their people and their resources
 - They can and do develop water and biota monitoring programs
 - Identifying opportunities for collaboration will enhance programs and lead to useable data and information
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