

PREPARING TRIBAL WATER QUALITY STANDARDS



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Goals for This Session

- **Goal:** Provide foundational knowledge of Water Quality Standards (WQS) before hearing directly from a tribe that has gone through the process.
 - ✓ Why are WQS important to tribes.
 - ✓ What WQS are and why they matter.
 - ✓ Key components of WQS (Designated Uses, Criteria, Antidegradation, Implementation, Timeline).
 - ✓ TAS Process and specific uses or criteria a tribe may include
 - ✓ Other Legal Obligations, Triennial Review (TRs), Hot Tips, and WQS tools for tribes
 - ✓ How a Tribe navigated WQS development (Camille Merchant's Experience).

WHY SHOULD A TRIBE CREATE THEIR OWN WATER QUALITY STANDARDS?

Tribal water quality standards provide a legal basis to protect waters that may be impacted from uses upstream of reservation land.

1.

Tribal Sovereignty: By creating their own water quality standards, tribes exercise their sovereignty and authority over natural resources within their lands. This allows them to manage and protect their environment in a way that reflects their values and needs, without relying on external standards that might not consider their unique context.

2.

Environmental Stewardship: By creating their own water quality standards, a tribe can better manage and protect their ecosystems in a way that reflects their knowledge of local conditions and long-term sustainability.

3.

Adaptation to Local Conditions: Water quality issues can vary widely from one location to another. By creating standards tailored to local water bodies, tribes can address the unique challenges they face

WHY SHOULD A TRIBE CREATE THEIR OWN WATER QUALITY STANDARDS?

4.

Protection of Tribal Health: Tribal members depend on local water sources for drinking, fishing, agriculture, and other daily activities. Developing water quality standards specific to their needs ensures that these sources are safe and healthy, preventing exposure to contaminants that could negatively affect health and quality of life.

5.

Adaptation to Local Conditions: Sometimes, federal or state regulations may not be adequately protective of tribal water resources. By creating standards tailored to local water bodies, tribes can address the unique challenges they face, such as pollution from nearby industries, runoff from agriculture, or contamination from old infrastructure.

6.

Empowerment and Resilience: Having the authority to set water quality standards lets tribes control their environmental health. This autonomy can strengthen resilience, allowing adaptation to challenges like climate change, pollution, and industrial development.

What are Water Quality Standards (WQS)?

- WQS are the foundation of water protection under the Clean Water Act (CWA)
- They define the goals for a waterbody and set regulatory limits on pollution
- WQS include designated uses, water quality criteria, and antidegradation requirements
- Tribes with EPA-approved standards have the authority to protect their waters
- WQS reflect the tribe's environmental, cultural, and public health priorities



DEVELOPING TRIBAL WATER QUALITY STANDARDS



2) Water Quality Standards

Water Quality Standards include:

- **Designated Uses:** Designated uses are the intended or expected uses of a water body, such as public drinking water supply, recreational, or supporting aquatic life and are part of the broader water quality standards framework under the Clean Water Act.
- **Water Quality Criteria (Limits on Pollutants):** Tribes must establish water quality criteria to protect the designated uses, which can include numeric or narrative criteria for specific pollutants.
- **Antidegradation Policies:** These are legally binding requirements within a tribe's water quality standards (WQS) that prevent or minimize water degradation, ensuring the protection of existing High-Quality Waters or Outstanding Tribal Resource Waters (OTRWs).
- **General Implementation Policies:** Mixing zones, compliance schedule authoring provisions, variances, etc.



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Related Topics: [Water Quality Standards: Regulations and Resources](#)

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Water Quality Standards Tools for Tribes

This website provides tools to assist tribes with the adoption of new or revised water quality standards (WQS). Currently, the majority of tribal waters do not have EPA-approved WQS in effect for Clean Water Act (CWA) purposes. These tools are designed to (1) simplify tribal applications for “treatment in a similar manner as a state” (TAS) to administer CWA section 303(c) WQS and section 401 water quality certification programs; and (2) streamline the development of tribal WQS for tribal adoption and EPA approval under CWA 303(c). The tools include the following:

- The [TAS application template](#) is a downloadable and customizable document that addresses all of the eligibility requirements listed in EPA’s implementing regulations at 40 CFR 131.
- The [Model WQS template](#) is a downloadable and customizable document that provides model WQS text which, together with tribal input and guidance from EPA Region, will simplify the process of developing tribal WQS.

Related Information

- [Federal Water Quality Standards Regulations](#)
- [Water Quality Standards in Your Area](#)

<https://www.epa.gov/wqs-tech/water-quality-standards-tools-tribes>

Model WQS Template for Waters on Indian Reservations

Water quality standards (WQS), which states and authorized tribes adopt under section 303(c) of the Clean Water Act (CWA), are the foundation of the water quality-based pollution control programs mandated by the CWA. WQS define the goals for a water body by designating its uses, setting criteria to protect those uses, and establishing antidegradation requirements.

This template is designed to facilitate drafting of WQS. EPA expects that tribes will be able to incorporate the template language and tables directly into their draft WQS after tribes have made changes to the text and/or tables in coordination with the appropriate EPA Regional Office. Because each tribe’s situation and local conditions are unique, following this template alone does not guarantee that a tribe’s submitted WQS will be approved by EPA. Coordination with EPA Regional Office is therefore important to help ensure successful use of the template.

This template does not include specific text or table contents to develop WQS for waters in the Great Lakes system, as defined in 40 CFR part 132 (the Great Lakes Water Quality Guidance). Tribes with such waters should coordinate with the appropriate EPA Regional Office when using this template in order to ensure that the tribe’s WQS will comply with requirements unique to those waters, in addition to the national requirements of 40 CFR 131. EPA may revise this template in the future to keep it up to date and to reflect feedback on its usefulness.

The [Tribal/State Human Health Criteria Calculator](#) may be used in conjunction with the numeric criteria section of this template.

-  [Model Water Quality Standards Template for Waters on Indian Reservations \(Word\).docx](#) (June 2020, EPA 815-D-20-001)

water body (e.g., perennial streams);

(1) Water quality must provide for the protection and propagation of fish, shellfish, and wildlife;

(2) Water quality must provide for recreation in and on the water;

[The following non-101(a) designated uses listed in (c)(3) and (c)(4) may be adopted at the Tribe’s discretion based on the use and value of the Tribe’s waters for these purposes, in accordance with 40 CFR 131.10. The Tribe may prefer different language to describe the cultural and traditional uses to be made of their waters. Further uses that may be considered are provided in CWA section 303(c)(2)(A).]

(3) Water quality must provide for cultural and traditional uses of the reservation waters; and

(4) Water quality must provide for use of the water as a public water supply, excluding saline waters.

(d) *Narrative water quality criteria*

[According to EPA’s regulation at 40 CFR 131.11(b)(2), the Tribe should establish narrative criteria where numeric criteria cannot be established or to supplement numeric criteria.]

(1) *General requirements.* All waters included in paragraph (a) of this section shall be free from toxic, radioactive, conventional, non-conventional, deleterious or other polluting substances in amounts that will prevent attainment of the designated uses specified in paragraph (c) of this section, as modified in paragraph (l) of this section. Generally applicable Designated Uses are listed in paragraph (c), but Water Body-Specific Designated Uses, Criteria, and WQS Variances are included in paragraph (l). Narrative provisions apply to protect designated uses listed in both (c) and (l), where applicable.

(2) *Aesthetic qualities and protection of aquatic life and human health.* All waters included in paragraph (a) of this section must be capable of supporting aquatic life uses identified in paragraphs (c) and (l), where applicable, and shall be free from substances, attributable to wastewater discharges or any other pollutant sources, that:

(i) Settle to form objectionable deposits;

(ii) Float as debris, scum, oil, or other matter forming nuisances;

https://www.epa.gov/sites/default/files/2020-06/model_wqs_for_tribes_june_2020_508c.docx

Aquatic Life Criteria

		Freshwater		Saltwater	
Compound	CAS Number	Criterion Maximum Concentration (CMC) (µg/L)	Criterion Continuous Concentration (CCC) (µg/L)	Criterion Maximum Concentration (CMC) (µg/L)	Criterion Continuous Concentration (CCC) (µg/L)
Acrolein	107028	3	3	-	-
Aldrin ^a	309002	3	-	1.3	-
Alkalinity ^b		-	20000	-	-
alpha-Endosulfan ^{a,c}	959988	0.22	0.056	0.034	0.0087
Aluminum pH 5.0 – 10.5	7429905	Acute (CMC) and chronic (CCC) freshwater aluminum criteria values for a site shall be calculated using the 2018 Aluminum Criteria Calculator (Aluminum Criteria Calculator V.2.0.xlsx, or a calculator in R or other software package using the same 1985 Guidelines calculation approach and underlying model equations as in the Aluminum Criteria Calculator V.2.0.xlsx) as established in EPA's Final Aquatic Life Ambient Water Quality Criteria for Aluminum 2018 (EPA 822-R-18-001) . To apply the aluminum criteria for Clean Water Act purposes, criteria values based on ambient water chemistry conditions must protect the water body over the full range of variability, including during conditions when aluminum is most toxic.			


Human Health Criteria Table

Calculated Human Health Criteria based on a
Fish Consumption Rate of 22 grams/day
Cancer Risk Level of 1 in 1,000,000 people (10⁻⁶)

Compound	CAS Number	Water + Organism ug/l	Organism ug/l
Zinc ^{b,c}	7440666	7000	23000
Vinyl Chloride ^a	75014	0.022	1.6
Trichloroethylene ^a	79016	0.6	7
Toxaphene ^a	8001352	0.00068	0.00069
Toluene ^a	108883	57	500
Thallium ^c	7440280	0.22	0.43

Human Health Criteria Calculator

	Fish Consumption Rate (FCR)	Cancer Risk Le (CRL)
<input type="text"/>	22 grams per day - EPA's default "general" rate (updated in 2015)	<input type="radio"/> 1 in 100,000 pe (10 ⁻⁵)
<input type="text"/>	142.4 grams per day - EPA's default "subsistence" rate	<input type="radio"/> 1 in 1,000,000 (10 ⁻⁶)
<input type="text"/>	160 grams per day - half of the USDA recommended daily protein intake	<input type="radio"/> 1 in 10,000,000 people (10 ⁻⁷)
<input type="text"/>	175 grams per day - from the Columbia River Inter-Tribal Fish Commission Survey (1994)	



WHAT IS THE PROCESS FOR CREATING TRIBAL WATER QUALITY STANDARDS?

Where do I start?

TRIBAL WQS DEVELOPMENT AND SUBMITTAL PROCESS



TAS For WQS

- Need this before starting WQS development



Draft WQS

- Suggest Early Engagement with EPA
- Consider Using a Template
- Get EPA feedback and technical support
- EPA starts ESA and Tribal Consultation Process



Public Notice

- 45 Day notice of hearing
- Materials made available 30 Days in advance (24CFR25.5)



Public Hearing

- Response to comments



Certification

- From Attorney General or equivalent



Final WQS Package

- Formally Submitted to EPA

TREATMENT AS A STATE (TAS)



Obtain Treatment As a State (TAS) under Clean Water Act §§ 303(c) and/or 401.

To administer a WQS program under the CWA, a tribe must apply to EPA for authorization to be treated in a similar manner as a state (TAS).

With this authority, a tribe is able to administer both the CWA section 303(c) WQS and section 401 water quality certification programs. At its discretion, an applicant tribe may modify the template to apply for eligibility for just one of the two programs.

Eligible TAS tribes may implement and manage certain CWA programs including the following:

- [Water Quality Standards](#) (CWA Section 303(c))
- [Water Quality Certifications](#) (CWA Section 401)
- [National Pollutant Discharge Elimination System \(NPDES\) permitting](#) (CWA Section 402)
- [Dredge and Fill Permitting](#) (CWA Section 404)
- [Impaired Waters Listing](#) (CWA Section 303(d))

WHAT ELSE MIGHT A TRIBE INCLUDE?

WHAT IS
NEARBY THAT IS
OF CONCERN?



Harmful Algal Bloom (HAB)

Toxins

e.g., cyanobacteria (blue-green alge)

Heavy Metals

Potential contaminates or by-products
expected from industrial activities

Nutrients, Pesticides,

Herbicides, Microbial

Agricultural contaminants



WHAT ELSE CAN YOU INCLUDE?

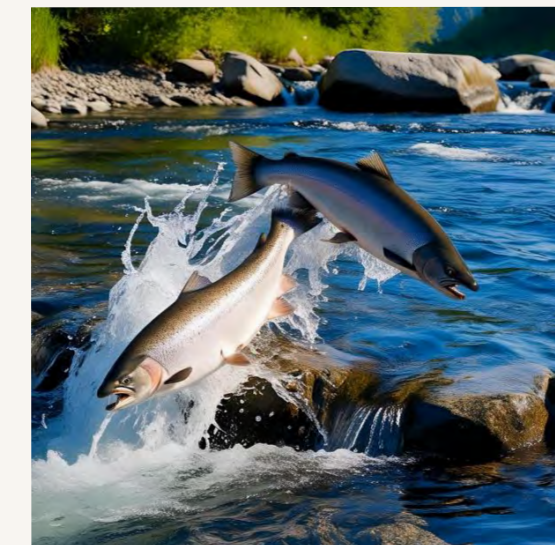


Cultural and Ceremonial
Uses

What's important to your tribe?



Wild Plant Harvesting -
Protecting water used to
grow or gather traditional
plants (e.g., wild rice)



Species-Specific Protection
or Higher Protection For
Fish Consumption (more
stringent limits like
mercury or PCBs)



OTHER LEGAL OBLIGATIONS

- **Tribal Consultation
(Surrounding Tribes)**
 - **EPA engages in Consultation
with tribes that may be affected
by WQS actions**
- **Endangered Species Act (ESA)
(Section 7 Consultation)**
 - **WQS federal action consultation
under Section 7**



TRIENNIAL REVIEWS

Public Hearing: At least every
3 years:

- **40 CFR 25.5 – Seek feedback from public and stakeholders**

- **Ensure WQS are consistent with current regulations**
- **Updates? Are current criteria protective and appropriate?**

- **Letter to EPA:** Notify EPA of completion and next steps
- **Revisions submitted to EPA or rationale if no revisions**

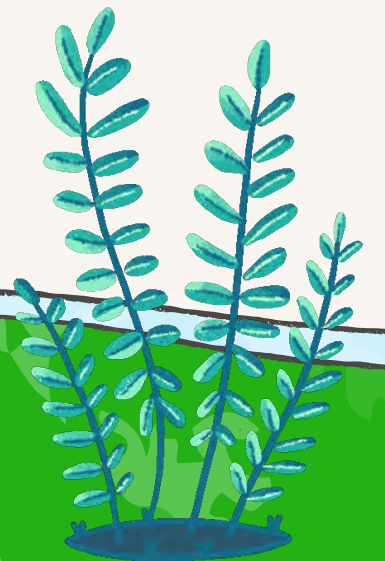
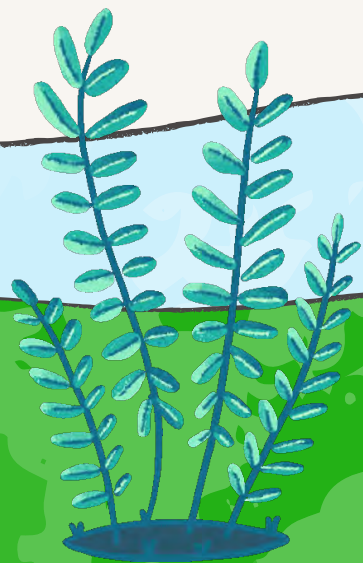




Tips you Should Take Into Consideration



- Use of the Tribal WQS Template is highly recommended—notify your contractor!
- Tribes must protect downstream waters
- Tribes must satisfy CWA 101(a)(2) by adopting uses that protect for recreation and fish consumption
- Know the difference between the two human health exposure pathways: Organism Only vs. Water + Organism
ow the difference
- Don't over-rely on state criteria
- Prepare for revisions and review



Water Quality Standards Tools for Tribes

EPA WQS Template

- Framework to help tribes draft their WQS

TAS (Treatment as a State) Application Template

- Guidance on applying for TAS to administer WQS programs

Tribal Human Health Calculator

- Tool to help tribes develop water quality criteria based on fish consumption and other tribal exposure factors



EPA WQS Handbook



Regional Tribal Program Contacts

- Direct contacts at EPA Region 9 who can provide hands on technical assistance—
<https://www.epa.gov/tribal-pacific-sw/water-quality-standards>





THANK YOU!

Questions?