

Narrative Templates for Wetland Water Quality Standards

Jennifer Brundage

Office of Water/Office of Science and
Technology

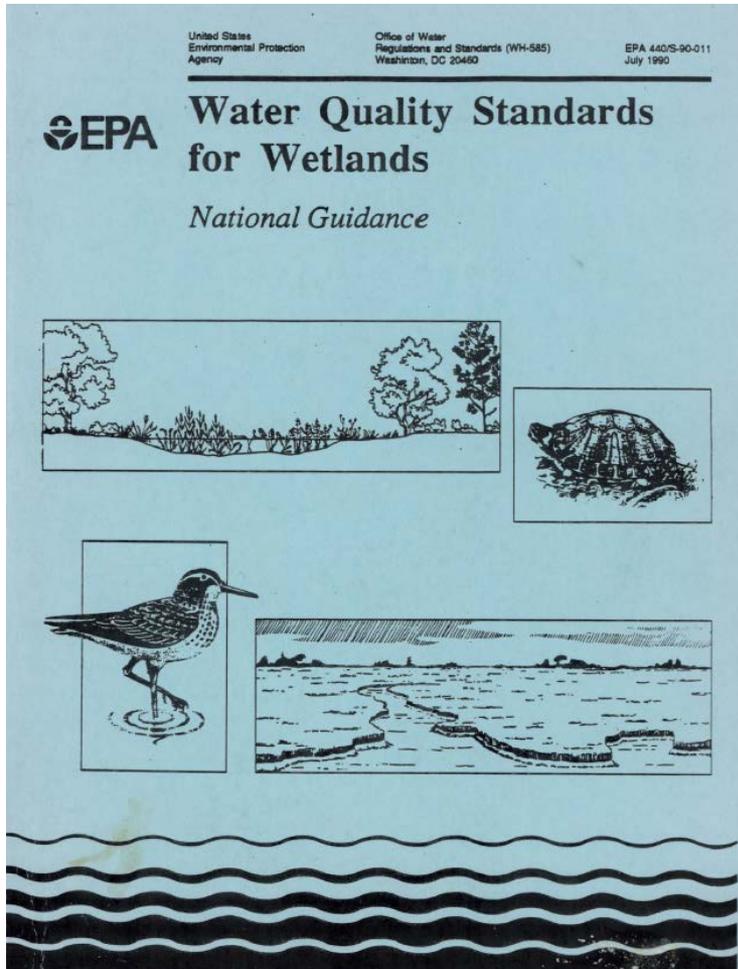
July 26, 2016



Why Water Quality Standards for Wetlands?

- ▶ **Permitting** - Standards provide a clear basis for making water quality based permitting decisions under CWA Sections 402 and 404 and other state and tribal programs;
- ▶ **Water quality certification** - Standards are the basis for states and tribes to approve, condition, or deny certifications under CWA Section 401 programs. Wetlands-specific WQS provide a stronger basis for 401 certifications and conditions;
- ▶ **Monitoring, Assessment and Reporting** - Standards provide a benchmark against which monitoring data can be used to assess and report on wetlands function and/or condition (i.e., 303(d)305(b) integrated reports);
- ▶ **Restoration and Protection** - States and tribes can use standards as a basis for guiding restoration and protection efforts and gauging their effectiveness.

Why Water Quality Standards for Wetlands?



Ensure that provisions of the CWA currently applied to other surface waters are also being applied to protect wetlands

What is a Water Quality Standard?

- ▶ Define goals for a water body
 - To meet overall CWA 101(a) “fishable/swimmable” goal
 - Basis for protecting, assessing, and restoring water bodies
- ▶ Must contain:
 - Designated uses (a.k.a. beneficial uses)
 - Criteria to protect those uses
 - Antidegradation policy & implementation procedures
 - Optional: general policies
- ▶ Apply to “waters of the U.S.” and typically “waters of the state” (or territory, or authorized tribe)
- ▶ Legally binding

Designated Uses specify functions/activities supported by a specific level of water quality

Typical DUs for state waters:

- Protection and propagation of fish, shellfish, and wildlife
- Recreation in and on the water
- Public water supply
- Agriculture
- Industry
- Navigation



Wetland functions as designated uses

- Starting point: Wetland structure and function (e.g., Cowardin)
- What are your goals? What goals are currently attained and were historically attained?
- Flood flow attenuation
- Groundwater recharge
- Nutrient cycling, water-dependent wildlife
- Can be very specific
 - habitat for stable population of threatened swamp pink (*Helonius bullata*)

Criteria: the level of water quality that supports the use

When criteria are met, water quality will protect the designated use

Forms of criteria:

- Numeric: “To protect aquatic life, dissolved zinc shall not exceed 90 $\mu\text{g}/\text{L}$ as a one hour average more than once every three years.”
- Narrative: “All waters shall be free from oil and scum.”
- Biocriteria, flow

Why *Narrative* Wetland WQS?

Seasonally and spatially variable:

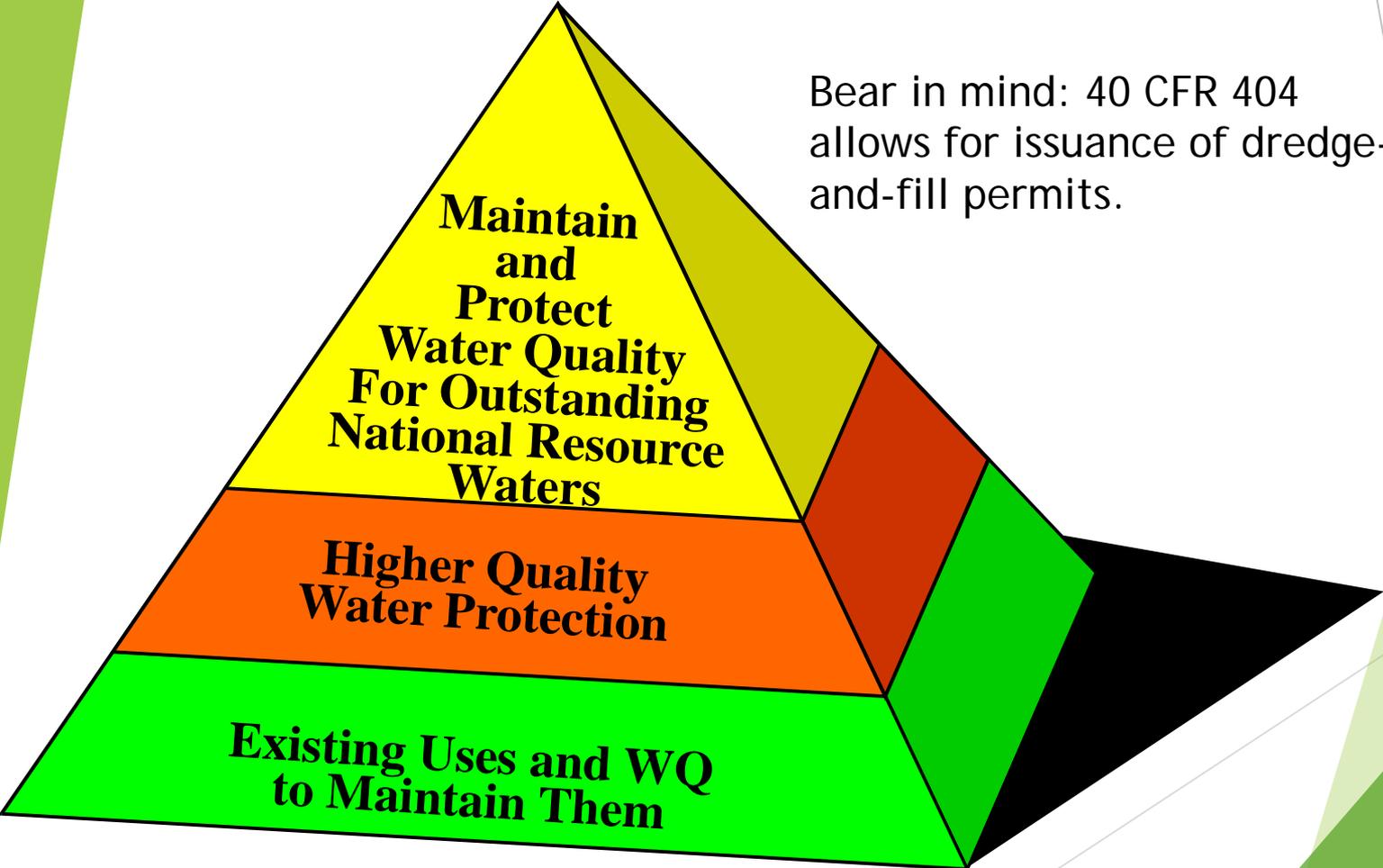
- Water depth and velocity,
- Soil type and saturation,
- Vegetation,
- Oxygen, nutrient demands, etc...



Given the complex spatial and temporal heterogeneities of these unique ecosystems, narrative (rather than numeric) statements may be the best approach for states when first developing water quality standards for wetlands.

Antidegradation

WQS submittal must include an antidegradation policy and implementation methods consistent with 40 CFR 131.12



**Maintain
and
Protect
Water Quality
For Outstanding
National Resource
Waters**

**Higher Quality
Water Protection**

**Existing Uses and WQ
to Maintain Them**

Bear in mind: 40 CFR 404 allows for issuance of dredge-and-fill permits.

How are Wetlands Different from Other Surface Waters?

Differences in hydrology, threats, reversibility of impacts, relationship to other waters, functions/values, numbers of water bodies, and sensitivity to small changes in precipitation and ground water levels

Unique wetland attributes compared to other types of waters require unique criteria to protect them

Especially when implementing CWA and other resource protection programs



EPA's Narrative Templates for Developing Wetland WQS

<https://www.epa.gov/wqs-tech/templates-developing-wetland-water-quality-standards>

- ▶ Partners: U.S. EPA offices, ACWA and ASWM state members
- ▶ Use all three templates (designated uses, criteria, and antidegradation) to generate a complete narrative water quality standard for wetlands
- ▶ Once you've completed your selections, click the *Clean Up Template for Copying* button

Templates for Developing Wetland Water Quality Standards

About These Templates

How To Use The Templates

Template for Designated Uses

Template for Criteria

Template for Antidegradation

Template for Designated Uses

For all depressional estuarine lacustrine lacustrine fringe marine mineral flats

organic flats palustrine riverine slope state-defined tidal fringe wetlands, as defined

by the Cowardin HGM state-defined classification scheme, the uses to be protected

include but are not limited to: baseflow discharge cultural opportunities

flood flow attenuation groundwater recharge

indigenous floral and faunal diversity and abundance† nutrient cycling

organic carbon export/cycling protection of downstream water quality‡ recreation†

resilience against climatic effects sediment/shoreline stabilization surface water storage

water-dependent wildlife† to the extent that such uses functions values occur as

represented by established baselines. reference wetlands. reference standard wetlands.

least impacted wetlands. least human-altered wetlands. state-specific standards.

†Absent a UAA, if uses specified in §101(a)(2) or subcategories of such uses are not selected, such uses must be included elsewhere in the state's standards.

‡If protection of downstream water quality is not selected, such a provision must be included elsewhere in the state's standards (per 40 CFR §131.10(b)).

Related Info

- [What is a wetland?](#)
- [Why are wetlands important?](#)
- [Wetlands and Climate Change](#)

-
- Information About Water Quality Standards and their Development
 - [WQS Handbook](#)
 - [WQS Academy](#)

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[Template for Designated Uses](#)

[Template for Criteria](#)

[Template for Antidegradation](#)

Template for Designated Uses

For all wetlands, as defined by the HGM classification scheme, the uses to be protected include but are not limited to: baseflow discharge, cultural opportunities, flood flow attenuation, and sediment/shoreline stabilization to the extent that such functions occur as represented by reference wetlands.

[Revise Template](#)

[Contact Us](#) to ask a question, provide feedback, or report a problem.

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Template for Criteria

all | depressional | estuarine | lacustrine | lacustrine fringe | marine | mineral flats

organic flats | palustrine | riverine | slope | state-defined | tidal fringe | wetlands, as defined

by the | Cowardin | HGM | state-defined | classification scheme, shall maintain | biological

physical | chemical | hydrological | conditions - as determined by | established baselines

least-human-altered wetlands | least-impacted wetlands | reference-standard wetlands

reference wetlands | state-specific standard | - including, but not limited

to: | base flow, flow regime, and wetland hydroperiod

chemical, nutrient, and dissolved oxygen regime of the wetland

conditions favorable to protection and propagation of threatened, endangered, and at-risk species

conductivity | floristic quality | integrity of species diversity, abundance, and zonation

normal movement of fauna | pH of wetland waters | salinity | size and shape

soil type and horizon structure | water currents, erosion, or sedimentation patterns

water levels or elevations | water temperature variations | .

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Template for Antidegradation

Tier I: For all wetlands, using the classification scheme, there shall be no degradation of existing uses.

Tier II: Using the classification scheme: there shall be no net loss to the water quality, of high quality wetlands, unless, after satisfying state antidegradation provisions including avoidance, minimization, and mitigation/replacement requirements, it is determined that allowing degradation is necessary to accommodate important social or economic development in the area in which the wetlands are located.

Tier III: There shall be no loss to the water quality of wetlands designated as outstanding national resource waters, as per state Tier III requirements.

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