

EXAMPLES OF NARRATIVE AND NUMERIC CRITERIA



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Content:

Narrative and Numeric Criteria for Beneficial Uses

- What are “narrative and numeric” criteria?
- What are examples of criteria states or tribes have adopted to protect beneficial uses?

Questions:

Exploring the Application of “No Net Loss” as a Numeric Criteria for Wetlands

- What numeric” criteria have you adopted to protect beneficial uses? Have you adopted a “no net loss” or equivalent standard?
- If so, how are these working?
- What are productive future directions for numeric and narrative criteria with special emphasis upon “no net loss” as possible numeric standard?

Definitions

- **What, collectively, are “narrative and numeric criteria”?** They are the standards and procedures adopted by a state or tribe for protecting beneficial uses. As such, they include the antidegradation goal including any no net loss standard, standards pertaining to functions and values, standards for “sequencing”, standards for protection of hydrology and biology, standards for mitigation and other standards.
- **Numeric criteria are standards which incorporate numbers.** Narrative criteria do not incorporate numbers. Therefore, a “no net loss” of function, acreage or value” goal is numeric although typically administered with a great deal of discretion similar to a narrative standard.

Status of Narrative and Numeric Criteria

- **Most states and tribes have only narrative criteria**
- **A few states and tribes mix narrative and numeric criteria**
 - **Example: Hawaii—pH 4.5 to 7.00**
 - **Example: Iowa—”Side slopes of newly constructed channel will be no steeper than 2.1...”**
 - **Example: Iowa—”For discharges of dredged or fill material resulting in permanent loss of more than 1/10 acre of waters of the U.S. a compensatory mitigation plan to offset those losses will be required.”**
 - **Example: tribes with numerical criteria: Pueblo of Isleta, White Mountain Apache**

Examples

Examples of narrative and numeric criteria include:

- General antidegradation policy
- Specific policies for specific uses, specific wetlands, or specific classes of wetlands
- Sequencing
- Protection of functions
- No net loss of function and acreage
- “Free froms”
- Highly restrictive policies applying to special resource waters
- Protection of hydrology
- Protection of biological integrity
- Mitigation and compensation requirements

General Nondegradation Policy

- Confederated Salish and Kootenai Tribes of the Flathead Reservation provide in part: “The following standards are adopted to preserve, protect, restore, and maintain the chemical, physical, and biological integrity of the surface waters and wetlands of the Flathead Reservation.”
- Confederated Tribes of the Umatilla Indian Reservation of Oregon provide, in part:
 - “All wetlands within the Reservation which are not constructed wetlands shall be subject to the Antidegradation Policy (Section E), the Toxic Substances Criterion (Section G (S)(1), Narrative Criteria (Section G (6) provisions within this chapter.

Special Policy

Provide specific policies for specific uses, specific wetlands, or specific classes of wetlands:

- **Specific Activities/Uses.** Sokaogon Chippewa Community provide, in part: “The following activities are prohibited and will warrant a “Denial Antidegradation Decision:
 - Any activity which may result in long-term discharges, or a permanent lowering of water quality such as construction of roads, parking lots, driveways and buildings which will contribute to stormwater runoff on a continual basis to any surface water body, including but not limited to wetlands, streams and lakes.
- **Application of Standards.** The Pueblo of Isleta provide in part: “Criteria specific to a designated use shall be protected at all times and at all flow rates. Where water diversion or drought result in flow rates of zero, all discharges shall meet the criteria for the most sensitive designated use of the receiving water body.”
- **Specific Classes of Wetlands.** Wisconsin imposes special mitigation requirements on proposed permits for “Bogs located south of highway 10.”

Require “Sequencing”

Sequencing is to be applied to proposed activities impacting wetlands
(Example: Minnesota):

- A. “avoid the impact altogether by not taking a certain action or parts of an action;
- B. minimize the impact by limiting the degree or magnitude of the action and its implementation, and by taking affirmative actions to rectify the impact and reduce or eliminate the impact over time; and
- C. mitigate the unavoidable impact to the designated uses of a wetland by compensation. Compensatory mitigation shall be accomplished in the following descending order of priority of replacement:
 - (1) restoration of a previously diminished wetland; and
 - (2) creation of a wetland.”

Protect Functions: Include Functions as Both Designated Uses and Standards for Designated Uses

- (1) **Example: Wisconsin.** “To protect, preserve, restore and enhance the quality of waters in wetlands and other waters of the state influenced by wetlands, the following water quality related functional values or uses of wetlands, within the range of natural variation of the affected wetland, shall be protected:
- (a) Storm and flood water storage and retention and the moderation of water level fluctuation extremes;
 - (b) Hydrologic functions including the maintenance of dry season stream flow, the discharge of groundwater to a wetland, the recharge of groundwater from a wetland to another area and the flow of groundwater through a wetland;
 - (c) Filtration or storage of sediments, nutrients or toxic substances that would otherwise adversely impact the quality of other waters of the state;
 - (d) Shoreline protection against erosion through the dissipation of wave energy and water velocity and anchoring of sediments;
 - (e) Habitat for aquatic organisms in the food web including, but not limited to fish, crustaceans, mollusks, insects, annelids, planktonic organisms and the plants and animals upon which these aquatic organisms feed and depend upon for their needs in all life stages;
 - (f) Habitat for resident and transient wildlife species, including mammals, birds, reptiles and amphibians for breeding, resting, nesting, escape cover, travel corridors and food; and
 - (g) Recreational, cultural, educational, scientific and natural scenic beauty values and uses.”

Establish a Goal of No Net Loss of Function/acreage Value

- Example: Ohio “The wetland designated use shall be maintained and protected such that degradation of surface waters through direct, indirect, or cumulative impacts **does not result in net loss of wetland acreage or functions....**”
- Example: St. Regis Mohawk—“**Water quality in wetlands shall be maintained at naturally occurring levels**, within the natural range of variation for the individual wetland, unless otherwise specified and approved by the Environmental Division”
- Example: Assiniboine and Sioux Tribes of the Fort Peck Indian Reservation provide, in part, “**Existing water quality, functions and values of wetlands will be protected.**”

Adopt Restrictive Policies for Natural Resource Waters

- Example: Iowa. “For projects that impact **fens, bogs, seeps, or sedge meadows**, an individual Section 401 Water Quality Certification will be required.”
- Example: Kalispel Indian Reservation. “ 13 Special Resource Water Class. These are waters which comprise a special and unique resource to the Reservation and include wetlands, ephemeral streams, headwater streams and all other unclassified waters not intentionally created as waterways or waterbodies. **Physical and biological conditions of these waters shall be maintained in a natural state. Aesthetic Qualities criteria and Toxic Substances criteria apply to these waters at all times.** Additionally, the following criteria apply at all times:
 - 1) Toxic, radioactive, or deleterious materials shall be below levels which have the potential either singularly or in combination to interfere with use as a source water for domestic and municipal water supplies, or adversely affect public health as determined by the department.
 - 2) Livestock, pet, human, commercial, and industrial wastes are not allowed to be drained or discharged into Waters of the Reservation without control or treatment with best management practices approved by the department and sufficient to meet all criteria.”

Adopt “Free Froms

Example: Wisconsin. “(2) The following criteria shall be used to assure the maintenance or enhancement of the functional values.....

- **(a) Liquids, fill or other solids or gas may not be present in amounts which may cause significant adverse impacts to wetlands;**
- **(b) Floating or submerged debris, oil or other material may not be present in amounts which may interfere with public rights or interest or which may cause significant adverse impacts to wetlands;**
- **(c) Materials producing color, odor, taste or unsightliness may not be present in amounts which may cause significant adverse impacts to wetlands; and**
- **(d) Concentrations or combinations of substances which are toxic or harmful to human, animal or plant life may not be present in amounts which individually or cumulatively may cause significant adverse impacts to wetlands.”**

Protect Habitat/biological Integrity

- Example: North Carolina: “(e) Existing habitats and the populations of wetland animals and vegetation shall be maintained by:
 1. Protecting food supplies for fish and wildlife,
 2. Protecting reproductive and nursery areas, and
 3. Preventing conditions conducive to the establishment or proliferation of nuisance organisms. “
- Example: Fond Du Lac Band of Lake Superior Chippewa
“11 Naturally occurring biological communities and the habitat needed to support them, as determined by sampling, data analysis and establishment of reference conditions shall be maintained and protected in all waterways and wetlands of the Reservation.”
- Example: White Mountain Apache. “The following standards are applicable to all perennial, intermittent and ephemeral streams, lakes, wetlands, and other standing tribal waters in order to protect livestock and wildlife uses....(Listing maximum acceptable levels for toxics)”

Protect Hydrology

Example: North Carolina “(f) **Hydrological conditions necessary to support the biological and physical characteristics naturally present in wetlands shall be protected to prevent significant adverse impacts on:**

1. Water currents, erosion or sedimentation patterns;
2. Water temperature variations;
3. The chemical, nutrient and dissolved oxygen regime of the wetland;
4. The movement of aquatic fauna;
5. The pH of the wetland; and
6. Water levels or elevations.”

Example: Spokane Tribe of Indians. “**Physical and biological characteristics (of wetlands) shall be maintained and protected by:**

1. (a) Maintaining hydrologic conditions, including hydroperiod, hydrodynamics, and natural water temperature variations....”

Require Compensation

- Example: Hoopa Valley Indian Reservation. “There shall be no net loss of wetlands on the Hoopa Valley Indian Reservation...If no feasible alternative exists, then a wetland of equal or greater size must be constructed or rehabilitated in another area (preferably within the same watershed) as mitigation.”
- Example: Section 12 of the Wyoming Surface Water Quality Standards (ENV-WAT-1 § 12. Protection of Wetlands.) provides in part:
 - “Section 12. Protection of Wetlands. Point or nonpoint sources of pollution shall not cause the destruction, damage or impairment of naturally occurring wetlands except when mitigation through an authorized wetland mitigation process. When approving mitigation, the department may consider both the ecological functions and the wetland value of the disturbed wetland.

Establish, Implement Evaluation, Monitoring, Reporting Requirements

- **Wetland evaluation procedures**
- **Monitoring of wetland water quality over time, acreage, functions**
- **Monitoring of regulatory compliance (e.g., Massachusetts)**
- **Monitoring of wetland restoration/ creation for mitigation**
- **Example: North Carolina**
- **“(c) Wetland Evaluation Procedures. Evaluations of wetlands for the presence of existing uses shall be based on procedures approved by the Director. The Director shall approve wetland evaluation procedures that have been demonstrated to produce verifiable and repeatable results and that have widespread acceptance in the scientific community. Copies of approved methods or guidance may be obtained by submitting a written request to NCDWQEcological Assessment Group, P.O. Box 29535, Raleigh, NC 27626-0535.”**

THANKS

HELLO AGAIN!

Questions:

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