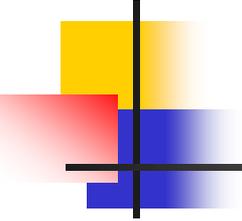


Water Quality Standards Academy

Designated Uses & Use Revisions



February 2026



Disclaimer

- This Presentation does not:
 - Impose any binding requirements
 - Determine the obligation of the regulated community
 - Change or substitute for any statutory provision or regulatory requirement
 - Change or substitute for any Agency policy or guidance
 - Control in any case of conflict between this discussion and statute, regulation, policy, or guidance

The views expressed in this presentation are those of the author[s] and do not necessarily represent the views or policies of the U.S. Environmental Protection Agency.

CWA

EPA

WQS

DU

UAA

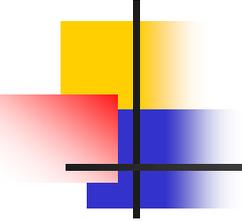


CFR

101(a)(2)

NPDES

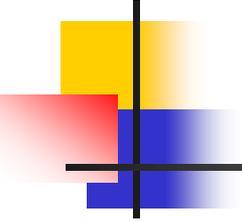
TMDL



OUTLINE

Part 1 - Designated Uses

- What are designated uses?
- Why are designated uses important?
- CWA Section 303(c)(2)(A)
- CWA Section 101(a)(2)
- Terminology
- EPA's Regulatory Requirements

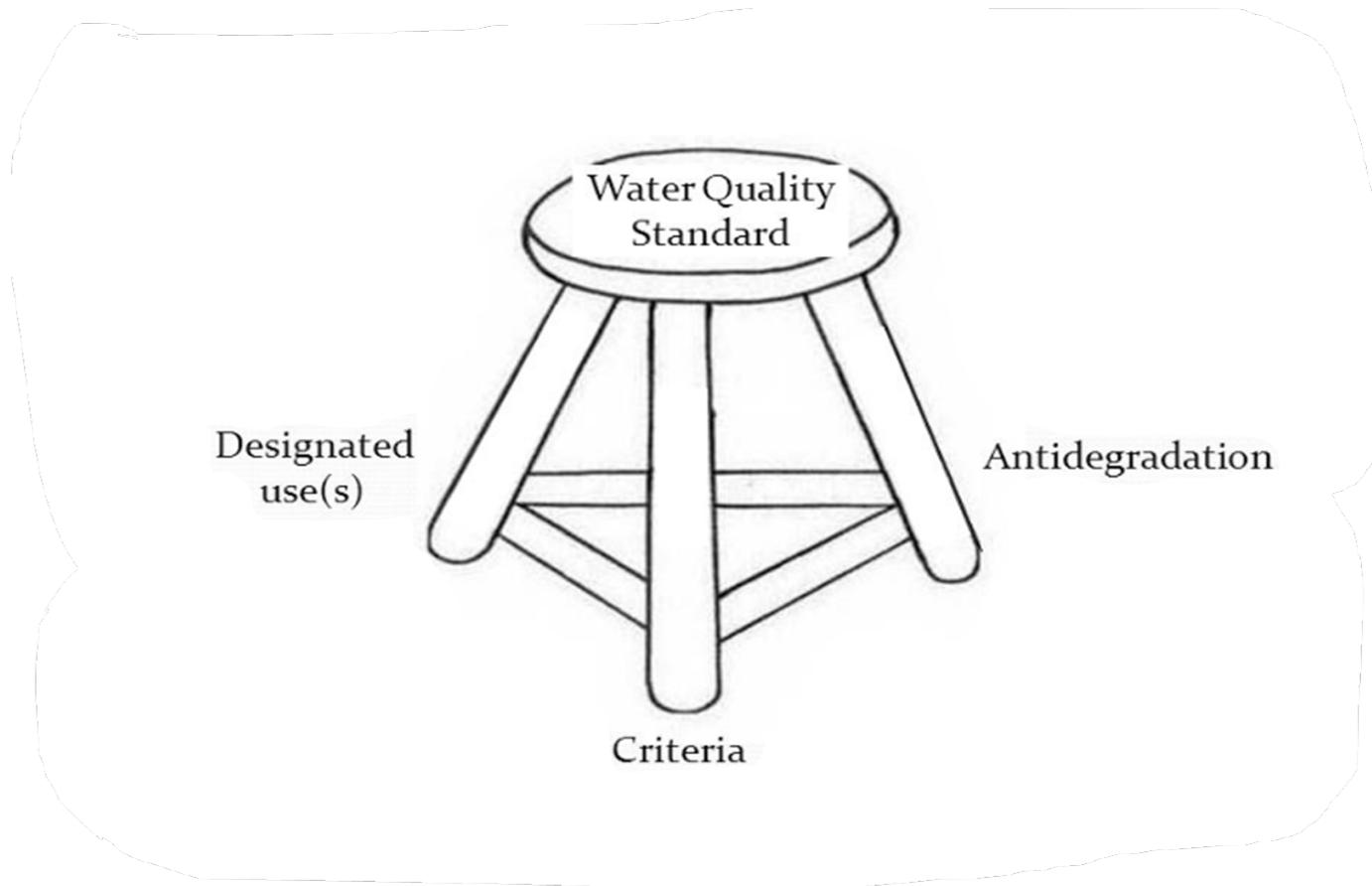


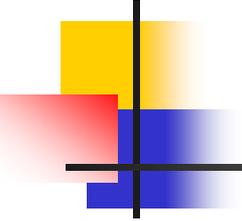
OUTLINE

Part 2 – Designated Use Revisions

- What is a UAA?
- When is a UAA Required and not Required?
 - How to Revise a 101(a)(2) Use
 - The Six 131.10(g) Factors
 - Highest Attainable Use (HAU)
 - How to Revise a non-101(a)(2) Use (Use/Value Demonstration)
 - What are Existing Uses?

Foundation of a Water Quality Standard

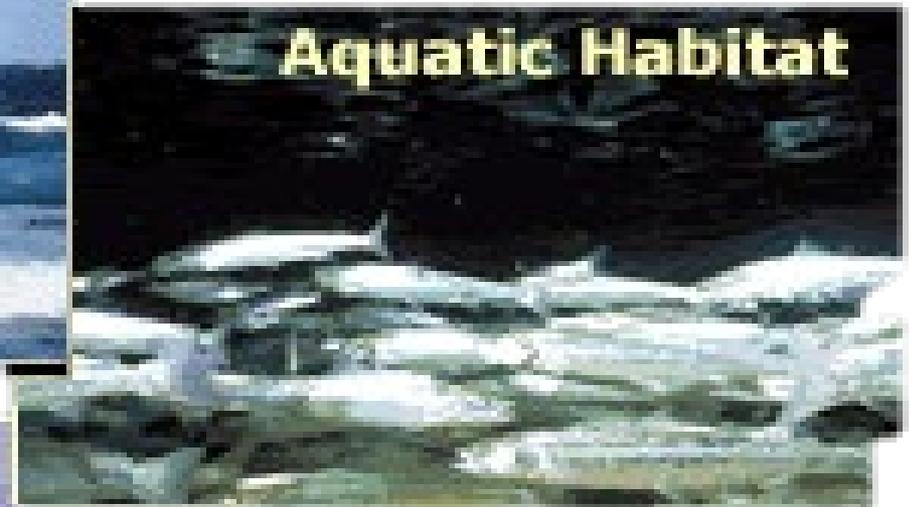
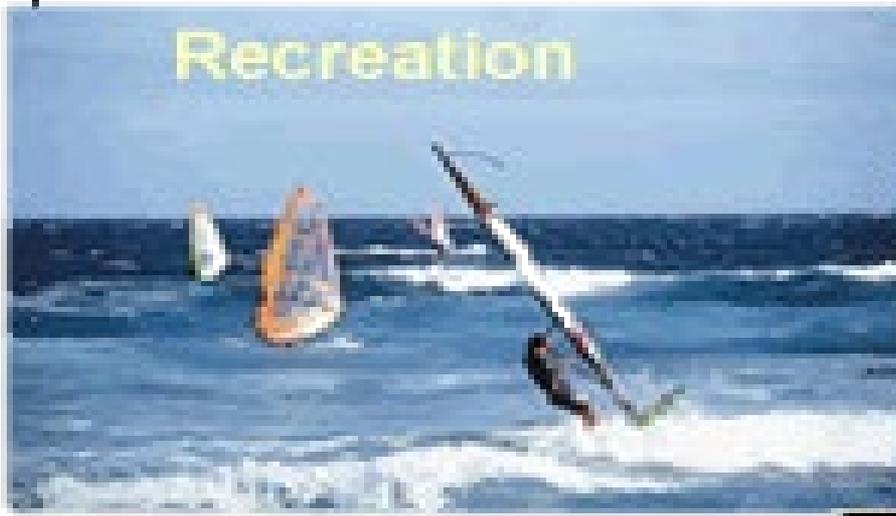


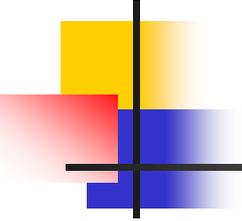


What are Designated Uses?

- Designated uses are “those uses specified in the WQS regulations for each waterbody or segment **whether or not they are being attained.**” (40 CFR § 131.3(f))
- Designated uses may be thought of as:
 - Desired conditions or goals of a waterbody
 - Function of, or activity in, a water that is supported by water quality

Designated Uses Categories



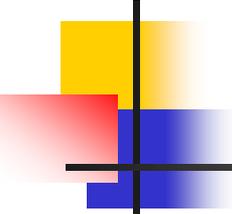


Why are Designated Uses Important?

- Establish water quality goals for a specific waterbody and communicate these goals to the public.
- Identifying the right designated uses leads to identification of the right water quality criteria to protect those uses.
 - Criteria are the primary regulatory basis for TMDLs, NPDES permit limits, etc...

CWA section 303(c)(2)(A): water quality standards “shall be established taking into consideration their use and value for public water supplies, propagation of fish and wildlife, recreational purposes, and agricultural, industrial, and other purposes, and...navigation.”





Clean Water Act

CWA section 101(a)(2): national goal that, wherever attainable, water quality provides for the protection and propagation of fish, shellfish and wildlife, and recreation in and on the water.



Non 101(a)(2) uses

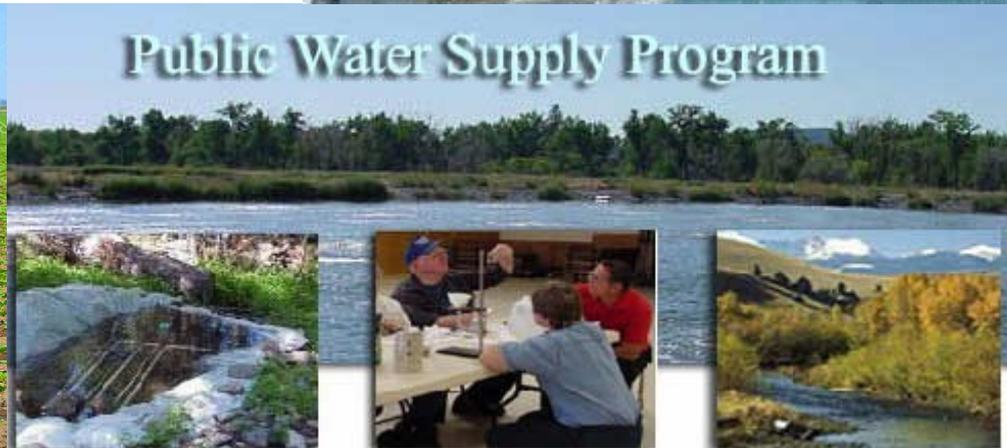
Navigation



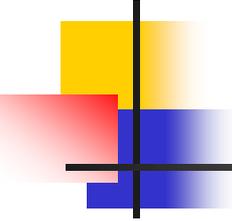
Agriculture



Public Water Supply Program



Terminology

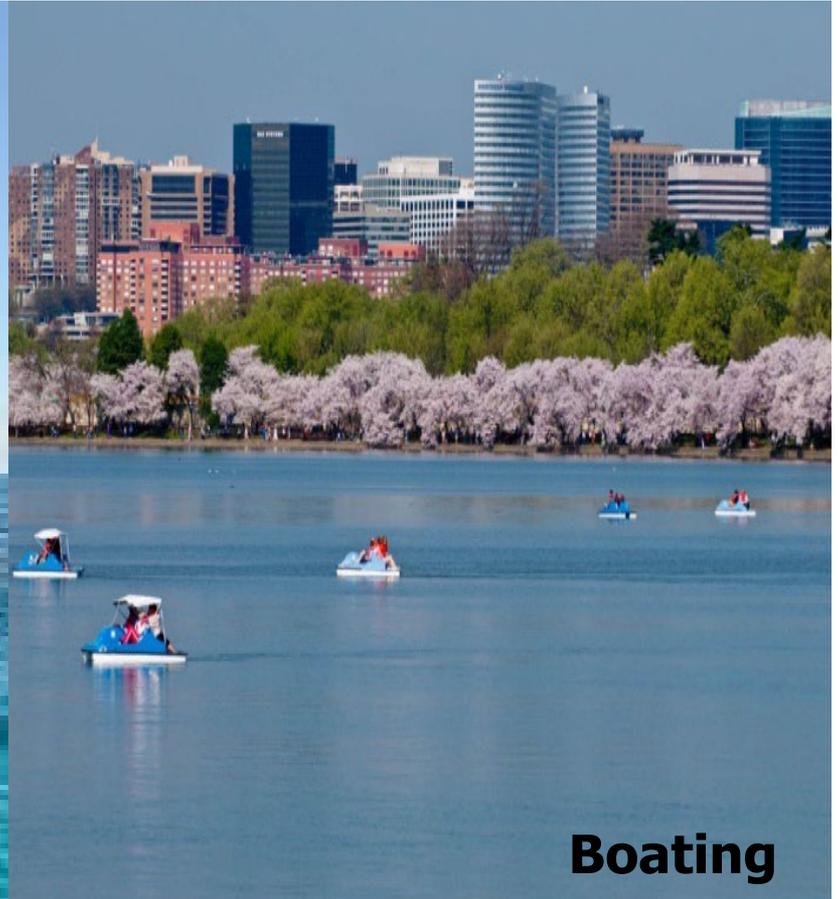


- “101(a)(2) uses” – uses that provide for the protection and propagation of fish, shellfish and wildlife, and recreation in and on the water.
- Subcategories of 101(a)(2) uses – any use that reflects the subdivision of 101(a)(2) uses for the purpose of reducing variability.
- “Non-101(a)(2) uses” – uses that are not related to the protection and propagation of fish, shellfish and wildlife or for recreational purposes.

Examples of Designated Use Categories



Swimming



Boating

Examples of Designated Use Categories



Fishing



Growth & propagation of fish



Ceremonial & Cultural Uses

Designated Uses Example: Virginia

- Recreation



- Propagation and growth of a balanced, indigenous population of aquatic life, including game fish...

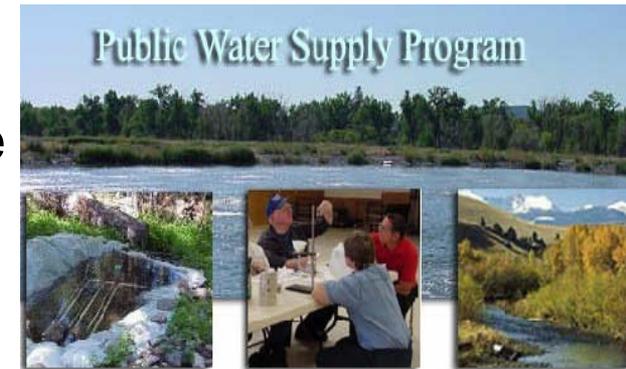


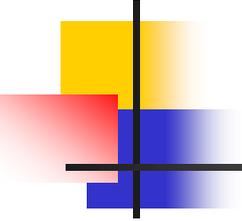
- Wildlife; and the production of edible and marketable natural resources, e.g., fish/shellfish



Designated Uses Example: Vermont

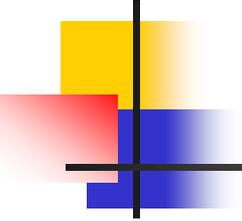
- Class A(1) Ecological waters:
 - Aquatic biota, wildlife and aquatic habitat
 - Aesthetics
 - Swimming and other PCR
 - Boating, fishing and other recreation use
- Class A(2) Public Water Supply:
 - Class A(1) waters and public water supplies
- Class B: Class A1 and class A2 and irrigation of crops and other agricultural uses





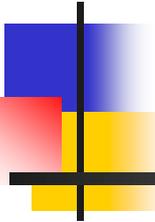
EPA's Regulatory-Requirements for Designated Uses

- Specify appropriate uses to be achieved and protected (131.10(a));
- In no case shall a state adopt waste transport/assimilation as a designated use for any waters of the US. (131.10(a));
- **Allow for subcategories of uses (e.g., cold and warm water fisheries) (131.10(c)) and seasonal uses(131.10(f));**
- **List six factors which states and authorized Tribes can use to demonstrate that a 101(a)(2) is not attainable (131.10(g));**
- **Require states and authorized Tribes to adopt the HAU when revising uses based on a required UAA (131.10(g));**
- **Must conduct a use attainability analysis to designate or remove a use, as specified in 131.10(j);**



EPA's Regulatory Requirements for Designated Uses

- **Specify that states/authorized Tribes may not remove designated uses if they are existing uses, unless a use requiring more stringent criteria is added (131.10(h)(1));**
- **Uses can be attained by the imposition of effluent limits required under sections 301(b) and 306 of the Act and cost-effective and reasonable best management practices for nonpoint source control (131.10(d)), and such uses may not be removed (131.10(h)(2));**
- Require states and authorized Tribes to revise WQS to reflect uses that are presently being attained but not designated (131.10(i));
- Require that WQS ensure attainment and maintenance of WQS of downstream waters (131.10(b)).



QUESTIONS??



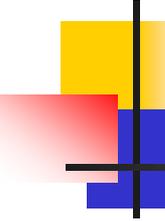
Part 2 of 2 - Revising Uses



DARN, WE MIGHT AS
WELL GO HOME

WARNING
FISH IN THIS
LAKE CONTAIN
MERCURY





Can Designated Uses be Revised?

- Yes! Uses can be revised to reflect:
 - **More specific** desired condition (e.g., aquatic life use to cold water- or warm water-aquatic life use).
 - Clearer articulation of the **attainable** use (e.g., primary vs secondary- contact recreation use).
- Revising designated uses can lead to more effective criteria, permits, TMDLs.

Aquatic Life Use (ALU)

- Cold water ALU



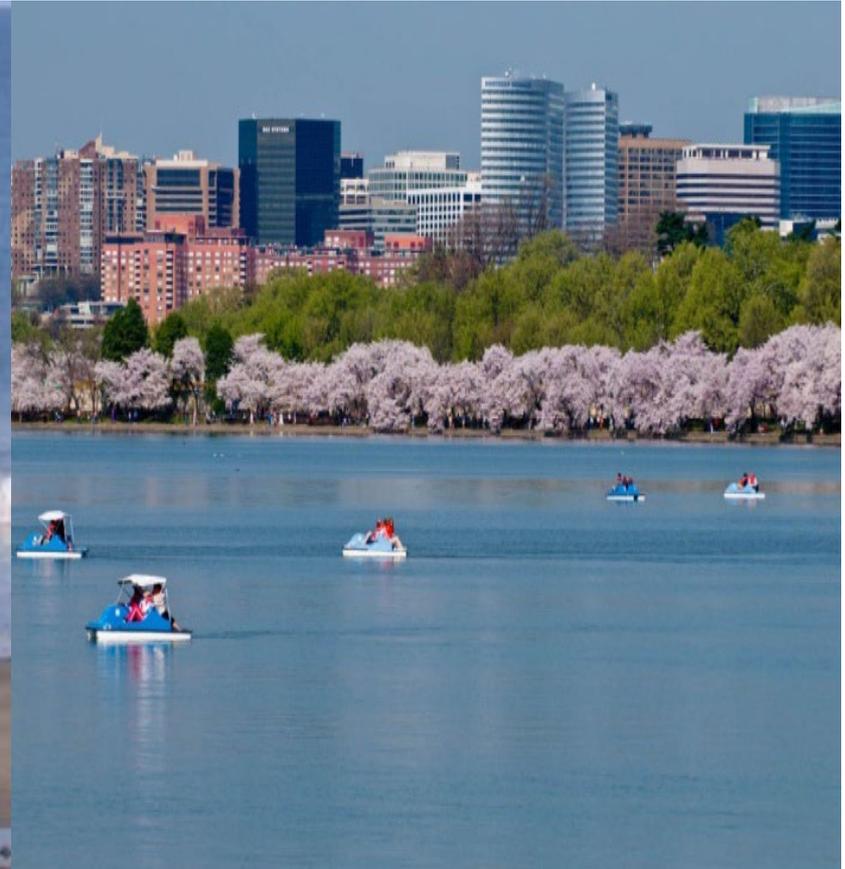
Lake Trout

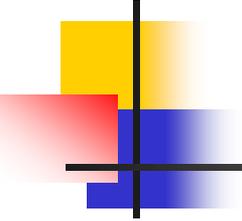
- Warm water ALU



Bass

Primary/Secondary Recreation Uses

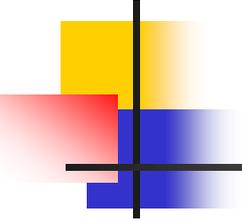




Required Rationale to Revise a Use?

This depends on the use type:

- 101(a)(2) uses, and subcategories of such uses - a use attainability analysis (UAA) is required.
- Non 101(a)(2) uses - use/value demonstration, but a UAA would also be acceptable.

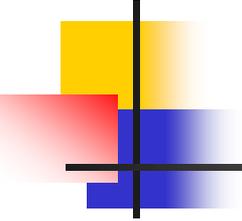


What is a UAA?

What is a UAA? “Structured scientific assessment of the physical, chemical, biological, and economic factors affecting the attainment of the use.”

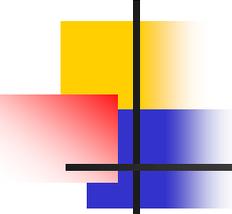
Who can conduct a UAA? Any individual or entity (e.g., state, authorized Tribe, a discharger or POTW) can conduct a UAA, but the state or Tribe is responsible for providing the required UAA as supporting documentation for their designated use revision to EPA as part of a WQS revision package.

Who approves a UAA? EPA does NOT approve a UAA. The UAA is supporting documentation for the use change that EPA reviews when determining whether to approve or disapprove the designated use revision. (131.6(b), 131.6(f))



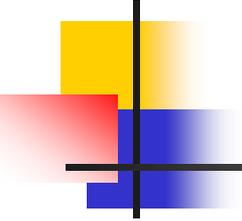
When is a UAA Required (131.10(j))

- Designating uses for the first time that do NOT include uses specified in CWA 101(a)(2).
- Removing a 101(a)(2) use, or subcategory of such a use, or adopting a subcategory of such a use with less stringent criteria.



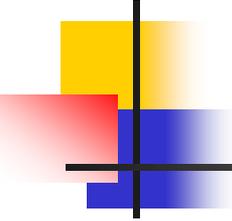
When is a UAA Not Required (131.10(k))

- Designating the uses specified in CWA 101(a)(2) for the first time.
- Designating a subcategory of a 101(a)(2) use that requires criteria at least as stringent as previously applicable.
- Removing or revising non 101(a)(2) uses. However, must justify how consideration of the use and value of such uses supports the action (i.e., “Use and Value” Demonstration).
 - Although not required for non-101(a)(2) uses, a UAA would also satisfy this requirement.



UAA 131.10(g) Factors

1. **Naturally occurring pollutant concentrations** prevent the attainment of the use; or
2. **Natural, ephemeral, intermittent or low flow conditions or water levels** prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met; or
3. **Human caused conditions or sources of pollution** prevent the attainment of the use and **cannot be remedied or would cause more environmental damage to correct** than to leave in place; or

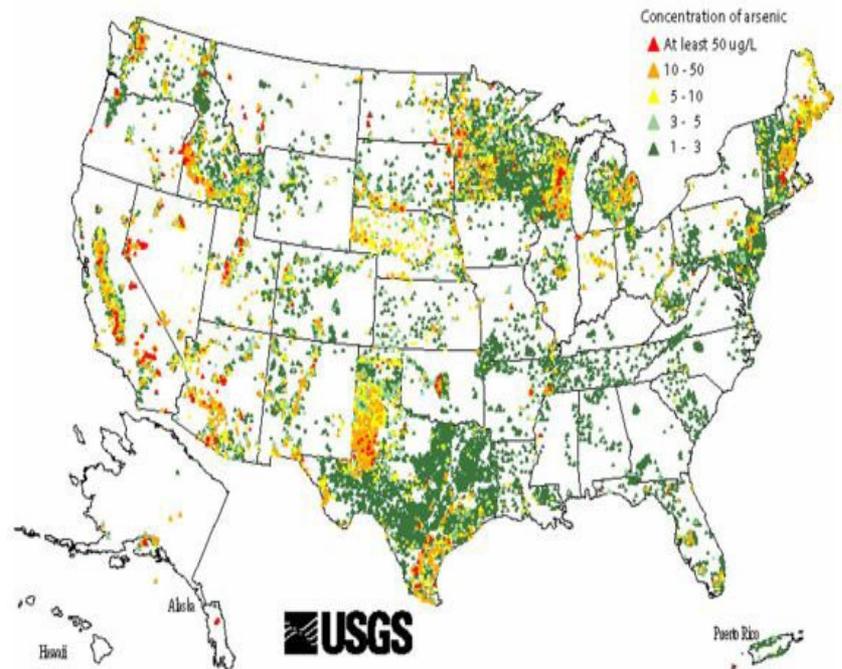


UAA 131.10(g) Factors (Cont'd)

4. **Dams, diversions or other types of hydrologic modifications** preclude the attainment of the use, and it is **not feasible to restore the water body to its original condition or to operate such modification** in a way that would result in the attainment of the use; or
5. **Physical conditions related to the natural features** of the water body, such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, **preclude attainment of aquatic life protection uses**; or
6. Controls more stringent than those required by sections 301(b) and 306 of the Act would result in **substantial and widespread economic and social impact.**

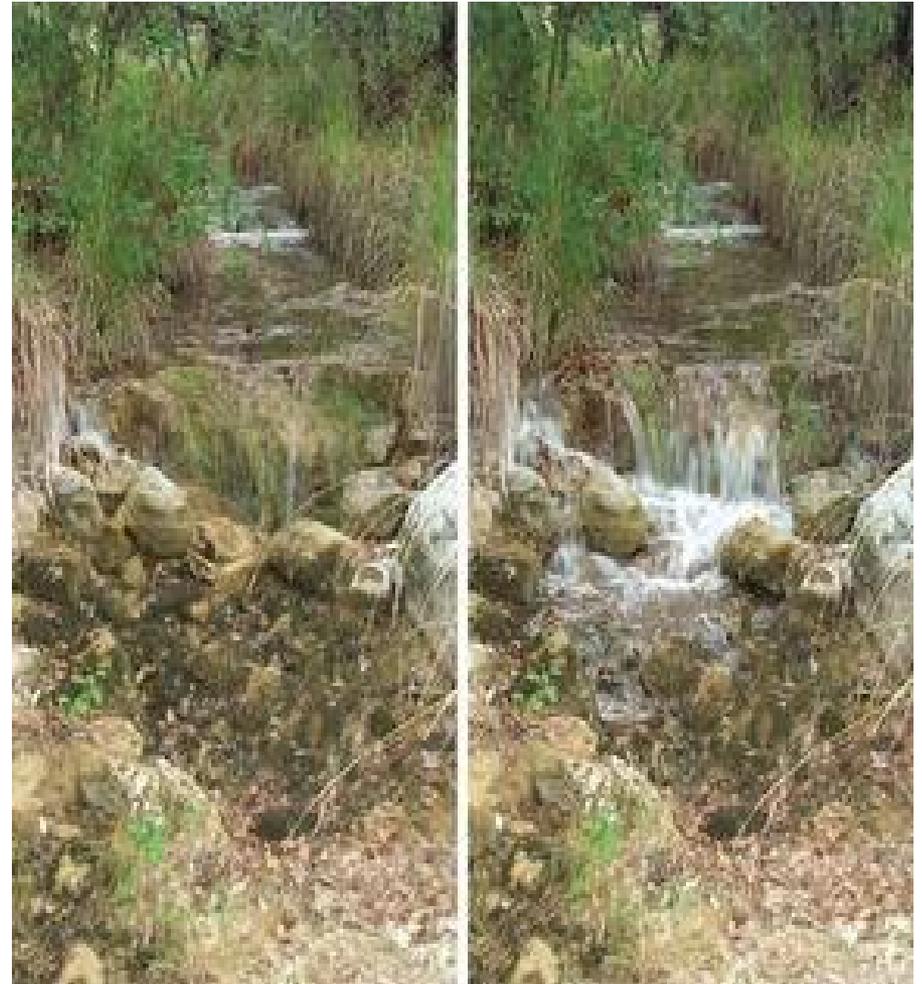
The “131.10(g) Factors”

1. **Naturally occurring pollutant concentrations** prevent the attainment of the use.



The “131.10(g) Factors” (cont’d)

2. **Natural, ephemeral, intermittent or low flow conditions or water levels** prevent the attainment of the use, unless these conditions may be compensated for by the discharge of sufficient volume of effluent discharges without violating State water conservation requirements to enable uses to be met.



The “131.10(g) Factors” (cont’d)

3. Human caused conditions or sources of pollution prevent the attainment of the use and cannot be remedied or would cause more environmental damage to correct than to leave in place.



“The 131.10(g) Factors” (cont’d)

4. Dams, diversions, or other types of **hydrologic modifications** preclude the attainment of the use, and it is **not feasible to restore the waterbody to its original condition or to operate such modification** in a way that would result in the attainment of the use.



The “131.10(g) Factors” (cont’d)

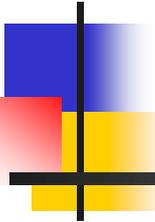
5. Physical conditions related to the natural features of the waterbody such as the lack of a proper substrate, cover, flow, depth, pools, riffles, and the like, unrelated to water quality, preclude attainment of aquatic life protection uses.



The “131.10(g) Factors” (cont’d)

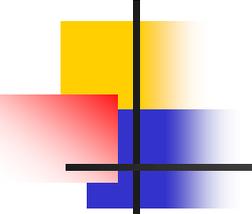
6. Controls more stringent than those required by sections 301(b) and 306 of the Act would result in **substantial and widespread economic and social impact.**





QUESTIONS??



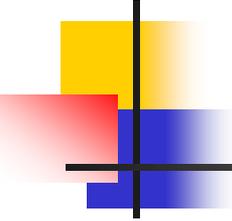


Highest Attainable Use (HAU)

After completing a required UAA, a state/authorized Tribe must adopt the HAU.

- Once state/authorized Tribe identifies the HAU, it can identify the less stringent criteria that will protect the HAU.

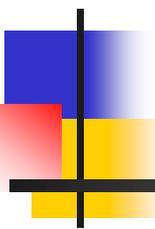
HAU: The **modified** aquatic life, wildlife, or recreation use that is **both closest to the 101(a)(2) use and attainable**, based on the evaluation of the factor(s) in §131.10(g) that preclude(s) attainment of the use and any other information or analyses that were used to evaluate attainability.”



HAU is the attainable use that results from the process of determining what is not attainable

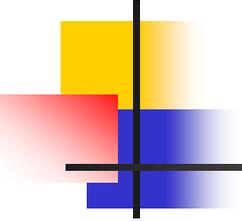
Example:

- A state demonstrates that a use cannot be attained due to natural background Se concentrations (§131.10(g)(1));
- The state determines the HAU by considering the “**best use**” that can be attained despite the impact of natural background Se concentrations. One option would be to describe the HAU as a “Se-limited aquatic life use”.



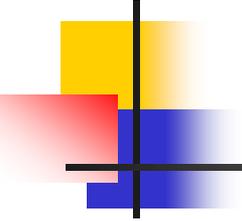
QUESTIONS???





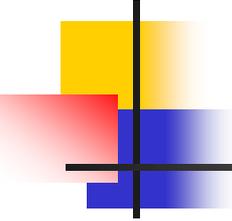
Non 101(a)(2) Uses

- States/authorized Tribes are required to take into consideration the “use and value” of water for public water supplies, propagation of fish, shellfish and wildlife, recreation, and agricultural, industrial and other purposes.
- The regs require states and authorized Tribes to conduct a “use and value” demonstration to revise uses NOT related to protection/propagation of fish, shellfish, and wildlife, recreation in and on the water, or non-101(a)(2) uses.
 - NOTE - Although a UAA is not required to revise non-101(a)(2) uses, states and authorized Tribes have the discretion to conduct a UAA when revising/removing such uses.



Use and Value Demonstration

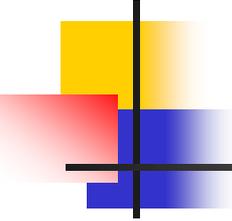
- Examples of what to consider:
 - Relevant descriptive information.
 - Attainability information.
 - Value and/or benefits associated with either retaining or removing the use.
 - Impacts of the use removal on other designated uses.



When Can Uses **NOT** be Removed?

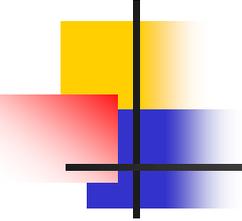
States or authorized Tribes may not remove designated uses (40CFR 131.10(h)), if:

- 1. They are **existing uses**...unless a use requiring more stringent criteria is added.*
- 2. Such uses will be attained by implementing effluent limits required under sections 301(b) and 306 of the Act and by implementing cost-effective and reasonable best management practices for non point source control.*



What are Existing Uses?

- Those uses actually attained in a waterbody on or after November 28, 1975, whether or not they are included in the WQS.
- Existing uses serve the purposes of the act by providing a mechanism to “maintain” the “chemical, physical and biological, integrity of the Nation’s waters”, consistent with CWA section 101(a).
- Therefore, existing uses are a baseline or “floor” of water quality, below which water quality cannot be lowered.

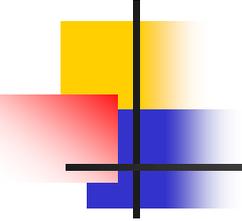


How Do you Determine the Existing Use?

Existing uses are not typically identified in a state's WQS. *So, how do you determine if a use is existing?*

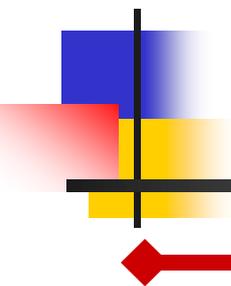
1. Site-specific determination.
2. Clear data showing the extent to which water quality since 1975 has been attained to support a use that actually occurred in the water.
3. Where data on uses attained and/or water quality are limited, insufficient or inconclusive, evaluate the quantity, quality, and reliability of the available data to determine existing use.





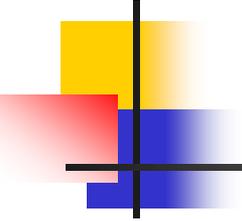
Difference Between Existing Uses and Designated Uses?

- Designated uses focus on the state or authorized Tribe's desired condition for the waterbody **that may not yet be attained.**
- Existing uses focus on the past or present condition **actually attained.**
- Designated uses can be removed by citing to at least one of the six 131.10(g) factors whereas existing uses can not be removed.



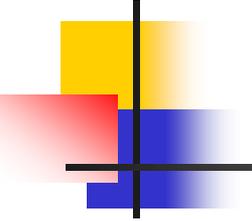
QUESTIONS???





Key Messages - Uses

- They express a state or authorized Tribe's desired condition for the waterbody whether or not that condition is being attained.
- Designated uses drive the development and adoption of criteria to protect that use. Therefore, getting the designated uses right is a crucial first step.
- CWA 101(a)(2) established a national goal that all waters provide for the “protection and propagation of fish, shellfish and wildlife and recreation in and on the water,” wherever attainable.
- When adopting uses, states and authorized Tribes must take into consideration the use and value of waters for public water supply, industrial, agricultural, navigation and other uses in addition to the uses specified in section 101(a)(2) of the CWA.

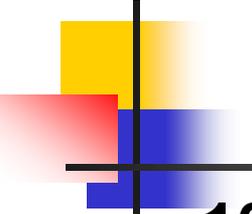


Key Messages–Use Revisions

- Use revisions can reflect more accurate depictions of uses for a waterbody and allow for a clearer articulation of the use with more effective criteria.

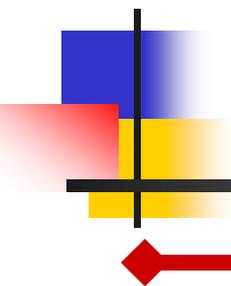
- States/authorized Tribes may not remove designated uses if:
 1. *They are existing uses...unless a use requiring more stringent criteria is added.*

 2. *Such uses will be attained by implementing effluent limits...and by implementing cost-effective and reasonable best management practices for non-point source control.*

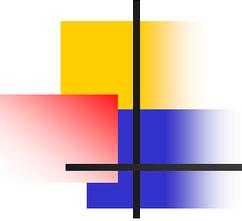


Key Messages–Use Revisions (cont'd)

- **101(a)(2)** uses or subcategories of such uses may be revised or removed once a UAA is conducted, and EPA approves the resulting use change.
- When adopting a new or revised WQS based on a UAA, states/authorized Tribes shall adopt the HAU.
- **Non 101(a)(2)** uses may be revised or removed once a use/value demonstration or a UAA is conducted, and EPA approves the resulting use change.
- EPA encourages states and authorized Tribes to work closely with EPA when developing a UAA or a use and value demonstration.



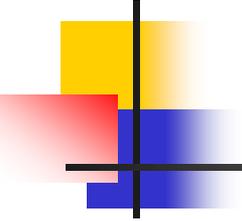
QUESTIONS???



Review Question #1

The same designated use must apply to an entire waterbody.

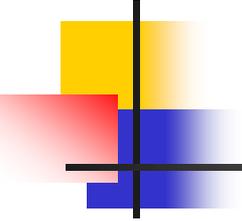
- True
- False



Review Question #2

Designated uses are what a state or authorized Tribe sets as a desired condition for a waterbody even if that desired condition has not yet been attained.

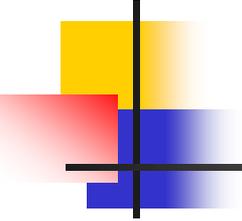
- True
- False



Review Question #3

A use must be attained before the state or authorized Tribe can designate it for a particular waterbody.

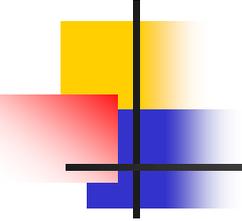
- True
- False



Review Question #4

Sunny State has designated Lake Adventure for fishing; Sunny State would like to protect the same waterbody for additional uses such as public water supply and swimming. Can Sunny State designate more than one use for Lake Adventure?

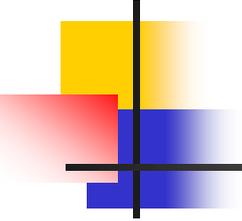
- Yes
- No



Review Question #5

What are the uses specified in CWA section 101(a)(2)?

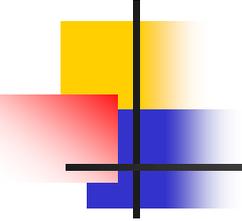
- A. Protection & propagation of fish, shellfish, and wildlife
- B. Recreation in & on the water
- C. Both a and b



Review Question #6

The CWA does not expect the uses specified in section 101(a)(2) to be attainable, but rather says such uses shall be provided for “wherever attainable”

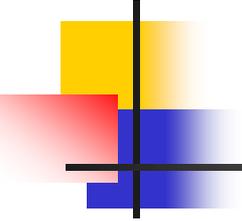
- True
- False



Review Question #7

What are examples of 101(a)(2) uses and sub-categories of 101(a)(2) uses (check all that apply)?:

- A. Swimming
- B. Limited aquatic life uses
- C. Public water supplies
- D. Irrigation and livestock watering
- E. Arsenic-limited fishery



Review Question #8

States and authorized Tribes are required to adopt criteria that reflect current ambient conditions.

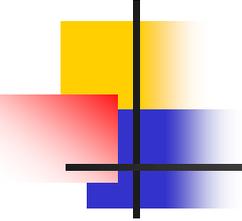
- True
- False

Review Question #9

Hg is impacting the water quality of the lake. Since the use is not being attained then the use will have to be changed.

- True
- False

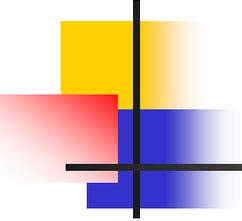




Review Question #10

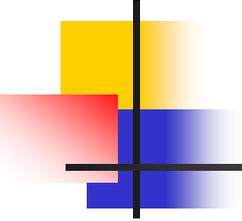
A state or authorized Tribe is required to conduct a UAA when designating uses that include the uses specified in section 101(a)(2) of the CWA.

- True
- False



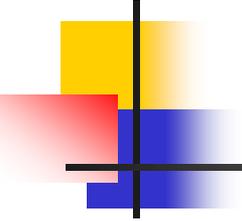
Review Question #11

- State Adventure currently has designated an aquatic life use. It would like to adopt uses that provide a more accurate reflection of the attainable uses in the waterbody. The current zinc criterion to protect the aquatic life use is 2 mg/L.
 - If the state wishes to adopt a “zinc-limited aquatic life use” with a criterion of 5 mg/L for Lake A - **Is a UAA required?**
 - If the state wishes to adopt a “high quality zinc aquatic life use” for Lake B with a criterion of 1 mg/L - **Is a UAA required?**



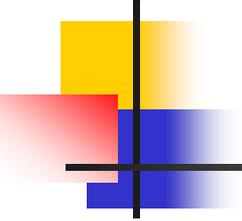
Review Question #12

- Peachy State wants to change its swimming use for Lake C to be a boating use - **Is a UAA required?**
- Lake D was designated for a public water supply use and State A wants to remove this use - **Is a UAA required?**



Review Question #13

- The HAU is:
 - A. the currently attained designated use;
 - B. the use closest to the 101(a)(2) uses and attainable;
 - C. the best criteria for each parameter that can be attained;
 - D. no such thing.



Questions?

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