Community Engagement and the Clean Water Act

Urban Waters Workshop

October 24, 2012

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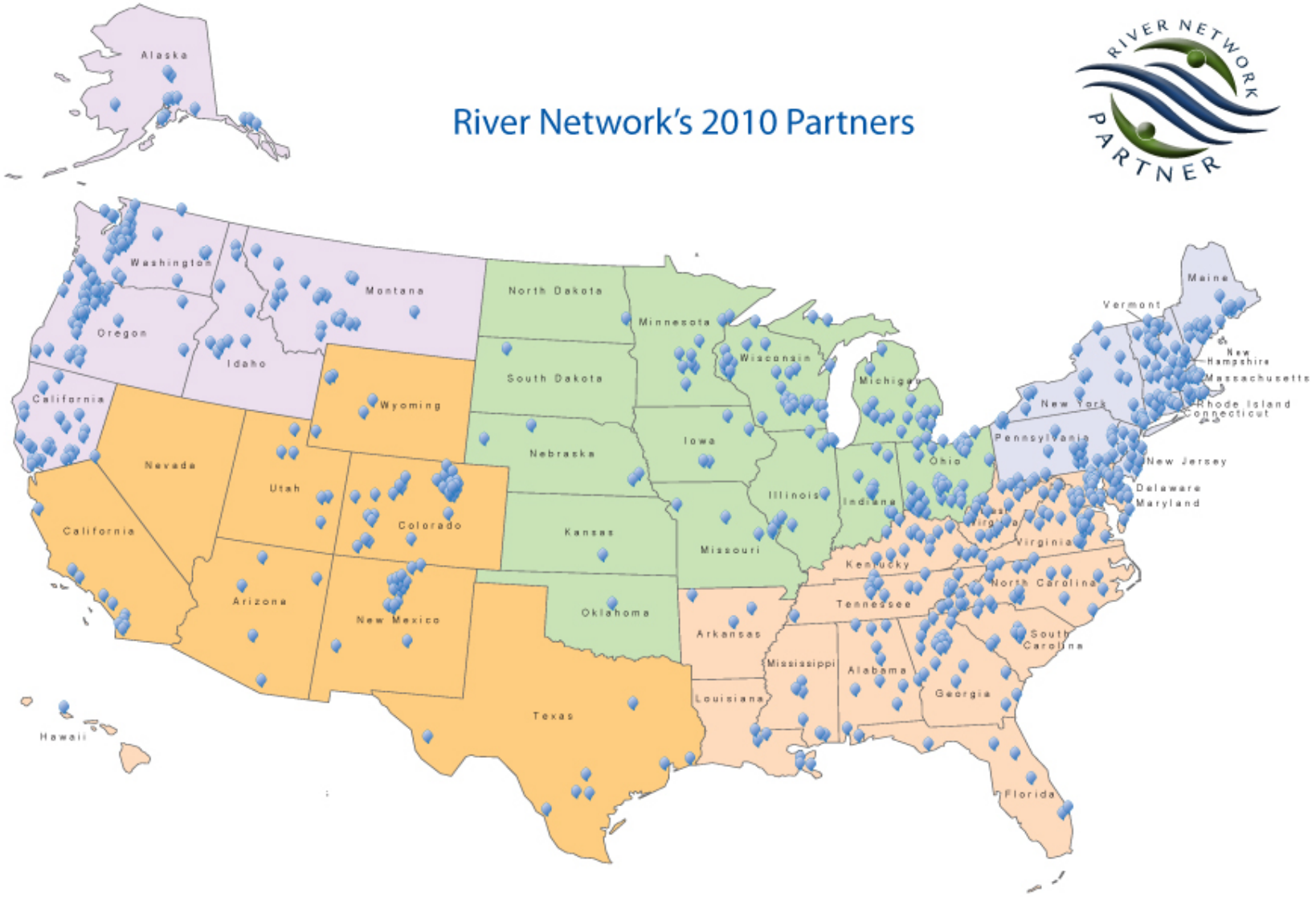
River Network

The “watershed” movement

- 1,500 water groups registered with IRS (up from 500 when River Network was founded)
- 6,000 groups in national directory (up from 2,000 in 1995)
- River Network Partner organizations:
  - Water watch groups
  - Water keeper groups
  - tribal and/or place-based citizen organizations
  - Land Trusts/Conservation districts/ collaborative stakeholders

River Network's 2010 Partners




ANTHONY J. CELEBREZZE

Clean Water Act History

"Can we afford clean water? Can we afford rivers and lakes and streams and oceans which continue to make possible life on this planet? Can we afford life itself? Those questions were never asked as we destroyed the waters of our Nation, and they deserve no answers as we finally move to restore and renew them. These questions answer themselves."

- Senator Edmund Muskie (D), Maine

"I believe that the [act] is far and away the most significant and promising piece of environmental legislation ever enacted by Congress… If we cannot swim in our lakes and rivers, if we cannot breathe the air God has given us, what other comforts can life offer us.?"

- Senator Howard Baker (R), Tennessee

Clean Water Act Evolution

- Sweeping 1972 changes
  - Clear national goal
  - National Pollutant Discharge Elimination System (NPDES): permit required for each point source
  - Minimum end-of-pipe standards
  - Basin planning
  - Stronger framework for state standards for in-stream water quality
  - Public involvement
  - Citizen suits

When did President Nixon sign the Clean Water Act?

- THE CLEAN WATER ACT
- SET A GOAL OF
- FISHABLE,
- SWIMMABLE,
- DRINKABLE
- WATERS OF THE UNITED STATES

BY 1985

- OOPS

- Still Good Progress:

- 65% of Waters are Fishable, Swimmable, Drinkable.
- Tremendous Strides with so-called end-of –pipe pollutants from industrial and municipal sources.
- Rivers don’t burst into flames anymore.

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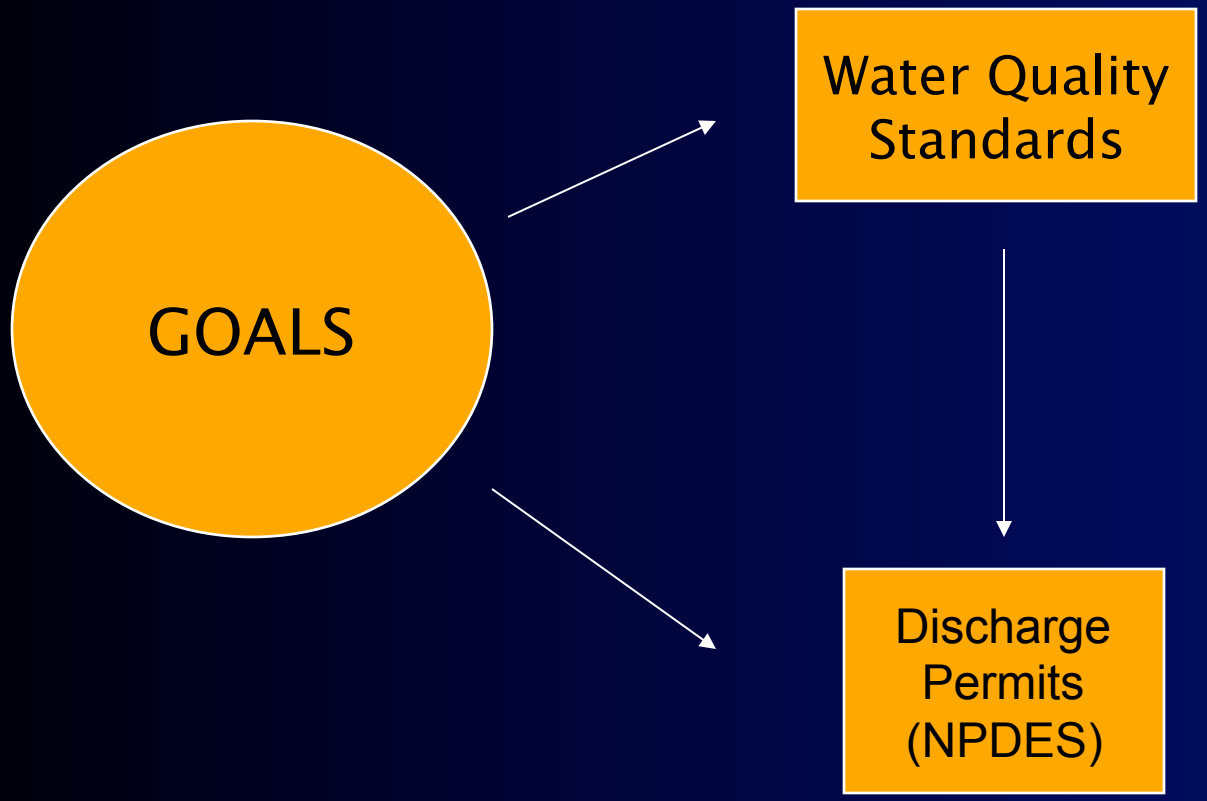
- More Work To Be Done:
- Act Under Attack
- Funding is a challenge.
- Administered by 57 Agencies.
- Never Contemplated stormwater, CAFO's or Construction Site Erosion.

- Time to move toward goal of NPDES permits.

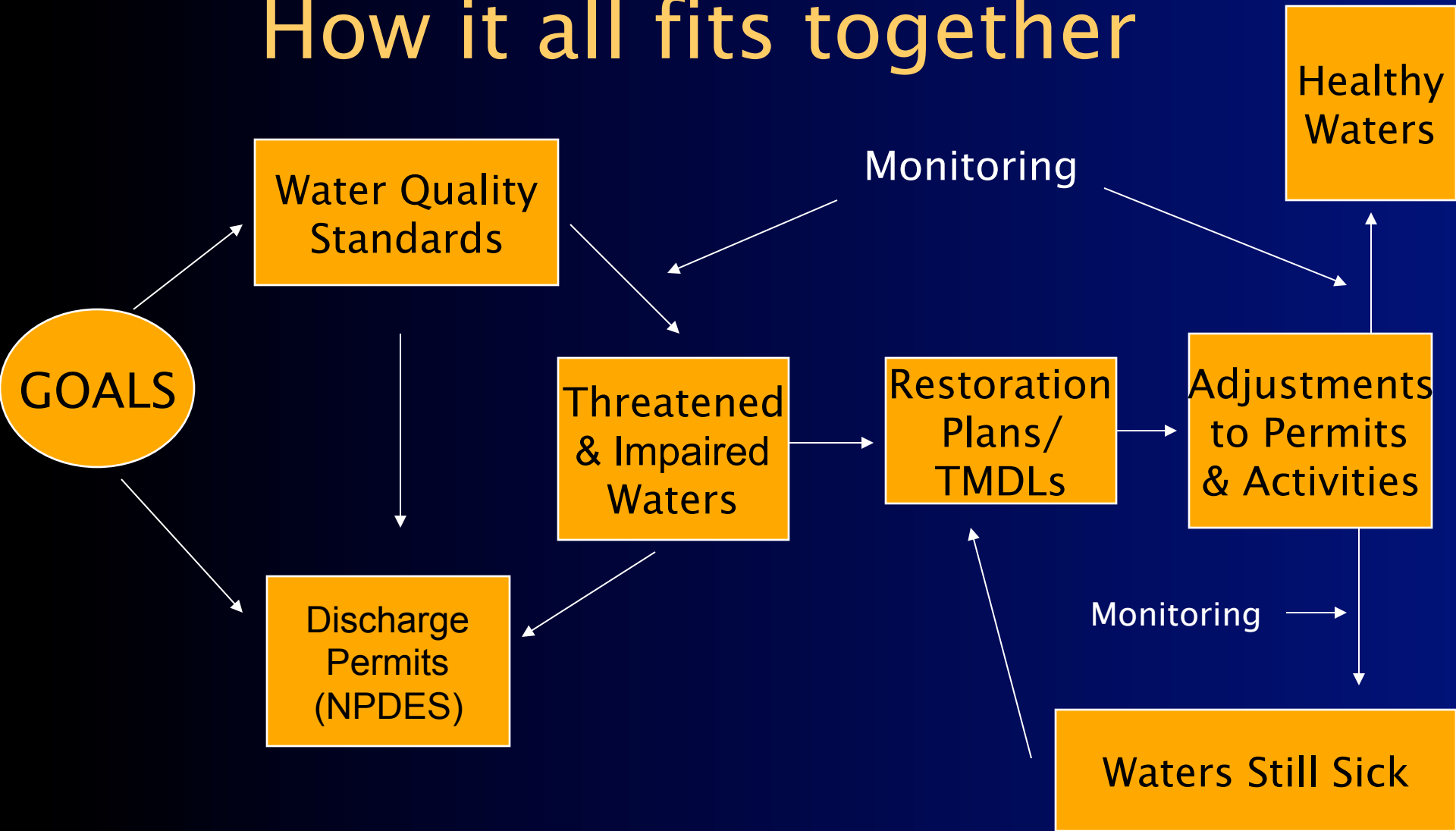
Clean Water Act

How it all fits together

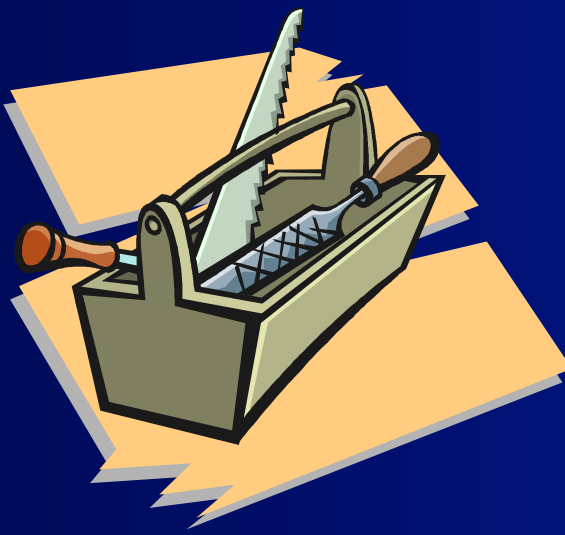


Clean Water Act

How it all fits together



Clean Water Act Tools



- Water quality standards
  - Designated Uses
  - Water Quality Criteria
  - Antidegradation Policy
- How they apply to
  - Discharge (NPDES) permits
  - Threatened and impaired waters list (303d)
  - Watershed Restoration Plans/Total Maximum Daily Loads (TMDLs)
  - Nonpoint source control (319)

Defining a Water Quality Std.

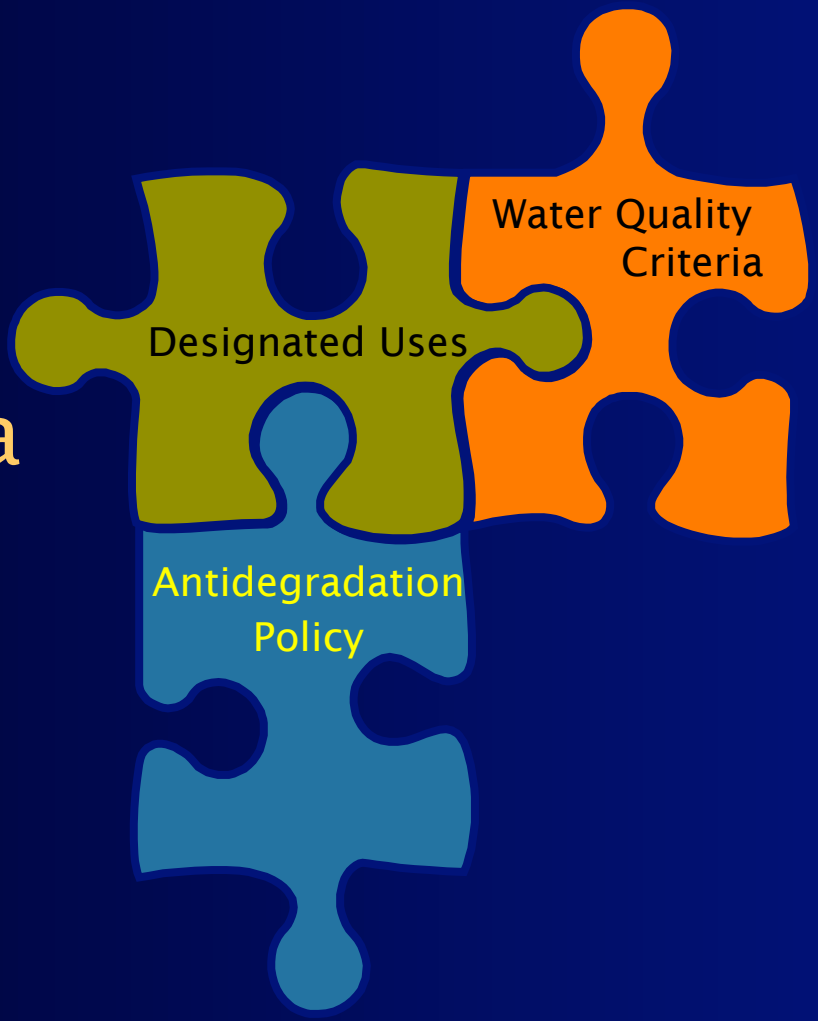
"A water quality standard defines the water quality goals of a water body, or portion thereof, by designating a use or uses to be made of the water and by setting the criteria necessary to protect the uses."

- 40 CFR 131.2

Water Quality Standards

Components:

- designated uses
- water quality criteria
- antidegradation policy



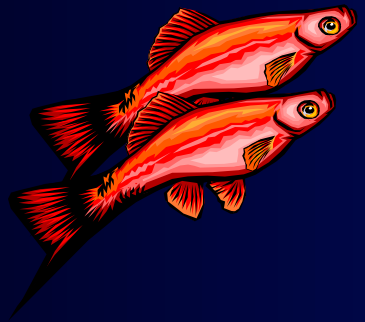
Water Quality Standards
Who Sets Them?

- Generally, states and tribes set water quality standards
- U.S. EPA sets policy, recommends criteria, and retains oversight of standards
- Extensive public involvement is required

Water Quality Standards:
Designated Uses

"Designated uses are those uses specified in water quality standards for each water body or segment whether or not they are being attained."

40 CFR 131.3(f)



Statewide designated uses - MI

R 323.1100 Designated uses.

Rule 100. (1) At a minimum, all surface waters of the state are designated and protected for all of the following uses:

(a) Agriculture.

(b) Navigation.

(c) Industrial water supply.

(d) Warmwater fishery.

(e) Other indigenous aquatic life and wildlife.

(f) Partial body contact recreation.

(g) Fish consumption.

(2) All surface waters of the state are designated and protected for total body contact recreation from May 1 to October 31 in accordance with the provisions of R 323.1062. Total body contact recreation immediately downstream of wastewater discharges, areas of significant urban runoff, combined sewer overflows, and areas influenced by certain agricultural practices is contrary to prudent public health and safety practices, even though water quality standards may be met.

(3) If designated uses are interrupted due to uncontrollable circumstances during or following flood conditions, accidental spillages, or other emergencies, then notice shall be served upon entities affected by the interruption in accordance with procedures established by the department. Prompt corrective action shall be taken by the discharger to restore the designated uses.

(4) All inland lakes identified in the publication entitled "Coldwater Lakes of Michigan," as published in 1976 by the department of natural resources, are designated and protected for coldwater fisheries.

(5) All Great Lakes and their connecting waters, except for the entire Keweenaw waterway, including Portage lake, Houghton county, and Lake St. Clair, are designated and protected for coldwater fisheries.

(6) All lakes listed in the publication entitled "Designated Trout Lakes and Regulations," issued September 10, 1998, by the director of the department of natural resources under the authority of part 411 of 1994 PA 451, MCL 324.41101 et seq., are designated and protected for coldwater

Water Quality Standards: Designated Uses

- Must be assigned to every water body; generally assigned to segments
- Must include aquatic life, wildlife and recreation (basic CWA goals)
- Must protect downstream waters
- Must protect all existing uses
  - Uses actually attained on or after 11/28/75
  - Uses that water quality supports but are not occurring

Can a designated use be weakened or removed?

Not if:

- It is an existing use, OR
- It is "attainable"

  …at a minimum can be attained by implementing permits or "cost-effective and reasonable" practices for nonpoint source control

Proposed Downgrading of Designated Uses *from the field*

- Kentucky
- Wisconsin

What Can You Do?

- Document uses in your water body
  - share with water quality agency
- Review designated uses
  for your water body and in state water quality standards - advocate for protection of all the uses
- Examine the segments
  - do they allow for greatest protection of different parts of the water body?
- **Request changes**
  Participate in the Triennial Review or petition for changes where they are needed

ACTION!

Triennial Review

- The Clean Water Act requires each state to hold regular public hearings on its Water Quality Standards
- These hearings are to be held at least once every three years – “Triennial Review”
- This can be the public’s best chance to comment on the adequacy of each part of the standards

Triennial Review

"The state shall from time to time, but at least once every three years, hold public hearings for the purpose of reviewing applicable water quality standards and, as appropriate, modifying and adopting standards."

40 CFR 131.20

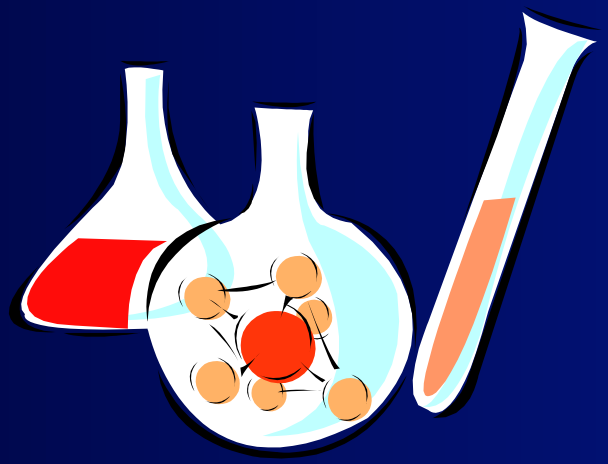
Triennial Review

Everything in the water quality standards!

- The state's designated uses and criteria
- Classification of a particular water body
- Antidegradation policy and implementation plan
- Public involvement procedures
- Format - are the standards easy to understand?


Questions?

Water Quality Standards:
Water Quality Criteria



Water Quality Standards:
Water Quality Criteria

What chemical, physical and biological characteristics should be monitored to ensure each designated use is protected?

Statewide criteria
Michigan

R 323.1050 Physical characteristics.

Rule 50. The surface waters of the state shall not have any of the following physical properties in unnatural quantities which are or may become injurious to any designated use:

(a) Turbidity.
(b) Color.
(c) Oil films.
(d) Floating solids.
(e) Foams.
(f) Settleable solids.
(g) Suspended solids.
(h) Deposits.

Statewide criteria
Michigan (cont.)

R 323.1053 Hydrogen ion concentration.

Rule 53. The hydrogen ion concentration expressed as pH shall be maintained within the range of 6.5 to 9.0 S.U. in all surface waters of the state, except for those waters where the background pH lies outside the range of 6.5 to 9.0 S.U. Any requests to artificially induce a pH change greater than 0.5 S.U. in surface waters where the background pH lies outside the range of 6.5 to 9.0 S.U., shall be considered by the department on a case-by-case basis.

R 323.1055 Taste- or odor-producing substances.

Rule 55. The surface waters of the state shall contain no taste-producing or odor-producing substances in concentrations which impair or may impair their use for a public, industrial, or agricultural water supply source or which impair the palatability of fish as measured by test procedures approved by the department.

Statewide criteria
Michigan

R 323.1060 Plant nutrients.

Rule 60. (1) Consistent with Great Lakes protection, phosphorus which is or may readily become available as a plant nutrient shall be controlled from point source discharges to achieve 1 milligram per liter of total phosphorus as a maximum monthly average effluent concentration unless other limits, either higher or lower, are deemed necessary and appropriate by the department.

(2) In addition to the protection provided under subrule (1) of this rule, nutrients shall be limited to the extent necessary to prevent stimulation of growths of aquatic rooted, attached, suspended, and floating plants, fungi or bacteria which are or may become injurious to the designated uses of the surface waters of the state.

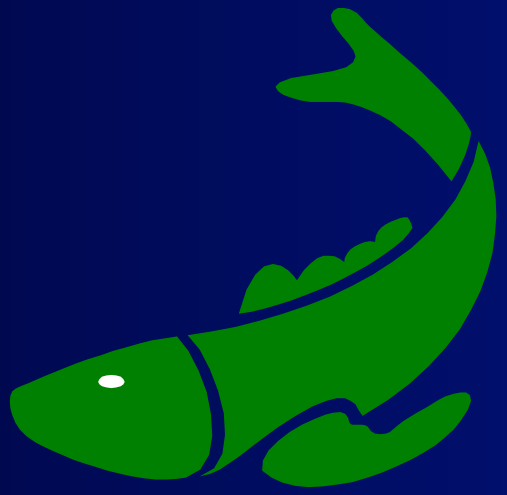
Water Quality Standards:
Water Quality Criteria

"States must adopt those water quality criteria that protect the designated use. Such criteria must be based on sound scientific rationale and must contain sufficient parameters or constituents to protect the designated use. For waters with multiple use designations, the criteria shall support the most sensitive use."

40 CFR 131.11(a)(1)

Water Quality Standards:
Water Quality Criteria

- Numbers and/or words that describe conditions protective of a designated use
- Protection of different characteristics
  - Chemical
  - Physical
  - Biological



Typical Criteria

Numeric: *measurable benchmarks*

Narrative: *desirable conditions*

Criteria should address:

- **How much?**
  Concentration of exposure or *magnitude*
- **How long?**
  Time period of exposure or *duration*
- **How often?**
  Frequency of exposure or *frequency*

Water Quality Standards: Water Quality Criteria *from the field*

- Tennessee story
  - Dissolved Oxygen and pH

What Can You Do?

- **Examine criteria**
  in state water quality standards – are uses protected by appropriate criteria? Are criteria as stringent as EPA's national recommendations? If not, why not?
- **Review monitoring data**
  or collect your own to document whether criteria are protective of uses
- **Research concerns**
  about criteria that may not be protective enough
- **Request changes**
  participate in the Triennial Review or petition for changes where they are needed

ACTION!


Questions?

Water Quality Standards:
Antidegradation

Clean Water Act goal

"To restore and maintain the chemical, physical and biological integrity of the Nation's waters"

Water Quality Standards: Antidegradation from the field

- Wisconsin – permit challenge, led to 16 designations
- Illinois – permit challenges, regulatory changes
- Tennessee – permit challenge, regulatory changes
- Georgia – permit challenge, regulatory change


Questions?

How does all this apply in my waters?

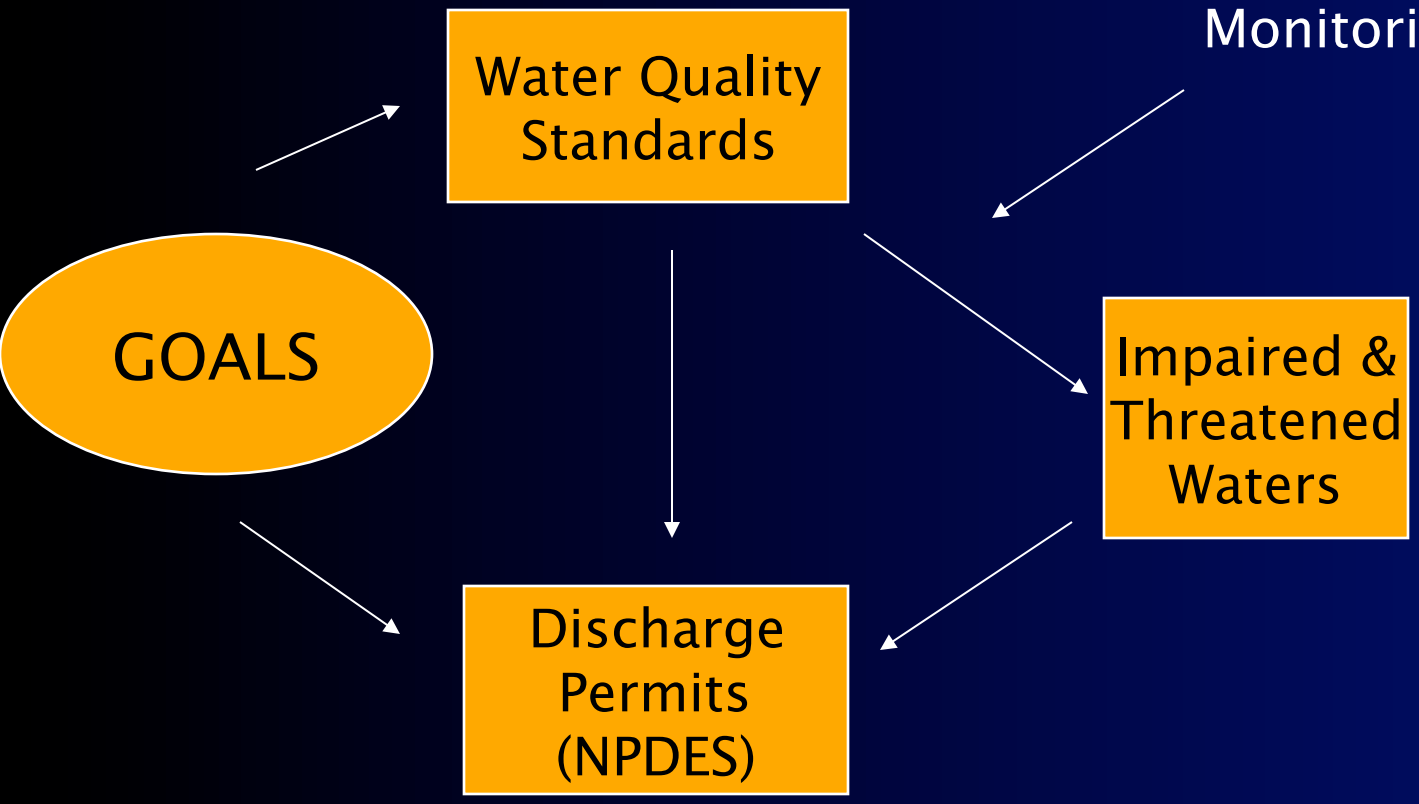
- Threatened and impaired waters list (303d)
- Total Maximum Daily Loads (TMDLs)
- Discharge (NPDES) permits
- Nonpoint source control (319)

Threatened and Impaired Waters List

- Determine whether waters are meeting criteria and supporting uses ("303d list")
  - All waters not meeting, or expected not to meet, state water quality standards
  - April 1, even years
  - Review all "existing and readily-available water quality-related data and information"
  - EPA must approve or develop another list
- Considered when issuing NPDES and 401

Clean Water Act

How it all fits together



Total Maximum Daily Loads (TMDLs)

- *A calculation of the maximum safe amount of a pollutant for a waterbody; and*
- *A plan for cleanup of a polluted river, lake, or coastal water.*

Steps required:

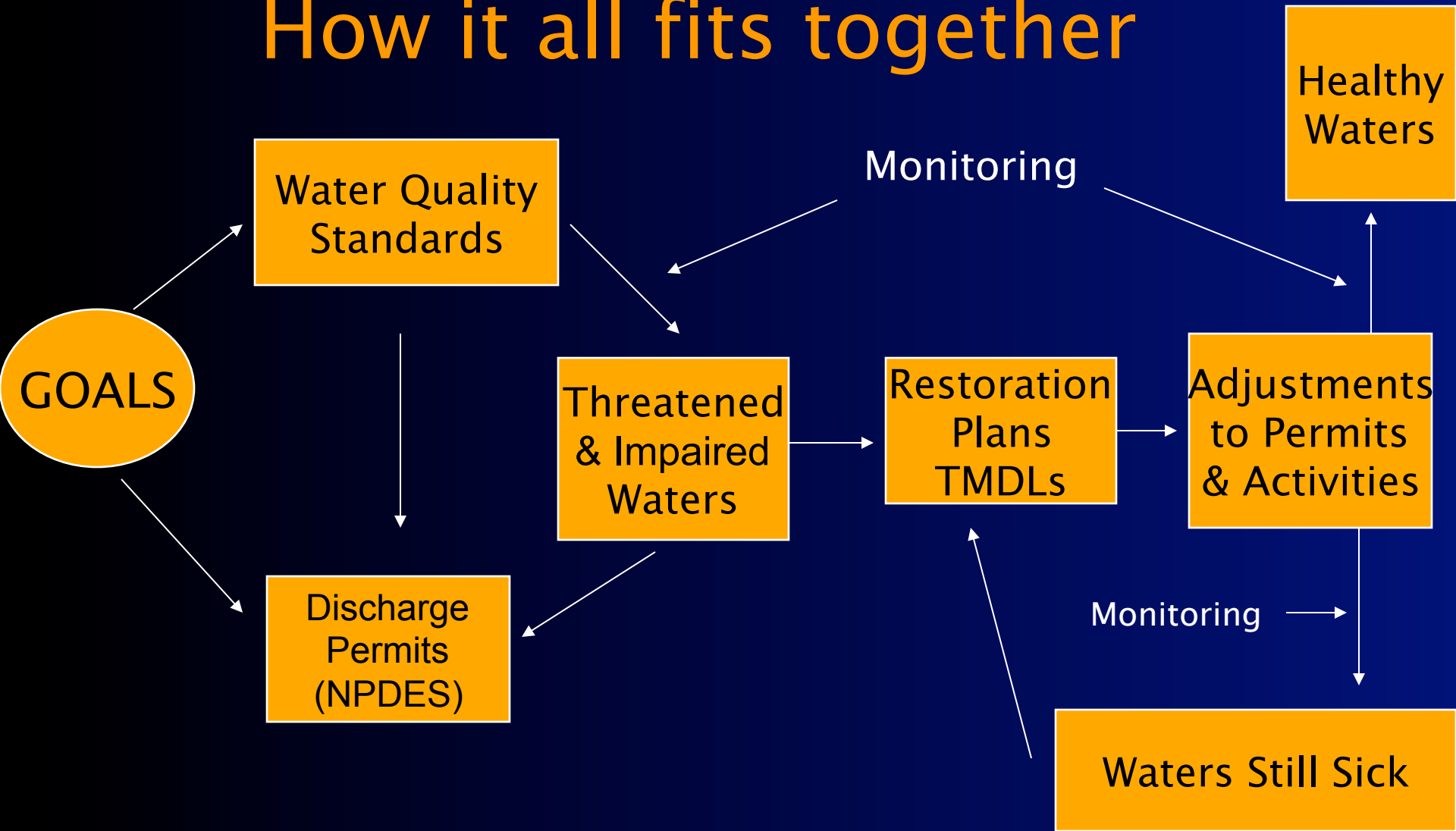
- Prioritize waters needing attention
- Determine how much pollution water body can handle
- Identify sources of pollution
- Allocate allowable pollution from each source
- Include “margin of safety” to account for uncertainty

Steps recommended:

- Develop implementation plan
- Monitor and revise

Clean Water Act

How it all fits together



Nonpoint source control (319)

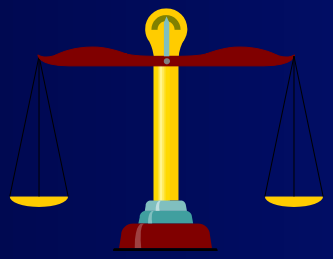
States must

- Prepare assessments of nonpoint source pollution problems
- Develop management programs to address problems
- Implement grant program to reduce nonpoint source pollution

How can the Clean Water Act help me solve problems?

- Public pressure
- Ask questions

- Research
- Monitor
- Testify
- Legal strategies



River Network

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- The Clean Water Act Owner's Manual
  www.rivernetwork.org

- Clean Water Act course online
  www.rivernetwork.org


Questions?