Welcome to ASWM's Wetland Water Quality Standards Webinar

June 22, 2011

2:00 PM – 3:30 PM EDT

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For more information visit ASWM's Water Quality Standards for Wetlands webpage at:

http://aswm.org/wetland-programs/water-quality-standards-for-wetlands

Work Group webpage:

http://aswm.org/wetland-programs/-wetland-standards-work-group

Agenda

- Welcome and Introductions (Jennifer Linn, U.S. Environmental Protection Agency and Jeanne Christie, Association of State Wetland Managers) (10 minutes)
- Webinar basics (Jeanne Christie) (5 minutes)
- Wetland Water Quality Standards Project Overview (Jeanne Christie) (15 minutes)
- Presentation on Wetland Water Quality Standards (Jon Kusler, Assoc. of State Wetland Managers) (20 minutes)
- Roundtable discussion of state/tribal activities with respect to Wetland Water Quality Standards (All) (35 minutes)
- Webinar schedule (recap of scheduled outlined in Jon's presentation) (5 minutes)

Before we get started… let's practice using the audio & web interface

- Please mute your phone.
- Do not put your phone on hold.
- If you connected to the webinar using Voice over IP (VoIP), you must have both speakers & a microphone to communicate. Once logged on, you will receive an audio PIN that will allow you to unmute your line so you can verbally participate.

Questions & Comments

- Red arrow button – maximize / minimize the web interface
- Please locate the hand icon on your web interface and raise your hand (practice only).
- There are two ways you can interact and ask questions during the presentation:
  - Raising your hand using the hand icon
  - Sending a question using the Question Menu
- The Facilitator will then introduce you and open your line to ask the question.

Questions continued

- There is a **Question Menu** to submit a technical question or comment you would like us to address during the webinar.
- Questions will go to the Facilitator (only) who will answer via Chat or prompt the Presenter as appropriate during the Q & A.
- Please use the Question Menu now to tell the Organizer what state you're calling from (practice only).

Technical Assistance

If you are experiencing connection problems, please contact ASWM at

Phone: 207-892-3399

State Water Quality Standards for Wetlands Project

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- Project Goal: Help States Develop and Implement Water Quality Standards for Wetlands

- Presentation Goals:
  - Describe the Project, Ask for Assistance
  - Describe Common Elements in State Water Quality Standards For Wetlands
  - Identify State Needs: How Could the Project Be Most Useful to You?

Project Elements

- Wetland Water Quality Standards Workgroup
- Bibliography
- Web Page
- Conference Calls
- One or More Webinars
- Case Studies
- Written Materials


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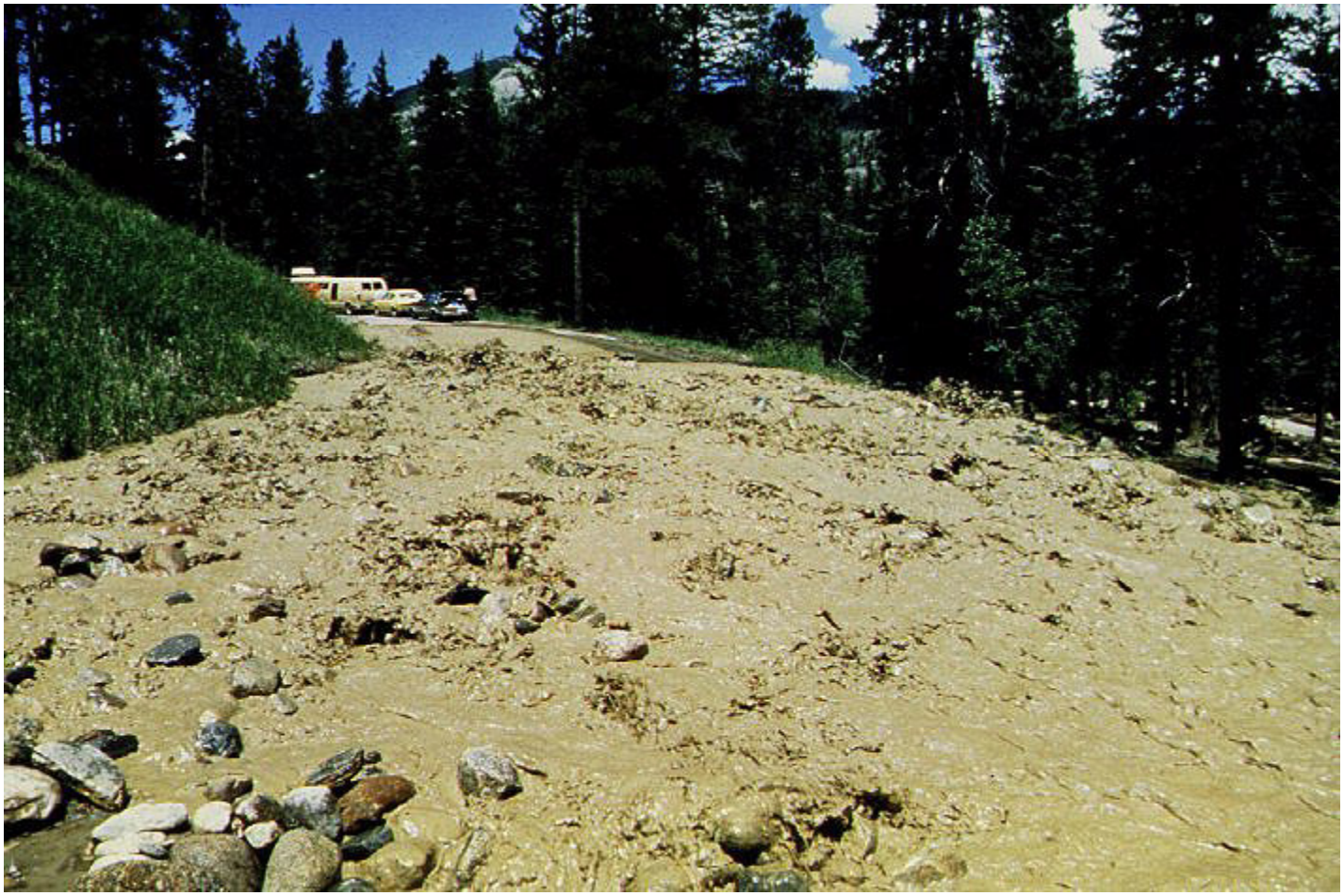
What Are State Water Quality Standards for Wetlands?

- Section 303(C)(2)(A) requires states to adopt water quality standards for waters to "protect the public health or welfare" and "enhance the quality of water". No distinctions are made in the Act between wetlands and other waters.

- Water quality criteria may consist of both narrative and numeric standards.

www.lincolntown.org/depts/conserve.htm



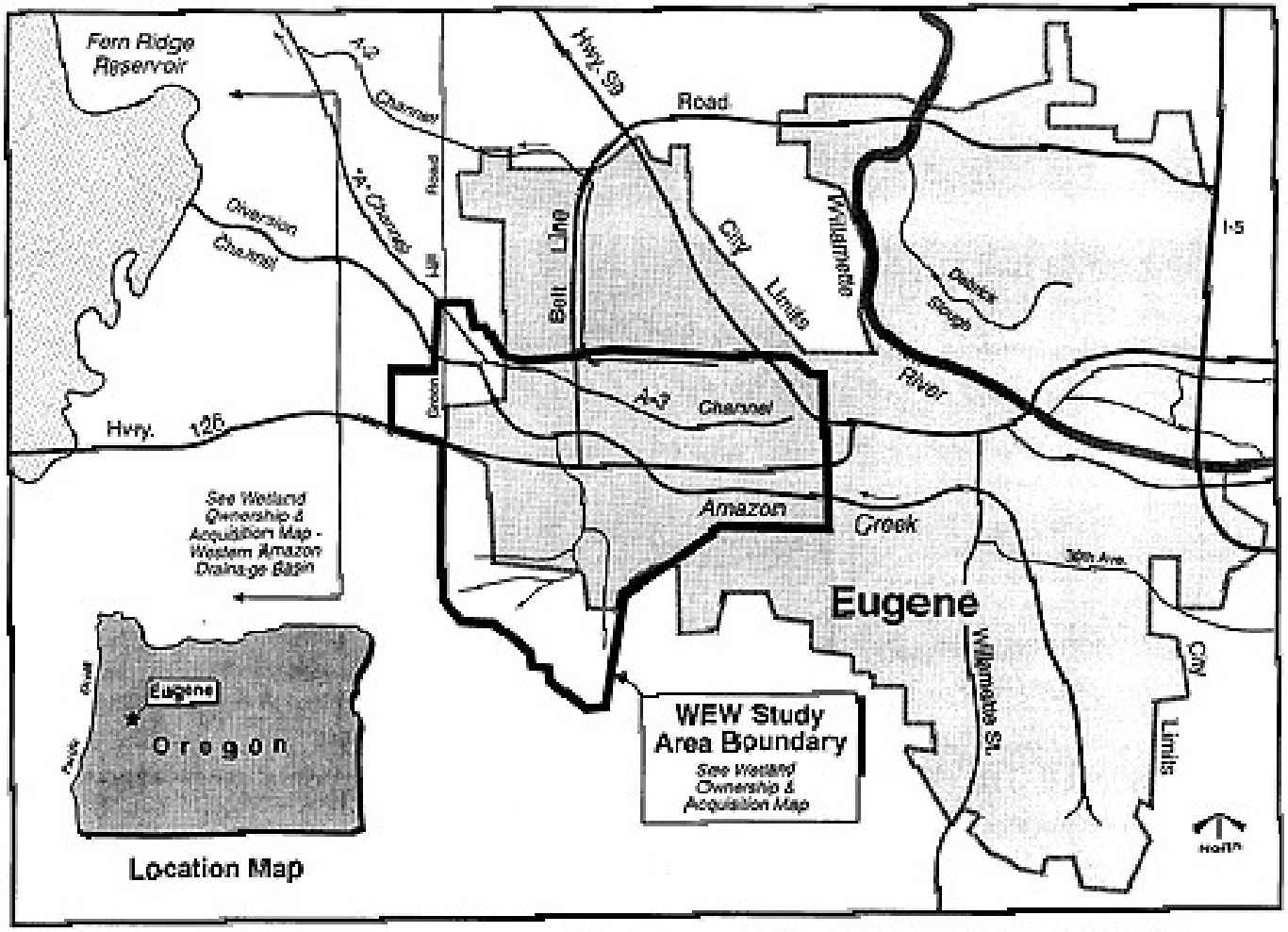
Progress

States have made progress in adopting water quality standards for wetlands:

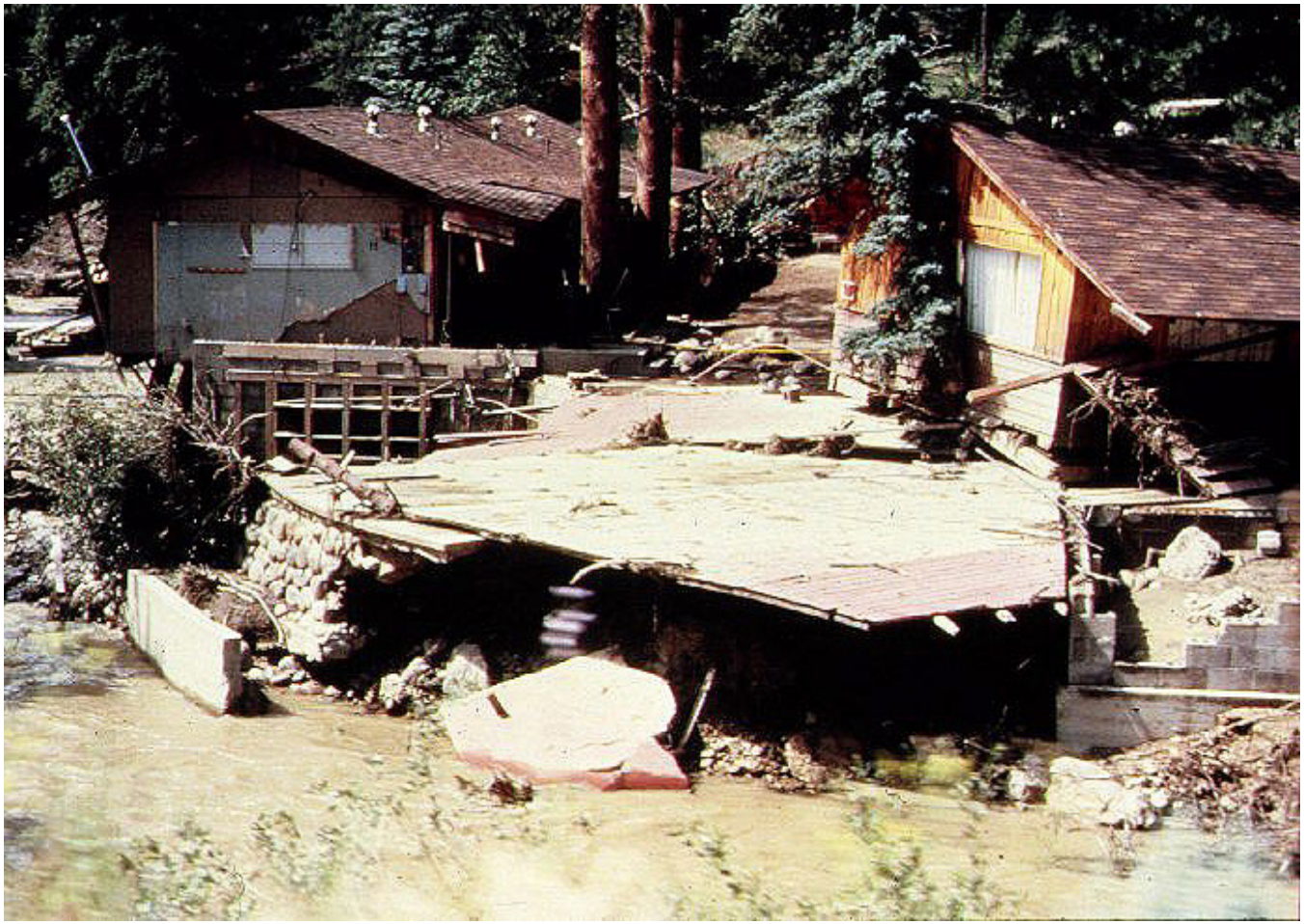
- **Many states have amended their water quality statutes to include wetlands as regulated waters. This provides wetlands some measure of protection, primarily from toxics and bacteria,**
- **Fourteen states have adopted more specific water quality standards for wetlands,**
- **Many states have initiated efforts to develop biological criteria for wetlands to help evaluate wetland condition,**
- **Many states are cooperating with EPA to help design and implement the 2011 wetland ecological condition assessment. This may provide states with an opportunity to also develop wetland water quality standards.**

New, Innovative Approaches

- Wetland water quality standards and the development and use of biocriteria
- Designation of wetlands as special resource waters
- Wetlands and TMDLs
- Wetlands and the use of GIS systems
- Wetland water quality standards and watershed planning
- Wetland water quality standards and flood loss reduction (e.g. stormwater)



West Eugene Wetlands Study Area Location Map



EPA Guidance: State Water Quality Standards for Wetlands

EPA has developed overall guidance for the states in developing water quality standards for wetlands. EPA guidance suggests that States in adopting water quality standards for wetlands:

- "Include wetlands in the definition of "State waters."
- Designate uses for all wetlands.
- Adopt aesthetic narrative criteria (the "free froms") and appropriate numeric criteria for wetlands.
- Adopt narrative biological criteria for wetlands.
- Apply the State's antidegradation policy and implementation methods to wetlands."

However, EPA guidelines are flexible and leave considerable discretion to the States.

Why Should States Adopt Water Quality Standards for Wetlands?

Some reasons include:

- **Water quality standards can provide another layer of protection for wetlands in states which have also adopted separate wetland regulatory statutes.**
- **Wetland water quality standards adopted as part of state pollution controls or water regulation can provide at least partial protection for wetlands in states which have not adopted independent wetland regulatory statutes.**
- **Wetland water quality standards can help coordinate wetland and broader state water quality and quantity programs.**
- **State water quality standards can aid a state in reviewing federal permits pursuant to Section 401 of the Clean Water Act.**
- **Wetland water quality standards can help states integrate wetland protection and restoration with broader water planning and regulation including nonpoint source pollution control, watershed management by establishing goals for such broader efforts and implementation mechanisms including TMDLs.**
- **Explicit wetland water quality standards can provide greater certainty to landowners in the use of their wetlands and regulators in processing regulatory permits.**

How Do Water Quality Standards for Wetlands Relate to Water Quality Standards for Traditional Waters?

- Shared Characteristics
- Differences
- Progress

Shared Characteristics Between Wetlands and Traditional Waters Justify Both Wetland Water Quality Standards and Broader Water Quality Standards

Wetlands share many features with traditional waters (lakes, ponds, rivers, streams, estuarine and coastal waters). Both wetlands and traditional waters:

- **Are saturated from precipitation, high ground water, or tides much of the time,**
- **Support a range of flora and fauna adapted to inundated or saturated conditions,**
- **Are characterized, in part, by saturated soils,**
- **Provide a broad range of services to society including but not limited to fisheries, habitat for rare and endangered species, water supply, recreation, aesthetics, etc.**

Differences Which Need to Be Reflected in Water Quality Standards for Wetlands Versus Traditional Waters

- **Differences in reversibility of impacts, restoration techniques, cost of restoration.** Stopping pollution will not restore many wetlands damaged by draining, filling, or flooding**.**

- **Differences in role of wetlands in protecting other waters from pollution versus role of wetlands as critical waters with many functions in their own right.** This leads to dilemmas and challenges concerning the implementation of an antidegradation policy.

- **Numbers of wetland water bodies number in the hundreds of thousands or millions versus thousands or tens of thousands for other waters.** This favors adoption of standards for classes of wetlands rather than individual wetlands.

- **Sensitivity to small changes in precipitation and water levels.** This makes establishment of biocriteria difficult. It also means that multiple field measurements may be needed over the course of a year or over several years in order to characterize wetland biota, hydrology, other characteristics.

Content of State Water Quality Standards for Wetlands

State water quality standards for wetlands in states that have them parallel the content of more comprehensive wetland regulatory statutes and administrative code regulations in other states. However, there are also differences:

- **State water quality standards regulations are more concise than comprehensive wetland protection statutes.**
- **State water quality standards consist almost entirely of narrative criteria.**
- **Most numeric state wetland water quality regulations which apply to wetlands are contained in larger pollution control statutes and regulations and not in the wetland-specific and water quality regulations. An exception is Nebraska.**
- **Also, as one would expect, there is an emphasis upon pollution.**
- **As one would expect, wetland water quality standards are couched in "water quality" terms and concepts such as "beneficial uses", criteria for beneficial uses, and "antidegradation" policy.**

Examples from the States: Statutory and Administrative Provisions

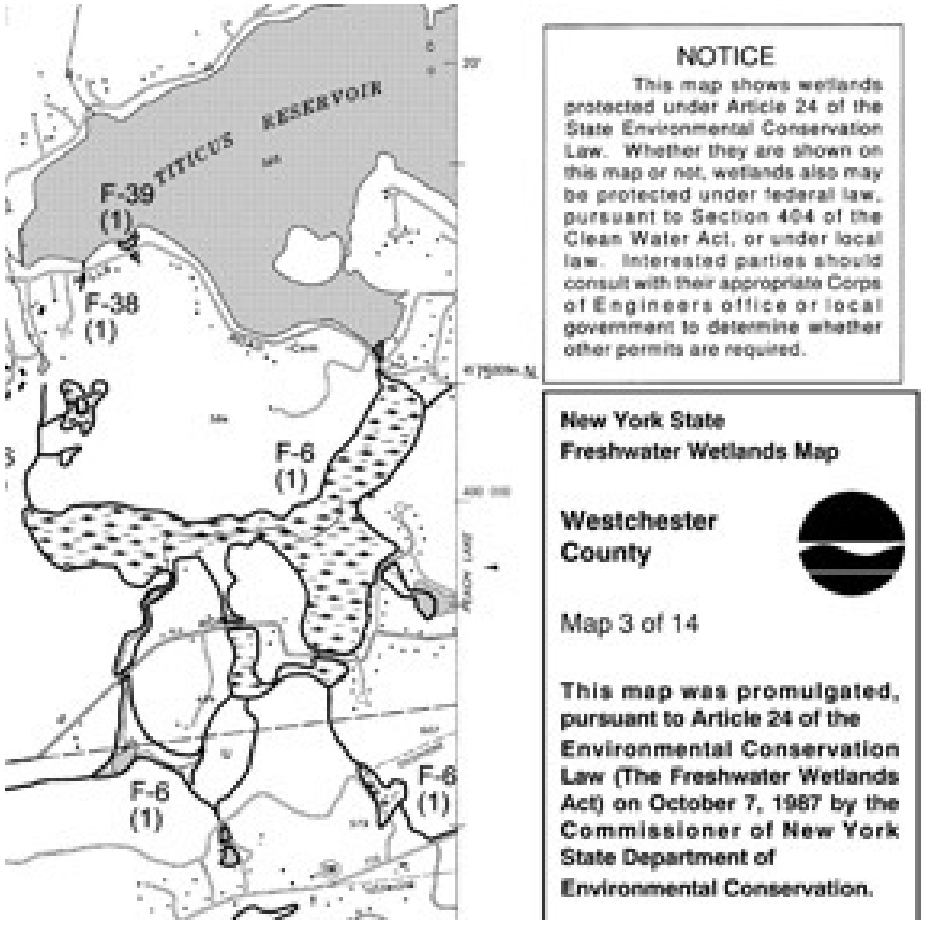
State water quality standards for wetlands are varied. However, they typically include the following major components:

- **Statement of goals and objectives**
- **Definition of state waters to include wetlands or separate definition of wetlands for the purpose of water quality regulations**
- **Define regulated activities**
- **Statement of antidegradation policy**
- **Classify wetlands**
- **Statement of designated uses**
- **Statement of protective criteria and standards for designated uses**
- **Procedures for seeking permits**
- **Monitoring and enforcement requirements**

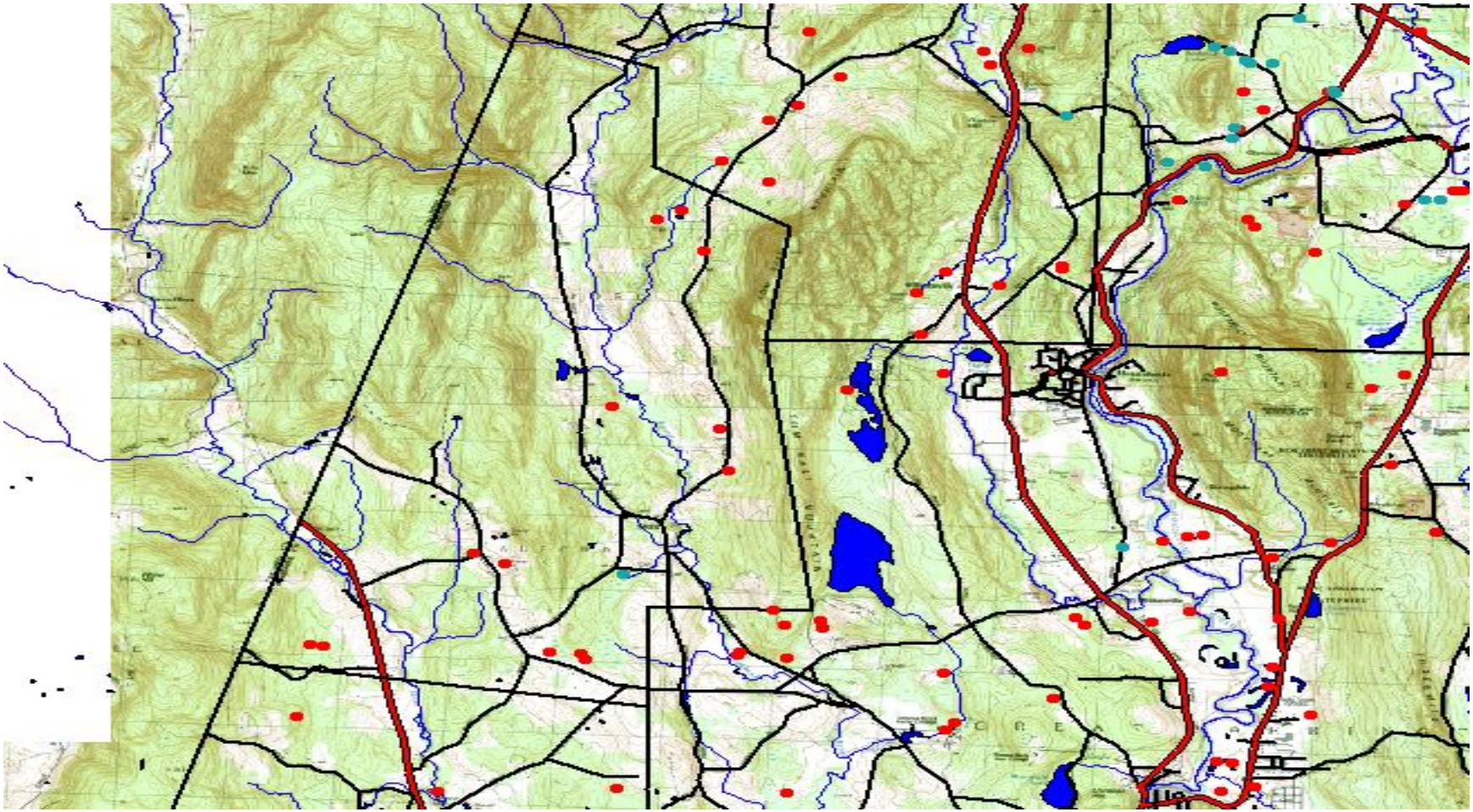
Define “Wetland”

- Most states define wetlands consistent with the U.S. Army Corps of Engineers wetland definition. See, for example, North Carolina.
- Some states such as Wyoming have adopted a more restricted definition which explicitly requires all three parameters (vegetation, soils, and hydrology). Others are more inclusive such as Wisconsin which allows identification of an area as wetland based upon vegetation and soil alone.
- Hawaii defines wetlands in several ways (e.g., “coastal wetlands”, “low wetlands” and “elevated wetlands” and wetlands) for the purpose of regulations.

New York Freshwater Wetlands Map



Prepare Specialized Wetland Maps; Vernal Pools: Mapping by Univ. of Mass.



Define Regulated Activities

- State wetland regulations typically rely upon broader water quality regulations to define regulated activities. Regulated activities are typically broadly defined.

Establish Antidegradation Policy

- All state wetland and water quality regulations establish some sort of general antidegradation policies for wetlands or wetlands and broader waters. For example, Ohio provides in its antidegradation policy:

  "Wetland designated uses shall be maintained and protected such that degradation of surface waters through direct, indirect, or cumulative impacts does not result in the net loss of wetland acreage or functions…."

Classify Wetlands

- Some states classify wetlands for water quality purposes. Nebraska divides wetlands into two categories—isolated and not isolated. Hawaii has adopted several wetland definitions based on elevation above sea level.

- Some states such as Wyoming and Massachusetts make distinctions between wetlands which are adjacent to other waters and those which are not. Most state wetland/water quality regulations distinguish special resource waters from other waters.

- In some states, the water regulatory agency is authorized to classify wetlands on a wetland-by-wetland basis as permit applications are submitted to the agency. For example, Ohio authorizes the regulatory agency to place wetlands into one of four categories with varying degrees of protection. This is the only state to utilize a fairly complicated classification procedure.

List Designated Uses

- Most states, like Wisconsin, briefly list designated uses such as “water supplies, propagation of fish and other aquatic life and wild and domestic animals, preservation of natural flora and fauna, domestic and recreational uses, and agriculture, commercial and industrial uses”.

- Washington state in its guidance for application of water quality standards provides more detailed discussion of individual categories of designated uses. Wyoming also does.

Adopt Standards for Protecting Designated Uses

- State wetland water quality regulations typically list wetland functions and values which are to be protected and set forth standards and procedures for protecting those functions. See, e.g., Wisconsin, North Carolina, Ohio, and Nebraska.

- For example, Wisconsin sets forth “the conditions necessary to protect water quality related functions and values of wetlands including sediment and pollutant attenuation, storm and flood water retention, hydrologic cycle maintenance, shoreline protection against erosion, biological diversity and production and human uses such as recreation.” Ohio and Maine establish no net loss of wetland function and value goals.

Include Functions as Both Designated Uses and Standards for Designated Uses (Wisconsin)

(1) 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.**

Adopt the “Free Froms”

(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;**
- **(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.**

Require “Sequencing”

Sequencing is to be applied to proposed activities impacting wetlands (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

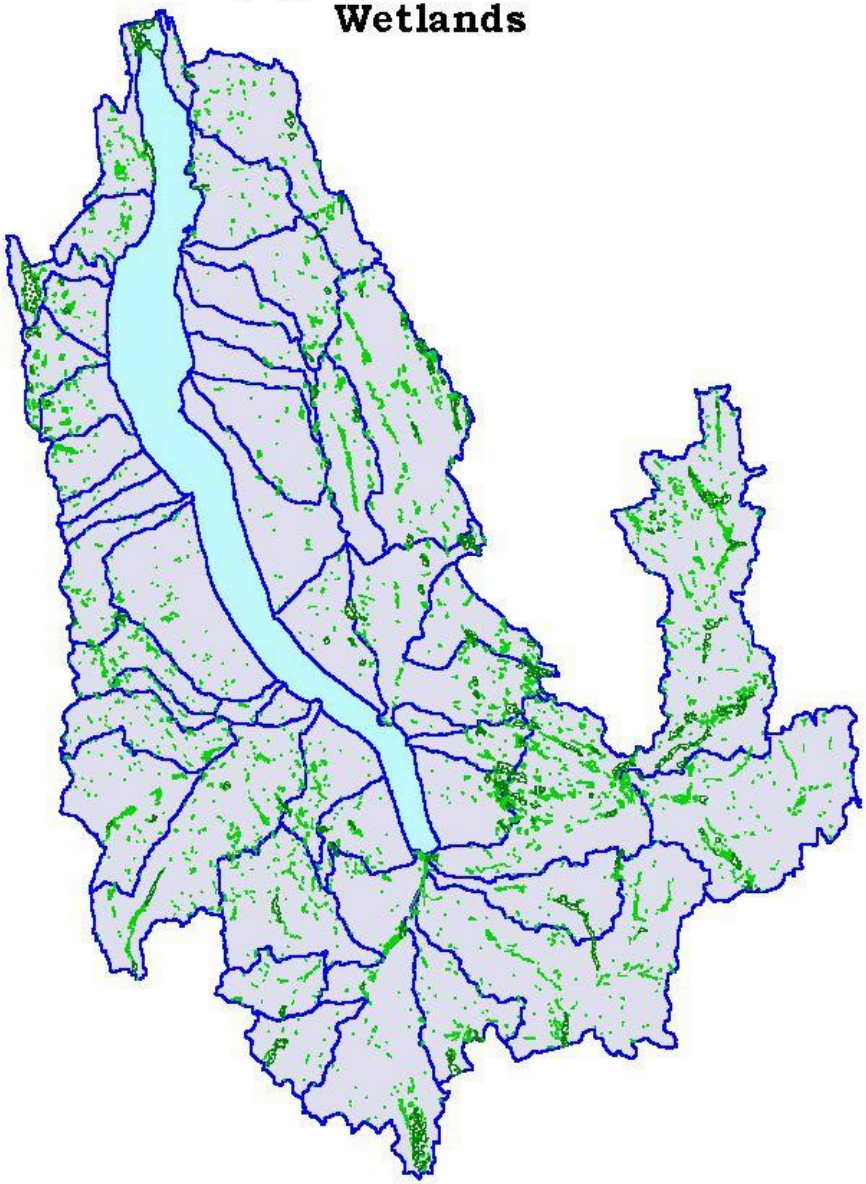
   (2) creation of a wetland.

Protect Hydrology

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

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.

Cayuga Lake Watershed
Wetlands



Protect Biological Integrity

- **The populations of wetland flora and fauna shall be maintained to protect biological integrity as defined at 15A NCAC 2B.0202. Section 15A NCAC 2B.0202 provides, in part: (North Carolina)**

- **"Biological integrity means the ability of an aquatic organism to support and maintain a balanced and indigenous community of organisms having species composition, diversity, population densities and functional organization similar to that of reference conditions."**

Field Surveys Are Often Indispensable.

Mitigation Requirements

- Many states establish mitigation standards for activities in wetlands. Such standards typically call for avoidance, impact minimization, and compensation. See Minnesota below. A number of states establish by rule “mitigation” ratios including numeric standards for mitigation. See Ohio.

Compensation Requirements

- Creation
- Restoration
- Enhancement
- Protection

Administrative Requirements (e.g., permit application content, procedures)

- All states establish procedures for applying for permits including information gathering.

Monitoring, Reporting Requirements, Enforcement

Some states like Florida have established monitoring requirements. Examples include:

- Monitoring of wetland water quality over time,
- Monitoring of broader wetland acreage, functions,
- Monitoring of regulatory compliance (e.g., Massachusetts), and
- Monitoring of wetland restoration/ creation for mitigation.

Please Join Us in Carrying Out this Project

- Join Wetland WQS Workgroup
- Participate in Webinars
- Share oral and written summaries of your States or Tribes activities and issues
- Share ideas about solutions
- Review and Comment on Written Materials
- Other?

Proposed Webinar Schedule

June 22

- Webinar basics training
- Project Overview
- WQS PowerPoint presentation
- Roundtable discussion of state activities with respect to Wetland WQS

Proposed Webinar Schedule Continued

July __

- Identification and discussion of what is most difficult to address by states.
- Ask the three case study states to explain how they handle these specific issues: MN, OH, and WI and open for broader discussion
- Use this discussion to sharpen and revise proposed agenda for future conference calls

Proposed Webinar Schedule Continued

In succeeding months delve into the following topics in more details:

August __

- Definitions of Waters
- Use Attainability Analysis
- Designated Uses

Proposed Webinar Schedule Continued

September __

- Sources of Pollutants and Pollution
- Standards: Narrative and Numeric Criteria

October

- Anti-degradation
- Alternatives Analyses
- 1-day meeting Case Study State TBD*

Proposed Webinar Schedule Continued

November

- Impairment
- Mitigation
- Total Maximum Daily Loads (TMDL's)
- 1-day meeting Cases Study State TBD*

December

- Enforcement
- Brainstorm on lessons learned/best practices
- List areas of clarification/additional guidance needed from EPA
- 1-day meeting Case Study State TBD*

Proposed Webinar Schedule Continued

January

- Best Practices presentation (by ASWM) and Discussion, Comment period

February

- What we've learned: Final reports
- Wrap-up

Proposed Webinar Schedule Continued

Additional Topics for conference calls

- A call for tribes
- Monitoring and Assessment
- Scope of 401/Legal/Court decisions
- For each of the case study states; ASWM will hold a one day meeting in their state on development of their states WQS. Given the amount of interest in New England, we might want to ask NEIWPCC to host a meeting for VT, MA and NH and do all three together. The other states that have indicated and interest at this point are NM and MT.

Roundtable Discussion

1. Are you applying water quality standards to wetlands? If so, please describe.
2. Are you interested in developing water quality standards for wetlands?
3. How can we best help you?

Thank you!

For more information visit ASWM's

Water Quality Standards for Wetlands webpage at:

http://aswm.org/wetland-programs/water-quality-standards-for-wetlands

Work Group webpage:

http://aswm.org/wetland-programs/-wetland-standards-work-group