

Section § 401 Water Quality Certifications

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Vermont Agency of Natural Resources

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Presentation Overview

- Review Clean Water Act
- Section § 401 Authority
- FERC Hydroelectric Licensing
- Section § 401 / FERC Cases
- Applying Section § 401

Clean Water Act

Objective: *“To restore and maintain the chemical, physical and biological integrity of the Nation’s waters”*

Goal: *“water quality for the protection and propagation of fish, shellfish, and wildlife and provides for recreation in and on the water”*

Water Quality Standards

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

40 CFR 131.2

Water Quality Standards

Components:

- Designated uses
- Water quality criteria
- Anti-degradation policy



Typical Designated Uses

- Aquatic Biota and Habitat
 - Cold water, warm water, spawning, rearing, migration
- Recreation
 - Swimming, boating, sport fishing
- Public Water Supply
- Agriculture
- Navigation
- Less typical: aesthetic, cultural, ceremonial, aquaculture

Water Quality Criteria

- Numbers and/or words that describe conditions protective of a designated use
- Protection of different characteristics
 - Chemical – metals, pesticides
 - Physical – temperature, sediment, streamflow
 - Biological - “biocriteria,” biological conditions of a waterbody, compared to reference site/condition

Anti-Degradation Policy

- Keep healthy waters healthy
- Three levels of protection
 - existing uses
 - “high quality waters”
 - “outstanding waters”
- Anti-degradation review to occur to prevent harm to any of the above

Clean Water Act Tools

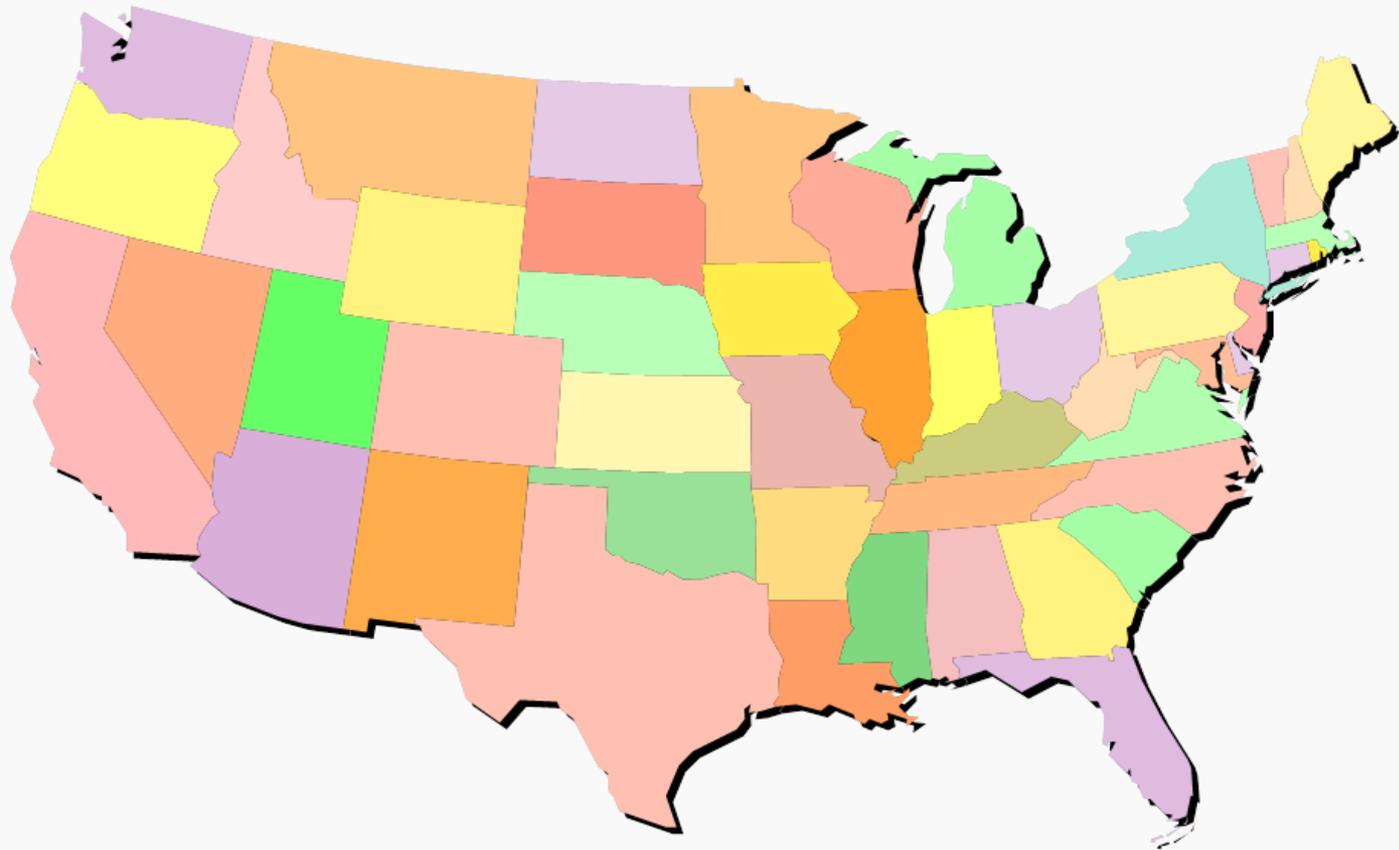
How to Apply Standards

- Discharge (NPDES) permits
- Threatened and impaired waters list (303d)
- Watershed Restoration Plans/Total Maximum Daily Loads (TMDLs)
- State water quality certification (Section § 401)



Belden Falls, Otter Creek, Vermont

Focus: Section § 401



§401 Water Quality Certification

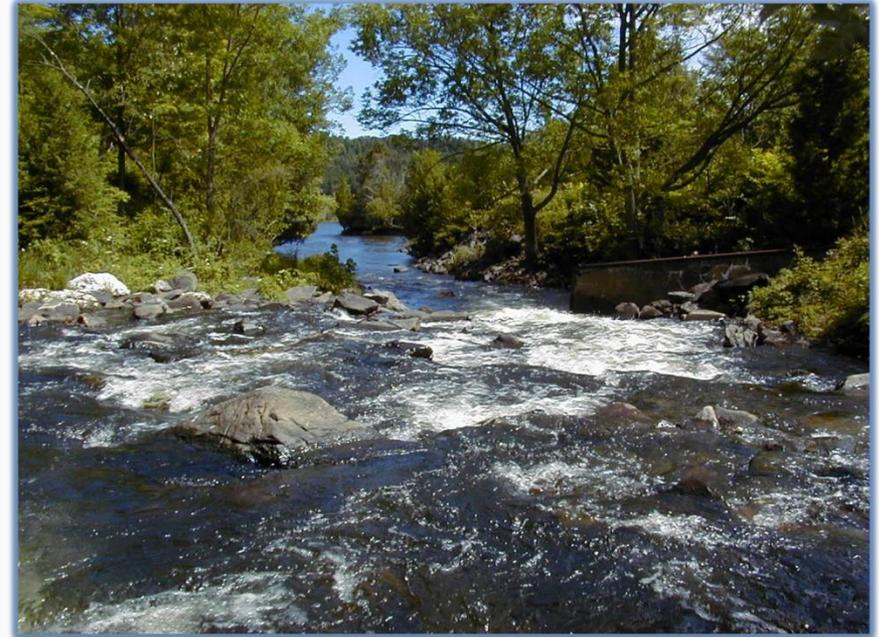
Section 401 requires “[a]ny applicant for a Federal license or permit to conduct any activity . . . which may result in any discharge into the navigable waters, shall provide the licensing or permitting agency a certificate from the State . . . That any such discharge will comply with the applicable provisions of [the Clean Water Act].” 33 U.S.C. § 1341

Components of Section 401 Water Quality Certification

- State issued water quality certifications must indicate compliance with state-based effluent limitations and water-quality based standards
- States can set conditions on certifications
- Conditions shall include “...any other appropriate requirement of state law...” 401(d)
- 401 conditions become mandatory conditions on whatever federal decision is involved (*e.g.* hydroelectric license)

Section § 401 (Cont'd)

- Section 401 certification conditions mandatory
- Based on water quality standards, and designated and existing uses
- Includes all beneficial uses, not just water chemistry
- Appealable to State Court

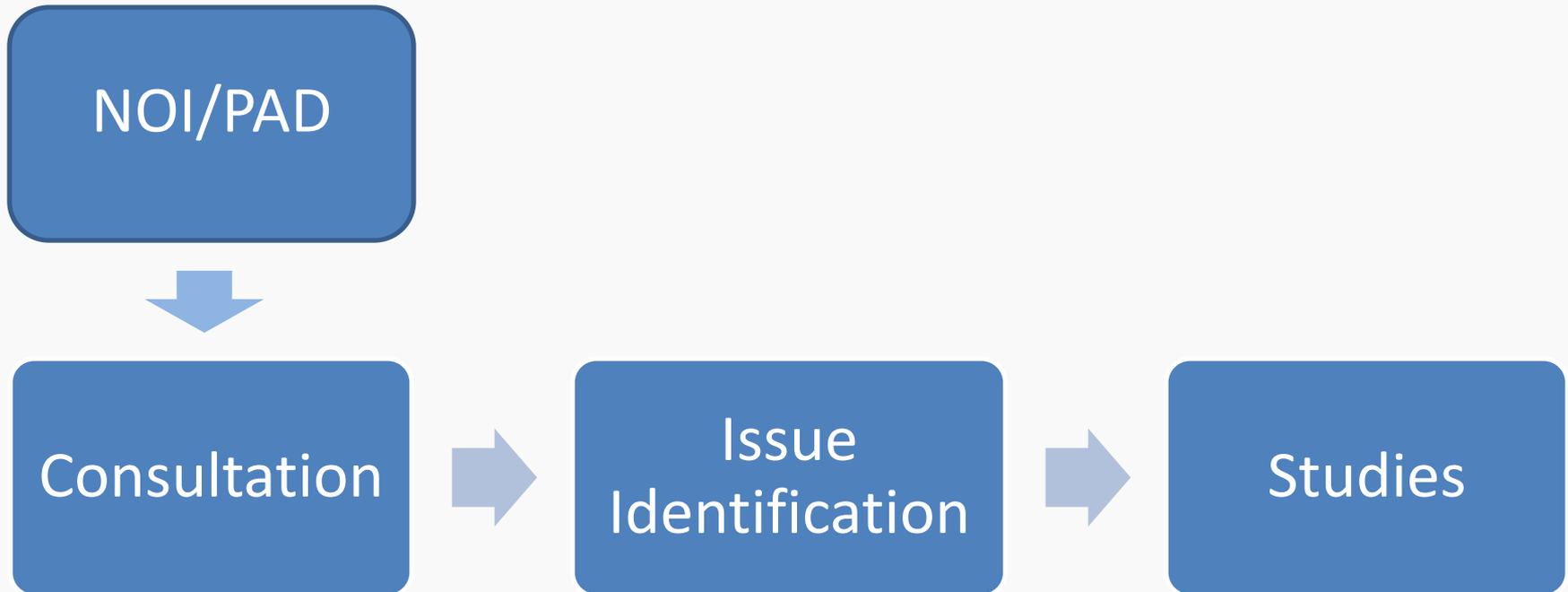


Barton Village Hydro, Clyde River, Vermont

FERC Hydroelectric Licensing

Federal Energy Regulatory Commission rules require license applications to contain a water quality certification, evidence of a pending request for certification, or evidence that the state has waived certification. 18 C.F.R. § 4.34 (b)(5).

Basic FERC Licensing: Pre-filing Stage



FERC Hydroelectric Process

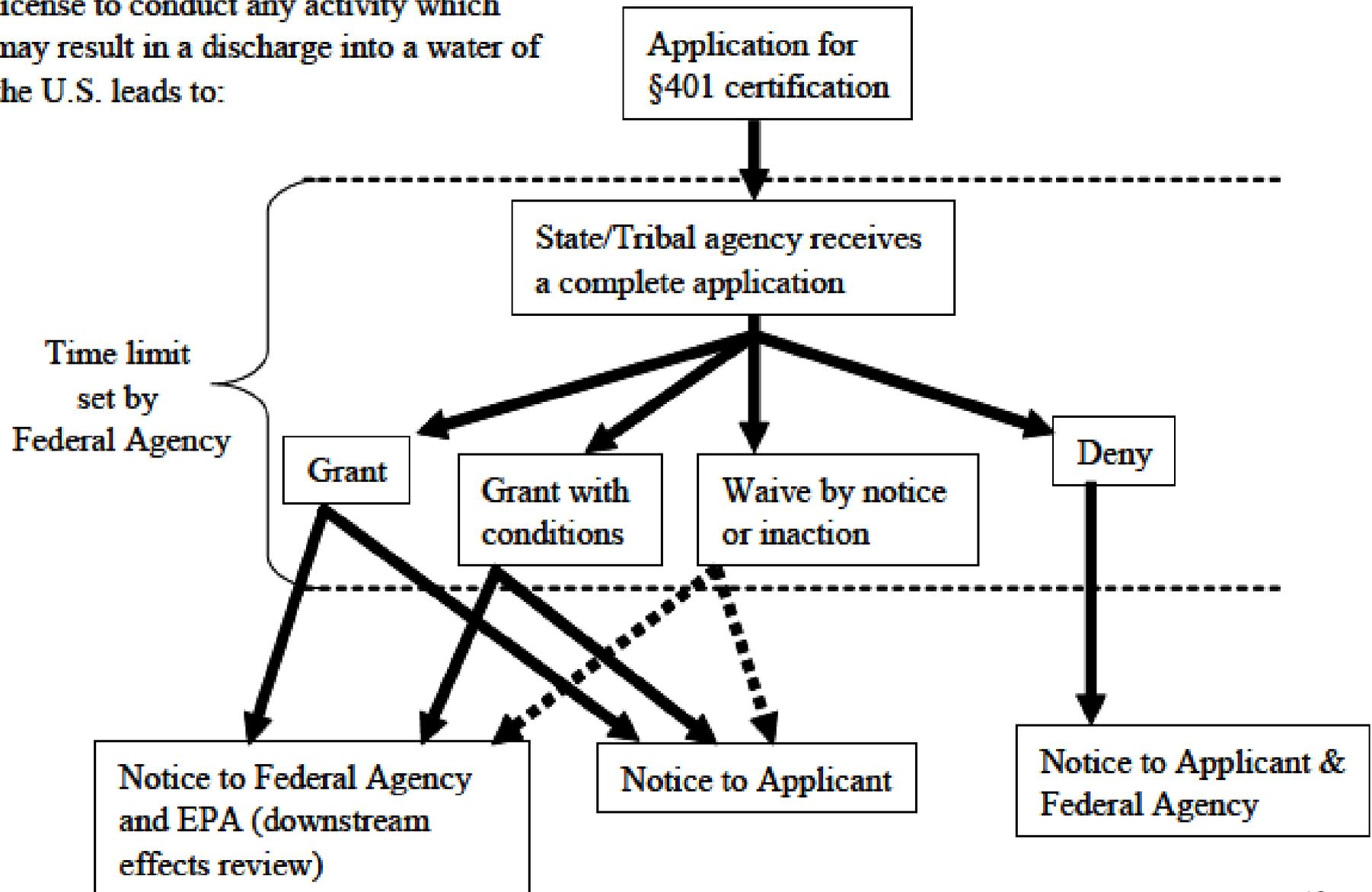
- Section 10(a) – licenses best adapted to a comprehensive plan for the waterway
- Section 10(j) – Agency fish & wildlife protection, mitigation, and enhancement recommendations

Basic FERC Licensing: Post-filing Stage



CWA §401 Certification Process

Application for a federal permit or license to conduct any activity which may result in a discharge into a water of the U.S. leads to:



Clean Water Act § 401

Section 401 provides states with two distinct authorities/obligations

- 1) authority indirectly to deny federal permits or licenses by withholding certification; and
- 2) authority to impose conditions upon federal permits by placing limitations on certification

Clean Water Act Section 401

Ralph Abele
EPA Region 1

February 25 ,2015

Evolution of Streamflow Efforts in New England 1970-2013

- **First phase - Hydro-relicensing, snow making cases: 1979-mid nineties**
 - FWS Aquatic Base Flow – “default standard”
 - Detailed , site specific study methods such as IFIM
 - Key State/Federal regulatory cases and decisions
 - EPA 401 letter to FERC (1991)
- **Second phase : Natural Flow Paradigm, ELOHA Era 1997- present**
 - EPA letters to NE states re. flow and WQS
 - Quinebaug studies (CT and MA)
 - State-specific ABFs: ME,MA,CT,RI and VT
 - Focus on fluvial species, methods to predict unaltered flow at ungaged locations
 - ELOHA, multi-variate studies which look at flow, impervious cover, dams etc.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JAN 18 1991

OFFICE OF
WATER

Honorable Lois D. Cashell
Secretary
Federal Energy Regulatory Commission
825 North Capitol Street, NE
Washington, D.C. 20426

Dear Ms. Cashell:

I am writing on behalf of the Environmental Protection Agency's (EPA) Office of Water to help clarify issues regarding the application of Clean Water Act Section 401 state water quality certification to Federal Energy Regulatory Commission (FERC) licenses. This letter was precipitated by FERC documents addressing Section 401 certification: a letter of July 25, 1990, to James Elder, Director, Office of Water Enforcement and Permits, from Fred Springer of your staff; and portions of a June 5, 1990, Report of the Staff of the Federal Energy Regulatory Commission to the Water and Power Subcommittee of the U.S. Senate Energy and Natural Resources Committee.

The FERC report (page 4) asserts that state Section 401 certification conditions on FERC licenses related to "fish, wildlife, vegetation and recreation" are inappropriate. However, protection of water quality involves far more than just addressing water chemistry. Rather, protection of water quality includes protection of multiple elements which together make up aquatic systems including the aquatic life, wildlife, wetlands and other aquatic habitat, vegetation, and hydrology required to maintain the aquatic system. Relevant water quality issues include the toxicity and bioaccumulation of pollutants, the diversity and composition of the aquatic species, entrapment of pollutants in sediment, stormwater and nonpoint source impacts, habitat loss, and hydrologic changes. A State may need to address any one or combination of these factors in particular circumstances in order to meet the mandates of the Clean Water Act (CWA) articulated in Section 101(a) "to restore and maintain the chemical, physical, and biological integrity of the nation's waters."

Select New England Section 401 cases

- Bangor Hydro-Electric v. Board of Environmental Protection, Maine Supreme Judicial Court (1991).
 - State may seek information on fish passage and recreational facilities planned to meet designated uses, not just limiting certification to compliance with numerical standards for water chemistry.
- Simpson Paper v. Department of Environmental Conservation, Vermont Supreme Court (1992)
 - State flow conditions to protect designated uses

PUD No.1 of Jefferson Co and City of Tacoma v. Washington Department of Ecology (1994)

- New dam on Dosewallips River, WA
- Salmon, steelhead runs, WA DOE Class AA
- Appeal of Washington Supreme Court decision to U.S. Supreme Court
- Forty five states and U.S. filed amicus curiae briefs
- Addressed question of whether flow may be linked to Water Quality Standards and whether a state may include specific flow requirements in CWA Section 401 certs
- Challenge related to Washington Department of Ecology's inclusion of minimum flow requirements in a Section 401 certification for a FERC license.



PUD No. 1

- “Language of Section 303 is most naturally read to require that a project be consistent with *both* components, namely the designated use *and* the water quality criteria.”
- “Consequently, pursuant to Section 401(d) the State may require that a permit applicant comply with both the designated uses and the water quality criteria of the state standards.”

PUD No. 1

- “Petitioners also assert more generally that the CWA is only concerned with water ‘quality,’ and does not allow the regulation of water ‘quantity.’ This is an artificial distinction. In many cases, **water quantity is closely related to water quality; a sufficient lowering of the water quantity in a body of water could destroy all of its designated uses, be it for drinking water, recreation, navigation or, as here, as a fishery.**”

PUD No. 1

- “. . . § 304 of the Act expressly recognizes that water ‘pollution’ may result from ‘changes in the movement, flow, or circulation of any navigable waters . . . , including changes caused by the construction of dams.’ [CWA 304(f)] This concern with the flowage effects of dams and other diversions is also embodied in the EPA regulations, which expressly require existing dams to be operated to attain designated uses. 40 CFR 131.10(g)(4) (1992).”

PUD No.1

- S.Ct. discussed argument that CWA, §§ 101(g) and 510(2), exclude the regulation of water quantity from direct regulation under the federally controlled WQSs
- § 303 Section 101(g) provides ‘that the authority of each State to allocate quantities of water within its jurisdiction shall not be superseded, abrogated or otherwise impaired by this chapter.’
- Similarly, § 510(2) provides that “[e]xcept as expressly provided” in this Act, nothing shall “be construed as impairing or in any manner affecting any right or jurisdiction of the States with respect to the waters . . . of such States.” [CWA 510(2)]

PUD No.1

- S.Ct. read CWA Sections 101(g) and 510(2) more narrowly than Petitioners
- “Sections 101(g) and 510(2) preserve the authority of each State to allocate water quantity as between users; they do not limit the scope of water pollution controls that may be imposed on users who have obtained, pursuant to state law, a water allocation.”

PUD No.1

- S.Ct. cited to legislative history of the 1977 CWA amendment adding § 101(g)
- “The requirements [of the Act] may incidentally affect individual water rights It is not the purpose of this amendment to prohibit those incidental effects. It is the purpose of this amendment to insure that State allocation systems are not subverted, and that effects on individual rights, if any, are prompted by legitimate and necessary water quality considerations.” Legislative History of the CWA of 1977, Ser. No. 95-14, p. 532 (1978)

- American Rivers and State of Vermont v. FERC, U.S. Court of Appeals for the 2nd Circuit (1997)



Tunbridge Dam, 1st Branch, White River

- State and applicant (Tunbridge) agreed on 401 conditions
- FERC rejected several 401 conditions (re-opener and post license conditions) as beyond state's 401 authority
- FERC subsequently rejected some 401 conditions on 5 additional projects in Vermont
- American Rivers and Vermont filed suit against FERC
- Thirty eight states filed as amici curiae
- Court vacated FERC orders and found that FERC is bound by Section 401 to incorporate all state-imposed certification conditions into hydropower licenses.

S. D. Warren v. Maine Board of Environmental Protection (2006)



Sacarapa Dam



Gambo Dam

- S.D. Warren v. Maine Board of Environmental Protection, U. S. Supreme Court (2006)
 - Involves 5 FERC licenses on the Presumpscot River, Maine (Dundee, Gambo, Little Falls, Mallison Falls, Sacarappa)
 - Under protest applicant applied for water quality certifications.
 - State issued 401 certificates
 - Applicant filed several appeals and suits at the state level arguing that the discharge of water from a dam did not fall under Section 401
 - Warren appealed Supreme Judicial Court of Maine decision upholding Maine DEP water quality certifications to U.S. Supreme Court.
 - U.S. Government and many states filed as amici curiae

S. D. Warren v. Maine Board of Environmental Protection (2006)

- The Court unanimously affirmed the decision of the Maine Supreme Judicial Court.
 - The Court observed that the Clean Water Act did not define discharge, but stated that "the term 'discharge' when used without qualification includes a discharge of a pollutant, and a discharge of pollutants." [5] The Act furthermore defined "discharge of a pollutant" and "discharge of pollutants," as meaning "any addition of any pollutant to navigable waters from any point source." [6] The Court believed this meant "discharge" was broader than these definitions, or else the term was superfluous. Because of the lack of a statutory definition, and because it is not a term of art, the Court was left to instead construe it "in accordance with its ordinary or natural meaning."
 - Citing to Webster's New International Dictionary, the Court explained that "discharge" commonly means a "flowing or issuing out," an ordinary sense of the word that the Court had used in prior water-related cases. A 1994 decision specifically involving section 401 had even used this definition. (PUD No.1)
 - The Environmental Protection Agency and FERC had also regularly read "discharge" by this plain meaning, so as to cover releases from hydroelectric dams. "
 - The Court ruled unanimously that hydroelectric were subject to section 401 of the Act, which conditioned federal licensing for a licensed activity that could result in "any discharge" into navigable upon the receipt of a state certification that water protection laws would not be violated.



Applying Section § 401 Authority

Issues to Address During the Relicensing Process

- Instream flow
- Aquatic habitat
- Water Quality
- Water Level Mgmt
- Land Protection
- Recreation
- Fish Passage
- Rare, Threaten, Endanger Species



Northfield Hydro, Dog River, Vermont

Vermont Water Quality Standards

Class B Designated Uses

- Aquatic Biota, Wildlife and Aquatic Habitat – Aquatic biota and wildlife sustained by high quality habitat
- Aesthetics – Water character, flows, water level, bed and channel characteristics exhibiting good aesthetic value
- Boating, Fishing and Other Recreational Uses – Suitable for these uses

Vermont Water Quality Standards

Hydrology Criteria

- Stream Flow Protection
 - **Class B:** Any change from natural flow regime must support uses and comply with criteria. Site specific study preferred
- Flow Study Requirements/ site-specific
- Water level fluctuations
- High Flow Regime

Vermont's Hydropower Review

- Inter-Agency Review Team
 - River Ecologist(s)
 - Focus on aspects of water quality, sediment and erosion, etc.
 - Draft water quality certification
 - Fisheries Biologist(s)
 - Focus on flow-habitat studies for fish
 - Hydrologist
 - Focus on water-balance models
 - Other biologist as needed to address issues rare, threaten, and endangered species

Initial Project Review

- Review list of priority state waters
- Review existing information
- Identify study needs



Cadys Falls Hydro, Lamoille River, Vermont

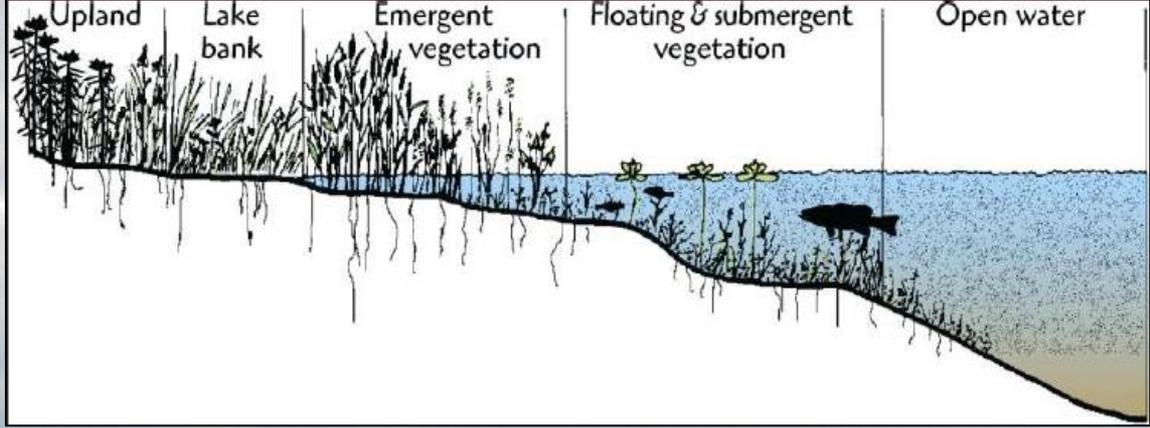
Aquatic Biota, Wildlife and Aquatic Habitat

- Conservation flows – Bypass & Downstream
- Dissolved oxygen and temperature
- Sediment and Shoreline erosion
- Threatened and Endangered Species
- Impoundment impacts
- Riparian vegetation and wetlands
- Fish movement upstream and downstream

Conservation Bypass Flow



Impoundment impacts



Tributary Access: Spawning – Spring & Fall



Fish Passage



Water Quality / Aesthetics



Post-License Plans

- Flow Management and Monitoring Plan
- Recreation Plan
- Dissolved Oxygen and Temperature Monitoring
- Shoreland Erosion Monitoring
- Fish Passage Effectiveness Study

Retaining Jurisdiction Project

- Compliance Inspections
- Authorization of Maintenance and Repair
- Reopening of License/Certification



Conclusions

- 401 Authority for the States to impose conditions on federal license
- Review hydroelectric projects and identify potential impacts to address during licensing
- Include conditions that retain State authority over the project

Questions?

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