

Requirements for Water Supply Permitting

Water Allocation Committee

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Water Supply Planning

Division of Water Resources



Presentation will cover:

- Legal/Regulatory Framework
 - Federal Requirements
 - State Requirements
- Technical Assistance to Water Systems
 - Water Supply Planning Branch Mission
 - HB 609 (Session Law 2011-374)
- Water Supply Permitting Process
- Impediments/Challenges of Permitting Water Supplies
- Questions

Legal /Regulatory Framework

- NEPA or SEPA Process
- Clean Water Act (Federal)
- Safe Drinking Water Act (Federal)
- Endangered Species Act (Federal)
- Water Treatment Plant Construction Approval (Federal/State)
- Water Supply Water Quality Reclassification (Federal/State)
- Local Governments Ordinances Adoption (Local)
- Dam Safety Act (State)
- Interbasin Transfer Certification (State)

Legal /Regulatory Framework

- National Environmental Policy Act (NEPA)
 - Requires federal agencies to integrate environmental values into their decision making processes by considering the environmental impacts of their proposed actions and reasonable alternatives to those actions.
 - To meet NEPA requirements federal agencies prepare a detailed statement known as an Environmental Impact Statement (EIS), Environmental Assessment (EA) or Categorical Exclusions (CE).

Legal /Regulatory Framework

- State Environmental Policy Act (SEPA)
 - Requires State agencies to review and report the environmental effects of all activities that involve an action by a State agency;
 - An expenditure of public monies or private use of public land, (or waters); and
 - Has a potential negative environmental effect on natural resources, public health and safety, natural beauty, or historical or cultural elements, of the State.
 - Similar to NEPA, an environmental report is prepared that allows for agency and public comment/input.

Legal /Regulatory Framework

- Clean Water Act (CWA)
 - Is the primary federal law in the United States governing water pollution.
 - The objective of the law is to restore and maintain the chemical, physical, and biological integrity of the nation's waters,
 - By preventing point and nonpoint sources of pollution, and
 - By providing assistance to publicly owned treatment works for the improvement of wastewater treatment, and maintaining the integrity of wetlands.

Legal /Regulatory Framework

- Safe Drinking Water Act (SDWA)
 - Is the principal federal law in the United States intended to ensure safe drinking water for the public.
 - EPA sets standards for drinking water quality, and
 - Oversees the states, localities, and water suppliers who implement those standards.
 - Requires many actions to protect drinking water and its sources: rivers, lakes, reservoirs, springs, and ground water wells.

Legal /Regulatory Framework

- Endangered Species Act (ESA)
 - It was designed to protect critically imperiled species from extinction as a "consequence of economic growth and development untempered by adequate concern and conservation.
 - The U.S. Supreme Court found that "the plain intent of Congress in enacting" the ESA "was to halt and reverse the trend toward species extinction, whatever the cost."
- Important to know that at a minimum **federal** requirements always supersede **state** requirements.

Water Supply Assistance

- Water Supply Planning Branch
- Mission
 - Provide technical assistance to local governments by planning, identifying water supply needs, identifying and developing water supply sources to address their long-term water supply needs.
- This process of division staff working with local water systems was formalized with the passage of HB 609 (Session Law 2011-374) in 2011.

Water Supply Assistance

- HB609 (Session Law 2011-374)
 - To promote the development of water supply resources and to improve the efficiency of use of NC's water resources.
 - Cooperate in the identification of water supply needs and appropriate water supply sources and water storage projects.
 - Assist in the assessment of alternatives.
 - Apply for State and federal permits.
 - Be the principal State agency to cooperate with other State and federal agencies in the planning and development of water supply and water storage projects.

Water Supply Permitting Process

- Planning (Updated local water supply plan)
- Document the purpose and need for the project
- Scoping – identifying issues and stakeholders
- Will it require an EA or EIS / NEPA or SEPA?
 - Can the project be permitted under a Nationwide?
 - Or General Permit from the Corps?
- Form Project Review Team (for NEPA)

Water Supply Permitting Process (cont'd)

- Developing environmental documents required for permit decisions
- Potential list of alternatives
- How will the future supply source be funded?

Water Supply Permitting Process (cont'd)

- Analyze and Document the Purpose & Need
- Examine projected need of water system
 - Defendable demand estimates
- Evaluate water system efficiency:
 - Water losses
 - Water use efficiency
 - Water reuse

Water Supply Permitting Process (cont'd)

- Identify Potential Options (listed below from “normally” least to most difficult to permit)
 - Maximize use of existing water system
 - Interconnection / Regional System
 - Groundwater sources (Located out/in the capacity use area)
 - Water Storage/Quarry
 - Expanded or additional surface water intake
 - Allocation or reallocation of existing water storage in a reservoir
 - Side stream reservoir
 - **Mainstem reservoir**

Potential Approvals & Permits Required

- Clean Water Act, section 404 (Federal Permit)
 - EPA/US Army Corps of Engineers
 - Mitigation
- Clean Water Act, section 401 (State Certification)
 - DWR, Water Quality Permitting Section
 - Wetlands & stream losses, mitigation, downstream flow, etc.
- Approval to construct treatment plant/use for public water supply (Federal/State Permit)
 - DWR, Public Water Supply Section

Potential Approval & Permits Required cont'd

- Water Supply Water Quality Reclassification (State)
 - DWR, Water Planning Section
 - Critical area delineated
 - Water supply watershed protection measures
 - Rulemaking process, 2 years or more
 - Could be started early
- Local Government(s)
 - Required to adopt ordinances for water supply watershed protection, and to mitigate impacts

Potential Approval & Permits Required cont'd

- NC Dam Safety permit (State Permit)
 - DEMLR, Land Quality Section
 - Often last, since review of actual engineering design
 - Also includes requirements for volume and water quality of downstream release
- Interbasin Transfer Certificate (State Certification)
 - DWR, Water Planning Section
 - As applicable
 - Range from 3 to 5 year process

Water Supply Permitting Process (cont'd)

- Environmental studies
- Varies depending on project specific factors.
- Initial site screening, including:
 - Geotechnical studies
 - Affected dwellings, roads, utilities, etc.
 - Agricultural lands flooded
 - Land acquisition issues

Water Supply Permitting Process (cont'd)

- Hydrologic Modeling
 - Determine yield of reservoir
 - Provide input to evaluate downstream flows
- Effects of the Impoundment
 - Wetlands and streams lost
 - Riverine habitats lost
 - Terrestrial habitats lost
 - Threatened or Endangered Species
 - National Heritage
 - Environmental Justice

Water Supply Permitting Process (cont'd)

- Effects on Downstream Aquatic Resources
 - Downstream flows
 - Fish passage? Threatened or Endangered Species?
- Water Quality
 - In the reservoir, dissolved oxygen levels, algae concerns etc.
 - Suitability for water supply use
 - Downstream release (dissolved oxygen, temperature, etc.)
- Initial mitigation measures analysis - sufficient to compare alternatives
- Costs - sufficient to compare alternatives

Water Supply Permitting Process (cont'd)

- Identification and review of all potential alternatives
 - Study results
 - Project Review Team
 - Agency consultations
- List of potential preferred alternatives
- Identify Least Environmentally Damaging Practicable Alternative (LEDPA) (Corps decides under NEPA)
- Secondary and Cumulative Impacts related to water supply expansion and growth
- Mitigation Plans for direct and indirect impacts

Water Supply Permitting Process (cont'd)

- Environmental Documents
- Draft EIS (developed to Army Corps specs)
 - Local govt pays but contractor works for Corps
- Agency/Stakeholder review
 - Federal – EPA, Fish & Wildlife Service, National Marine Fisheries Service
 - State – DENR, Wildlife Resources Commission
 - Other stakeholders
- Subsequent Drafts if needed
- Final EIS
- Public Comment
- Record of Decision

Potential Impediments/Challenges with Permitting Process

- Lack of planning
- Not having scoping meetings with key state and federal agencies before the permitting process began
- Lack of “proper” documentation of need
- Bias in choosing an alternative and site selection
 - Tunnel vision
 - Not the LEDPA
- Threatened & Endangered Species
- Wetlands and streams impacts requiring mitigation
- Environmental Justice

Potential Impediments/Challenges with Permitting Process (cont'd)

- Fish Passage for Migratory Species
- Interbasin Transfer Certificate
- Water Supply Water Quality Reclassification
 - Concerns from other local governments
- Applicant decisions on study
 - Consultant experience and level of staffing
 - Simultaneous or sequential work?
- Availability of funding
- Need to coordinate with other water systems

Questions

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