An Overview of Recent Regulatory Changes Affecting Dam Removal Projects

ASCE/AFS Joint Committee Webinar, February 2017
Agenda

- Background
- Overview of NWP 53, Removal of Low-head Dams
  - Definition of Low-head Dam and the Checklist
  - Areas of Concern and the Public Comment Period
  - Considerations for Regional Review
- EPA Rulemaking on National Water Quality Standards
- Wrap Up
Why the push for a “dam removal” NWP?
NWP 53, Removal of Low-head Dams

Removal of Low-Head Dams. Structures and work in navigable waters of the United States and discharges of dredged or fill material into waters of the United States associated with the removal of low-head dams.
Areas of Concern

Public Comment Period

• Definition
  • Pre-construction Notification
  • Adverse Effects
    • species of concern
    • wetland mitigation
    • 401 WQ certifications and sediment, sediment, sediment
What is a low head dam?

- Crest extends bank to bank
- Little water storage
- Little sediment storage
- In general, no separate spillway
- No spillway gates
- Dam crest from abutment to abutment
Are these low head dams?
Areas of Concern

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Pre-construction Notification

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Pre-construction Notification Submissions

- Name, address, contact information
- Site location
- NWP type
- Activity data, impacts, wetland loss, impact area proposed mitigation, site sketches, concept plan
- Delineation of wetlands, water bodies
- If over 1/10th area impact, mitigation
- Endangered Species Act, Critical Species List
- Affect on historic properties
- National Wild and Scenic Rivers
- Identify Federal Lands & Projects
Areas of Concern

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Wetland Mitigation
Embrey Dam impoundment following breaching of the dam by the Corps. Dredging was done prior to removal.
Pending Guidance and Other Tools

Draft Dam Removal Analysis Guidelines for Sediment (prepared by the Bureau of Reclamation for the Subcommittee on Sedimentation)

State-specific guidance

Water Quality Variances

Table 6. The relationship of probability of sediment effects with time and distance downstream.

<table>
<thead>
<tr>
<th>Probability Table</th>
<th>Probability of impact tends to decrease with time and distance downstream</th>
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</thead>
<tbody>
<tr>
<td>Relative Reservoir Sedimentation Volume</td>
<td>Short-term in the reservoir and the near reach below the dam</td>
</tr>
<tr>
<td>Small →</td>
<td>Small →</td>
</tr>
<tr>
<td>Medium →</td>
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<td>Large →</td>
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</tbody>
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Figure 25. Probability of sediment impact based on ratio of reservoir sediment volume or mass (V_s) to mean annual sediment load (Q_s).
EPA and National Water Quality Standards

"[a]ctions necessary to facilitate lake, wetland, or stream restoration through dam removal or other significant reconfiguration activities preclude attainment of the designated use and criterion while the actions are being implemented."
“District engineers have the discretion...”
Thank you!

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