

## Overcoming Policy and Permitting Challenges Workshop

### Natural Floodplain Functions Alliance

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American Rivers protects wild rivers, restores damaged rivers, and conserves clean water for people and nature. Our River Restoration Program brings rivers back to life by removing dams, replacing culverts, and restoring floodplains through practice, policy, and strategic capacity building. More than 90,000 dams block the movement of fish and other aquatic species, inundate river habitat, impair water quality, create vast evaporation pools, and alter the flow regime necessary to sustain river life. Dam removal is the fastest, most effective way to restore river functions. For almost two decades American Rivers has worked to implement dam removal projects, and break down the barriers that prevent projects from happening. As a result, the average number of dams removed each year across the country has increased 1,000% since 1998.



American Rivers takes a process-based approach to river restoration, meaning restoration of the physical, chemical, and biological functions of a river. We work on projects that emulate natural resources, address the cause of impairment, allow rivers to be dynamic, self-maintaining, and sustainable. The result is rivers and surrounding ecosystems that function naturally and produce maximum benefits to people and nature.

River restoration projects such as dam removals frequently run into challenges with policy and regulations that are intended to protect and restore ecosystems, but when implemented rigidly, can be at odds with the goals and intent of restoration projects. Three common challenges we encounter are:

- 1) Letters of Map Revision: A LOMR (a change to an effective Flood Insurance Rate Map) is required when modifications are made that affect the hydrologic or hydraulic characteristics of flooding. Dam removals can affect the characteristics of flooding- frequently lowering the base flood elevation and reducing flood risk. When applying for a LOMR, dam removal project managers are required to justify changes to the characteristics of flooding shown in detailed project models and identify how they may differ from FEMA's less detailed model, regardless of whether any NFIP insured structures are affected. The cost of modeling and consultant fees to obtain a LOMR can be \$25K+, presenting a cost barrier to dam removal and river restoration projects, even when the result could be lower flood heights. Potential Solutions:
  - a. If no NFIP insured structures are affected, project managers should be required to submit a notice to FEMA to ensure that the change is taken into account during the next map revisions.
  - b. FEMA should develop protocols or BMPs to simplify LOMR process for restoration projects that reduce flood risk to NFIP insured properties.

2) Sediment Release: States are required to grant or waive a 401 Water Quality Certification prior to the issuance of a USACE 404 permit for river restoration projects. Regulators issuing a 401 certification must consider the amount and quality of trapped sediment that will be released during dam removal. While this sediment release may have short term impacts, it is critical to consider whether the long-term benefits to the river ecosystem outweigh short-term impacts. Potential Solutions:



- a. Agencies should develop protocols to guide design engineers in proper sediment analysis.
- b. Agencies should develop guidance on contaminated sediment. Guidance should address both quantity of sediment released (i.e., clarify how to determine an acceptable sediment load based on the carrying capacity of the river) and quality (i.e., clarify whether it is acceptable to release contaminated sediment if downstream sediments are already contaminated.)

3) Wetland Loss: The Federal government has a policy of No Net Loss of Wetlands, intended to reverse decades of wetlands loss across the country. As impoundments behind dams fill with sediment, wetland ecosystems can evolve. However, these wetlands are often low quality and experience low dissolved oxygen and poor water quality. While these low quality wetlands may be lost following dam removal, river restoration generally results in higher quality wetlands, although there may be lower acreage. Because of the loss of acreage, mitigation is sometimes required. The overall intention to halt wetland loss should not stand in the way of process-based restoration approaches that restore functional, sustainable, and dynamic rivers. Potential Solutions:



- a. USACE should develop clarifying guidance that stipulates that while dam removal may result in decrease of quantity of low quality wetlands, it results in high value wetland and riverine ecosystems.
- b. USACE should clarify that dam removals are self-mitigating projects.

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