Aligning Dam Removal and Dam Safety: Comparing Policies and Institutions in Ten States

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The United States has many aging dams in need of repair and no longer serving a useful purpose. According to information in the National Inventory of Dams (NID), which is only a subset of all dams in the US, 37 percent of dams are more than 60-years-old. A 2019 ASDSO study estimated repair costs for the 15,629 high-hazard dams in the NID at $24 billion. In many cases, removing a dam is a better option than maintaining it. But for a dam owner to take interest in removing a dam, s/he must find the economics compelling—i.e., the costs s/he incurs to remove must be less than the costs to maintain net of any beneficial services the dam provides. Dam removal costs vary with dam size and other factors, including sediment handling requirements but even small dams can cost more than $100,000 to remove. For many private owners—and private dams make up 63 percent of all dams in the NID—these costs are prohibitive. On the other hand, liability associated with dam failure is also costly, and dams that fall under the jurisdiction of state dam safety regulations may face costly repairs. We discuss the ways in which these competing factors are playing out in settings across ten states from New England to the Pacific Northwest. We describe how dam safety offices work in each state; to what extent, they present removal as an option to dam owners; and the degree to which they work in consort with state agencies representing fish passage and river restoration. We depict the funding situation in each state, both for dam rehabilitation and removal, as well as permitting requirements and flexibility. We find that most dam safety offices are agnostic about removal, neither encouraging nor discouraging it, and in only three of the ten states is there regular and substantive interaction across agencies. We also find that many dam safety offices are reluctant to force dam owners to incur hefty repair costs, typically providing owners with extra time and some leniency. Funding for dam removal is extremely limited. Moreover, a mismatch often exists between funding availability and dam removal objectives—e.g., federal dollars are linked to fish passage, but some removals may have limited, or no, fish passage benefits. Our study highlights creative funding approaches used in some states.