

KEY TAKEAWAYS

LESSONS LEARNED: Experience with the National Dam Safety Program to Inform the Design and Implementation of a National Levee Safety Program

ABOUT GOVERNANCE

- » The NDSRB is an important platform for information exchange between states and federal partners. The effectiveness of this group, and that of a future NLSP advisory group, is highly dependent on having clear objectives and roles of the group, ability of the group's opinions to get through agency processes to Congress, and effective meetings. This also includes consideration of appropriate balance of power and representation between federal agencies and other members (states, associations, etc.)
- » Opinions about representation on the NDSRB largely depends on an interviewees' opinion regarding whether and to what degree the focus of the program should be on the performance of the dam or include a broader set of risk managers (e.g., emergency managers, communities).
- » The NDSP as a whole has benefitted from the technical expertise and resources from federal agencies through ICODS. USACE, U.S. Bureau of Reclamation, and the Federal Emergency Management Agency tend to dominate ICODS directions and discussions as they are the large portfolio dam owners. Regarding a NLSP, care should be taken to ensure that program design takes into consideration the needs of all types of owners and operators.
- » Association of State Dam Safety Officials (ASDSO) has played an important and influential role in the NDSP. That role, and the influence of ASDSO on the NDSP, has not always been clear creating concerns about potential conflict of interest, and raising questions about the appropriate roles and values of entities outside federal and state government in program implementation.

STATE PROGRAMS

- » State programs are critical for implementing the National Dam Safety Program and are the field-level conduits to dam owners, emergency management partners, and downstream communities. Strong state programs are crucial to strong dam safety.
- » Program requirements for State Assistance Grants are a balance. If requirements are minimal, they are less effective; if requirements are too stringent, they could exclude the states that need the

most help. There is some energy around consideration of more performance-based approaches. Current funding formula strives for fairness but does not recognize the merit or need of state programs.

- » Look to high performing states as models and study what they do. California, New Jersey, and Colorado are cited as good state programs, largely due to their states' investments in the program, qualified staff, and legislative support.
- » States are the most common level to delegate regulatory authority but there is potential to work with regional partners (e.g., emergency managers, NGOs, floodplain managers, etc.).
- » State dam safety programs depend on political support across state agencies and would benefit from authorities to ensure owners comply—working with reluctant owners can be challenging.
- » NDSP has not had very much experience with tribes but a new levee program would benefit from figuring out a way to have a “smarter” conversation about tribal involvement.

CAPACITY BUILDING, TECHNICAL ASSISTANCE, AND TRAINING

- » Involve states and owner/operators in up front needs assessment to determine audiences, formats and priorities for technical assistance and training.
- » A specific certification for levee safety professionals could be helpful; however, if it is too specific, could limit the already small pool of personnel available to staff state programs.
- » Involve academia and professional training expertise to conduct a needs assessment, establish a curriculum, develop technical materials, tailor products for different audiences, and consider most effective delivery mechanisms. Assess progress and effectiveness against programmatic goals and objectives.
- » Supporting organizations, such as ASDSO, are viewed as helpful in providing training, outreach, and technical assistance. Consider, but be deliberate about relationships to avoid appearance of conflict of interest of favoritism.

THE NATIONAL INVENTORY OF DAMS

- » As a central repository for dam data, the NID is most helpful at the national level for policy makers understanding risks across the country.
- » The NID can be useful for emergency management, but tensions remain about how much information to share with the public.
- » Data quality and freshness limit the utility of the NID for states and can lead to conflicting information in an emergency response if the state and FEMA are using different data sets.
- » The current NID is challenging to navigate and includes technical terminology that is difficult to understand.

INSPECTIONS

- » Prioritizations of inspections were left up to the Districts. Some used hazard potential and others geographic proximity.
- » Clear communication and cooperation from all levels of government is important for gaining rights of entry; although problems with rights of entry were relatively few as there was public Presidential support for the effort.
- » Inspections used a common baseline process (similar to USACE dam process) that could be tailored to fit the unique characteristics of each dam. On-site inspections were considered necessary.
- » Inspections were conducted by USACE personnel, USACE contractors and states. For contractor and state inspections, USACE provided a review of results.
- » Always invite the owner and use the opportunity to educate them about the process. States participated in the inspection review panels as well.
- » USACE Districts and state Dam Safety Offices should have copies of the inspection reports.
- » There is a report called United States Army Corps of Engineers, National Program of Inspection of Non-Federal Dams, Final Report to Congress, May 1982. It is a good overview of the result of the inventory and inspection efforts.

OVERALL PROGRAM AND RISK AWARENESS

- » There is a general consensus from interviewees that the National Dam Safety Program has not been very active in raising overall awareness of dam-related risks across the country.
- » There is consensus that weather events, dam failures, or “near misses” are often the most effective at raising awareness about dam safety and the feeling that NDSP could do more to take advantage of those unfortunate events to increase public awareness.
- » There is a need to increase and broaden dam safety awareness outside of the dam community of practice through targeted communication.
- » ASDSO, American Society of Civil Engineers, and United States Society of Dams are seen as the most effective communicators of dam safety information.
- » Funding and training are essential for promoting the national program.

GENERAL QUESTIONS

- » The NDSP has had a positive influence on building dam safety programs in states and providing a forum for the creating of important technical and programmatic materials to support state programs. However, there is a concern that it may not be doing enough to meet the potential dam safety risks in the nation.
- » The NDSP provides an important forum for federal/state/private partnership allowing information sharing, and problem solving.
- » Additional funding for state programs is often recommended, and with that the possibility of increased programmatic requirements.
- » Additional promotion of dam safety by FEMA within FEMA and with Congress and the Administration is a necessary step to increase program investment and provide top-down forces to encourage state investment and dam operator involvement.
- » Since there is often a disconnect between the national program priorities and decisions at the state or local level, a national program needs clear goals, clear guidance, and practical legislation.