

HOUSE COMMITTEE ON NATURAL RESOURCES, FISH AND WILDLIFE

**TESTIMONY OF BRIAN T. FITZGERALD
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ON
H.92, AN ACT RELATING TO THE REGISTRATION OF DAMS**

FEBRUARY 14, 2017

Mr. Chairman and members of the committee, good afternoon and thank you for the opportunity to testify on this important matter.

I am Brian Fitzgerald, and I'm a river ecologist with the Vermont Natural Resources Council. I have been working on issues related to the impacts of dams on the environment and public safety for the last 21 years, much of that time with the Agency of Natural Resources.

VNRC strongly supports H.92, and my comments will focus on why we believe passage of this bill is so important.

A common misperception about dams is that they have been in place forever and aren't going anywhere. That's simply not true. As they age, they become more susceptible to failure: metal corrodes, concrete deteriorates and wood rots.

Vermont's most significant dam failure occurred in 1947, when flashboard failure at Chittenden Reservoir sent so much water down East Creek that a dam in East Pittsford failed, flooding large sections of Rutland. More than 300 homes and businesses were damaged and roads, rail lines and utilities were severed. Fortunately, there was advance warning and no lives were lost. Damage totaled about \$5 million.

More recently, DEC has documented 47 dam failures in Vermont since 1977. In addition, there were numerous small dam failures during Tropical Storm Irene that are not well documented. Fortunately none of the dam failures in the last 40 years resulted in loss of life, but they did cause property and infrastructure damage.

Typically, it takes a catastrophic event for a state to take action and improve its oversight of dams. For example, at least 50 dams failed during a 2015 flood in South Carolina, contributing to \$12 billion in damage and in the loss of 19 lives. Additional dam failures occurred when Hurricane Matthew hit the state in 2016. The result is a bipartisan effort to improve the state's oversight of dams.

Closer to home, New Hampshire, Massachusetts and Connecticut have experienced dam failures or near failures in recent years, resulting in legislation calling for more rigorous oversight of dams. Passage of H.92 will help Vermont get ahead of this problem before we have a catastrophe here.

In addition to public safety risks, dams impose an environmental risk. Failures of even small dams can result in uncontrolled sediment releases, stream channel and bank erosion and damage to riparian vegetation.

The point of the registration and inspection program in H.92 is to identify the location and condition of dams throughout Vermont. The bill aims to provide information that can be used to evaluate the public safety and environmental risk and beneficial uses of such dams, and identify opportunities to improve public safety and restore river functions through selective dam removal.

There are currently 827 dams identified on ANR's Natural Resources Atlas. Information provided by DEC in August 2016 shows that 686 of those dams are regulated by DEC. However, at least 260 of those dams are not currently subject to regular inspections, so their condition is largely unknown.

DEC's dam safety engineers are dedicated professions who do great work protecting Vermonters and Vermont's environment, but they cannot keep up with inspecting those 690 dams on a regular basis. H.92 will close that gap by giving DEC the ability to place more responsibility for inspections on dam owners – those who derive the greatest benefit from these structures. At a time when many state programs are experiencing significant stress, this is a logical and sustainable way to address this problem.

According to the Association of State Dam Safety Officials, as of 2014, 20 states required owners to engage qualified engineers to inspect their dams, while in 29 states inspections were a state responsibility. The trend is toward owner responsibility. Under H.92, Vermont would be able to use either approach or a hybrid program.

The purpose of H.92 is make us safer, but it does have ancillary benefits. Goals set by the Legislature since 2010 in Act 110 and Act 138 recognize it is in the public interest to manage rivers toward an equilibrium condition by avoiding, eliminating or minimizing development impacts and river/infrastructure conflicts in river corridors and floodplains. If the bill becomes law, it will support that goal by improving the quality of information in the Vermont Dam Inventory and ensure that information continues to be available to the public, emergency management officials and designers of river and floodplain restoration projects. Further, it will raise dam owners' awareness of their financial and legal

liability associated with dam ownership so they can consider whether those liabilities are justified. In other words, they may consider removing obsolete dams. Eliminating those deadbeat structures will improve flood resiliency, aquatic habitat, water quality, public safety and recreational access.

Thank you.