



**Testimony of Amy Singler
American Rivers and The Nature Conservancy**

Before the House Committee on Fish, Wildlife and Water Resources

January 29, 2014

In Support of H. 590 – An act relating to the safety and regulation of dams

Good afternoon. Thank you for the opportunity to comment on H. 590: An act relating to the safety and regulation of dams. I would also like to touch briefly on H. 442: An act relating to the development of microhydroelectric projects in Vermont. My name is Amy Singler and I am the Associate Director of American Rivers' River Restoration Program and I also work for The Nature Conservancy's Connecticut River Program. American Rivers is a national conservation organization dedicated to protecting and restoring rivers for the benefit of people, fish, and wildlife. The American Rivers' Northeast office works on river restoration projects in Vermont and in the other five New England states. The Nature Conservancy similarly works to conserve the land and water on which all life depends. Here in Vermont we have a strong emphasis on the health of our freshwater resources.

I work specifically on river restoration and dam-related issues for both organizations. Together with my New England colleagues, we are working with partners on over 50 dam removals that are currently being designed or were recently removed, several of which are in Vermont.

American Rivers and The Nature Conservancy strongly support this Bill because it will dramatically improve dam safety in Vermont by ensuring that more of the state's outdated and deteriorating dams have safety inspections and that dam owners follow up on the results of those inspections by repairing and maintaining their dams.

I spend a lot of time working around many of the approximately 2,700 dams in the Connecticut River watershed as part of my work from Vermont south to Connecticut and I can attest to the shockingly poor condition of so many of these structures. Vermont is no different. I would like to touch on my experience working on dam safety and river issues in several New England states to put some context on the bill proposed for Vermont.

Despite the over 1,000 dams in the state, Vermont's Dam Safety Office has only two staff assigned complete all the necessary private dam inspections, plus inspections on the additional state owned dams. The 2011 *Report Card for Vermont's Infrastructure* from the American Society of Civil Engineers reports that there is a \$17 million backlog of repairs needed to Vermont's dams. That same report states that 32% of high hazard dams in 2010 were in 'poor' condition.

This Bill will fix that problem by requiring that dam owners must pay a fee to register their dam and that fee would go to support additional staff in the Dam Safety Program. Requiring dam owners to take more responsibility makes sense because the majority of dams do not provide public benefits and therefore should not be subsidized wholly by public dollars. This is in keeping with recommendations from the national Association of State Dam Safety Officials, which promote increasing dam owner responsibility. The Bill would also take the fundamental step of requiring dam owners to register their dams with the state to allow the state to better inventory dams and dam ownership. And it would

require notice of the dam and the dam condition between the seller and buyer of a property on which a dam is located. It is surprising how frequently dam owners are unaware not only of their responsibility to maintain a dam for safety purposes, but also in some cases that they even own the dam.

Increasing the number of dam inspections is critical because public safety incidents are occurring over and over again across New England because of aging dams. Some examples include:

- In March 2010, the near failure of a dam in Stonington Connecticut forced the evacuation of downstream residents. It was the second time in 3 years that those same residents had to evacuate their homes because of that same dam. That dam was removed in 2012, permanently eliminating the safety hazard.
- In October 2005, a dam on the Mill River in Taunton Massachusetts made national news when a near breach forced the evacuation of 2,000 residents in downtown Taunton, and required the state and federal government to intervene with emergency repairs. That dam was finally removed this past summer.
- During Tropical Storm Irene 10 dams breached in Vermont and western Massachusetts, contributing to already swollen rivers and debris flows that damaged communities.

The one thing that most of these dams had in common, besides their age and poor condition, is that they were no longer serving the purpose that they were built to provide. Many, perhaps most, of the thousands of dams across Vermont and New England were built decades to centuries ago to power mills. The mill operations have long since closed and the businesses have moved on, but the dams remain. Unless dams are well maintained, their condition only gets worse every year. The most cost-effective and permanent way to deal with unsafe dams is to remove them.

For that reason, this Bill provides more than public safety improvements. It will also result in tremendous environmental benefits.

Dams cause some of the most harmful impacts to fish and wildlife of any human action in rivers. Dams block the necessary ability of fish to move; they degrade water quality by raising water temperature and thereby lowering water oxygen; and they drown the living space of creatures that normally live in flowing water.

We have seen throughout the northeast that where dam safety is more effectively enforced, dam owners choose to remove dams rather than let them deteriorate.

More than 1,000 dams have been removed in the United States. More than 80 of those dam removals were in the New England states in the last ten years. We have seen in case after case that once a dam is removed, native fish populations rebound; water quality improves; habitat improves; AND there is no longer a safety hazard from failure; there is no longer a safety hazard to boaters and kids playing on or around dams; and there is no longer any maintenance need or liability for dam owners. Removing dams presents a remarkable win-win-win scenario, for dam owner liability, for public safety, and for rivers.

Vermont would not be alone in taking steps to improve dam safety. New Hampshire has laws similar to those proposed in this bill that establish fees for the state to complete dam inspections. Massachusetts enacted stronger dam safety laws in 2006 after the near failure of the previously mentioned dam in Taunton. And just last year Connecticut passed legislation to strengthen their dam safety laws to place more responsibility on dam owners and provide for more inspections. In all three

states we see higher numbers of dam inspection reports to the state. The change has had tremendous benefits. Dam owners are now taking responsibility for repairing and maintaining their dams, and some cases dam owners have chosen to remove their dams as a result.

It is with these issues in mind that American Rivers and The Nature Conservancy strongly support the proposed language in this Bill. We have some specific comments on some of the Bill's details.

- Definition of a dam; it is unclear if the bill applies to all dams or only dams that impound more than 500,000 cubic feet. We suggest clarifying the language to ensure that the registration and disclosure provisions apply to all dams, regardless of impoundment size.
- Dam Safety Enforcement and Dam Repairs: It is not immediately clear from the language proposed in the bill how the Department may deal with enforcement. The strength of this legislation would come from the Department's ability to enforce the provisions that owners not only register their dams, but also are required to follow-up on dam inspection reports that may identify necessary repairs or removal to maintain dam safety. These repairs are what ultimately lead to improved public safety.
- The Bill specifies the funds from registration go to support the Dam Safety Program. Additional dam safety staff is a critical provision within this bill to improving dam safety.

H. 442 - An act relating to the development of microhydroelectric projects in Vermont

I would also like to touch briefly on H. 442 – An act relating to the development of microhydroelectric projects in Vermont. Both American Rivers and The Nature Conservancy work with hydropower agencies and developers to ensure responsible hydropower operations. There are several aspect of the bill that are concerning. The bill suggests that these microhydro developments could be built without any diversion or impacts to streams or aquatic species. Some form of diversion or damming would be necessary to divert the water to a turbine. That diversion structure would directly alter the stream, and the amount of water flowing in the stream between the diversion and the turbine would be reduced. A river that has had its water removed cannot properly be called a river, and certainly cannot support a healthy ecosystem. In order to meet state water quality standards, other water users would have to compensate for the hydro withdrawals in the dewatered reaches.

The amount of energy generated by these projects is not worth the impact to Vermont's rivers. A 50kW hydro project would generate less that 500MWh a year. By any accounting, even with many sites operating, this is not a lot of energy given the state's 6 million MWh electrical demand.

Finally, the bill suggests establishing a general permit which would include the required federal 401 Water Quality Certification. This would in effect bypass the Clean Water Act. We understand that importance of renewable energy like hydropower, and it is all hands on deck as we look for solutions. But that shouldn't mean rolling over the Clean Water Act and dewatering streams or asking other users to then carry the weight of water management for small inefficient hydro projects.

Thank you for your time today and the opportunity to address these issues. Please feel free to contact me to discuss this Bill or to discuss American Rivers' and The Nature Conservancy's experiences on these issues. I can be contacted at 413-584-2183 or asingler@americanrivers.org