

Testimony before the Senate Committee on Natural Resources & Energy on H.126

Brenda Gail Bergman, PhD, The Nature Conservancy

13 April 2023

Introduction

Greetings, Chair Bray and Committee members. My name is Brenda Gail Bergman. I am the Director of Science and Freshwater at The Nature Conservancy in Vermont. I was invited to provide testimony on H.126. Due to a scheduling conflict I am unable to attend in person, so I am hereby submitting a written testimony. I will keep this at a relatively high-level summary out of consideration for your time since my colleagues Tara and Lauren are also testifying.

I would like to address three considerations:

- A. Conserving water is **essential** to achieving the aims of H.126: community resilience and biodiversity protection.
- B. Our current mechanisms in Vermont are helpful but insufficient to conserving our waters.
- C. It is **feasible** to **implement, measure, and succeed** with an approach that will improve conservation of our waters so that they promote community resilience and biodiversity into the future.

A. Inclusion of water is essential

1. H.126 is, by title, a Community Resilience and Biodiversity Protection Act. If we are to achieve either community resilience or biodiversity protection, we must conserve our waters. Specifically

- Resilience: The greatest natural hazard challenging our resilience is flooding and associated erosion. Vermont's rivers need better conservation to mitigate flood risk. Approximately 75% of all assessed river miles in our state are disconnected from their floodplains.¹ This degraded condition exacerbates flood-related damages by allowing high flows to rush downstream rather than dissipating on the landscape. Flood-related impacts also challenge our financial resilience, as they cost Vermont taxpayers millions in damages each year.
- Biodiversity: Our most drastic biodiversity losses are in freshwater. Freshwater vertebrate populations have declined by 83% globally since 1970, far exceeding the rate of decline of biodiversity on land.² Vermont provides critical freshwater habitat for cold water species whose viability has declined in southern extents of their range under a changing climate.

The importance of an explicit commitment to conserving water is recognized nationally and internationally.

- Our nation committed to conserving 30% of waters by 2030 through Executive Order 14008 in January 2021, and the associated America the Beautiful initiative.
- The United States and 187 other governments adopted the Kunming-Montreal Global Biodiversity Framework (GBF) in December 2022. This framework acknowledges that "Inland

¹ Vermont Department of Environmental Conservation

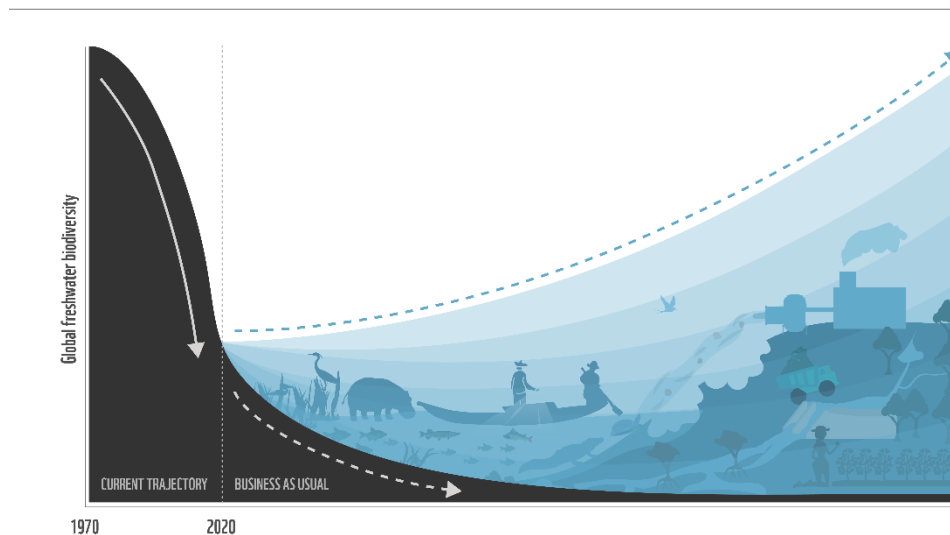
² World Wildlife Fund Living Planet Report 2022

waters – including rivers, lakes, and other wetlands – represent some of the most biodiverse and threatened ecosystems on the planet” and established explicit targets to restore and protect freshwater. These include that “By 2030 at least 30% of inland water areas are effectively conserved and managed ...”

Now is the moment for Vermont to step up and align for the sake of our human and natural communities

B. Our current mechanisms are helpful but insufficient to conserving our waters.

The previously mentioned rate of freshwater biodiversity decline is precipitous. When viewed graphically (black graphic below), we see how urgent it is that we ‘bend the curve’ away from this dire condition through intentional policy and association action (envisioned in blue below). One in three freshwater species are threatened with extinction. Here in Vermont, a recent Climate Assessment found that climate change further threatens water availability, quality, and flows in our state.



Source: World Wildlife Foundation

C. A pathway toward conserving water is feasible

We recommend that through H.126, Vermont commits to conserving 30% of our waters and allows the specific mechanisms to be articulated with more consultation, review, and time during the planning process. This is consistent with the approach taken by others, such as countries signatory to the Kunming-Montreal Global Biodiversity Framework and our neighbor New York state.

Still, it is important to establish that it is feasible to conserve our waters, calculate our baseline, and measure our progress. For this reason, TNC conducted a preliminary analysis using one possible definition of conserved waters. We applied an area-based approach that focuses on conserving

“water-connected land area”. This is the area of land directly adjacent to bodies of water, including river corridors, riparian areas, wetlands, and lakeside zones for lakes and ponds. Conserving areas of land that borders our waters is necessary to restore the functions of water systems that enable resilience, biodiversity, and ecosystem services. Failure to conserve land bordering our waters is a leading contributor to declines in freshwater biodiversity and resilience. This alone is insufficient, but is one feasible step that we can take, measure, and achieve through this bill and associated planning efforts.

Based on this preliminary analysis, Vermont has currently conserved 21% of our water-connected land area and can reasonably achieve 30% by 2030. We would be happy to provide further details of this analysis to the committee as helpful.

Thank you for your time and intention.