



Statement of Phil Huffman

Director of Government Relations and Policy for The Nature Conservancy in Vermont
to the Legislative Study Committee on Wetlands
following oral testimony provided on October 9, 2019

INTRODUCTION

Thank you, Chair Starr, Vice Chair Sheldon, and members of the Committee, for the opportunity to share The Nature Conservancy's perspective on the importance of Vermont's wetlands for nature and people, and on policy considerations related to wetland protection and restoration.

By way of context, The Nature Conservancy (TNC) is a global conservation organization dedicated to conserving the lands and waters on which all life depends – both people and all the other species with which we share the Earth. One of our hallmarks here in Vermont and everywhere we work is that we're a science-based organization – we rely on the best science we can gather to inform our own conservation work and that of others. Guided by science, we create innovative, on the ground solutions to our world's toughest challenges so that nature and people can thrive together. We work in all 50 states and over 70 countries. In Vermont, as we look forward to celebrating our 60th anniversary in 2020, we're proud to have helped permanently conserve over 300,000 acres of land and 1200 miles of shorelines, and to own and manage more than 55 natural areas all around the state.

THE IMPORTANCE OF WETLANDS

We see wetlands as **vastly underappreciated natural systems** and resources that have an **outsized importance** both ecologically and **for people** relative to their limited scale and abundance on the landscape here in VT. Wetlands have a wide range of values, benefits, and importance – which Secretary Moore touched on in her testimony at the Committee's meeting on September 17th, and which Laura Lapierre elaborated on in describing wetland functions and values prior to my testimony. I won't reiterate the points they covered, but wanted to offer a brief public-facing [commentary in VT Digger](#) on the importance of wetlands from our recently retired Director of Science and Freshwater Programs, Rose Paul. I also wanted to highlight the fact that science indicates that wetlands have an unusually high ability to sequester and store carbon relative to other natural systems, and thereby play an important role in helping to slow the pace of climate change.

Because of their great importance, we've been involved in protecting and restoring wetlands for decades – a total of about 27,000 acres altogether statewide. This includes some of

Vermont's highest quality, most intact wetlands such as LaPlatte River Marsh in Shelburne, Chickering Bog in East Montpelier, Dennis Pond wetlands in Brunswick, and our ongoing efforts to conserve and restore Otter Creek Swamps, the largest freshwater wetland complex in all of New England, spanning seven towns in Rutland and Addison County. As is true in our conservation efforts elsewhere in the state, our work in Otter Creek Swamps is done in close collaboration with willing landowners and state and federal agency partners, including ANR, AAFM, USDA Natural Resources Conservation Service, and US Fish and Wildlife Service.

I'd like to add a couple of concepts that we think reinforce the value of wetlands:

- Wetlands are a form of "**natural capital**", i.e., the "living systems on which we depend for survival." Like money in the bank, we can live off the interest of this natural capital...so long as we don't dip into the principal, which in this case is the wetlands of our state.
- Contrary to most people's perceptions, wetlands are **working lands**, which provide a multitude of benefits to both people and nature— even when we're not directly using them.
- We think of wetland protection and restoration as a primary form of **nature-based solutions** – that is, using natural systems to address key societal challenges like water quality, flooding, and climate change. Using nature-based solutions often can be significantly cheaper than more traditional engineered/gray infrastructure approaches to these challenges.

RECENT SCIENCE AND EVIDENCE ON THE VALUE OF WETLANDS

The monetary value of wetlands was highlighted in a report released a year ago that was prepared by the Trust for Public Land's national conservation economics team for the Vermont Forest Partnership, of which TNC is a part. The study, entitled [Vermont's return on investment in land conservation](#), found that for every state dollar invested in conservation of our forests and wetlands, \$9 worth of natural goods and services such as water quality protection, flood control, carbon storage, and wildlife habitat is returned to Vermonters. In addition, the report documents that **wetlands have by far highest value per acre of any land cover type in Vermont for the natural goods and services they provide**. At an estimated \$590/acre, wetlands were found to have a per acre value more than 3 times higher than the next highest land cover types, which are deciduous and mixed forests (p.48-50).

I would also like to bring to the Committee's attention new Vermont-specific scientific research conducted under a partnership between The Nature Conservancy and the Gund Institute for Environment at the University of Vermont. This research, described further [here](#) and in the [corresponding journal article published in Environmental Research Letters](#), is focused on quantifying the role nature-based solutions such as wetland and floodplain protection and restoration can play in improving water quality and increasing flood resiliency in the Champlain

Basin. The study, which looked at data for a total of just over 3,600 restorable wetlands in the Champlain Basin, found that **Vermont could achieve up to 15% of its phosphorous reduction goals for Lake Champlain under the TMDL by restoring degraded wetlands.** In addition, some finer-scale research that was conducted only for the Missisquoi basin suggests that the phosphorus reduction benefits of wetlands restoration could be significantly higher than the 15% figure. The research also highlights that **“restoring smaller wetlands, close to stream networks, offers the greatest nutrient reduction relative to cost.”** Gund Institute researchers are now conducting additional research to further quantify potential phosphorus reduction with the restoration of specific wetlands, as well as the amount of phosphorus trapped on floodplains of various types during flooding events.

The value of small wetlands in addressing water quality challenges also was highlighted in a global analysis summarized in a 2017 scientific paper published in *Water Resources Research* (and submitted with this statement) entitled “Biogeochemical hotspots: Role of small water bodies in landscape nutrient processing.” The study **“for the first time quantifies the disproportionately larger role smaller wetlands can play in landscape nutrient processing, and highlights the need for valuing and protecting these smaller, often ignored, landscape features.”** (p.5053) In this study, “small wetlands” studied included many as small as 10 m².

POLICY CONSIDERATIONS

We urge the Committee to carefully consider the document submitted with this testimony entitled ***Principles for Protection and Restoration of Wetlands***, which was developed and signed this summer by TNC, Audubon Vermont, Conservation Law Foundation, Lake Champlain Committee, Vermont Conservation Voters, and Vermont Natural Resources Council. The Principles highlight the importance of wetlands, threats to them, and recommendations in considering changes to the State’s policy and regulatory framework for wetland protection and restoration. Among other important points in the document, we would highlight a few in particular:

- be guided by science;
- shift from a policy of no net loss of wetland to a net gain goal through restoration opportunities;
- don’t rely on federal laws and regulations – our wetlands need a strong, effective state framework to fill important gaps at the federal level.

The last point above is especially important in light of the current flux in wetland regulation at the federal level, as Laura Lapierre noted in her testimony. The Army Corps of Engineers under the current federal administration has significantly changed the scope of the “Waters of the United States” definition, which narrows the Corps’ and the Environmental Protection Agency’s jurisdiction over wetlands across the country. Moreover, the Corps only has two staff

implementing federal wetlands regulations in Vermont, so we shouldn't rely on them to provide adequate protection for our vital wetland resources.

In conclusion, we urge a very careful approach to any changes in the State's statute and regulations governing wetland protection and restoration. And as we strive together to make the state's regulatory framework for wetlands clearer and more predictable for everyone, we need to be sure not to go backward on wetland protection and instead use a science-based approach to ensure the sound stewardship and restoration of these critical and underappreciated natural systems.

Thank you for this opportunity to provide The Nature Conservancy's perspective on this critical topic. Please don't hesitate to let me know if you have questions or would like additional information.