

WATERSHED  
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The Honorable Donald Steinbeisser

Montana Senate

PO Box 200500

Helena, MT 59620-0500

Dear Senator Steinbeisser,

I am the Senior Water Resources Scientist and a principal at Watershed Consulting, LLC, an environmental consulting firm based out of Missoula. I am writing to you to voice my concern regarding Senate Bill No. 313. This bill appears to be an expansion of the current Montana code **87-1-224**, which addresses removal of beaver and beaver dams for protection of public health, modifying it to put FWP in the position of encroaching on private land rights of one landowner at the request of another. My concern with the bill is with potential economic and environmental consequences, as well as the apparent infringement on private land rights. In short, this bill has the potential to waste landowners' and agencies' time and money, open the State to lawsuits, degrade and destroy wetlands, cause severe erosion and sediment deposition in critical fish habitat, and reduce property value. I explain these concerns in more detail below.

**1. This bill does nothing to promote more cost-effective and less damaging approaches to beaver management.**

It is well-known that beaver can cause property damage; however, many people do not understand the how critical beaver are to stream ecosystems and are not aware that there are many ways to prevent property damage by beaver that also save time and money. I have participated in multiple workshops to review what is and is not working with beaver management and how to use beaver as stream restoration tools. According to one study, trapping beaver was effective to stop damage only 17% of the time on average, as beaver repopulate quickly. In contrast, alternative management tools were effective approximately 75-95% of the time. Alternative management tools include structures to regulate water levels in ponds and structures to prevent plugging of culverts. These structures are fairly easy to construct and can be installed by the landowner with guidance from agency personnel. Stream bank burrowing is another concern, but it generally occurs near the dams, and where adequate riparian areas are allowed to survive (i.e. proper riparian grazing techniques and floodplain BMPs are employed), the shrubs help keep livestock from

breaking through banks. Trees near beaver complexes must be protected with wire cages around their trunks, but this is no different than protecting valued plants from grazing or browse by other wildlife. Should elk all be shot for grazing on hay?

Sudden removal of beaver from a system can be incredibly detrimental to streams. I have worked on several ranches where the ranch managers have an on-going battle with beaver. The constant water fluctuations from dam removal and re-building cause a "reservoir effect" where no vegetation other than weedy annuals can grow on margins that are periodically flooded. Silt and small twigs choke the channel downstream. If livestock are allowed in these very soft areas the resulting erosion is severe. Contrast this to a stable beaver pond with water levels kept constant by a water level regulator, where shrubs are able to thrive at the pond margins and fish, birds, and other wildlife are abundant due to good habitat conditions. Sudden surges of water from beaver dam removal (as from "blasting," per the bill language) can cause severe damage to the stream below by causing the channel to cut down, which lowers the water table and increases erosion of streambanks.

## **2. Removing beaver ponds destroys benefits to streams and adjacent lands, and can be detrimental to streams.**

Beaver populations and dams should be kept in place if other methods can be used to mitigate damage by beaver. Beaver ponds and dams provide many important benefits to streams and the animals depending on them. Beaver dams create ponds that provide wintering habitat for fish by supplying warmer water in deep pools and areas protected from strong winter flows. Beaver created wetlands improve water quality by removing or transforming excess nutrients, trapping silt and sediment, and binding and removing toxic chemicals. They also provide high-quality wetland habitat that is critical to many bird species, amphibians, and aquatic mammals. In addition, many of the meadows providing quality grazing land in foothills were formed from filled-in beaver ponds.

The current beaver population is estimated at only 10-20% of historic levels, and our streams have undergone enormous changes as a result, from braided streams with wide riparian areas to single channels with high eroding streambanks and little riparian wetland. The remaining beaver ponds on the landscape are important for protecting land and water. Stable beaver ponds reduce erosion by reducing the energy of spring high flows as flood waters meet the still water of the ponds. I personally have witnessed muddy stormwater flow into a beaver pond complex and come out at the downstream end as a clear, low-energy flow. The largest fish populations were found at the downstream end of the ponds as well.

Beaver ponds are also important to keep floodplains wet and preserve summer low flows. They allow water to soak into the fields next to the stream by keeping the water table high, which means less irrigation is needed and more water will seep back into the stream channel during the summer. There are several documented cases of dry streams regaining flow after beaver were restored to headwaters. Several efforts are currently underway to re-establish beaver to increase streamflow.

### 3. This bill could open the State up to lawsuits

This bill appears to be an infringement of private land rights and would force FWP personnel to decide which landowner's rights to defend. Many of the FWP personnel who deal with problem animals do not understand stream ecosystems and could cause severe damage to the stream by removing beaver dams in the wrong way. Landowners who have bought property because of the wetlands and wildlife habitat are likely to sue if FWP removes beaver dams and drains their ponds, opening the area up to erosion and noxious weed invasion, not to mention lowering the water table, causing increased irrigation costs, degrading habitat, and destroying wetlands. Who will foot the bill for mitigating wetland destruction? Stable beaver complexes create some of the highest quality wetland habitat that exists, so mitigation would be very costly, and that cost is likely to come back to the state in the form of a lawsuit. Landowners and environmental groups alike would likely have motivation to sue the state due to this bill.

The Association of State Wetlands Managers (ASWM) has produced a publication that lists and answers common legal questions regarding wetlands. This ASWM document, titled, "Common Legal Questions: Landowner Liability for Draining or Filling Wetlands," specifies that government entities and landowners generally may be held liable for causing flooding or other damage on neighboring properties by filling or draining wetlands; however a private or public entity generally cannot be held liable for failing to remedy a natural hazard, such as beaver activity, which damages adjacent private lands (p. 6, accessible at: [http://www.aswm.org/propub/4\\_liability\\_6\\_26\\_06.pdf](http://www.aswm.org/propub/4_liability_6_26_06.pdf)).

There are other legal considerations related to wetlands law and policy as well. I am on the State Wetlands Council, and also am currently chairing the State Beaver Working Group. We have recently been working on getting beaver wetlands tied in with other environmental programs and issues. Beaver and beaver pond wetlands are becoming increasingly recognized as important considerations for water rights, water quality improvement, and endangered species habitat. This bill is a step backward to the current efforts by government entities to restore streams and water supply in a cost-effective manner.

Thank you very much for your attention to this letter.

Sincerely,



Amy Chadwick, Principal

Watershed Consulting, LLC