

2516 Chestnut Woods Ct.
Reisterstown, MD 21136

Committee: Environment and Transportation

Testimony on: HB631 “Beaver Believer Act”

Position: Favorable

Hearing Date: February 21, 2024

I am a 28 year resident of Baltimore county requesting a favorable report on HB631, which will encourage the use of beavers, where appropriate, to address stormwater management, restore streams, regenerate aquifers, and create habitat for wildlife.

The climate crisis has created a cyclical weather pattern with increasingly severe storms dumping unprecedented precipitation followed by weeks or months of drought, also known as a wet drought.¹ These conditions were present across much of the U.S. in 2023 and University of Maryland experts anticipate this increasing pattern in Maryland, as well.² At one extreme, there is rainwater hitting streams and rivers at heavy volumes and being quickly flushed into the ocean. This quick movement of water doesn't allow sufficient time for the ground to soak up the freshwater that rain provides, which is where the beavers provide important benefits.

Beavers create a series of dams when they find a suitable habitat and those dams create ponds that slow the stormwater. The ponds are important reservoirs of water that allow the water to sink into the ground to recharge our aquifers³ and provide water more consistently downstream. The ponds can be problematic when they're built near development, but in many rural areas of our state, they could help even out the impact of precipitation changes with climate change, recharge aquifers, and minimize land subsidence. This concept is increasingly embraced in many states, such as New York, Massachusetts, Connecticut, Minnesota, Washington, Wyoming and many more, with even California joining in.

¹ Double-whammy weather: Study identifies increased frequency of connected patterns from drought to heavy rain in regional hotspots across the globe
<https://www.princeton.edu/news/2020/05/14/double-whammy-weather-study-identifies-increased-frequency-connected-patterns>

² <https://extension.umd.edu/resource/effects-climate-change-maryland/>

³ Westbrook, Cherie J. et al, “Beaver Dams and Overbank Floods Influence Groundwater Surface Water Interactions of a Rocky Mountain Riparian Area” Water Resources Research

Beaver dammed ponds also reduce sediment and pollution (concentrate nitrogen) runoff and could reduce pollution⁴ into the Chesapeake Bay. One frequent concern raised is that beaver ponds sometimes get too high and risk flooding nearby roads or development; however, professionally installed flow devices are a proven reliable method to drain excess water to keep pond levels manageable.⁵

As an added benefit of enormous consequence, the ponds that beavers create also attract hundreds of species and support a diverse ecosystem. For their work in helping create habitat, beavers are considered a keystone species. Even diverse fish species benefit from beaver dams and are not impeded by their dams. The pools of water are a resting place for spawning fish and a beneficial habitat for young fish. The dams do not inhibit spawning fish from navigating up the streams and there is ample evidence to suggest they can easily do this and are better protected by the dams and the slowed water.

The ponds are an important habitat for hundreds of species and attract aquatic insects, ducks, songbirds, frogs, turtles, and lizards to name a few of the multitude of animal species supported by beaver dams.⁶ Plant species also increase by a third in streamside habitats.⁷

Maryland's Department of Natural Resources has shown interest in creating beaver dam analogs, which are man-made dams that simulate a beaver dam and serve to attract beavers for long-term maintenance. Without a doubt, it takes some understanding to appreciate beavers, but they are very important to helping address the growing impacts of climate change and help support plant and animal biodiversity. We should all be beaver believers.

For these reasons, I respectfully request a favorable report on HB631.

Sincerely,

Marie LaPorte

⁴ Dewey, Christian et al, Beaver dams overshadow climate extremes in controlling riparian hydrology and water quality, *Nature Communications*, 8 Nov. 2022.

⁵The Beaver Institute, https://www.beaverinstitute.org/library_category/flow-devices/

⁶ Goldfarb, Ben. Eager: The Surprising Secret Life of Beavers and Why They Matter, p.55

⁷ Wright, Justin, et al, An Ecosystem Engineer, the Beaver, Increases Species Richness at the Landscape Scale. *Oecologia*, 132, no.1 (2002). p.96-101.

