

**House Natural Resources, Fish, and Wildlife Committee
Testimony on River Corridors
February 17, 2022**

Good Afternoon Chair Sheldon and Committee Members,

I am Rob Evans, I manage the Rivers Program within the DEC Watershed Management Division.

Prior to my current position, I spent 11 years in the program as the State Floodplain Manager and National Flood Insurance Program Coordinator, working under and alongside Mike Kline and was involved in multiple efforts to scale up protection of river corridors as well enhanced management of flood inundation hazards both before and after Irene.

I am not going to walk through an extensive presentation today, as I want to leave ample time for Committee questions. Some of these are verbatim re-run slides and testimony from my presentation last year that I think are important to get the committee back up to speed on the current state of programs and issues related to river corridors. I have provided Ms. Carrol my testimony and slide deck, as well.

I will recap:

1. The difference between Flood Hazard Areas and River Corridors - what are they and why do we care...
2. The patchwork regulatory landscape in Vermont, that Mike referred to. My program is involved in some form or fashion in all the existing jurisdictions.
3. Discuss the is a gap in river corridor regulatory protection, despite multiple regulatory authorities.

(Slide 3) To understand the need for river corridor protection is to first understand the inadequacy of inundation- based regulations. Federally mapped flood hazard areas depict areas that will be inundated during a large flood – the flood having a 1% chance of occurring in any given year (often referred to a the 100-year flood). This is the basis of the National Flood Insurance Program - 90% of Vermont communities are enrolled in the program. The flood hazard area depicts where towns must issue

permits for development and where mandatory flood insurance purchase requirements for federally backed loans.

(Slide 4) This is the Brown's River in Underhill, restudied and remapped by FEMA about 10 years ago. The river has already migrated outside of the mapped flood hazard area. Regulating land uses to inundation-based standards would allow someone to build to edge of the mapped floodplain and give the false sense that there is no flood risk. We needed better tools to inform planning and land use decisions....

(Slide 5) This is that same reach of the Browns River zoomed out. Since the river is disconnected from its floodplain, the River Corridor is much wider in this location. The river corridor depicts the minimum valley space the river needs over-time to re-establish a stable slope and floodplain connection, expressed through meandering.

(Slide 6) It is important to think of the river corridor as the river, since it is the minimum space on the valley floor that the river will occupy to erode/deposit sediment, store floodwater and dissipate flood energy.

It is critical to avoid new investments along undeveloped reaches of river, where we can allow these predictable processes to play out...

(Slide 7) This is the result when we place human investments in dynamic river environments. Inundation-based flood hazard maps and related regulations, do little to protect you if that's not the nature of your hazard.

(Slide 8) new encroachments = new bank armoring to protect new encroachments = increased flood-related erosion to adjacent properties and infrastructure. These channelization practices further destabilize the river system and make flood hazards worse...

(Slide 9) We experience significant damages to our public infrastructure on a year in-year out basis due to our streams being energized by both legacy and current channelization practices.

(Slide 10) As mentioned previously, River Corridors are regulated through a patchwork of jurisdiction, so we'll do a quick walk thru...

River corridor regulation is done via Act 250 under the floodways criterion in accordance with the DEC Flood Hazard Area & River Corridor Protection Procedure.

We essentially make regulatory recommendations to District Commissions through our ANR Office of Planning. Since we do not have explicit authority thru our state rule, the process is quite messy and time consuming given the antiquated terms in statute resulting in unnecessary confusion and time spent. Project proponents often want to debate and litigate the merits of our regulatory recommendations. The current framework leads uneven outcomes not in the best interest of the river resource or project proponents, in our experience.

(Slide 11) The other limited state authority is the DEC Flood Hazard Area and River Corridor Rule, which regulates development exempt from municipal regulation.

The rule regulates a narrow set of activities that include State-owned buildings and facilities, Required Agricultural and Silvicultural Practices, and power generation/transmission facilities subject to the Public Utility Commission - Section 248 Process.

Through both limited authorities, we implement a strong set of No Adverse impact standards in consideration both flood inundation and erosion, while making reasonable accommodations for provision for flood resilient infill development and redevelopment in designated centers and existing settlements.

In addition to River Corridor protection, The higher flood inundation standards are worth highlighting. The base flood insurance program requirements are only concerned with reducing risk to the new development by way of elevation and floodproofing. Our No Adverse Impact standards ensure that new development will not increase hazards for pre-existing development. Specifically, requirements to ensure that development will not increase flood depths for velocities.

(Slide 12) Currently most land uses are still regulated at the local level. Towns are required to send municipal hazard area development permits to our office for review and comment. Our comments are advisory and intended to help towns issue permits in compliance with their adopted regulations

At last count 29 towns have adopted town-wide river corridor regulations for all of their perennial streams. Local river corridor adoption is voluntary.

Municipal adoption has largely been driven by the Emergency Relief and Assistance Fund financial incentives that went into effect in 2014.

(Slide 13) There are few a few ways to look at gaps in river corridor regulation. This shows the river corridor regulation adoption in recent years which has leveled off.

(Slide 14) Here is what it looks like on a map, especially when you zoom in, those blue lines represent a lot of stream miles not covered by town regulations, and only covered by the state authorities if jurisdiction is triggered.

There are another 25 or so towns, with partial river corridor regulations – meaning they only regulate river corridors for some of their stream miles in town. While the town # doubles, the percent of streams mile regulated does not change significantly.

Happy to provide the Committee an updated map and statistics that includes those towns as well, but it will just take us a little more time to pull that together given the age of the map versions they adopted.

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(Slide 16) Smaller developments such as this are typically not jurisdictional under A250 or our Rule and represent the piecemeal development that will continue in much of the state under our current the current regulatory framework.