

Note change  
of day



## Regional Plan Committee

**Wednesday, January 3, 2024 at 4:00 - 5:30 pm**

To join Zoom meeting:

<https://us02web.zoom.us/j/87815276521?pwd=Mmw5U080SGpCTUFNVHZFSERQUlI0dz09>

Meeting ID: 878 1527 6521, Passcode: 783374

One tap mobile 1(929)436-2866 or 1(301)715-8592

Persons with disabilities who require assistance or alternate arrangements to participate in programs or activities are encouraged to contact Nancy Chartrand at 802-229-0389 or [chartrand@cvregion.com](mailto:chartrand@cvregion.com) at least 3 business days prior to the meeting for which services are requested.

### AGENDA

- |                            |   |
|----------------------------|---|
| <b>4:00 pm<sup>2</sup></b> | <b>Adjustments to the Agenda</b>                            |
|                            | <b>Public Comment</b>                                       |
| <b>4:05 pm</b>             | <b>Flood Recover &amp; Mitigation Priorities (enclosed)</b> |
|                            | Update on priority list                                     |
| <b>4:35 pm</b>             | <b>Regional Plan Update</b>                                 |
| <b>5:00 pm</b>             | <b>Adjourn</b>  |

**Next meeting: February 6, 2024**

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<sup>1</sup> Dial-in telephone numbers are "Toll" numbers. Fees may be charged to the person calling in dependent on their phone service.

<sup>2</sup> All times are approximate unless otherwise advertised

**DRAFT** Flood recovery and mitigation priorities

12/27/23

## High Priority

### Dams:

- Funding to expedite the removal of dams throughout the watershed. Publicly owned or orphaned/abandoned dams may provide the best opportunity for removal due to public ownership and potential funding.

Dam removal has been hindered due to a lack of funding. This is primarily due to how the disposal of the sediment that is trapped behind dams is funded. Removing dams is critical to lowering base flood elevation of the river corridor and allows enhanced passage of aquatic organisms.

In addition to removing defunct dams, a review of the current dam inspection regime may be necessary. Residents in the Central Vermont region were both negatively affected by the failure of minor dams during the July event (Cabot - Saw Mill Road Dam on the Winooski, Washington - Hands Mill Dam on the Jail Branch) as well as deeply concerned about the safety of larger hydro-electric dams. CVRPC supports and analysis of the current inspection system and how it could be improved to address failing dams in a timely manner and restore public faith in the system.

Lead Actor: VNRC VT Dam Task Force; FWR, VRC, CVRPC BWQC, CVRPC CWAC

Time frame: 4-6 years

Cost: ~\$10 million for removal of 4 dams in Montpelier and dams on the Stevens Branch

Benefits: Flood risk mitigation; River health, Phosphorous reduction, clean water

### Housing:

- The July flooding has exacerbated the housing shortage in Central Vermont. The recovery in Central Vermont will benefit from funding to accelerate the development of all types of housing. Expansion of existing programs such as VHIP would directly encourage private developers and non-profits to build more housing.
- Identify funding to elevate residential structures. FEMA funding will not fund elevating structures. However, FEMA funds can be used to repair a structure to the same state it was in prior to the flooding event, leaving residents vulnerable to future flooding. Other properties will simply be bought-out and converted to open space, reducing the housing stock in Central Vermont and exacerbating the demonstrated housing shortage. Elevating a structure represents a significant cost savings over building new housing stock. CVRPC supports providing

state funding to support structure elevations to ensure all living space is 2 or more feet above the Base Flood Elevation.

- Programs to mitigate risk during flooding events. There are currently no programs that can help make residential structures more resistant to the damages caused by flooding. CVRPC supports expanding existing programs to include smaller preventative projects such as elevating utilities or filling basements for qualifying households.

Lead Actor: VEM as funder; Municipalities as recipients. Funding to support technical assistance will be needed in smaller municipalities.

Timeframe: Immediate. Improvements to existing housing stock can commence immediately. New housing may take 1-3 years to reach the market.

Cost: \$10,000,000

Benefits: Improved housing market. Expanding workforce housing will directly benefit the labor market

### Develop Broad Hydrologic and Hydraulic Model

- Build a hydrologic and hydraulic (H & H) model of the Winooski River Basin to better understand flood risk. Such a model could assess an expanded array of weather scenarios, including rain on snow events, and nutrient transport potential under alternative flow scenarios. Use results to prioritize implementation of Best Management Practices (BMP). Ideally the model would be able to consider site-level BMP implementation. Both basin scale and local detailed models should be developed as time and funding permits.

Lead Actor: UVM (modeling) / CVRPC (planning response, scenario development) / New FEMA Hydrologic mapping (Note: ANR is pursuing possible funding avenues for a model that could achieve many of these goals.)

Time frame: 1.5 – 2 years

Cost: ~\$1 million

Benefits: Improved efficacy in project identification for flood hazard mitigation.

### Floodproof Wastewater Plants

- Funding for floodproofing wastewater plants. Wastewater treatment system buildings that are key to system operation must be protected from water entry before, during and after a flood. Flooding can damage the buildings and destroy process equipment, communications controls, field equipment, and important data records while blocking access to the plant. Improvements could include: elevating or relocating equipment, protecting infrastructure and diverting and storing wastewater during a flooding event, installing barriers and backflow prevention infrastructure.

Lead Actor: State and municipalities.

Time frame: Immediate

Cost: For larger plants like Montpelier and Barre City \$300,00-500,000. FEMA HMGP may be available for the next year.

Benefits: Flood hazard mitigation; Public health.

### Floodproofing

- For buildings that cannot be elevated (commercial) or areas where block style building exists, Best Management Practices are needed to floodproof existing development that cannot be moved from in the river corridor (downtown Barre and Montpelier). This document would touch on many of the concerns we are hearing about in the flood affected areas such as filling basements, use of impervious material, adding check valves on wastewater and stormwater lines, and incorporating Low Impact Design and Green Stormwater Infrastructure.

Lead Actor: VEM, RPC Project Management, UVM Service Learning Course, VT River Corridor Program, DEC (No Adverse Impact Model Bylaws), VPIC (Green Infrastructure Toolkit)

Time frame: 1-1.5 years

Cost: \$25K - 35K per location

Benefits: Flood hazard mitigation for individuals

### Reverse E911

- Reverse E911 policy for use in extreme weather situations. Flooding is a slow-moving disaster and should be anticipated. However, hundreds of cars were flooded this last summer. This need not be the case. Other disasters can move much faster, such as wild fires, which Vermonters will probably confront in the coming years. VT Alert is a great tool for sending out updates and notifications of highway and weather risks. There is demand for a more powerful communication tool that could target all cell phones within a certain geography during life or death events, such as the July 23 flooding.

Further geographic tranches of risk could help calibrate public response and foster trust in the system.

Lead Actor: State VEM lead agency and funder; Local Emergency Managers

Time frame: Immediate

Cost: Staff time of planning and creating policies for usage + annual subscription costs

Benefits: Reduced property damage; Public Safety

## Medium Priority

### Full Time emergency Management Planner

- Full time regional Emergency Management Planners. Statewide, RPCs receive federal funding for about 0.5 FTE for an emergency management planner. Funding a full-time planner in this position will allow for regions to offer much needed capacity to municipalities, enabling more hazard mitigation projects to find funding and be completed. This would be an expansion on the work the EM planner is already doing to assist municipalities meet planning requirements, ensure hazard mitigation documents are up to date, write grants, and serve as a municipal

project manager during design and implementation. Specific benefits would include a higher proportion of communities gaining greater access to the Emergency Relief and Assistance Fund and a higher number of communities compliant with the Community Rating System.

Lead Actor: VEM (funder), RPC (technical assistance)

Time frame: ~1 year to implement and hire/train staff

Cost: ~ \$58,000 increase per RPC

Benefits: Highly leveraged investment through access to additional federal funding and grants.

### Green Space

- Establish a minimum of 50' riparian buffer along our rivers' banks. This will slow the velocities of flood waters and allow for bank stabilization. Dedicate state funding for easements with specific incentives for berm removal or the creation of flood benches. Co-benefits could include riverside parks and recreation opportunities.

Lead Actor: State ANR, The Vermont River Conservancy, The Nature Conservancy, The Trust for Public Land; CVRPC, Municipalities.

Time frame: Immediate

Cost:

Benefits: Flood hazard mitigation; River health, wildlife connectivity and aquatic organism passage, riverside parks and recreation opportunities, increased and more equitable access to rivers.

### Shelters

- Include identifying shelters based on population size and access during expected disasters in the VEM Best Management Practices for Local Emergency Management Plans. During the July event, rivers obstructed access to many shelters by the region's residents.

Lead Actor: VEM; FEMA

Time Frame: Immediate

Cost: \$0

Benefits: Public Safety

### Harden Gravel Roads

- Expand or create sub-category under Better Roads Program expressly for culvert upsizing to meet current recurring rain events.

Lead Actor: VTrans, municipalities.

Time frame: Immediate

Cost: The FY24 State portion of the Better Roads Program budget was \$1.7 million. We recommend a sustained commitment to increase this funding, recognizing that if we try to completed this work in a short time, towns will be competing for scarce labor and supplies.

Benefit: Flood hazard mitigation

### Regional Dispatch Communications Funding

- Provide funding stream for upgrades to Capital Fire Mutual Aid communications plan. The Central Vermont Public Safety authority before dissolution had identified necessary upgrades to the CFMA communications system to not only maintain the current system but upgrade to the current national standards. The current system is near the end of its useful life and 4 of 5 radio towers failed during the summer flooding. This would increase the safety of both the fire and police officers in both their day to day work and in disaster response and greatly increase the resiliency of this system.

Lead Actor: Capital Fire Mutual Aid

Time frame: Immediate

Cost: \$2,300,000

Benefit: Increased disaster response capabilities.

### Relegated Ideas:

Are these priorities? Need clearer description of impact and need

#### VEM GIS

- New GIS/mapping position at VEM or a liaison position housed at the Vermont Center for Geographic Information. This position would be responsible for creating dashboards for serving information throughout the lifespan of an emergency event, including coordination with an early warning system (mentioned above). They would also create tools to help with event planning (e.g. evacuation routes, closest facility when factoring in real-time road closures)

Lead Actor: VCGI

Time Frame: Immediate

Cost: \$150,000

Benefit: Improved response and communication during an event Yes

Regional Plan ?

NOTES (Mike Miller) : In the middle of a disaster, no one will be looking at dashboards. There is value in emergency preparedness but I'm not sure a new position is necessary for that. A set of best practices for RPCs in creating hazard mitigation plans and Emergency Response Plans would work for much less....

### Emergency Action Plans

- Review and update Emergency Action Plans and inundation maps for all high hazard potential dams every 10 years or after major flood event, whichever comes sooner. EAPs are the emergency action plan that is to be used during and unplanned release of water from the impoundment. FEMA's guidance is that these are updated yearly and exercised every 5 years and a new one completed when any large changes are made to the structure or impoundment.

Lead Actor: State – Dam Safety

Time frame: Immediate

Cost: Best model for implementation and costs are unknown.

Benefits: Public Safety

**From:** [Alice Peal](#)  
**To:** [Christian Meyer](#)  
**Cc:** [Brian Voigt](#); [Michael Miller](#); [Rich Turner](#); [Doug Greason \(dgreason@bainbridge.net\)](#); [John Brabant - CVRPC Commissioner - Calais](#)  
**Subject:** Flood Mitigation task list  
**Date:** Monday, December 11, 2023 1:09:42 PM

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Happy Monday,

So - last week I found about a slide that has occurred along Mill Brook in Waitsfield. Asking a few questions some alar bells went off as this is a slide risk. I have since found out that land slides are recorded and maintained in a database by the Dept of Geology (State DEC). Brian V was very helpful and it is agreed that this requires a site visit.

My point for relating this is that I'm noticing that we have no mention of land slide identification and prioritizing a critical risk list included in the document we are working on. I haven't heard on monitoring land slides in State mitigation plans I know about. So I think we should add this into our Regional Plan and recommendations to the Legislature. The state certainly had a number of slides this past summer of rain. There were some scary ones on Route 302 Barre/Montpelier.

We can discuss at our next Regional Plan Committee meeting and in the meantime I'll come up with some wording.

-Alice

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