SAFER Apps
Vermont Field Trip Itinerary

FINAL

Updated 7/14/25

The project Science to Advance Freshwater Ecosystem and Community Resilience in the Appalachians (**SAFER Apps**) is a planning grant, funded by the National Science Foundation (NSF), with the broad goal of bringing together university researchers, conservation organizations, government officials, planners, and other academic partners to consider the flood resiliency needs of communities in the Appalachian mountains and opportunities for conservation measures to advance flood resilience.

National Science Foundation planning grants *support initial conceptualization, planning and collaboration activities that aim to formulate new and sound plans for large-scale projects in emerging research areas for future submission to an NSF program*.[1] The SAFER Apps planning grant is funded under NSF's relatively new program Confronting Hazards, Impacts, and Risks for a Resilient Planet (CHIRRP). All CHIRRP projects are expected to achieve three outcomes: (1) advance understanding, forecasting and/or prediction of future Earth system hazards and risks, (2) engage communities in development of research questions and approaches, and (3) produce actionable, science-based solution pathways for adaptation methodologies, products, and services.

Our first SAFER Apps field trip provides an opportunity to build cross-state relationships, foster understanding of challenges faced by communities and conservation organizations, and explore tools the research community might advance to contribute to flood resiliency in mountain settings.

Specifically, on this field trip we aim to:

- expose visiting participants to flood impacts experienced in the mountainous settings of Vermont, along a gradient from headwater to valley floor settings;
- learn from professionals engaged in community response, flood risk mitigation, and flood resiliency planning, with a focus on engagement with "nature-based solutions" for flood mitigation,
- hear from staff of conservation organizations on the roles they play in engaging communities in river stewardship, advocacy, and flood resiliency projects, and
- engage in a participatory mapping exercise involving spatial datasets made available for UVM research by Vermont Emergency Management and Vermont Agency of Transportation, along with new flood risk map products under development at the University of Vermont.

---

[1] From the National Science Foundation's Proposal & Award Policies & Procedures Guide, page II-43 at https://nsf-gov-resources.nsf.gov/files/nsf24_1.pdf.

Participants:

Name	Organization	Status/notes
1. Beverley Wemple	Univ of Vermont	confirmed
2. Michele Braun	Friends of the Winooski	confirmed
3. Erin DeVries	Vermont River Conservancy	confirmed
4. Remy Crettol	Vermont River Conservancy	confirmed
5. Rob Nicholas	Penn State Univ	confirmed
6. Eric Chase	Penn State Center for Dirt & Gravel Roads	confirmed
7. Kelsey Ruckert	Penn State Univ	confirmed
8. Nico Zegre	West Virginia Univ	confirmed
9. Madison Ball	Friends of the Cheat	confirmed
10. Maya Mier-Thomas	Friends of Deckers Creek	
11. Rachel Hovel	Univ of Maine Farmington	Nico to confirm
12. Jabari Jones	Bowdoin College	Nico to confirm
13. Ning Jeng	The Nature Conservancy (consultant for Apps Focal Area initiative)	confirmed
14. Shayne Jaquith	TNC Vermont	confirmed
15. Steve Libby	Vermont Emergency Mgmt	confirmed
16. Keith Cubbon	Central Vermont Regional Planning Commission	confirmed
17. Ned Swanberg	Vermont DEC Rivers Program	confirmed
18. George Springston	Plainfield resident, Norwich University Professor, Vermont Geological Survey collaborator	confirmed
19.Elise Annes	Momentum Communications	7/17 ice breaker
20. Hannah Fischer	University of Vermont	confirmed

Itinerary

Thurs, July 17

7:30am - Beverley picks up Ning Jeng of TNC Appalachians Focal Area in Burlington; travel together to Montpelier (pick up lunches at Enna, 14 State Street, Montpelier, 8:15-8:30).

8:45am-9:45am - Introductions and ice breaker at offices of Friends of the Winooski River, 36 College Street, Montpelier.. Meet outside or inside rain location College Hall room 208.

Beverley Wemple - brief welcome
Elise Annes - round the group introductions and ice breaker
Michele Braun, Erin Devries - welcome to Winooski basin

9:45-10:00am - load vehicles and drive to Mill Street Park, Plainfield (park here).

10:00-10:45 - Overview of flood dynamics in the Upper Winooski basin, limited warnings, impacts to villages - George Springston.

10:45-11:00am - load vehicles and drive East Hill Road to Gray Road to Brook Road (park at road closure here).

11:00-11:40am - Discussion of flooding challenges in headwater settings: road/culvert damages, avulsions and sedimentation, dam failures, data gathering needs - George Springston, Shayne Jaquith, Keith Cubbon.

11:40am-12:00pm - load vehicles and drive to Jaquith Public library Martin Bridge Park, Marshfield (here).

12:00-12:35pm - restroom break, lunch, open dialog at Jaquith library (library contact: Anne Miller).

12:35-12:45 - drive to Martin Bridge Park (here)

12:45-1:45pm - Discussion of hazard mitigation: easements, floodplain reconnections via berm removal, other conservation interventions, buy outs, structural repairs and redesigns. Michele Braun, Erin De Vries, Remy Crettol, Steve Libby.

1:45-2:15pm - load vehicles and drive to Montpelier National Life Building (here). Meet in cafeteria. Participants should bring personal ID (drivers license or equivalent).

2:15-3:30pm - Introduce Ned Swanberg of Vermont DEC Rivers Program and UVM colleagues Rebecca Diehl and Kristen Underwood.

Overview of UVM flood research and participatory mapping exercise: Vermont flood damage data and development of mapping products to assess inundation extents and fluvial erosion hazards - Beverley Wemple.

3:30-4:00pm - Wrap up with focus on data, modeling, and solutions needs. Input from Rob Nicolas on NOAA climate adaptation partnerships and Ning Jeng on TNC's Appalachians Focal Area initiative.