



FEMC ECOSYSTEM MONITORING FUND 2022 RFP

Abstract

The Forest Ecosystem Monitoring Cooperative (FEMC) is requesting proposals to support greater access to forest ecosystem monitoring information across the seven-state FEMC monitoring region. Proposals can feature development of new monitoring programs or continuance and maintenance of established programs. Prioritization will be given to proposals that further the mission of the FEMC and current priorities (<https://go.uvm.edu/knd2r>) of the regional network, but this is not a requirement to apply.

A total of \$100,000 is available in funding to support projects of up to \$25,000 for up to two years. A 1:1 match of non-federal funds is required. It is anticipated that four to six projects will be funded.

Please contact Elissa Schuett (eschuett@uvm.edu) with any questions.

About FEMC

The mission of the Forest Ecosystem Monitoring Cooperative is to serve the northeast temperate forest region through improved understanding of long-term trends, annual conditions, and interdisciplinary relationships of the physical, chemical, and biological components of forested ecosystems.

The FEMC also promotes the efficient coordination of multi-disciplinary environmental monitoring and research activities among federal, state, university, and private-sector agencies with common interests in the long-term health, management, and protection of forested ecosystems.

To learn more about FEMC priorities and resources, please visit: <https://www.uvm.edu/femc/about>

Objectives of the Ecosystem Monitoring Fund

The Ecosystem Monitoring Fund will support forest ecosystem monitoring projects in the seven-state FEMC program area. The goal is to provide support for the collection, aggregation, analysis, and utilization of forest ecosystem monitoring information to better understand the current threats, historical trends, and future directions of the forested landscape in the Northeast.

To learn more about the Ecosystem Monitoring Fund and outcomes of this opportunity, please visit:

<https://www.uvm.edu/femc/emf/rfp>

and

<https://www.uvm.edu/femc/emf/rfp/2021>

Project Types: A wide range of project types will be considered for funding. As examples of the breadth of activities the FEMC hopes to support, this may include:

- the implementation of new monitoring programs to fill a critical gap in our understanding of forest response to novel stressors,
- upgrading an existing monitoring program to increase comparability with others in the region,
- aggregation of disparate data sets to expand the relevance of existing data,
- continuation and maintenance of existing long-term monitoring sites,
- digitization of key historical data sets to examine historical trends,
- collection of additional monitoring field data to address emerging needs,
- support or improvement of continuously deployed monitoring instrumentation,
- development of geospatial products to explore landscape patterns

Project Focus: Projects may include any monitoring efforts related to forest ecosystem function, structure, and health. This may include forest vegetation, ecosystem services, invasive species, wildlife, water, soil, weather and climate, or air quality. Proposals for monitoring programs outside of these topics and activity types are welcome as long as there is a clear connection made to forest ecosystems in the Northeast.

Project Duration: Projects can be funded for up to two years.

Fund Priorities: FEMC's recent work generally focuses on the following themes:

- Forest Pests and Disturbance Regimes
- Forest Inventory and Relationship to Carbon and Management
- Climate Change Impacts on Forested Ecosystems
- Forest Regeneration
- Recreation and Forest Health
- Forest Ecosystem Data Rescue and Preservation
- Forest-Water and Forest-Wildlife Intersections

FEMC's guiding committees have identified several priority topics of interest within these themes that would benefit from increased or improved monitoring. These priorities are not exhaustive – but meant to guide selection of successful proposals to fund.

- Identifying patterns and nature of tree mortality following recent acute disturbance events
- Improving data sources and/or extending the historical record of disturbances in FEMC's Disturbance Regimes tool: <https://www.uvm.edu/femc/disturbance>
- Developing regional baselines of invasive plant distribution and/or current state of knowledge on distribution and ecosystem effects
- Integrating regionally specific remote sensing-based tools to detect and monitor forest clearing, forest conversion, land use change and/or forest health
- Expanding or adding monitoring to track forest health outcomes related to forest-based recreation
- Integrating and communicating monitoring information on changing hydrology in forests due to climate change and/or development (i.e., what is the pattern of exceeding 100-yr flood stage due to climate change)

Priority ranking will be given to projects that:

- Address one of the above topics and/or themes
- Align closely with the strategic mission and objectives of the FEMC and current issue priorities identified by the FEMC network (detailed in the FEMC workplan)
- Expand on existing forest ecosystem monitoring efforts (spatially, temporally, or informationally), including current or past FEMC projects
- Have potential for impact across the larger FEMC stakeholder region
- Have the potential for ongoing support, and long-term viability

Funding Availability: A total of \$100,000 is available in funding to support projects of up to \$25,000 for up to two years, beginning in 2022. The University of Vermont is the direct sponsor of this award with funds federally sourced from the U.S. Forest Service. A 1:1 match of non-federal funds is required. It is anticipated that four to six projects will be funded.

Diversity

FEMC is committed to integrating principles of diversity, equity, inclusion, and justice (DEIJ) into our monitoring programs. FEMC will implement approaches in this RFP to reach diverse communities, both to conduct monitoring and who may benefit from monitoring. We encourage proposals from underrepresented organizations, or that will provide valuable information to these communities. Please include in the proposal narrative (see below) a description of how FEMC DEIJ goals will be met with this proposal. The details can be included throughout the proposal, but also specifically in the rationale, objectives, or outcomes sections.

Deadlines

Proposals due	March 25, 2022
Reviews complete	April 8, 2022
Awards announced	April 18, 2022
Awards begin	May 2, 2022
Awards complete	May 19, 2024

Eligibility

Proposals will be accepted from personnel from universities, non-profit, state, tribal, or private organizations located in one of the FEMC member states: Connecticut, Maine, Massachusetts, New Hampshire, New York, Rhode Island, or Vermont. Investigators from other states can be included as co-author on the proposal but cannot lead the project.

Monitoring must be conducted primarily within one of the seven listed states. Monitoring conducted outside of these states with matching funds can be included.

Proposal Specifications

NARRATIVE

The proposal should include a narrative that describes the monitoring objective, project design and approach, and expected outcomes. The narrative should not exceed three pages. The proposal should clearly describe the need for the monitoring and how this project will address the need. The approach should use methods appropriate to meet the described objective. Explanation and support for the use of methods should be included.

The proposal narrative should include the following elements:

Abstract: A one- or two-paragraph description of the proposed project.

Rationale: Use this section to fully describe the justification/need and expected benefits and value of the project. This section should provide a convincing argument for why this project should be funded, who will benefit, how they will benefit, and how the project will contribute to the FEMC goal of improving access to sustainable monitoring data. Any background information about the location or type of monitoring should be included here to provide support for the justification. Please also describe how this project will be sustainable at the completion of the project to help establish or maintain a long-term monitoring program or data collection, and how the project relates to other FEMC projects or priorities.

Approach/Methodology: A detailed description of the planned methodology, including Instruments used, survey methods, data acquisition and storage methods, and data review and use. Please provide support for methods used. If these are standard methods, provide a review of their use. If these are new or novel methods, please describe why they were chosen and how they will meet the project objectives.

Anticipated Outcomes and Timeline: Expected outcomes of the monitoring project, including types of data, benefit to stakeholders, and products such as data sets, interpretation, or analysis of monitoring data. Any additional outcomes or products should also be described. Please provide a timeline of major activities and deliverables.

Project Roles: Describe the roles and responsibilities for each principal investigator/project lead, any key personnel, and project partners.

Resources: Provide information about personnel qualifications, access to equipment and facilities, or other resources that will lead to the success of the proposed project.

Literature Cited: List of citations, this does not count toward the three-page limit of the narrative.

Letters of support from key stakeholder groups are welcomed but not required.

BUDGET DETAIL AND JUSTIFICATION

Budget Detail: Provide a detailed budget in the categories shown below.

Item	FEMC Funds	Non-Federal Matching Funds	Total
Individual personnel			
Personnel fringe benefits			
Travel			
Supplies			
Utilities			
Indirect Costs			
Total	\$25,000 (maximum)	\$25,000	\$50,000

Budget Justification: Provide a detailed justification for each line item, including requested funds and non-federal matching funds.

Eligible budget items

Expenses are allowed for personnel time, including graduate student support (excluding tuition and fees), monitoring supplies, travel to field sites, utilities for site maintenance. Indirect costs of up to 10% are allowed on modified total direct costs.

Expenses cannot be used for participant costs, conference fees, graduate student tuition or fees, or other costs not directly related to the monitoring project. Equipment that is \$5,000 or more is not allowed on this award.

Matching funds must be from non-federal sources and can include cash contributions, third-party in-kind contributions, and unrecovered indirect costs above 10% (indirect rate must be a federally approved). Matching funds from equipment of \$5,000 or more is not eligible. Tuition and fees cannot be used for matching funds. For proposals selected for funding with other organizations contributing match, a letter of commitment will be required before award.

DATA MANAGEMENT

Describe the plan for making data from the project publicly available through the FEMC data archive (<https://www.uvm.edu/femc/data/>) or another publicly accessible repository providing open access to data downloads that meets the standards of the FEMC (permanent, unique URL, secure, available to the public without restrictions). Investigators can embargo publishing of the data for up to one year after the end date of the project to allow time for publication by submitting a written request to FEMC, but the data must still be deposited in a suitable repository during the embargo period. To aid in understanding data management requirements, a template FEMC data management plan can be found at: <https://go.uvm.edu/nhval>

Proposal Selection

Proposals will undergo review by an internal review panel composed of members of the FEMC Steering Committee and staff. The review panel will evaluate proposals and make recommendations for funding in alignment with the criteria below and FEMC priorities.

EVALUATION CRITERIA

Proposals will be reviewed by an FEMC committee consisting of members from the Steering Committee.

Proposals will be evaluated on the following criteria:

- 20 – Rationale and justification
- 20 – Methods, approach, adequate team experience, and budget feasibility
- 10 – Alignment with the strategic mission and objectives of the FEMC
- 10 – Addresses key issues identified by the FEMC stakeholder network
- 10 – Expands existing forest ecosystem monitoring efforts spatially or temporally, expands our understanding of existing monitoring, or fills critical gaps in our understanding with new monitoring
- 10 – Potential for impact across the larger FEMC stakeholder region
- 10 – Long-term viability or impact
- 10 – Addresses diversity, equity, inclusion, and justice goals

SELECTION CRITERIA

The review panel will rank the proposals based on overall scores and review the overall pool and budget totals. Projects with smaller budgets may be accepted despite a lower score based on the pool of applications and the funds available. Final selection will be made based on availability of funding, diversity in the applicant pool (geography, institution, career stage, etc.), and alignment with strategic priorities and organizational goals of FEMC.

How to Apply

Please submit a single pdf document to Elissa Schuett (eschuett@uvm.edu) by 5:00pm on March 25, 2022:

- Proposal narrative (three pages, maximum)
- Literature cited
- Budget justification and detail
- Data management plan