



# FIELD STANDARDS OF PRACTICE

## FOREST HEALTH MONITORING

*Written by the FEMC Diversity, Equity, Inclusion, and Justice Committee*

*Updated January 2023*

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### INTRODUCTION

The mission of the Forest Ecosystem Monitoring Cooperative (FEMC) 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.

In 2017, the Vermont Monitoring Cooperative (VMC) became the FEMC. The VMC was founded on the premise that a commitment to long-term environmental monitoring and research is essential to collecting baseline data needed to detect changes in conditions and trends and help identify new threats to our forested ecosystems. The Forest Ecosystem Monitoring Cooperative (FEMC) carries this

commitment forward by increasing the scale of the work that the VMC established in Vermont. Long-term environmental monitoring has been a hallmark of the FEMC. The FEMC has maintained a significant commitment and history of continued support for monitoring, research, and data accessibility over this duration.

## THE FOREST HEALTH MONITORING PROGRAM

The Forest Health Monitoring (FHM) Program was established in 1991 as a joint effort between the Vermont Department of Forests, Parks and Recreation (FPR) and the Vermont Monitoring Cooperative (as of March 2017 renamed to FEMC) to monitor the condition of a range of tree species in Vermont. Plot design follows the structure set by the National Forest Health Monitoring Program with additional metrics added to reflect improvements in monitoring technologies and additions to monitoring objectives set forth by our regional partners and committees.

Annually, the FHM program collects data on forest stand composition and structure, canopy condition and crown health, crown closure, tree regeneration, and forest stressors and threats using a variety of field collection tools and protocols.

Three field crews of 3-4 technicians collect data on plots in each of our 7 partner states with support from FEMC's staff and state coordinators. Crews will train with FEMC staff and state agency personnel to learn the data collection protocols, methods, and techniques. Following training, crews will be responsible for planning daily trips, maintaining equipment, traveling to and from field sites, conducting field work, contributing to FEMC social media outlets, and entering quality assured data.

**As our field program grows, we recognize the need for a guiding Standards of Practice (SOP) document.** This document allows FEMC to expand our safety protocol plan and hold the FEMC staff and field technicians accountable for all actions taken during the field program planning and execution.

**The FEMC is firmly committed to practicing the principles of Diversity, Equity, Inclusion, and Justice (DEIJ).** We believe that this document is made complete by incorporating DEIJ principles into all aspects of the field program. We recognize that we still have so much learning to do in this sphere, as individuals and as an organization, and therefore we are committed to modifying this document as frequently as needed to reflect that.

This document is a guide for all participants in the FHM program: FEMC staff, field technicians, and state partners. Annual edits by the Monitoring Coordinator and other FEMC staff will keep the document up to date with current FHM activities. Other FEMC staff will approve the document annually prior to the field season. As part of their contract, Field technicians will sign off that they have read and agreed to this document. Finally, we hope that this document will provide an example for our partner organizations and cooperators to incorporate this work into their field seasons. Continuing a community of practice around DEIJ in field science will only make our work more high-quality and robust.

## PRE-SEASON PLANNING

The monitoring coordinator (MC) is responsible for reviewing the SOP document in its entirety annually prior to creating the position description for the following season. The FEMC's Director and DEIJ committee must approve the SOP once the monitoring coordinator has finalized it. The following items must also be finalized and approved before posting the position description.

1. The MC will review the Code of Conduct, drafted in the pre-season of 2022. The MC will update this document with any relevant information based on feedback from the prior season.
  - a. The MC will ensure that the Code of Conduct clearly outlines disciplinary actions that will occur if the Code of Conduct is broken.
2. The MC will review the Hazard and Risk Report and update this document with any relevant information based on feedback from the prior season.
3. The MC will meet with the Director to discuss the pay scale.
  - a. Note: In the past, FEMC has relied on the UVM pay scale to prioritize UVM students. In the future, FEMC staff could decide not to use the UVM pay scale, which would allow FEMC to pay technicians at a higher rate but exclude UVM students from participating.
4. It is imperative that our field technicians have access to organizational identification when they are out in the field. Some options are: FEMC branded gear, FEMC magnets to put on vehicles while in the field, business card of the MC and/or printed letter from MC explaining the work of the technicians. The MC will ensure that these materials are ordered or prepared by the time of the field season.
  - a. In 2023, FEMC will be providing branded baseball caps to all technicians.
5. If possible, the MC will coordinate a medical training program for the field technicians
6. The MC will prepare first aid kits and vehicle safety kits and procure any items that were depleted or broken the previous season.
7. All Field Technicians will have worker's compensation benefits from the University of Vermont.

## HIRING/ON-BOARDING

### Recruitment

The MC will coordinate and delegate the following recruitment tasks prior to the field season:

1. Ensure that the field technician position description is up to date and as clear as possible.
  - a. Consider the following: how are we defining our required skills vs. our desirable skills? Do we need to change this to best reflect the position itself?
2. Aim to recruit from a broad audience. Can we build upon our network to include more institutions/organizations each year?
3. Include a statement in the application asking how applicants will contribute to the role of DEIJ in scientific field research. For example:
  - a. *Describe your understanding of DEIJ and its relation to scientific field work/this position.*
  - b. *What does an inclusive community look like to you? Ideas, goals on this?*
4. Review and modify the weighted grading scale for the interview selection process, which eliminates some bias by scoring everyone on a presence/absence system for certain skills. The

interviewing team will define these skills and their weights before reviewing applications annually.

5. Appoint an interviewing team and finalize interview questions.
  - o Ensure that the interviewers are prepared to provide clarity about what is expected in the field

## Post-hiring

After the recruiting and interviewing process concludes, the MC will begin onboarding the selected field technicians. Clear communication with field technicians before the start date is important because it promotes preparedness amongst the field crew.

1. The MC will ensure that they have received the following prior to the start date:
  - a. Signed Contract including
    - i. Field SOP
    - ii. Code of Conduct
    - iii. Hazard and Risk Report
  - b. Emergency Contact Forms
  - c. Accessibility Information
  - d. Religious Holiday Accommodations Information
  - e. Medical Training Certifications (if applicable)
2. The MC will check in with each field technician to make sure they have access to
  - a. Gear (send gear list)
  - b. Housing assistance information:
    - i. UVM housing information
    - ii. Housing contacts from past FEMC technicians
  - c. FEMC branded gear in their size
  - d. List of expected expenses

During the first week of the field season, the field crews will complete the following trainings (during paid hours):

1. [Harassment and Discrimination Prevention](#)
2. [Sexual Harassment](#)
3. Medical training (first aid) if possible
4. Driver's Certification Training

## FIELD SAFETY

Prior to a site visit, field crews will ensure that they have the following gear prepared using this document:

<https://docs.google.com/document/d/1gA6SnJmYK7FYKH7g2AGQIqvqsgfi4ZINZwqNT2G9DKg/edit>

If any of these items are lost, broken, or depleted during the site visit, it is the responsibility of the field crew to notify the MC so that they can be replaced efficiently.

The field crews will follow these field protocols for site visits:

- In the morning: check in with FEMC office phone/MC with your plan for the day providing an ETA and updating accordingly if those plans change.
- Read the field notes from the previous year- they often have helpful tips on where to park.
- Download offline maps for the site's area.
- Check the site risk assessment notes.
- Once parked, put FEMC magnets on car doors.
- Make sure every technician knows who has the first aid kit and car keys.
- Wear your FEMC identification gear
- Carry your FEMC identification letter.
- Check in with FEMC office phone/supervisor when headed back to camp.

Contact List/Protocol:

- Is this an emergency? (I.e. threat of life or limb)
  - o Call 911 then call FEMC phone
- Is this an urgent question (medical, field site related, etc.?)
  - o Call FEMC office phone
  - o If no answer, call Monitoring Coordinator personal phone
- Is this a non-urgent question related to logistics?
  - o Text FEMC office phone

## INCIDENT REPORTING

- The first point of contact for incidents in the field is the MC.
  - o In 2023 the MC is Ben Porter.
- If a technician is uncomfortable bringing an issue up to the MC they should have other contacts within FEMC.
  - o In 2023 technicians are welcome to contact Hanson Menzies (ECO Americorps Member), Elissa Schuett (Program Operations Manager), or Alison Adams (Director)
- If a technician is uncomfortable discussing their concern with FEMC staff, they may also go directly to UVM HR: <https://www.uvm.edu/hrs>

## AFTER THE FIELD SEASON

There are often opportunities for field technicians to continue working for FEMC after their contracted end date. Should these opportunities arise, the MC will contact the field technicians as early as possible. In the past, technicians have stayed at FEMC to work on data entry, sprint projects, and other FEMC projects.

FEMC will provide the participants with ample feedback opportunities at the end of the summer. The MC or other staff will conduct exit interviews with each field technician before their scheduled end date. The MC will also prepare and send a survey to all technicians to be completed anonymously. The MC will capture this feedback for the next field season.

Last updated: 1/15/2023

FEMC is continuing to consider the impacts of our field season. Including but not limited to:

- Whose land are we on and what do they know about us? What to do if we encounter a problematic situation?
- We recognize that ethics go beyond the legal ownership of the land. The DEIJ committee is at its beginning stages of considering how we can continue conducting FHM more ethically with regards to relationships with Indigenous communities in the FEMC region.
- What is our carbon footprint? We can take steps to mitigate this by:
  - o Considering what kind of vehicles we rent and their MPG.
  - o Continuing to increase local crews in each state that can take on plots nearby.