

FNR Field Safety Recommendations

Field work covers a wide array of activities, locations, equipment, logistics, hazards, and personnel. Thus, each project is unique. These recommendations will assist the PI/supervisor and employee(s) to appropriately plan for the specific field work to be conducted.

1. **REMINDER:** Principle investigators (PIs) and supervisors are responsible for ensuring that their employees and students have the necessary trainings, supplies, and PPE needed to perform their work safely. Purdue environmental health and safety (EHS)) expects this responsibility.
2. Researchers (e.g. grad students, post-docs, staff) should work with their supervisors to develop a plan identifying potential hazards and responses to emergency situations. The process of writing your plan together may make you aware of hazards that you had not considered before. Every researcher or student participant should be familiar with the plan before starting field research. Start the safety plan early in your field work planning process. You will need to have time to gather information, identify training and controls needed, complete training, and obtain safety equipment.

It is highly recommended to use the FNR field safety planning form as a guide. PI's and supervisors can keep the plan on file. At a minimum, ensure the emergency response plan is accessible to the employee(s) when in the field.

3. A buddy system with 2 or more employees going to the field will be the default with the option for solo work. Certain projects already require 2 or more due to the risks associated with the activities and location.
4. Field location maps should be well marked and understood. Understand boundaries, landownership, and nearest town and emergency location. Highly recommended to have paper copies as well as mapping software on handheld device (Avenza for example).
5. Research labs are encouraged to purchase Purdue branded car magnetic identification for private or leased vehicles when used for research, particularly if parking or working along roadways or other public areas. Contact Xerox (nancy.montenegro@xerox.com) minimum 5 or Blumbing designs (matt.bdg@mymetronet) minimum 2 to order. Reference "Purdue Forestry Car Magnets".
6. Encouraged to wear bright colors/high visible vest if working in field during hunting seasons or other situations where visibility increases safety. FNR has vests available with logo.
7. Encourage employees to have Purdue ID on persons while in the field and easily accessible. Additionally, lanyards or badges could be purchased by PI that contain ID and emergency information for those who work in activities that have higher hazards and health situations.

8. First aid/CPR training is offered for free through FNR via Purdue fire department. Please take advantage of this training as it is tailored for natural resources activities. If you instruct or do research more than 15 minutes from emergency response, you are required to take this training. Also included in this training is verbal de-escalation and confrontational situations advice from law enforcement.
9. A communication plan is encouraged (included in field safety planning form) to ensure confidence in employee's progress and safety. While many rely on cell phones for communication, not all areas have good coverage in the Midwest. Have a back up plan for when phone batteries fail or no coverage. In more remote locations, satellite phones might be the better choice. Below are some options to explore

Research PI/group should purchase IF the need or hazards warrant it.

Spot Gen 3 Global Satellite Tracker and Messenger*

<https://satellitephonestore.com/catalog/sale/details/spot-gen3-global-satellite-tracker-and-messenger>

\$149 for the device and an annual satellite fee of \$240

Features: SOS button, send a pre-recorded check-in text to family/friends that includes GPS coordinates, alert your personal contacts that you need help in non-life-threatening situations, and tracking

Garmin inReach Explorer+*

<https://discover.garmin.com/en-US/inreach/personal/#subscriptions>

\$450 and \$144 annual satellite fee

Features: GPS unit (not just SOS unit), interactive SOS with 24/7 emergency call center, two-way messaging, pair with mobile devices using the free earthmate app for access to downloadable maps, U.S. NOAA charts, color aerial imagery and more, location sharing

10. Field vehicles should have a minimum of roadside emergency equipment like jumper cables, small set of tools, and medical supplies (good up to date first aid kit). Double check jack location and spare tire condition. Owner's manual should also be in vehicle which gives instruction on changing a tire for that specific vehicle. Lastly, ensure emergency procedures and contacts list is in the vehicle.
11. First aid kits- At a minimum there should be a travel kit in each vehicle. Add items for different hazards like blood clot bandages, mirrors, lots of gauze, tourniquet, bee sting/Benadryl, eye wash kit. Increase kit size capacity with more employees. If hazards are present in the field away from vehicles, then ensure small kit with essentials be carried on the employee (example: chainsaw work requires blood stopper, heavy gauze, and tourniquet). Toilet paper or other paper tissues are a good item to have in vehicles as well. Check contents frequently for out dated or low stocked items. For some examples of kits: <https://www.redcross.org/store/first-aid-supplies/first-aid-travel-kits>

12. Ticks and Insect bites: Indiana and the Midwest is home to 3 species of ticks that have the potential to transmit diseases to humans. Please look at the additional resources for identification and what to do if bitten. Report to supervisors immediately if you have an insect bite that is showing signs of reaction

Additional Resources

1. Changing a tire: <https://www.defensivedriving.com/safe-driver-resources/how-to-change-a-flat/>
2. Loads on trailers: <https://www.extension.purdue.edu/extmedia/PPP/PPP-75.pdf>
3. Towing trailers: <https://www.extension.purdue.edu/extmedia/PPP/PPP-92.pdf>
4. ATV training
 - a. https://www.offroad-ed.com/indiana/?campaignid=30471029&adgroupid=5203582893&keyword=%2Batv%20%2Bcourse&msclkid=e236955d5f0f18d27593f55257772c13&utm_source=bing&utm_medium=cpc&utm_campaign=ORV_Indiana&utm_term=%2Batv%20%2Bcourse&utm_content=Safety
 - b. <https://atvsafety.org/>
5. Wilderness first aid: <https://www.nols.edu/en/coursefinder/courses/wilderness-first-aid-WFA/>
6. CDC travel both domestic and international: <https://wwwnc.cdc.gov/travel>
7. FNR specific trainings:
 - a. Pesticide Training - <https://ag.purdue.edu/fnr/Pages/PesticideTraining.aspx>
 - b. Chainsaw Training – Trees Fall for Me Safely
8. WPS training for those around pesticide
<https://www.purdue.edu/ehps/rem/laboratory/HazMat/wps.html>
9. Verbal de-escalation training: <https://www.purdue.edu/ehps/police/programs/verbal-deescalation.html>
10. Ticks: <https://extension.entm.purdue.edu/publications/E-71.pdf> This provides ID, diseases transmitted, and prevention and control recommendations for a general audience.
<https://www.extension.purdue.edu/extmedia/E/E-272-W.pdf>
11. Resources for general guidelines for field work and hazards
<https://ehs.utexas.edu/training/field-guide.php>
<http://ehs.berkeley.edu/sites/default/files/lines-of-services/field-safety/fieldresearchsfty.pdf>