

Northern Kentucky University's



Research and Education Field Station

Policies and Procedures

July 2017



Department of Biological Sciences

Dorothy Westerman Herrmann

Natural Science Center 204D

Nunn Drive

Highland Heights, Kentucky 41099

Dear Researcher, Educator, or Group Leader:

Welcome to the St. Anne Woods and Wetlands and the NKU Research and Education Field Station (REFS)! This handbook has been designed to help you have a successful and enjoyable outdoor and environmental education experience at REFS. Please read these materials thoroughly as your first step in the planning process. Feel free to duplicate any of the information in this handbook that would be helpful in keeping your group members well informed. Communication with the Northern Kentucky University Department of Biological Sciences and REFS staff and planning ahead are both keys to a successful visit. With that in mind, begin your planning at least two months ahead of time.

We are looking forward to working with you to create a valuable outdoor experience for you and your group.

Sincerely,

A handwritten signature in dark ink, reading 'Richard D. Durtsche'.

Dr. Richard D. Durtsche

Professor and Director

NKU Research and Education Field Station

Department of Biological Sciences

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"Treat the earth well: it was not given to you by your parents, it was loaned to you by your children."
– Ancient Native American Proverb

Description and History

In the summer of 2015, Northern Kentucky University (NKU) purchased and refurbished a small two-story building on a small plot of land with a large parking area adjacent to the St. Anne Woods and Wetlands (SAWW) natural areas. The Research and Education Field Station (REFS) is the first field station acquired by NKU. REFS is located in Melbourne, Campbell County, KY, approximately 6 miles from the NKU campus and 8 miles upstream from Cincinnati, on the Ohio River (Fig. 1). It is bordered on two sides by the fenced north portion of SAWW. SAWW is 63 ha (155 acres) of wetlands and upland old-growth forest located along the Ohio River in Northern Kentucky. Dr. E. Lucy Braun, first female president of the Ecological Society of America, conducted research in these woods over 100 years ago. During the past few decades, NKU and Thomas More College scientists and students have regularly used the SAWW property to study flora and fauna that are rare in the region. In 2007, a Community Partners Grant from NKU brought together local universities, government agencies, community participants, and industry with the Sisters of Divine Providence at the St. Anne Convent to establish a set of trails in these lands (Fig. 2) and to develop research and education programs. This has benefited residents and visitors of the Northern Kentucky/Greater Cincinnati region, including, but not limited to, P-12 students of both public and private schools, college and university students and professors, and other education or nature groups of all ages (Fig. 3). The woods and wetlands were preserved by the Sisters of Divine Providence until 2013, when the Campbell County Conservation District obtained the site through a grant from the Kentucky Heritage Land Conservation Fund. The land is now protected in perpetuity by a conservation easement held by the Commonwealth of Kentucky.

This area is located in the Outer Bluegrass Ecoregion, a portion of Northern Kentucky that was covered by a continental glacier during the early Pleistocene Epoch. In the approximately one million years since the retreat of that ice sheet, erosion has produced a landscape of streamside lowlands separating

moderately dissected uplands. Euroamerican pioneers found the lowlands and uplands of the ecoregion to be completely covered by deciduous trees. Tree species that grow in the lowlands occupied wet and moist soils, while the upland woods primarily consisted of mixed mesophytic forests, the type of woodland that covered most of pre-settlement Northern Kentucky. Mixed mesophytic forests occupy a position between moister mesophytic forests, often dominated by beech (*Fagus grandifolia*) and sugar maples (*Acer saccharum*), and drier mesophytic forests, typically dominated by oaks (*Quercus* spp.) and hickories (*Carya* spp.). As expected in



Fig 3. Educational group prior to a spring flora trail hike.

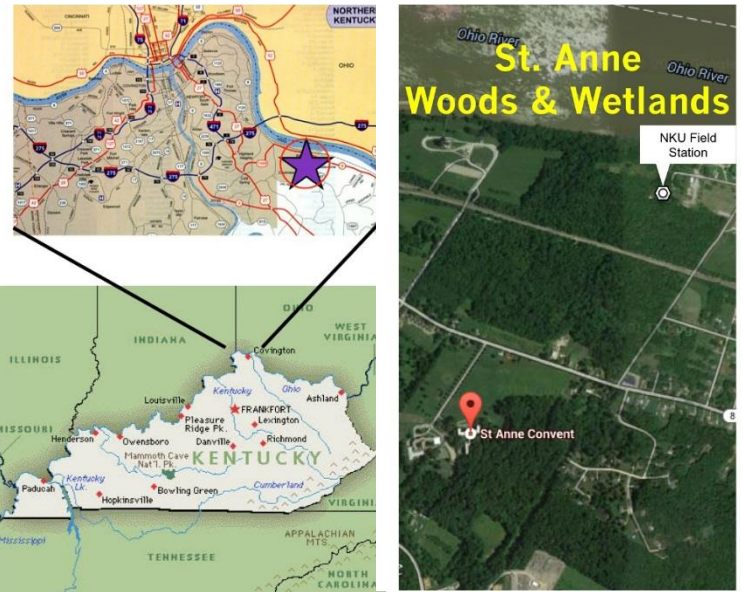


Fig. 1. Maps and aerial photograph of the location of the NKU Field Station in Melbourne, KY in close proximity to the Ohio River and adjacent to the St. Anne Woods and Wetlands natural area.

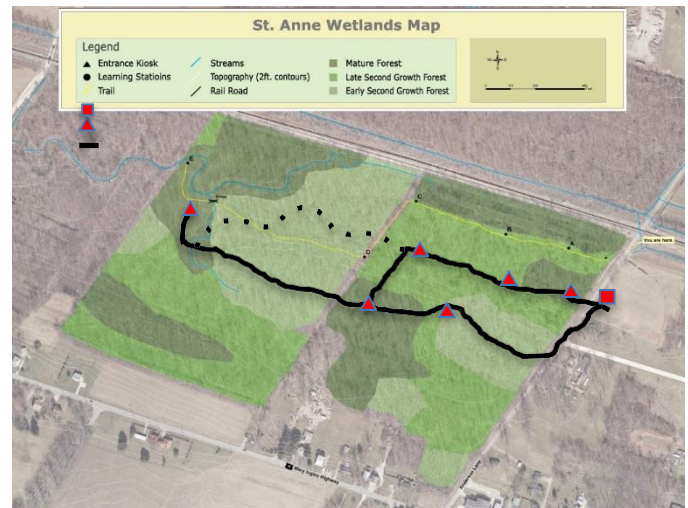


Fig. 2. Trail system in south section of SAWW that are open to the public. Red triangles and square represent information kiosks and trailhead kiosk.

an intermediate community, canopy dominance in a mixed mesophytic forest is shared by a mixture of tree species, not just one or two.

The upland woods also supports a diversity of fungi, herbs, shrubs, and trees, as well as an abundance of bird, amphibian, reptile, mammal, and invertebrate animal species. A portion of the forest stand encircles an abandoned farm field supporting grassland/meadow organisms.

The wetlands portion of the property (approximately 40 ha) is dominated by forest stands of various types and ages. The wetlands are bounded by the Ohio River on the north and Kentucky Route 8 on the south. The earthen fill of an east-west railroad divides the wetlands into north and south sections. The north section holds a floodplain forest along the river, as well as a set of six established (fall of 2012) ephemeral ponds (Fig. 4). The floodplain forest is comprised



Fig 4. North St. Anne Wetlands newly constructed ephemeral pond (2 years post-construction).

of trees that tolerate frequent flooding and reduced soil aeration, e.g., silver maple (*Acer saccharinum*), cottonwood (*Populus deltoides*), sycamore (*Platanus occidentalis*), and black willow (*Salix nigra*). A population of beaver inhabits burrows in the riverbank, as reflected by gnaw marks on many of the floodplain trees. Both the north and south sections of the wetlands contain poorly-drained depressions separated by slight ridges. The depressions are water-filled during wet seasons and following river flooding. Pin oak (*Quercus palustris*) and red maple (*Acer rubrum*) dominate the depression woods. Trees adapted to less-saturated soils appear on the slight ridges separating the depressions, e.g., beech, tulip poplar (*Liriodendron tulipifera*), black cherry (*Prunus serotina*), sassafras (*Sassafras albidum*), and box elder (*Acer negundo*). Shrubs, herbs, fungi, invertebrates, and vertebrates, especially amphibians, inhabit the lowland forests.

The wetlands and mature woodlands are essential habitats for many species and provide ecosystem services such as water quality protection, soil conservation, and pollution remediation. A nature trail through the south section of the wetlands is accessed from a parking area on the east side of SAWW. The signed trail is open to the public during daylight hours. REFS uses the site for a variety of research activities, environmental monitoring, transdisciplinary collegiate education, P-12 and teacher environmental education, summer science camps for the public, and community activities. The fenced northern wetlands and upland forest are reserved for research and education groups through REFS. REFS/SAWW is a member of the Kentucky Organization of Field Stations (KOFs).

While REFS and SAWW offer a variety of habitats for study, the station is also near a variety of other habitats for research, education, or outreach activities. Within 10 mi of the station on the Kentucky side of the Ohio River alone there are eight local streams, the Licking River, and many small lakes. REFS is an excellent outdoor laboratory for all educational levels from pre-school through university level. It is an ideal facility for all types of environmental education, including classes in the natural, social and environmental sciences as well as instruction in resource management. As a protected natural area, SAWW and REFS is also a valuable place to conduct research in ecology and natural resource management.

Remember to expand your nature awareness with your sense of wonder, take home fond memories of what you discover, and realize that you are enhancing your environmental literacy every time you explore our natural world.

Facilities

Most activities are centered at the field station or the surrounding St. Anne Woods and Wetlands. However, there are a variety of local streams and forested habitats in close proximity from which the REFS could serve as a base of operations. The station facility has a lower level teaching and wet laboratory area, and an upper level conference area with office/research spaces. The field station provides a space for activities including indoor laboratory analyses and field processing procedures, meetings, research and education workspace, storage, and restrooms. A new shed will be constructed on-site in the fall of 2017 which will greatly expand the equipment storage capacity of the REFS and allow for construction of field study apparatus and possibly small-scale experiments.

Audio-visual equipment for presentations and instruction is available at the facility with a flat screen monitor in the upper level conference area and a projector with audio and a pull-down screen in the lower level. In addition, there is some educational equipment available for use at the station or SAWW. There is a real-time weather data collection system that is located in the north wetlands near the river that monitors climate and water level in water table. Two 400 m² permanent forest plots (one old growth forest, one secondary forest) have been established in the south wetlands forest and are monitored for long term data collection on changes in these forest systems.

Interpretive nature trails have been constructed in the wetlands on the south side of the railroad tracks (public access) and are open for hiking and instruction. There is also a series of hiking and interpretive trails open to the public in the upland old growth forest near and behind the St. Anne Convent. There is also an open wetlands trail past the ponds to the weather station on the north side of the railroad tracks, and there are several access points from this trail to bottomland forest leading to the Ohio River. A loop trail in the closed canopy of this north wetland has also been constructed. This “north” wetland is fenced with gate access from REFS personnel next to the REFS facility. Trail maps are available at the field station. In addition, there is an open space next to the parking lot at the field station and a fire pit for evening programs or as a recreation and playing field.

While the north edge of the north wetlands is bordered by the Ohio River, recreational fishing is not permitted from the shore of the wetland. Similarly, swimming and pleasure boating are prohibited from this location.

Reservations and Usage

Each group that visits NKU-REFS has its own unique goals and objectives. All indoor and outdoor activities must be reserved through the NKU Department of Biological Sciences or the NKU-REFS. website (<http://nku.edu/refs.html>). Reservations are approved on a first-come-first-served basis. Educational and outreach groups are also welcome to use the REFS. To qualify for facility use, all groups must be educational or nature oriented. Priority is given to sponsored University research and University curriculum. Researchers planning to submit proposals with REFS facilities should consult with the Station Director as to the availability of facilities prior to submission. Social meetings do not qualify. Non-university groups are charged a nominal fee for usage.

Reservations can be made through the Northern Kentucky University REFS website (<http://nku.edu/refs.html>) or by contacting the Department of Biological Sciences at 859-572-5110. You will receive a reservation form via e-mail. Simply e-mail (on form) or fax (859-572-5639) the completed signed form to NKU Biological Sciences - REFS two weeks prior to your group's arrival. Normal field station use will be weekdays between 8am – 5 pm after reservations are confirmed.

NKU Research and Education Field Station (REFS)
Department of Biological Sciences, Nunn Dr.
Highland Heights, KY 41099

Station Fee Schedule

The REFS is a research and education facility of Northern Kentucky University with instruction about the wetland/riparian and upland forest ecosystems and basic and applied research as primary goals. As such, we are in the position to provide some equipment and facilities to support research, teaching, and outreach activities. However, university funds to support the REFS are limited and so fees are required to sustain operations of the station. The following list is based on actual costs and has been approved by the Northern Kentucky University Administration. For general information and availability of specific items not listed below, contact Dr. Richard Durtsche (durtsche@nku.edu) or Dr. Richard Boyce (boyce@nku.edu). ALL FEES MAY BE ADJUSTED OR WAIVED AT THE DISCRETION OF THE STATION DIRECTOR.

Fees as of July 2017

GENERAL

<u>Facilities</u>	<u>Cost</u>
• 2 nd Floor Lab Space (Desk and adjacent bench)	\$20.00/Day
• 1 st Floor Classroom Space	\$20.00/Day
• 2 nd Floor Conference Space	\$20.00/Day
• Photocopying	\$0.10/Page
• Laser and other computer printers	\$0.10/Page
• FAX	\$0.20/Page
• Expendable Supplies	Cost
<u>Talk-&-Walk Nature Series</u>	\$10/Person/Session

GROUP VISITS

<u>Group size</u>	<u>Cost</u>
• 20 or fewer	\$25.00
• 21 or more	\$35.00

Health, Safety and Supervision for Groups

NKU - REFS does not supply emergency medical care for groups. You are responsible for, and should be prepared to provide your own emergency care and first aid — including equipment, supplies and emergency transportation. Each member of your group must have a completed medical form and a liability release form. Appendix C is the required medical form. Appendix D is the required liability release form. While using the NKU REFS, your group assumes liability for any and all damages to NKU's property. NKU has no liability for participants' personal property brought to the field station. Additionally, NKU does not warrant that the field station is accessible for persons with disabilities, and as such, is not liable for any claims arising from the lack of accessibility.

Emergency Procedures

In the event of Fire

1. Be sure everyone exits the building immediately
2. Do not attempt to fight the fire yourself

3. Immediately call 911 and report the fire to the REFS Director and the NKU Department of Biological Sciences
4. The group leaders should assemble everyone in the parking lot and account for all persons.
5. In the event of a forest fire, be sure everyone proceeds quickly to an open area, preferably either the road or the parking lot near the REFS, then call 911 and report to the REFS Director and the NKU Department of Biological Sciences.

In the event of an Accident

1. Administer any appropriate first aid. Do not move the injured person if back or neck injury is suspected
2. If the injury is serious, call 911
3. Report the accident to the group leader and the REFS Director and the NKU Department of Biological Sciences
4. Complete the accident report form and turn into the REFS Director and the NKU Department of Biological Sciences

Emergency Contact Numbers

Emergency Numbers and other needed contacts are posted by the phone in the field station.

Emergency/Fire/ Medical Services 911

NKU Police	859-572-7777
Non-emergency	859-572-5500

Campbell County Dispatch (Police)	859-292-3622	(Fire)	859-635-9255
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Sheriff (Campbell County)	859-292-3833
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St. Elizabeth Hospital (Ft. Thomas)	859-572-3100
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NKU Biological Sciences	859-572-5110
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“Look deep into nature, and then you will understand everything better.”

--Albert Einstein

Leader Planning Guidelines

The following checklist provides suggested guidelines to help facilitate a hassle-free experience for your group.

Before Your Visit

- _____ Reserve dates by phone or via the website and send in your completed reservation form two weeks in advance (refer to p. 6).
- _____ Be sure all fee requirements are met before you arrive. These will be outlined on your reservation form. This may include collection of fees from participants. You will be billed at the end of your visit by the REFS Director. Checks can be made to the NKU Department of Biological Sciences - REFS.
- _____ Discuss the purpose of the trip with your group.
- _____ Decide on appropriate activities and who is responsible for planning and leading them. Staff/Undergraduates from the Department of Biological Sciences including the REFS Director are available on a limited basis to lead activities for groups. If you are interested in these types of activities, please contact the Department of Biological Sciences or the REFS Director.
- _____ If your group plans on using the fire pit, obtain prior written permission from NKU Facilities Management (refer to Appendix F, NKU's *Outdoor Open Fire Policy* for details).
- _____ If your group is composed of children, arrange for chaperones. One adult per 5-10 young people is suggested. Divide your participants into groups and assign adult leaders prior to departure.
- _____ Review the *REFS Policies and Procedures* (p. 10) to all participants
- _____ Discuss appropriate clothes to be worn by the participants (rain boots are often suggested for hikes in the wetlands).
- _____ Make appropriate travel arrangements. If group members are responsible for transportation to REFS and SAWW, distribute and clarify directions (Appendix A).
- _____ Clarify departure and arrival times as well as returning times
- _____ Collect any needed permission forms, as well as completed medical forms and liability release forms for all participants. Designate one person to be in charge of and retain these forms.
- _____ Specify to group participants if any special equipment is needed and if you would prefer them to leave electronic devices at home.

_____ Be sure someone is responsible for bringing a first aid kit

_____ Check with the REFS Director or Department of Biological Sciences before making any schedule changes.

While at REFS and SAWW

_____ Upon your arrival, you will be greeted by the REFS Director or Biological Sciences Staff/Student Agent. Be sure you understand REFS policies and procedures and understand how to contact the Director or Agent of REFS in case of emergency.

_____ Ensure that participants are supervised at all times during your stay. This includes any recreation time.

Completing your Visit

_____ Use the REFS Facilities and Equipment Checkout list (Appendix B) to complete the clean up duties.

_____ The group leader should meet with the Director or REFS Agent prior to leaving SAWW and REFS.

_____ Turn in completed Checkout list

_____ Finalize billing

_____ Complete and return the evaluation form (Qualtrics survey - [link here](#))

After Your Visit

_____ The group should evaluate the effectiveness of the trip. (Qualtrics survey - [link here](#))

_____ Contact the REFS Director or the the Department of Biological Sciences with any suggestions or concerns for future trips.

_____ Researchers must submit metadata information (Qualtrics survey - [link here](#)) and provide copies of data collected, and copies of post-publication/post-presentation work (see Appendix G)

"Those who contemplate the beauty of the earth find reserves of strength that will endure as long as life lasts. ... There is something infinitely healing in the repeated refrains of nature — the assurance that dawn comes after night, and spring after winter."

— Rachel Carson, Silent Spring

REFS Policies and Procedures

NKU REFS is very proud to serve you. We are equally proud of our facilities and ask that you help maintain them by following these rules:

1. Respect the natural beauty of the property by using trash containers and recycling bins, by not disturbing plant or animal life, and by walking only on marked trails.
2. This is a drug free area and controlled substances/illegal drugs are prohibited on the property.
3. Firearms and other weapons are prohibited on REFS and SAWW properties.
4. The NKU campus and properties are tobacco free areas. No tobacco products of any kind are permitted in the building, or on the property. Please do not smoke on the SAWW trails or wooded areas.
5. All users must complete a liability release form (See Appendix D)
6. The field station building holds a maximum of ~24 people, and outdoor groups of up to 30 can be hosted at REFS.
7. All vehicles should be parked in the gravel lot at the field station (limit 10 vehicles) or designated parking areas along the SAWW or at the visitor parking areas at the St. Anne Convent.
8. Off-road vehicle and mountain bike use is prohibited at this field station and on the SAWW trails.
9. No pets (except for assistance animals) are allowed at REFS or SAWW, because of disturbance to wildlife, vegetation, and research activities.
10. A basic first aid kit is available at the REFS facility. Please bring a portable first aid kit for use on the trails. Health and accident insurance is the contracting group's responsibility. Ticks and Poison Ivy are common at SAWW and REFS, so please take appropriate precautions and add tweezers, Tecnu skin cleanser, and hydrocortisone cream to your first aid kits.
11. Please help us conserve energy by turning off lights and heat or air conditioning, and closing doors when leaving the building.
12. All accumulated trash and recycling need to be removed by the users/group using the REFS upon departure.
13. Misuse of facilities resulting in damage or loss to property will result in repair or replacement of the property by the group using the REFS.
14. Visitors and users of the REFS will abide by the NKU code of conduct (<http://ethics.nku.edu/code.html>) and the safety guidelines set forth by the Department of Biological Sciences (Appendix E).
15. Fires are limited to the fire pit area and no more than 3 ft. x 3 ft. in size. Fires are only allowed with NKU/REFS personnel present, and are restricted to periods after 6 pm following Campbell Co seasonal regulations. No fires are permitted if county or state fire bans are in place. All outdoor fires need to

follow all other components of the NKU Outdoor Fire Policy (see Appendix F).

16. Minimize impact – no collection of organisms, or cutting/destruction of any plants, unless part of a designated field/research activity.
17. Do not disturb any experiments in progress.
18. All research activities at SAWW must have a research permit that is approved through REFS and the Campbell County Conservation District (see Appendix G). Unapproved research activities at REFS or SAWW are prohibited.
19. Food and drink are to remain in the field station and surrounding property (e.g., fire pit area), but are not allowed in the SAWW with the exception of fluids (e.g., water) to stay hydrated or foods to meet a medical condition.
20. Please be careful. Look out for natural hazards while in the wetlands or in the forest.
21. Violations of these policies and procedures will result in the loss of use of the REFS by the person or group for 6 months.

“Nature’s peace will flow into you as sunshine flows into trees. The winds will blow their own freshness into you, and the storms their energy, while cares will drop off like autumn leaves.”

—John Muir

Appendix A

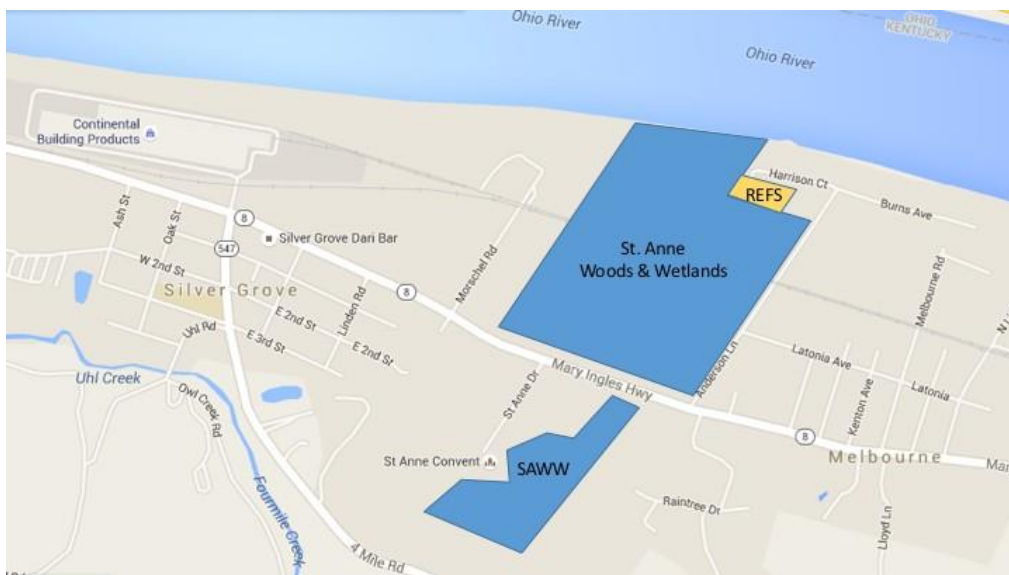
DIRECTIONS TO NKU REFS

From I75/I71, KY or OH:

- If entering the Northern Kentucky/Greater Cincinnati area heading north from Lexington/Louisville or south from Dayton/Columbus on I75/I71, take the beltway (I275 in Northern Kentucky), east.
- Get off on Route 27 (follow HWY 471 south from Cincinnati) and take a left at the stoplight onto Route 1998.
- Travel down the hill again until it dead ends at the Mary Ingles Highway (Route 8).
- Turn right on Route 8 and continue on about 3 miles Anderson Avenue/Lane (left side) just before a small gas station.
- Turn Left onto Anderson Avenue/Lane, and continue over the railroad tracks until road ends,
- Turn Left onto Harrison Ct and follow it to the NKU Research and Education Field Station,
- Park in the lot in front of the field station

From Eastern KY (Maysville):

- Travel West on the AA Highway (Route 9) toward Cold Spring.
- Get off on Route 27(right) and travel north toward Cincinnati,
- Turn Right onto Route 1998,
- Travel down the hill again until it dead ends at the Mary Ingles Highway (Route 8).
- Turn right on Route 8 and continue on about 3 miles Anderson Avenue/Lane (left side) just before a small gas station.
- Turn Left onto Anderson Avenue/Lane, and continue over the railroad tracks until road ends,
- Turn Left onto Harrison Ct and follow it to the NKU Research and Education Field Station,
- Park in the lot in front of the field station



Appendix B

NKU REFS CHECKOUT LIST

Group: _____ Person in Charge: _____

LOWER LEVEL TEACHING/WET LABORATORY

____ YES	____ NO	Floors Cleaned
____ YES	____ NO	Furniture clean, in place
____ YES	____ NO	Refrigerator emptied
____ YES	____ NO	Garbage bagged, put in garbage can outside building
____ YES	____ NO	Books, Educational/Research materials, etc. in place
____ YES	____ NO	Group and personal items removed

RESTROOMS

____ YES	____ NO	Toilets cleaned, flushed
____ YES	____ NO	Sinks, mirrors cleaned
____ YES	____ NO	Floors cleaned
____ YES	____ NO	Garbage bagged, put in garbage can outside building

UPPER LEVEL TEACHING/RESEARCH AREA

____ YES	____ NO	Floors Cleaned
____ YES	____ NO	Furniture clean, in place
____ YES	____ NO	Garbage bagged, put in garbage can outside building
____ YES	____ NO	Books, Educational/Research materials, etc. in place
____ YES	____ NO	Group and personal items removed

OTHER

____ YES	____ NO	Educational equipment checked in
____ YES	____ NO	Research equipment checked in
____ YES	____ NO	Miscellaneous materials and equipment checked in

DAMAGE REPORT:

Signature, Person in charge: _____ Date: _____

Appendix C

MEDICAL FORM

The following information was compiled from a sampling of other organizations' medical forms. A medical form can be very helpful in the event of serious injury/illness. If your organization does not have a standard medical form, please use this as an example of general information you may need to gather from your participants/students.

Participant information

School Name _____ Date of trip _____
Student name _____ Age _____ Male _____ Female _____
Social Security # _____ Birth date _____ Race _____ (for reporting purposes only)
Parent/Guardian _____
Home address _____ City _____ State _____ Zip code _____
Home phone () _____ Work phone () _____ Fax () _____
Beeper, cell phone, or other () _____ E-mail address _____

Medical information

If case of an emergency, please notify:

1st priority: Name _____ phone () _____ relationship to student: _____
Alternate: Name _____ phone () _____ relationship to student: _____

Health history (Check all that apply, giving approximate dates or details in blank space provided)

Allergies

_____ Frequent ear infections _____ Heart defect/heart disease _____ Hay fever _____ Penicillin
_____ Convulsions _____ Diabetes _____ Food _____ Insect stings _____ Other drugs
_____ Bleeding/clotting disorders _____ Recent injuries (please list) _____

Is the student taking any medications? Please list dosage, etc.: _____

Surgery or serious injuries (dates): _____

Chronic or recurring illness: _____

Other diseases or details of above: _____

Name of family physician _____ Name of dentist/orthodontist _____

Do you carry family/hospital insurance? Yes _____ No _____

Policy name and group number: Carrier _____ Group or Policy number _____

Restricted activities _____

Important Please notify us if the student is exposed to any communicable disease during the three weeks prior to camp.

Suggestions from parents: _____

Do we have permission to administer: Acetaminophen? _____ Ibuprophen? _____ Benadryl? _____

List all medications brought on field trip _____

Appendix D

RELEASE OF LIABILITY

ADULT PARTICIPANT

I hereby certify that I am over the age of eighteen and by my signature below, I hereby release Northern Kentucky University (NKU), its officers, agents, employees, successors, and assigns from any and all liability, not caused directly by negligence of NKU or its representatives, arising out of or in any way related to a _____ - ____ - ____ (e.g., BIO-404) class field trip:

TO:

SCHEDULED FOR:

NKU Research and Education Field Station (REFS), Melbourne KY

date: ____/____/____

I understand that I may be traveling in an NKU vehicle for these trips.

I understand that there will be activities required of me as necessary for the field trip (e.g., walking, climbing, wading, digging) and that there is some risk involved in all such physical activity. I hereby accept this risk.

If I require medical care while on the above-named trip, I authorize NKU and/or the Department of

_____ faculty or its agents or employees to contact Dr. _____ at phone number

_____. If my doctor cannot be reached, I authorize NKU and/or the Department of

_____ faculty to present me to the nearest medical facility for medical care without assuming any

responsibility for the actions of representatives or employees of that facility or for payment for services rendered

under the auspices of that facility. My insurance carrier is _____ and

the policy number is _____.

DATE: _____ PARTICIPANT: _____

(Note: Anyone under 18 years of age must have this form signed by a parent or guardian.)

NKU Biological Safety Guidelines

REFS (BSL1)

Never fool around in the field station. Horseplay, practical jokes, and pranks are dangerous and prohibited.

Dress properly during laboratory/field exercises. Tie back long hair and secure dangling jewelry. Wear laboratory coats or aprons, gloves, close toed shoes, and safety glasses/goggles as instructed or as an extra precaution to protect skin and clothes during any laboratory exercises. Do not wear lab coats or gloves outside of the field station.

Do not touch any equipment, chemicals, or other materials in the laboratory area until you are instructed to do so. Perform only those experiments authorized by the instructor. Carefully follow all instructions, both written and oral. Use all apparatus and equipment only as instructed.

Observe good housekeeping practices. Stow backpacks and other personal belongings in designated areas. Keep your work area clean and free of unnecessary books and papers. Return all materials to the proper locations as soon as possible after you are finished with them. Straighten your work space before leaving the station.

Keep aisles clear. Push your chair under the table when not in use.

If you have a medical condition (allergies, pregnancy, HIV, etc.), inform your instructor so appropriate precautions can be implemented.

Handle all living organisms or preserved specimens in a respectful manner.

Keep hands away from face, eyes, mouth, and body. Always wash hands thoroughly at the end of each study period.

Report all accidents and injuries immediately to your instructor.

Know the locations and operating procedures of all safety equipment including the first aid kit, and fire extinguisher. Know where the exits are located.

Dispose of all chemical waste properly. Sinks are to be used only for those solutions designated by the instructor. All other solutions should go in the provided waste jars. Double-check the label of all waste containers before adding chemical waste to the container.

All chemicals in the field station are to be considered dangerous. Do not touch, taste, or smell any chemicals unless specifically instructed to do so.

If chemicals or microorganisms splash in your eye(s) or on your skin, immediately flush the area with water from the sink for at least 20 minutes. Notify your instructor immediately.

Contain chemical spills and warn other students in the area. Consult your instructor before attempting to clean up the material.

Never use mouth suction to fill a pipette. Use automatic micropipettors, rubber bulbs, or pipette pumps for this purpose. Do not use laboratory glassware as containers for food or beverages.

Do not use cracked or broken glass equipment. If a glass item is broken, warn other students in the area and then notify the instructor. Never handle broken glass with your bare hands. Use a brush and dustpan to clean up broken glass. Dispose of broken glass in the white plastic-lined “Glass Waste” box.

Use dissection tools only for their intended purposes. If using knives or other sharp instruments, always carry them with sharp tips down and away. Never try to catch falling sharp instruments.

Do not leave anything that is being heated unattended. Never look into a container that is being heated. Never point the open end of a test tube that is being heated at yourself or anyone else. Always turn off hot plates when not in use.

Dispose of all biohazard waste properly. Used microbiological cultures or other items needing autoclaved should be place in the orange bags provided. Dissection waste should go in the red bags provided. Dispose of used gloves as indicated by the instructor.

Dispose of sharp items in appropriate containers. Razor blades, scalpels, and needles, go into red sharps containers. Used slides, coverslips, serological pipettes and broken glass go into white “Glass Waste” boxes.

ANY STUDENT VIOLATING THE SAFETY RULES CAN BE DISMISSED FROM THE CLASS. Everyone is responsible for lab safety. Report any violations to the instructor.

Appendix F

Northern Kentucky University

Policy Number: 930

Subject: Outdoor Open Fire Policy Date

Issued: September 28, 2010

Authority: Director of Public Safety; Assistant Vice President for Facilities Management; Environmental Safety Coordinator

Revision Date: 10/14/09

930.1 Scope

This safety policy has been established to assist persons who are planning to erect a bonfire on Northern Kentucky University property.

930.2 Purpose

This policy is not all inclusive but offers guidance believed to be appropriate safety considerations while planning, constructing and maintaining an open fire. Fires may not be constructed on university property without prior written permission from Facilities Management. This policy offers safety requirements and guidelines, which have been developed to ensure that bonfires are constructed and maintained safely.

930.3 Notifying the Appropriate Authorities

1. During the preplanning phase, the Requestor must contact the NKU Environmental Safety Coordinator, at least 15 days prior the event, who will act as liaison in obtaining approvals from the appropriate state and local authorities including the NKU Department of Public Safety, Facilities Management, and the Central Campbell County Fire District. Requestor shall with the assistance of the environmental Coordinator, initiate an Outdoor Open Fire Permit. If approved, copies of the permit shall be forwarded to Facilities Management, Department of Public Safety, Dean of Students, the Office of Environmental Safety, and the Requestor (see contact numbers below).
2. Requests to erect an outdoor open fire must be received by the Office of Environmental Safety no less than 15 days prior to the date of the event.
3. Representatives from Office of Environmental Safety will determine if appropriate safety and space will be available to accommodate the event.

930.4 Supervision

At least one faculty or staff member of Northern Kentucky University must be listed on the permit as a supervisor and must be at the site during the entire event.

930.5 Prevailing Winds

Prevailing winds may not exceed twenty miles per hour (20mph) for at least 30 minutes before the fire is set, or the event must be postponed until such time as the wind velocity has receded to 20mph or less. To verify prevailing wind speeds and direction contact the Wilmington, Ohio Office of the National Weather Service. (937) 383-0031. If the event is postponed a new Outdoor Open Fire Permit must be obtained for the rescheduled date and time.

930.6 Fueling the Fire

1. The use of gasoline, kerosene, any other petroleum based or flammable liquid, and paper products, including but not limited to, cardboard, newspaper, shredded wood packing and popcorn packing insulation is **PROHIBITED**.
2. ONLY nail-free wooden boards and logs may be used to fuel the bonfire. No chemically treated lumber or manufactured, assembled, painted or finished products (i.e. furniture, tables etc.) shall be used.
3. Commercially available Fireplace Starter Logs are the preferred method for starting fires and can be purchased at most retailers. Alternate starting methods must be approved in writing by the Office of Environmental Safety.
4. All spare or unused wood must be stored no closer than fifty (50) feet from the fire.

930.7 Lighting The Fire

1. Use a wand lighter to ignite Fireplace Starter Log with the wind at one's back.

930.8 Security and Fire Ground Monitors

1. Prior to lighting the fire notify the Northern Kentucky University Police Dispatch Center (572-5500), University Power Plant (572-5548) and Campbell County Consolidated Dispatch Center (292-3622) that the fire is to be lighted.
2. The Requestor will be responsible for providing someone to watch for firebrands/ floating embers (airborne lighted particles) who will visually

monitor the fire as well as keeping onlookers at a safe distance from the fire. Should a fire erupt caused by a firebrand the monitor must **not** attempt to extinguish the fire but should immediately contact the Department of Public Safety.

3. The fire must be maintained at a size not exceed 5ft by 5ft in accordance with Kentucky Fire Prevention Code F-301.1-10 and be supervised at all times.
4. To insure personal safety, unauthorized persons shall not engage in the activity of fire suppression but shall notify a safety official immediately.

930.9 Extinguishments and Cleanup

1. A minimum of two 2 ½ gallon water type extinguishers shall be available and readily accessible during burning. Extinguishers can be obtained through the Office of Environmental Safety.
2. After the fire, the burnt remains shall be left and an NKU Grounds Crew will dispose of the rubbish. The requestor is responsible for removing and disposing of any unused wood and trash from the event.

930.10 Important Telephone Numbers

Office of Environmental Safety	(859)572-6522
University Police	(859)572-5500
Campbell County Dispatch	(859)292-3622
University Power Plant	(859)572-5548
National Weather Service	(937)383-0031

Appendix G

RESEARCH PERMIT INFORMATION Northern Kentucky University: Research and Education Field Station (REFS) Campbell County Conservation District

- A permit is required to conduct research or field studies on property owned or controlled by the Northern Kentucky University Research and Education Field Station (NKU REFS) and the Campbell County Conservation District Board of Supervisors, Campbell County, Kentucky.
- The NKU REFS and Campbell County Conservation District property research permits may be issued for periods of one (1) day to twelve (12) months. ***Research projects that span more than one year will require another permit application.***
- Permit applications must be submitted ***at least 30 days*** before the permit is needed. Exceptions may be granted by the NKU REFS Steering Committee and Campbell County Conservation District Board of Supervisors at their discretion in the event of extenuating circumstances.
- The permittee must hold and produce as a part of the permit application, any applicable Federal, State, or local permits that are required to collect or otherwise conduct research on specimens.
- Permits ***require*** the submission of a final report after the research has been completed and ***may require*** progress reports while work is being conducted. Graduate students ***must*** provide a copy of thesis or dissertation as part of the permit requirements.
- ***Any*** collected specimens must be placed into a curated collection (NKU Museum or Herbarium) that is open to the public unless the specimens are used for analytical purposes.
- If your work is to be published or presented in any format (poster, electronic, printed), you ***must*** include the NKU Research and Education Field Station, the Campbell County Conservation District, and the Kentucky Heritage Land Conservation Fund Board in your acknowledgements, using the name and logo of each entity. It is also requested that the name and/or logo of the St. Anne Woods & Wetlands and the Kentucky Organization of Field Stations be used in the acknowledgements.
- The NKU Research and Education Field Station and the Campbell County Conservation District shall receive two copies (one electronic copy, one paper copy) of published work.
- The Campbell County Conservation District reserves the right to share published work with the Kentucky Heritage Land Conservation Fund Board, Kentucky State Nature Preserves Commission, or other applicable state or federal agency in order to further protection, restoration or the body of knowledge concerning the property or of a particular habitat or species found within the property. The researcher will be given proper acknowledgement should citations from or references to their work be used by any agency or entity. By mutual agreement, the research work may be published on NKU Research and Education Field Station and the Campbell County Conservation District Web sites.

- The issuance of a permit does **not** imply permission to access or conduct research on private property whether or not the land is adjacent to property owned/controlled by the NKU Research and Education Field Station or the Campbell County Conservation District. If private property must be traversed to access an area of a Campbell County Conservation District property, it is up to the permittee to secure permission from the landowner.
- Access to the NKU Research and Education Field Station or a Campbell County Conservation District property is assumed to be **by foot only** unless there is an established public roadway that is open to vehicular traffic.
- Permittee **must** adhere to the specific provisions of their permit and adhere to all rules and regulations pertaining to the NKU Research and Education Field Station and the Campbell County Conservation District property while on the property. If applicable, the Conservation Easement for the property which is held by the Commonwealth of Kentucky shall guide the rules and regulations for use of the property.
- **Any** structures, equipment, or other modifications of preserves created by a project **must** be removed when the research project is concluded (flagging, traps, etc.).
- The NKU Research and Education Field Station or the Campbell County Conservation District reserves the right to reject research proposals that are in conflict with established management objectives or that may be judged to be detrimental to the property.

Research Permit Application
Northern Kentucky University: Research and Education Field Station (REFS)
Campbell County Conservation District

Researcher (s): _____

Affiliation: _____

Address: _____

City/State/Zip: _____

Phone number: _____ Cell Phone _____

E-mail: _____ FAX: _____

Title of project: _____

Beginning and ending dates for project: _____

Sponsorship or source of funding for project: _____

1. Briefly describe the significance of your proposed research. Also attach a copy of your proposal including a detailed description of your methodology and a vita describing your knowledge and expertise in this area. Include references to other research that you have completed.

2. Property you need to access: _____

Time of day and length of time that you need access to property: _____

Locations or habitat types within the property do you need to visit? Attach a map and/or include latitude and longitude coordinates if known.

3. What equipment and/or structures will be used to conduct the study?

4. How will equipment and supplies be transported to and from the study site?

5. Describe the measurements to be made. Include the species/materials that you need to collect, a description of collecting methods, total number of individuals to be collected, number to be collected per site or population and what parts will be collected. (soil/water samples, etc.)
6. Are the measurement effects nonexistent, temporary, or destructive?
7. Are there any hazardous materials or special safety considerations?
8. Research close out plan (equipment removal, instrument removal, are there any permanent markers that will remain?)
9. Other pertinent information about your project:

Please indicate a timeframe of your availability for orientation to the property from NKU Research and Education Field Station personnel or the Campbell County Conservation District staff or affiliates