FOREST SAFETY INSTRUCTION LLC

SWAMPER ESSENTIALS

Supporting Safe Chainsaw Operations

1

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INSTRUCTORS

Nathan & Holly

2

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COURSE OBJECTIVES

- Swamper roles and responsibilities
- Safety basics, habits, and PPE
- Working with a sawyer
- Clear communication

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COURSE OBJECTIVES

- Common chainsaw and operation hazards
- Maintaining a safe work zone
- JHA, SOP, emergency procedures

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THE ROLE OF THE SWAMPER

A successful operation begins with teamwork and awareness.

- WHAT IS A SWAMPER?
- WHY THE SWAMPER MATTERS
- ROLES & RESPONSIBILITIES
- SITUATIONAL AWARENESS

5

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WHAT IS A SWAMPER?

Swamper:
A person who safely assists a chainsaw operator and helps with risk management

- Does NOT operate saws
- Never enters the 15 ft zone unless cleared

Safety Focus: A swamper's primary responsibility is maintaining a safe work environment.

6

WHY THE SWAMPER MATTERS

- Extra eye for safety
- Protects crew and the public
- Can prevent injury or save lives
- Has stop-work authority
- Helps keep work enjoyable

Safety Focus: One should never operate a chainsaw alone!

7

ROLES & RESPONSIBILITIES

- Maintain safety zones and watches for hazards
- Assist with brush clearing, equipment transport, site prep and cleanup
- Helps with emergency response
- Control the trail and work zone
- Communicates clearly

Safety Focus: Communicate hazards and changing conditions.

8

SITUATIONAL AWARENESS

- Continuously scans the entire work area
- Keep alert for:
  - Fatigue
  - Overhead hazards, footing, weather changes
  - Trail users
- Avoid tunnel vision

Safety Focus: Keep your attention on the entire work area—not just the sawyer.

9

SITUATIONAL AWARENESS

- **Listen for the Alarm (LFTA)**
  - Notice internal warnings
  - Trust uneasy feelings; act on them
- **Step Back, Think, Organize, Proceed (STOP)**
  - Step back and consider all aspects of the task

Safety Focus: When in doubt, stop and re-assess.

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PREPARING FOR THE TASK

Safe operations begin before the chainsaw starts

- QUALIFICATIONS & PPE
- JOB BRIEFING / TAILGATE SESSION
- JOB HAZARD ASSESSMENT (JHA)"
- EMERGENCY RESPONSE PLAN

11

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QUALIFICATIONS

Review required training and certifications

- Trail Safe Series
- First Aid and CPR
- Volunteer Service Agreement

Safety Focus: Must review the "Personal Safety" and "Saw Operations" JHAs.

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PERSONAL PROTECTIVE EQUIPMENT

- Swamper PPE requirements
  - Hard hat, ear pro, eye pro, gloves, work boots
  - Optional: High vis, bleed kit, whistle
  - Inspect PPE before every operation
- Sawyer PPE requirements
  - The same with the addition of chaps
- Other volunteers PPE requirements
  - Non-official swampers working nearby, wear work gloves, work boots, appropriate clothing, and possibly ear protection

Safety Focus: Never enter the work area without required PPE. Ensure others are also wearing the appropriate PPE.

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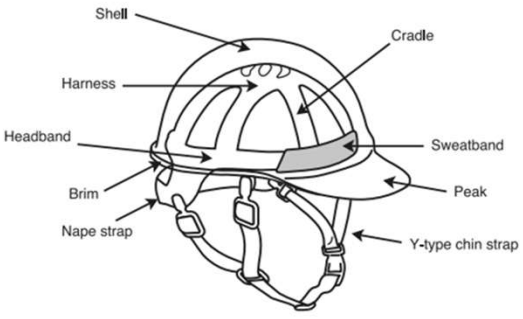
PERSONAL PROTECTIVE EQUIPMENT - HELMET



- ANSI Z-89.1
- Date stamp
- Life span 5 years
- 6-pt suspension
- Store properly
- Stress test

Safety Focus: Keep helmets out of the sun. UV deteriorates plastic.

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SAFETY BRIEFING / TAILGATE SESSION

- Briefing before starting the task
- Review work plan and JHA
- Confirm communication plan
- Cover emergency response
- Assign crew roles
- Identify safety areas, water, shelter, bathrooms

Safety Focus: Preparation before cutting can prevent accidents.

15

JOB HAZARD ASSESSMENT (JHA)

Identify the activity and hazards

- People: crew and trail users
- Overhead hazards
- Assess, terrain and footing
- Identify tension/compression
- Consider weather and public exposure
- Reassess conditions throughout the task

Safety Focus: Sometimes, identifying a hazard is enough to mitigate it.

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EMERGENCY RESPONSE PLAN

- **911 caller**
  - Address
  - Last known reception
  - Satellite communication device
- **First aid lead**
  - Provides care
  - Carries kit
  - Kit stays within 100 ft
- **Runner**
  - Knows access points
  - Guides responders to the scene

Safety Focus: Both sawyer and swamper need to be first aid and CPR certified.

17

WORKING WITH THE SAWYER

Good communication and knowing the rules can prevent accidents

- COMMUNICATION
- WORK ZONE AND TRAIL CONTROL
- POSITIONING AND DISTANCES
- EMERGENCY RESPONSE PLAN

18

COMMUNICATION

- Set verbal & visual commands before work
  - Hand signals
  - Whistle
  - Chain brake
- "Saw Starting"
- Confirm instructions
- Stop work if communication breaks down

Safety Focus: The swamper is often the crew's primary public contact.

19

BEST PRACTICES FOR SAWYERS

- Chain brake
- Thumb wrap
- No drop starting
- Lay saw flat
- Walk with bar behind you

Safety Focus: Everyone has the right to be in a safe environment.

20

WORK ZONE & TRAIL CONTROL

- Establish a clear safety zone
- Stop hikers before they enter
  - Check with the sawyer before letting pass
- Only the swamper is allowed to move into the 30-ft circle, 15-ft radius when directed
- Crew assists after cutting is complete

Safety Focus: Never let the production pressure override safety.

21

SAFE POSITIONING AND DISTANCES: GROUND WORK

- Stay outside the sawyer's 30-ft circle, 15-ft radius
- Maintain visual contact
- Avoid standing behind the sawyer or in escape routes
- Remove debris only when signals confirm it is safe

Safety Focus: Never pull on wood that is being actively cut or supporting the sawyer.

22

SAFE POSITIONING AND DISTANCES: TREE FELLING

- Stay outside the sawyer's felling zone (2.5 x tree height); Keep others out
- Let hikers pass only when sawyer says it's safe
- Use whistle/audio if visual contact is lost
- Enter felling zone only after "all clear" or planned signal

Safety Focus: Only one saw per tree. This is for standing trees as wall as trees on the ground.

23

HAZARD RECOGNITION INCLUDING CHAINSAWS & CUTTING

Recognizing hazards, knowing basics of a chainsaw and binds

- COMMON HAZARDS
- RECOGNIZING COMPRESSION & TENSION
- BASICS OF THE SAW

24

COMMON HAZARDS

- Scan up, down, all around
- Watch for widowmakers
- Uneven terrain; loose footing
- Keep area free from trip hazards

Safety Focus: Slips, trips and falls are one of the most common causes of accidents.

25

COMMON HAZARDS

- Be aware of crew and pedestrians
- Monitor weather changes
- Manage fatigue (yours and the sawyers)
- Watch for kickback

Safety Focus: Hazard recognition prevents incidents.

26

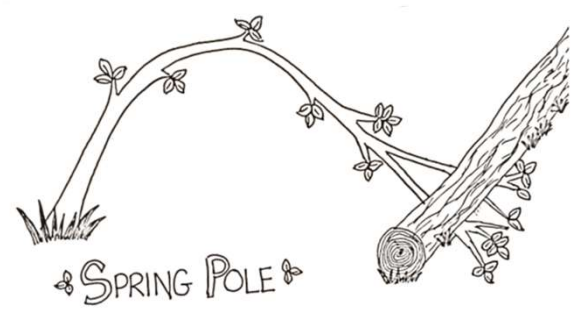
COMMON HAZARDS

- Never stand in a logs path; sawyer works on uphill side
- Give sawyer space to assess; offer suggestions but sawyer decides

Safety Focus: You aren't making the cut—but you could save a life by recognizing the hazard.

27

COMMON HAZARDS

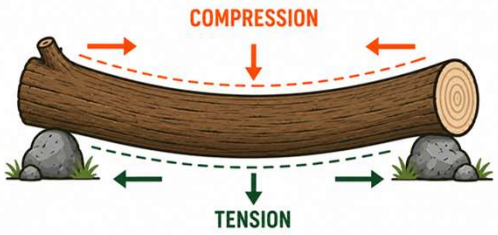


- Watch for spring poles and supporting wood under pressure

Safety Focus: Sometimes the swamper can see things the sawyer can not.

28

STORED ENERGY IN WOOD

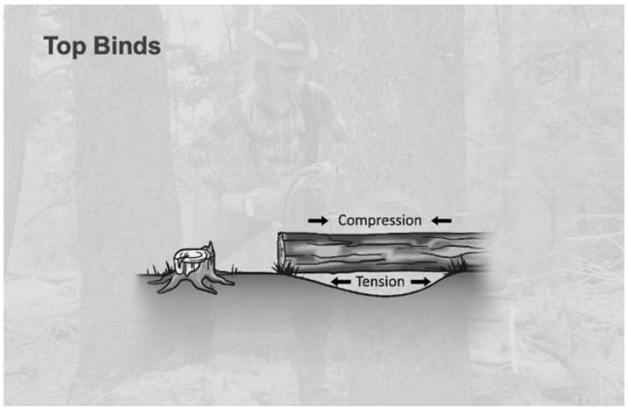


- Logs store energy
  - Binds
  - Compression
  - Tension

Safety Focus: Compression is where a saw will pinch.

29

RECOGNIZING COMPRESSION & TENSION

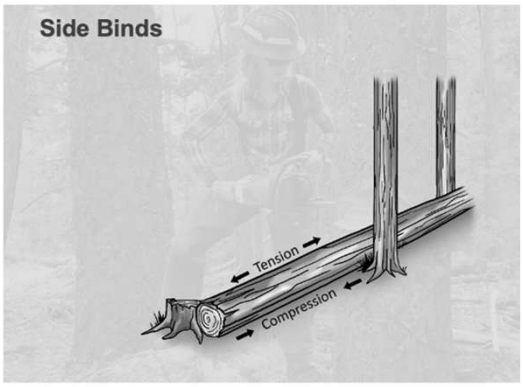


The compression / bind is on the top of the log.
The tension is on the bottom.

The compression / bind is on the bottom of the log.
The tension is on the top.

30

RECOGNIZING COMPRESSION & TENSION



In side bind, tension is exerted sideways along the log. This is a dangerous situation - when severed the log has tremendous potential to move fast and with great force.

In end bind, weight compresses the entire cross section of the log. The kerf can close with any cut. Wedges are imperative.

31

STORED ENERGY IN WOOD

- Watch for log movement before, during, after the cuts
- Note the kerf

Safety Focus: Kerf is the slot or gap left in the wood by the chainsaw when it removes material.

32

BASICS OF THE SAW

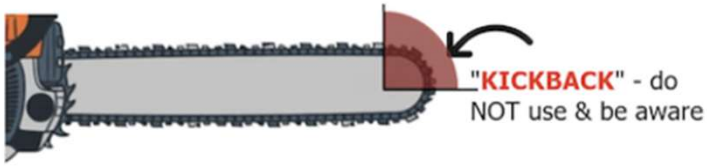
How to stop the saw

- Husky is down
- STIHL is up

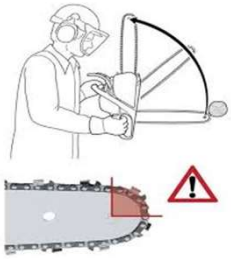
Safety Focus: Have your sawyer show you how to turn off the saw in case of emergency.

33

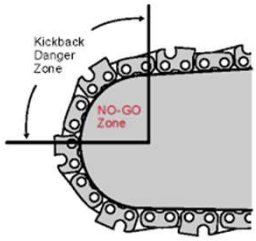
BASICS OF THE SAW - KICKBACK



Kickback: Sudden backward/upward saw motion when the bar tip hits an object, causing loss of control and possible injury.



Chainsaw kickback – Do not cut with tip of saw.



Safety Focus: Saws are safest with kickback reducing chain or green chain.

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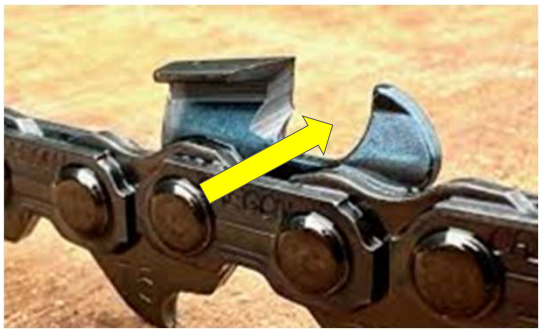
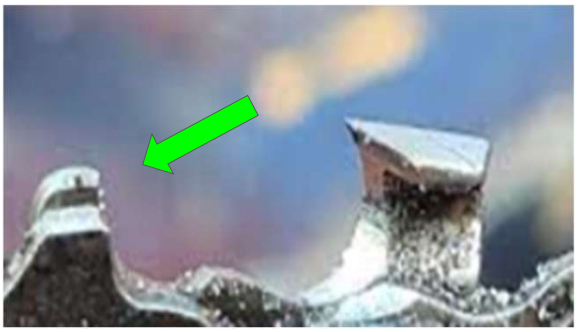
BASICS OF THE SAW CHAIN

YELLOW CHAIN / PROFESSIONAL CHAIN



GREEN CHAIN / SAFETY CHAIN



Safety Focus: Recommended chain is GREEN CHAIN / SAFETY CHAIN.

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REVIEW AND Q&A

- KEY TAKEAWAYS
- SCENARIO REVIEW
- QUESTIONS
- RESOURCES

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KEY TAKEAWAYS

SWAMPER CHECKLIST

- ☐ PPE inspected
- ☐ JHA & emergency response plan completed
- ☐ Hazards identified
- ☐ Communication established
- ☐ Work zone controlled
- ☐ Maintain situational awareness
- ☐ Stop work when conditions become unsafe

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SCENARIO REVIEW

What action should be taken when:

A hiker approaches during cutting?

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SCENARIO REVIEW

What action should be taken if:

Other crew or helpers move in the safety zone wanting to help?

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SCENARIO REVIEW

What action should be taken when:

You or your sawyer becomes sluggish and overexerted?

40

SCENARIO REVIEW

What action should be taken when:

You see a hazard that was missed such as a widowmaker overhead?

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QUESTIONS

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RESOURCES

National Park Service
North Country National Scenic Trail
Job Hazard Analysis

1. Work Project/Activity	2. Location	3. Originator	4. Job Title
*CHAINSAW OPERATIONS**	*North Country NST*	*Nicole Loiseau*	*Volunteer Program Manager*
5. Name of Reviewer	**6. Job Title**	**7. Date Prepared/Revised**	**8. Number of Pages in this JHA**
Chris Loudenslager	*Superintendent*	*4/28/2021*	*3*

**This JHA is intended for saw operators and swampers.*

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
General Chainsaw Operations	Injury due to lack of training	○ All operators must be trained, evaluated, and certified in accordance with either National Park Service or US Forest Service chainsaw policy. ○ All saw operators must complete Trail Safe! or attend Operational Leadership. ○ All saw operators must be trained and certified in first aid and CPR.
	Delayed/no medical treatment in the event of an emergency	○ Saw operations must have reliable primary and alternate means of emergency communications to contact 9-1-1 and/or other critical assistance at all times. ○ All saw operators must work with at least one other person who is first aid and CPR certified. ○ First aid station adequately equipped for the type of work and size of crew must be within 100 feet of chainsaw operations.
Pre-Operation Briefing with Tailgate	Accident facilitated by unidentified hazards or poor communication	○ Discuss operational plan, site safety plan, and emergency action plan before starting work. ○ Identify roles of each person involved in operation. ○ Review JHAs associated with the work to be performed. ○ Identify and discuss local conditions, specialized equipment that may be used for the project, potential hazards, and how will work be conducted safely given these factors.
Chainsaw Maintenance PPE: ○ Eye Protection ○ Leather gloves	Critical safety feature fails to prevent accident	○ Ensure 9 critical safety features of saw are present and functional before starting saw. ○ Do not use saw if any are damaged or not functioning properly.
	Poor saw performance or otherwise unsuitable equipment creates extreme reactive forces	○ Ensure chain is sharp and depth gauges are at the proper height. ○ Ensure guide bar is straight and chain groove is not flared. ○ Ensure chain specs correspond with saw and guide bar.

- Position description
- Job hazard analysis
- Emergency response plan
- Near miss and injury reporting

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CONTACT PAGE

Nathan = 608-844-0462
Holly = 218-851-1885

Email us questions at:
fsichainsawsafety@hotmail.com

www.fsichainsawsafety.com
fb.com/fsichainsawsafety
instagram.com/forestsafetyinstruction

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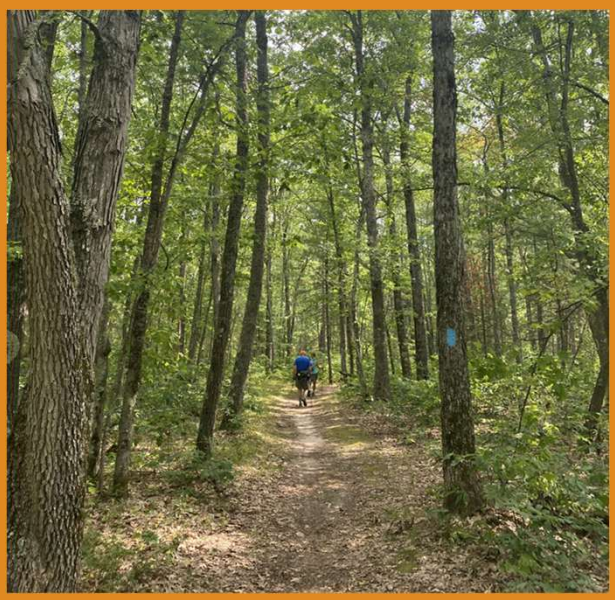
FOREST SAFETY INSTRUCTION LLC

THANK YOU FOR SUPPORTING SAFE TRAIL OPERATIONS!



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Swamper Volunteer

North Country National Scenic Trail

Introduction

This National Park Service (NPS) volunteer position is based along the North Country National Scenic Trail (Trail), the longest of 11 national scenic trails stretching more than 4,600 miles from Vermont to North Dakota. The NPS volunteer is responsible for performing work associated with chainsaw and crosscut saw operations and *will not be required to perform any task that is beyond physical limits or training.* The volunteer is responsible for complying with safety policies, completing projects according to trail standards, caring and maintaining equipment, working cooperatively with others, and fostering a safe, inclusive, and positive work environment. The volunteer should coordinate projects with chapter sawyers, and/or chapter trail maintenance coordinator or chapter leadership as appropriate.* Volunteer policy questions should be directed to the NPS volunteer program manager.

This position requires the volunteer to read and acknowledge the Personal Safety and Saw Operations Job Hazard Analyses on the Volunteer Service Agreement.

Crosscut sawyer and chainsaw sawyer activities are not covered under this position. Volunteers who wish to act as a sawyer must meet all sawyer training requirements and sign up under the sawyer position description.

Requirements for Swamper Volunteer Position

If serving as the sawyer's "second person", the swamper volunteer must receive and maintain first aid and CPR certification. Training must include an in-person skills evaluation by a certified instructor. Certification must be renewed every two years.

Major Duties

- Address safety concerns and participate in safety talks at the beginning of each workday, including establishing and reviewing a 1) Safety and Emergency Response Plan, 2) site communications plan (hand signals, whistles, etc), 3) posting lookouts to secure the work zone, and 4) the role of the swamper.
- Assist sawyer with controlling the work zone and for ensuring the safety of all personnel and resources.
- Act as an extra set of eyes for the sawyer while they are operating the saw: be on the alert for others entering the work zone, unseen obstacles/hazards within the work zone, tree movement as cutting progresses, and other safety concerns.
- Ensure work is performed safely and within prescribed NPS standards.
- Follow proper safety procedures when handling tools and maintain safe distancing when working around others and equipment.
- Monitor site conditions, environmental conditions, sawyer's fatigue and mental sharpness, and crew members' fatigue throughout the day and stop work if needed.
- Assist the sawyer by helping transport, saws, fuel, tools, and other equipment to the work site.
- In consultation with the sawyer, other certified sawyers, and/or other crew members, conduct pre-operational risk assessment of project before beginning work; develop a plan to mitigate risks, and proceed only if risks and project complexity fall within the sawyer's level of certification and comfort level.
- Assist the sawyer by pulling limbs and woody debris away from the immediate work area.
- Ensure the site is "naturalized" and made safe after saw operations have been completed: collect trash and other materials; stumps and stems are flush-cut with the ground; branches, logs, and other debris moved well off the trail and dispersed; cut ends of limbs and logs pointed away from the trail as possible; remove loose hanging branches; flag any overhead hazards that cannot be safely removed.

Physical Demands

- May require walking five or more miles on uneven surfaces and variable terrain. Foot travel may be along completed trail, unfinished trail, or cross-country.
- May require standing for extended periods of time
- Requires carrying full kit of tools, equipment, fuel, water, and PPE to work zones.
- Requires carrying additional personal items such as small electronic devices, food, insect repellent, etc.
- Requires physical effort in reaching, bending, turning, or moving hands, arms, feet, and legs.
- Requires lifting, carrying, pushing, and pulling up to 50 pounds on uneven surfaces.
- Requires physical effort and coordination in operating tools.

Work Environment

Most projects will take place outside in all types of weather conditions. Weather can be unpredictable and can change quickly. The area experiences thunderstorms, high winds, rain, snow, ice, high heat, high humidity, and extreme cold. The Trail is also home to a number of insects including biting flies, mosquitos, and ticks, as well as bear, feral dogs, and other potentially dangerous animals.

Safety Considerations

Safety is the number one priority! It is the individual responsibility of every volunteer to watch for hazards or unsafe operations and to call for an immediate work stop if safety is compromised. Watch out for each other; Everyone is empowered to speak up.

Work may involve walking, carrying loads over long distances, and using a variety of hand and powered tools; and frequently involves the possibility of exposure to overhead hazards, poisonous plants, blisters, bruises, muscle strains, cuts and scrapes, sunburn, and insect bites. To protect against potential hazards and serious injuries, the volunteer must follow proper safety procedures and use PPE as prescribed for projects. All injuries and near misses must be reported to Volunteer Program Manager Nic Loiseau at 616-302-9842 and the RTC* immediately following the incident or as soon as safely possible if treatment is needed.

Each saw operation must include a “safety station” within 100 feet of the work zone that contains a first aid kit suitable for the current chainsaw operation and associated crew size, and a Safety and Emergency Response Plan.

Personal Protective Equipment (PPE)

PPE must be worn as prescribed as described in the Job Hazard Analysis to perform assigned tasks and based on the project site, local policies, and local conditions. At a minimum, all NPS volunteer swampers must wear:

- Sturdy leather work boots
- Long pants
- Long sleeve shirt
- Hard hat (meets or exceeds ANSI Z89.1; recommended no more than five years old)
- Eye protection (meets or exceeds ANSI Z87.1)
- Hearing protection (meets or exceeds ANSI Z133.1)
- Leather, Kevlar, or similar work gloves
- Chainsaw chaps (meets or exceeds ASTM F-1897 or USFS 6170-4F), if working within 10’ of running saw
- Face shield (recommended)

Scope of Contacts
Volunteer will have regular contact with Trail volunteers and staff, and potential contact with trail users, landowners, partner agency staff, and the public.

General Knowledge, Skills, and Abilities Associated with the Position

- CPR and first aid certified.
- Completion of Trail Safe! or NPS Operational Leadership training (recommended).
- Chainsaw training (recommended).
- Knowledge of Trail chainsaw policies and standard operating procedures.
- Knowledge of chainsaw functional operation and safety features.
- Skill in maintaining chainsaws, associated tools, and PPE.
- Ability to identify potential hazards, evaluate project complexity, and conduct pre-work risk assessments.
- Skill in identifying and accounting for reactive forces that exist during saw operations.
- Skill in estimating tree heights, diameter, and lean.
- Skill in identifying tree defects that my affect safe saw operations.
- Skill in employing a variety of cutting techniques to cut notches, release binds, release spring poles, and other project-specific purposes.
- Ability to hike up to five miles on various terrain and perform strenuous physical labor.
- Ability to work as part of a team.
- Ability to safely operate and maintain hand and power tools in a safe and acceptable manner.
- Ability to understand and follow oral and written instructions.
- Ability to tolerate a variety of weather and working conditions.

Recommended Training or Certifications

- Trail Safe! online safety training or NPS Operational Leadership.
- Chainsaw training.
- Standard first aid/CPR training.
- Advanced first aid/CPR training such as Wilderness First Aid, First Responder, etc.
- Read and understand the *Handbook for Trail Design, Construction, and Maintenance*
- Watch the videos in the resource center on the NCTA website.
- If seeking to become a sawyer, receive on-the-job training from experienced, certified sawyers to develop knowledge, skills, and experience.

Personal Vehicles
If they possess a current and valid driver's license, swamper volunteers are authorized to use their personal vehicle for the following activities:

- Towing a North Country Trail tool trailer.
- Driving from an establish centralized group meeting location to a different work site.
- Shuttling other volunteers from one worksite to another.

Reimbursement

- Reimbursement will be provided for first aid and CPR training (reimbursable expense through NCTA).
- Swamper volunteer *may* be reimbursed for advanced first aid/CPR training (requires additional approval and is dependent on available funding).
- Volunteer will not be reimbursed for mileage, saw gas, oil, or other expenses.

Benefits to the Volunteer

- Opportunity to become part of the Trail's history, and to support and contribute to nation's longest national scenic trail, the National Trail System, and the National Park Service as an official NPS volunteer.
- Volunteer is eligible for an America the Beautiful Volunteer Pass after accumulating 250 hours or more, unless they already possess an America the Beautiful Pass Senior, Assess, or Military Pass.
- Receive recognition items for hours of service.
- Training opportunities as it relates to maintaining the trail.
- Resume builder and hands-on experience.

Program Administration

The North Country National Scenic Trail Volunteer-In-Parks (VIP) program is co-managed by the National Park Service and North Country Trail Association. Physical volunteer forms are kept in a locked cabinet at the NPS office in Lowell, Michigan. Electronic data is stored in Blackbaud Raiser's Edge (a platform managed by NCTA) to allow for volunteer hours and award tracking.

NPS Anti-Harassment Policy

The National Park Service (NPS) is committed to providing a work environment free from discrimination and harassment based on race, color, religion, sex (including pregnancy and gender identity), sexual orientation, national origin, age, disability, family medical history (including genetic information), status as a parent, marital status, political affiliation, and one that is free from and illegal retaliation. The NPS will not tolerate offensive sexual or non-sexual harassing behavior against any NPS employee, intern, volunteer, contractor or other nonfederal employee, visitor, or other member of the public. The NPS also will not tolerate adverse treatment of employees or volunteers because they report harassment or provide information related to such complaints.

Safe behavior is considered a condition of volunteering with the NPS. Volunteers are expected to adhere to all park policies, management directives, and best practices regarding safety. Volunteers are expected to speak candidly if they are concerned about the level of risk they observe and bring any safety concerns to the volunteer program manager's attention, either directly or anonymously. Volunteers will participate in required safety trainings and fully adhere to policies and programs designed to assist them in performing work safely. Failure to follow directives related to safety may result in termination.

Additional information regarding this policy can be found in NPS Director's Order 16E, NPS Anti-Harassment Policy, that is available on the North Country Trail Association website.

Please acknowledge that you have read and received a copy of this SWAMPER Position Description on the Volunteer Service Agreement (OF301a.)

****Volunteers associated with a Trail affiliate should coordinate and contact leadership within their organization.***

5/5/2021

National Park Service
North Country National Scenic Trail
Job Hazard Analysis

1. Work Project/Activity	2. Location	3. Originator	4. Job Title
PERSONAL SAFETY*	***North Country NST***	***Nicole Loiseau***	***Volunteer Program Manager***
5. Name of Reviewer	**6. Job Title**	**7. Date Prepared/Revised**	**8. Number of Pages in this JHA**
Chris Loudenslager	***Superintendent***	***4/2/21***	***8***

**This JHA is intended for trail construction and maintenance, trail support, sawyer, and swamper volunteers.*

General Safety Topics & Hazards

Covid-19 & Other Close Contact-Related Diseases	○ Follow Center for Disease Control and Prevention, local, and NPS/North Country Trail Association guidance. ○ Stay home if you are not feeling well and/or have been exposed to someone with the virus. ○ Wear a mask that covers both mouth and nose. ○ Maintain a six-foot distance from others. ○ If carpooling, all occupants must be masked. ○ Clean and disinfect vehicles, tools, and equipment before you use them. Clean tools and equipment once you finish with them. Clean and disinfect frequently touched objects and surfaces using generally available household cleaners or EPA registered disinfectants. ○ Avoid touching your eyes, nose, and mouth. ○ Wash your hands often with soap and water for at least 20 seconds. When handwashing facilities are not available, use hand sanitizer that contains at least 60% alcohol.
Situational Awareness	○ It is highly recommended to take Trail Safe!, a self-paced online safety training. ○ Be aware of your surroundings, potential hazards, and the whereabouts of others. ○ Communicate with others. ○ Let other team members know when you see a hazard. Avoid working near known hazards. ○ Yell "STOP" if you see a hazard. ○ Listen for the Alarm (L.F.T.A.) often subtle, internal warnings about unsafe acts are received before an incident occurs. Tune in to this warning which is often manifested as an uneasy feeling or idea that something is wrong. This feeling is diminished when we are in such a hurry or are so preoccupied that the matter distracts us from feeling different when faced with an unsafe situation. Listen for the Alarm and heed the warning the first time. Slow down and remain focused on the task at hand. ○ Step Back, Think, Organize, Proceed (STOP). Step back and consider all aspects of the task. Think about what you are about to do. Organize the task and others to ensure quality of task accomplishment. Proceed in a determined effort to accomplish given tasks in a safe manner.
Personal Protective Equipment (PPE)	PPE is equipment worn to minimize exposure to hazards that cause serious injuries. Examples include the following: ○ *Gloves* – Offer protection from hand injuries and exposure. Leather gloves should be worn while using and carrying hand tools and power equipment. ○ *Sturdy work boots or trail shoes* – Offer protection from foot injuries and exposure. Appropriate closed toe footwear is required: open toe shoes such as sandals are prohibited.

	○ *Safety eyewear* – Offer protection from eye injuries. Appropriate eyewear should be worn when there is a potential for flying debris, dust, or other material hitting or getting into the eye. This includes, but not limited to, using hand and power tools, painting, and working next to vegetation. Eyewear should meet or exceed ANSI standard Z87.1. ○ *Hard hats* – Offer protection from head injuries. Hard hats should be worn when there is a possible danger of head injury from impact, falling, or flying objects. ○ *Ear protection, such as ear plugs and earmuffs* – Offer protection from hearing loss. Wear hearing protection when operating power tools and other loud equipment. ○ *High-visibility retro-reflective clothing and/or vests* – Bright, reflective clothing helps ensure people are notice by others when visibility is reduced or in areas where people may be distracted or otherwise not expecting/looking for others to be present. Should be worn by all volunteers, employees, and outdoor recreationalists during hunting seasons. Highly recommended for sawyers and swampers doing saw work; Should also be worn while working on or along roads, parking areas, and other hazardous areas.
Communication/ Emergency Action Plan	○ Address safety concerns and conduct safety talks at the beginning of each workday, including establishing an emergency action plan. At a minimum, the plan shall identify what actions will be taken in the event of an incident, who is first aid and CPR certified, where first aid supplies are located, how to call for emergency assistance, and the location of the nearest hospital and how to get there. ○ Establish means of communication. Communications must be clear, concise, and understood by everyone involved. ○ Good communication between volunteers should reinforce individual awareness of potential hazards.

Overexertion	○ Be aware of the risks of physical stress associated with physically demanding foot travel and work projects. These include, but are not limited to:
	  ○ walking long distances
	  ○ traversing challenging terrain
	  ○ carrying heavy loads/packs
	  ○ pushing/pulling loaded wagons/carts to project sites
	  ○ walking through deep snow and/or with snowshoes
	○ Be aware that any work project will be physically demanding if already fatigued, suffering from overexertion, suffering from effects of heat, etc.
	○ Pace yourself. Start slowly and pick up the pace gradually. If your heart pounds and leaves you gasping for breath, STOP all activity, get into a cool area (or at least in shade), and rest, especially if you become lightheaded, confused, weak, or faint.
	○ Adjust to the environment. You will have greater tolerance for the heat if you limit your physical activity until you become accustomed to the heat.
	○ On hot/humid days, when completing moderate and heavy outdoor work, and when projects involve the use of machinery, tasks should be assigned to the cooler parts of the day.
	○ The severity of the effects of environmental heat stress is decreased by reducing the workload, increasing the frequency and/or duration of rest periods, and by introducing measures that will protect from hot environments. Take more frequent rest breaks. When hot, take rest breaks in a cooled or air-conditioned building whenever possible.
	○ ALL PROJECTS CAN BE COMPLETED ANOTHER TIME. Your safety is most important.

Site Hazards	○ Look up. Look down. Look all around. Inspect the area prior to beginning any project or task to identify any site hazards including, but not limited to overhead hazards, patches of noxious plants, pits/holes, dump sites, meth sites, steep banks. ○ Point out the hazard(s) to other volunteers working in the area. ○ Flag/fence off hazard and avoid area.

Slips, Trips, and Falls	○ Inspect the area prior to beginning any project or task. ○ Remove objects that could impede safe operations. ○ Be familiar with walking surfaces. ○ Always watch your footing and be aware of wet or frozen surfaces. ○ Wear footwear with good traction that matches the site conditions. Change footwear to meet site conditions, and/or use supplemental traction devices such as traction cleats, crampons, etc.
Rendering First Aid	○ Control bleeding kits and emergency first aid kits shall be available at all project sites. ○ For seriously injured or ill volunteers needing advanced life support and transport, notify 911, and render first aid until a medical first responder takes over care. ○ Notify the NPS volunteer program manager as soon as the injured party is safe. Complete the paperwork provided in the accident reporting kit.
Tick Bite Prevention and Treatment	○ Spray clothing, exposed skin, and ankles with insect repellant as a barrier. ○ Wear light colored clothing that fits tightly at the wrists, ankles, and waist. Cover trouser legs with high socks or boots. ○ Avoid grassy areas if possible. ○ Search clothing and the body on a regular basis, especially hair and clothing; Ticks generally do no attach for the first couple of hours. ○ If a tick becomes attached, pull it by grasping it as close as possible to the point of attachment and pull straight out with gentle, consistent pressure. Wash skin with soap and water. Then cleanse with rubbing alcohol. Place the tick in an empty container for later identification should you have a reaction. Record dates of exposure and removal. ○ Do not try to remove the tick by burning it with a match or covering it with chemical agents. ○ If you cannot remove the tick, or the head detaches, seek prompt medical help. ○ Watch for warning signs of illness: a large red spot on the bite area, fever, chills, headache, joint and muscle ache, significant fatigue, and facial paralysis are reactions that may appear within two weeks of the bite. Symptoms specific to Lyme disease include confusion, short-term memory loss, and disorientation. ○ Report all tick bites to the NPS volunteer program manager.
Mosquito Bite Prevention and Treatment	○ Avoid heavy scents. ○ Wear long sleeves and pants. Mosquito head nets may also be valuable in some instances. ○ Use insect repellants. ○ Avoid scratching.
Bee/Wasp Sting Prevention and Treatment	○ Be alert to bees and hives. Watch for insects traveling in and out of one location. ○ If you or anyone on the team is known to have allergic reactions to bee stings, tell a competent person and the rest of the crew. Ensure anyone allergic to bee stings always carries emergency medication with them, and others know where it is located. ○ If you are stung, applying a cold pack may bring relief. ○ If a stinger is left behind, scrape it off the skin. Do not use tweezers as this squeezes the venom sack, worsening the injury. ○ If the victim develops hives, asthmatic breathing, tissue swelling, or a drop in blood pressure, seek medical help immediately. ○ Watch for respiratory problems.
Sun/Heat Exposure	○ Check the forecast. Cancel or postpose plans/projects in the event of extreme weather or temperatures. *Sunburn* ○ Apply sunscreen (SPF 15 or higher) when exposed to sun and reapply at least every two hours. ○ Wear long sleeve shirts, long pants, and appropriate headwear to protect skin.

	Dehydration o Wear loose fitting clothing, preferably closely woven fabrics of light colors. o Maintain adequate water intake by drinking water periodically in small amounts throughout the day (about a cup of cool water every twenty minutes). Some over hydration is strongly recommended while continuing to eat throughout the day. o Increase the amount of cool water and appropriate cool drinks (fruit juices and/or sports drinks) to replace sweat loss and to avoid dehydration. o Avoid coffee and tea which contribute to dehydration. Sugary drinks such as soda should be avoided. o Carry more water than you think you will need when doing field work. The amount of water needed during a workday may vary depending on duration in the field, tasks at hand, and weather. *Long-term heat exposure* o Remain aware of the four basic factors that determine the degree of heat stress: air temperature, humidity, air movement, and heat radiation relative to the surrounding work environment. o Know the signs and symptoms of heat exhaustion, heat cramps, and heat stroke. Heat stroke is a true medical emergency requiring immediate emergency response action.
Cold Exposure, Windchill, & Snowy/Icy Conditions	o Check the forecast. Cancel or postpose plans/projects in the event of extreme weather or temperatures. o Be alert to changes in weather while outside. o Wear the appropriate clothing and carry extra warm clothes. o Stay well hydrated and eat high calorie foods to help maintain body heat. o Watch out for ice. Wear traction devices to avoid slipping in icy conditions. o Try not to sweat or become too tired. o Avoid bodies of water or becoming wet. o Carefully watch for signs of cold-weather health problems, like hypothermia and frostbite.
Lightning	o Although most common in the summer, thunder and lightning can occur anytime. o Check your local weather and plan field time accordingly to avoid storms. o If you can see lightning, seek shelter immediately. If you can hear thunder stop all field work and reach safety before the storm hits. Use "30-30 Rule": If time between strike and thunder is less than 30 seconds, SEEK SHELTER. o If caught in a storm away from your vehicle, try to find some form of enclosed building or shelter. DO NOT seek shelter under large trees or in open areas. Seek shelter in low lying areas such as a ditch. Avoid high elevations, open areas, tall objects, single trees, and falling tree hazards. Avoid wet ground and water sources. Sit on pack. Pile tools together and stay clear. (When in groups, spread out at least 15 feet apart.) o When seeking shelter in a building, make sure all windows are closed. o If caught in a storm near a vehicle, return to the vehicle and stay inside while the storm is active. Park the vehicle in a low area away from trees. o **Allow 30 minutes after last thunder before leaving shelter.**
Wildlife Encounters	o Know the wildlife in your area, where they may be, what they may be doing each season, and when they are most active. Avoid places where predators are likely to be, such as berry patches and near dead animals. Know that all wild animals are unpredictable. o Stay alert to your surroundings. Avoid startling a predator; Where sight distance is limited or flowing water is muffling sounds, make noise by singing or clapping hands. Be especially alert if hiking around dusk or dawn.

	Black bear encounters o DO NOT RUN! This may only instigate the bear's instinct to chase a moving target. Food, like deer or small animals, run away. If you run, you look more like food to the bear. o Stay calm. If you see a bear and it hasn't seen you, calmly leave the area. As you move away, talk aloud to let the bear discover your presence. o Back away VERY SLOWLY if the terrain allows. Bears rarely attack people unless they feel threatened or provoked. o Be BIG! Place your arms over your head, lift backpacks over your head, or open your jacket wide. o Don't turn your back. You should be aware of what the bear is doing. o Don't make eye contact. Instead, look at the animal's front feet. You will then always know where the bear is standing and what direction it is moving. o Small children: Put them behind you or directly in front of you. This makes them look instantly larger. Teach children to get next to you immediately if you encounter a bear while hiking/working. NEVER let children out of your sight. Children are small enough that they may be identified as prey for a bear or other predator. Make sure your children know what to do if they see a bear. o Speak softly. This may reassure the bear that no harm is meant to it. Try not to show fear. o If attacked, fight back. Use anything you have close to you such as rocks, sticks, binoculars, walking sticks, and your fists.
Encounters with Illegal Activity	o Be alert. Watch for threatening behavior from others or signs of illegal activity in an area such as dump sites, clandestine grow sites, etc. o If you see something suspicious, gather was much information as you can without putting yourself in harm's way. Retreat to a safe location immediately, write down the details that you can remember, and call 911. o If you are at all uncomfortable with a situation, turn around and leave the scene immediately- abandon your equipment if necessary. o Volunteers shall not attempt to enforce laws or policies, investigate suspicious activity, prevent damage to land or resources, or otherwise take action to confront unknown individuals engaging in inappropriate activities. This is outside of the scope of volunteer service. Volunteers may provide information and attempt to educate others to protect people or resources, but take no action beyond this. Do not aggravate the situation by arguing with others or trying to prevent them from continuing what they are doing. Any further action shall be limited to calling 911 and retreating to a safe location as the situation warrants. o Follow up with local law enforcement, NPS, and NTCA staff to report the incident.

Tasks/Procedures & Hazards

Task/Procedure & Required PPE	Potential Hazards	Recommended Actions or Procedures
Walking to/from and working around project site **PPE:** o Sturdy work boots or trail shoes	Slips, trips, and falls; Twisted ankles and knees; Poor footing	o Always watch your footing and be attentive to trip hazards. o Don't be preoccupied while walking. o Plan your day so you don't have to rush over uneven terrain. o Inspect the area prior to beginning any operation. o Remove objects that could impede safe operations. o Be familiar with walking surfaces.
	Struck by tools while walking	o Maintain safe distance/spacing while walking. o Use tool guards, if available.

○ Eye protection		○ Carry tool at your side below the waist, parallel to ground, gripped at balance point behind tool head, with head forward and with sharp edge down & on down-slope side. ○ Do not carry tools on your shoulders or across your body.
	Damage to eyes	○ Watch where you walk and work, especially around trees and brush with limbs sticking out.
Litter collection **PPE:** ○ Leather and nitrile gloves ○ Sturdy work boots or trail shoes ○ Pants ○ High-visibility reflective vest	○ Slips, trips, and falls ○ Cuts and scraps ○ Straining back, arms, or other body parts ○ Contact with bodily fluids ○ Contact with hazardous materials	○ Be aware of surroundings and potential slipping, tripping, and falling hazards. ○ Wear leather and nitrile gloves. ○ Bend at the knees when lifting. Use teamwork when carrying heaving items. ○ Do not overfill trash bags. ○ Use long-handled tools to move objects; Don't place hands or feet where you cannot see. ○ Do not place any needles directly into trash bags. Use caution when putting needles and other sharp objects in a Sharps container.
	Feet or legs wedged between debris in dump pile; Stepping on hidden sharp objects	○ Work from outside of dump site toward the center. ○ Keep feet on solid ground ○ Wear PPE.
	Exposure to hazards associated with marijuana plantations, active or abandoned meth labs, etc.	○ Be familiar with the characteristics of meth labs/dump sites. Do not approach any suspected meth site: immediately evacuate all personnel from the site following the route you came in on and call 911. ○ Be observant for things that are suspicious or out of place (trip wire strung across path, irrigation hose lays, evidence of fertilizer activity/trash, strong chemical odors, dump sites that include items such as propane tanks, acetone, shredded lithium batteries, lye/drain cleaner, coffee filters, cold medicine packages, etc. ○ Immediately leave the area and call 911, then notify NPS and NCTA.
	Vehicle traffic along the roadside and parking areas	○ Wear a high visibility safety vest for all work along any roadway or parking areas. ○ Face oncoming traffic. ○ Look both ways before crossing the road. Use crosswalk where available. Wait for traffic to clear before crossing.
Operating a motor vehicle	Exposure to possible vehicle deficiencies, or vehicle not in proper working order	○ Conduct a safety walkaround of vehicle to inspect tire inflation, discover fluid leaks, ensure gas and oil levels, and adjust mirrors. ○ Familiarize yourself with vehicle controls if you have not operated that vehicle before.
	Potential motor vehicle accidents	○ All persons operating a motor vehicle must be licensed and legal to do so. ○ Never operate a vehicle under the influence of alcohol, drugs, or medication. Follow warnings on prescription medicine labels regarding the ability to drive. ○ Do not attempt to drive if improperly rested. ○ Always wear seat belt and shoulder harness. ○ Cell phone use is prohibited while driving. ○ Obey the speed limit. ○ Always signal turns and lane changes.

		○ Maintain proper spacing and following distances from other vehicles. ○ Stop for rest breaks as necessary. ○ Secure loose objects inside the vehicle that may strike/injure you or passengers during emergency stopping or maneuvering. ○ Be alert to wildlife crossing roadway, particularly at dawn, dusk, after nightfall, and periods of increased animal movements at any time of the day (i.e. hunting and mating seasons). ○ Do not drive in adverse weather conditions if trip can be delayed.
Trailering **PPE:** ○ Leather gloves ○ Sturdy work boots or trail shoes	Vehicle and equipment failure	○ Ensure loads do not exceed trailer rating. ○ Ensure loaded trailer does not exceed towing/braking rating of the vehicle used to tow the trailer. ○ Proper tire pressure should be maintained on towing vehicle and trailer. (Recommended PSI located on side wall of tire.) ○ Always inspect vehicle tires for any abnormal wear and tear prior to each use. ○ Hitch and electric light hookup of towing vehicle should be maintained and kept clean. Inspect prior to each use. ○ Tow vehicle must have a secure place for the chains to be attached. ○ Inspect trailer prior to each use. Check welds on trailers for cracks, trailer safety triangle should be visible when ramp is in closed/up position, trailer license plate should be properly attached, and tires inspected for any abnormal wear and tear prior to each use. ○ Coupler, spring coupler, tongue jack, and electric light hookup should be maintained and kept clean and lubricated. ○ Ensure that bearings are inspected and greased as needed. ○ Spare tire(s) for both the trailer and towing vehicle and necessary tools for changing tires (to include adequate jacks) must be available when towing trailers.
	Injuries when connecting/disconnecting the trailer to the tow vehicle: pinching fingers, crushing toes, back strain, carbon monoxide inhalation	○ Ensure that the tongue of the trailer is higher than the ball on the truck before backing the truck to the trailer. ○ Ensure that towing vehicle is not running. Minimize exposure to carbon monoxide. ○ Trailer jack should always be in locked position, whether in horizontal position for towing or in vertical position for raising and lowering trailer. ○ Be aware of your/others' hand placement while lowering the coupler to the hitch ball. ○ Wear gloves, work boots, and eye protection to minimize potential for severe injury. ○ To avoid back strain, do not lift trailer. Use attached jack to raise and lower the trailer coupler onto the hitch ball. Never use fingers to guide hitch ball into coupler. Verify that the ball is the proper size for the coupler. ○ Ensure that the spring coupler is locked in down position and that a coupler lock is secured in place. ○ Attach safety chains properly to hitch rings. Cross the chains beneath the coupler-right chain to left hitch ring and left chain to right hitch ring. In the event of

		separation, the cross over may catch the tongue and prevent serious accident and trailer damage. o Make sure the pin securing the ball mount to the receiver is in place. o Connect light plugs and make sure that all lights (brake and turn signals) are in working condition on trailer. o Avoid connecting the trailer in low light conditions. If necessary, wear a headlamp and get a second person to assist and do an inspection.
	Personal injury and back strain when loading and uploading equipment	o Minimize the angle of ramp(s) as much as possible. Trailer should be on a level surface when loading and unloading equipment. o Ask for assistance if/when needed. o Ensure that the equipment is securely attached to the appropriate vehicle. o Before loading, check that the truck is in park and brakes are engaged on the truck. o Ensure proper loading on the trailer: front to back and left to right per the manufactures trailer manual. o Avoid attempting to load in low light conditions.
	Equipment weight shifting while traveling and tie down straps breaking or malfunctioning	o Inspect ratchet straps for wear and tear, fraying or cuts, and replace as needed. Do not use damaged straps as damaged straps may not hold during an emergency. o The sum of the working load limits from all tie downs must be at least 50% of the weight of the cargo. (Minimum strap requirement recommended.) o Always carry extra ratchet straps. o Ensure that all ratchet straps are tight and locked down securely. o Tie up any excess ratchet strap. (If an end of the strap should be run over by the tire of the trailer while in motion, it may result in a large jolt of the trailer, loosening of other straps or potential loss of the load). o Items other than flat loads (boards, panels, etc) must be secured at four points of contact: front, rear, right, and left. o Heavier loads may require chains and binders/tightening system.
	Injury to people in path, hitting objects, and jackknifing while backing	o Physically inspect the backing path, identifying any potential obstacles, and ensure a safe route. o Use a spotter when available to help guide you and increase safety awareness while backing. o Align vehicle and trailer prior to backing. It is easier to back up a trailer in a straight line. o Avoid making sharp turns. o If you must back up the trailer at an angle, position the trailer to be backing up to the left. (Due to the position of the driver in the towing vehicle, there is better visibility on trailer if it is backing to the drivers' side.) o Practice with empty trailer before towing with a load.

Please acknowledge that you have reviewed this **PERSONAL SAFETY** hazard analysis and understand the hazards and required precautionary actions on the Volunteer Service Agreement. Please notify the volunteer program manager if you are unable to follow the requirements of this hazard analysis.

National Park Service
North Country National Scenic Trail
Job Hazard Analysis

1. Work Project/Activity	**2. Location**	**3. Originator**	**4. Job Title**
CHAINSAW OPERATIONS*	***North Country NST***	***Nicole Loiseau***	***Volunteer Program Manager***
5. Name of Reviewer	**6. Job Title**	**7. Date Prepared/Revised**	**8. Number of Pages in this JHA**
Chris Loudenslager	***Superintendent***	***4/28/2021***	***3***

**This JHA is intended for saw operators and swampers.*

TASKS/PROCEDURES	HAZARDS	ABATEMENT ACTIONS
General Chainsaw Operations	Injury due to lack of training	○ All operators must be trained, evaluated, and certified in accordance with either National Park Service or US Forest Service chainsaw policy. ○ All saw operators must complete Trail Safe! or attend Operational Leadership. ○ All saw operators must be trained and certified in first aid and CPR.
	Delayed/no medical treatment in the event of an emergency	○ Saw operations must have reliable primary and alternate means of emergency communications to contact 9-1-1 and/or other critical assistance at all times. ○ All saw operators must work with at least one other person who is first aid and CPR certified. ○ First aid station adequately equipped for the type of work and size of crew must be within 100 feet of chainsaw operations.
Pre-Operation Briefing with Tailgate	Accident facilitated by unidentified hazards or poor communication	○ Discuss operational plan, site safety plan, and emergency action plan before starting work. ○ Identify roles of each person involved in operation. ○ Review JHAs associated with the work to be performed. ○ Identify and discuss local conditions, specialized equipment that may be used for the project, potential hazards, and how will work be conducted safely given these factors.
Chainsaw Maintenance PPE: ○ Eye Protection ○ Leather gloves	Critical safety feature fails to prevent accident	○ Ensure 9 critical safety features of saw are present and functional before starting saw. ○ Do not use saw if any are damaged or not functioning properly.
	Poor saw performance or otherwise unsuitable equipment creates extreme reactive forces	○ Ensure chain is sharp and depth gauges are at the proper height. ○ Ensure guide bar is straight and chain groove is not flared. ○ Ensure chain specs correspond with saw and guide bar.

Fueling PPE: o Eye protection o Gloves o Long sleeved shirt	Fire hazards from fuel spills, re-fueling a chainsaw while hot, or defective spark arrestor	o Re-fuel chainsaw in designated fueling area only. o Re-fuel only when chainsaw is cool. o Check spark arrestor routinely. Replace if needed. o Re-fuel at least 10 feet from sources of ignition (fire, smokers, heaters, etc). o Start chainsaw at least 10 feet from fueling station.
	Exposure to fuel or fumes	Tilt saw away from face and remove gas gap slowly to avoid potential "geyser" of pressurized fuel spray.
Saw Operations: Operator PPE: o Long pants o Long sleeved shirt o Sturdy work boots o Chainsaw Chaps (USFS 6170-4F, ASTM F-1897, or better) o Hard hat (ANSI Z89.1) o Eye protection (ANSI Z87.1 or better) o Hearing protection (plugs, muffs, or both) o Emergency bandage o Leather work gloves or specialty sawyer gloves (recommended)	Injury resulting from chainsaw contacting body part	o Start chainsaw using leg-lock or ground support method only: "drop start" is prohibited. o Do not operate saw during periods of poor visibility, or when operator is unable to see tip of bar. o Operator shall position his/her body out of the pathway of the chainsaw, kickback, and push-back/pull-in reactive forces. o Operator shall not cut materials with powerhead above shoulder height. o Operator shall engage the chain brake when taking two or more steps or setting saw down. o Operator shall have two hands on the chainsaw with thumbs wrapped around handles at all times during operation. o Space people so the activities of one will not create a hazard for another.
	Personal injury due to being struck or crushed by limbs, trees, and debris	o Watch for overhead hazards. o Always operate chainsaw uphill from log. o Properly assess binds/pressure before cutting. o Watch kerf, watch for movement, and carefully relieve tension. o Position body to avoid unexpected release and have a good escape route.
	Over exertion, physical stress, fatigue, heat exhaustion, and/or heat stroke	o Drink plenty of fluids and stay hydrated. o Eat an adequate amount and bring snacks and/or a lunch to keep energized. o Maintain safe and comfortable work pace. o Plan operations to avoid extreme temperature, humidity, or demanding work when already physically stressed. o Take frequent breaks.
	Injury resulting from slips, trips, and falls	o Wear sturdy, high traction work boots. o Exercise situational awareness. o Always carry the chainsaw on the downhill side of your body with the chain bar facing to the rear.
	Hearing loss cause by prolonged noise exposure	Operator shall wear ear plugs, ear muffs, or both at all times while operating chainsaw.

Saw Operations: Swamper PPE: o Long pants o Long sleeved shirt o Sturdy work boots o Hard hat (ANSI Z89.1) o Eye protection (ANSI Z87.1 or better) o Hearing protection (plugs, muffs, or both) o Leather work gloves or specialty sawyer gloves o Emergency bandage	Back injury	o Use proper lifting techniques. o Use equipment as available to assist. o Ask for help.
	Personal injury due to being struck or crushed by limbs, trees, and debris	o Watch for overhead hazards. o Exercise situational awareness. o Position body to avoid unexpected release and have a good escape route.
	Injury resulting from chainsaw contacting body part	Swamper shall maintain 10' or greater distance from a running chainsaw and not approach sawyer unless the saw is off.
	Over exertion, physical stress, fatigue, heat exhaustion, and/or/heat stroke	o Drink plenty of fluids and stay hydrated. o Eat an adequate amount and bring snacks and/or a lunch to keep energized. o Maintain safe and comfortable work pace. o Plan operations to avoid extreme temperature, humidity, or demanding work when already physically stressed. o Take frequent breaks.
	Injury resulting from Slips trips and falls	o Wear sturdy, high traction work boots. o Exercise situational awareness. o Always carry tools on your down-hill side.
	Hearing loss	Swamper shall wear ear plugs, ear muffs, or both while working near chainsaws.

Please acknowledge that you have reviewed this **CHAINSAW OPERATIONS** hazard analysis and understand the hazards and required precautionary actions on the Volunteer Service Agreement. Please notify the volunteer program manager if you are unable to follow the requirements of this hazard analysis.

Safety & Emergency Response

Pre-Planning

Identify a Tracker.

- A tracker is essential for those working alone and for two-person crews. If three or more VIPs are on site, having a tracker may still be very important depending on potential hazards (e.g. weather conditions, canoe operations).
- Your tracker is someone who knows where you are and when you plan to return.
- Establish a clear timeline for WHO will check in with the tracker and WHEN.
- The tracker's responsibility is to call for help if you do not check in or return at the designated time.
- The tracker should be able to communicate your intended location to emergency services should you not check in at the designated time.

Establish an Emergency Response Plan.

- Please complete the form BEFORE departing for the project site.
- Send a copy to your tracker based on crew size and potential hazards.
- Review the emergency response plan with the work crew at the start of each workday.
- Identify who will have a copy of the plan and where it will be carried (e.g. in the first aid kit, in a left side pocket of a VIP's backpack.)
- The plan should be updated and replaced for each workday, if needed.
- Provide printed copies to the crew leader, sawyer (if applicable), and others who are first aid/CPR certified. Another option is to complete the form by hand, take a photo, and send the photo to the appropriate contacts.

NOTE: *If crews are separated by considerable distance and/or there are different emergency procedures and contact information, each crew should have their own emergency response plan.*

Identify a Safety/Communication Lead.

When with a group, who will take the lead in emergencies? Who will be the one to call for or get help?

Completing the Emergency Response Plan

How you respond in an emergency may vary from work site to work site. For example, the nearest hospital varies depending on where you are located along the trail. Producing more than one response plan may be needed to ensure the information is accurate for each area.

1. ***Location Information & Directions for Emergency Responders***
   Identify where you will be working, including GPS coordinates, and how to get there. (Keep in mind that when you say "a trail" that means different things to different people and responders may think they can drive an 4x4 ambulance, ATV, or UTV to the site like on other trails. If the crew is building new trail, foot travel may be the only way to get there). Directions should be a written description of where responders should go in case of emergency. Directions should be clear and as precise as possible so the person who calls emergency responders can clearly communicate.

2. ***Contact information***
   Identify important phone numbers to call in case of emergency. Documenting several different people/places is important depending on the emergency that arises.

3. ***Additional Notes***
   Each work site, project, and situation is unique. Use this space to write down additional information that may be needed in case of emergency.

4. ***Writing Space***
   Leave this space blank during the pre-planning process. It is intended to give you a space to take notes during an incident, such as jotting down notes to relay to emergency services or information emergency services provides to you. This may include writing down the specific GPS coordinates if a person is injured along the trail and cannot be moved.

5. ***Communication***
   Consider your communication plan.
   a. Do cell phones work? If not, how will you get help?
   b. Does the land management agency where you are working have radios?
   c. Do you or anyone in the group have a satellite messenger/tracking device, such as SPOT or inReach?
   d. How will emergency response procedures change if a satellite-based tracking device is used to initiate emergency response? If you are relying on a satellite-based tracking device ensure that it is registered/activated before your trip.

6. ***Response Plan***
   Identify what you would do in an event of an emergency—life threatening and non-emergency situations.

7. ***Volunteer Cell Phone Numbers***
   This section can be completed in advance or during the safety talk at the start of the workday. These numbers allow volunteers to stay in communication during an incident. If cell phones do not have signal in your work area, consider this in your communication plan.

Documentation

All injuries and near misses must be reported to Volunteer Program Manager Nic Loiseau at 616-302-9842 and your NCTA RTC immediately following the incident or as soon as safely possible if treatment is needed.

Pre-Planning Notes:

North Country National Scenic Trail

Emergency Response Plan for _____
(location)

In a Medical Emergency

- Ensure the scene is safe.
- Avoid contact with blood/bodily fluids without the proper PPE.
- Ensure the patient's airway is open and they are breathing.
- Stop any bleeding.
- Notice any deformities.
- If a spinal injury is suspected, do not move the patient unless it is necessary to keep them safe.
- Keep the patient warm and dry.

Location Information & Directions

Site:	Nearest Town:
Trailhead:	Road & Milepost:
Nearest Intersection:	County & State:
GPS Coordinates:	

Verbal directions for emergency responders that describe how to get to the work site:

Contact Information

IN CASE OF EMERGENCY CALL: _____

County Sheriff (non-emergency):	Phone:
Tracker (if not one of the above):	Phone:
Nearby Ranger Station (if applicable):	Phone:
Other:	Phone:

Additional Notes

Writing Space

SEE BACK OF PAGE FOR ADDITIONAL INFORMATION

Communication

Best location for cell phone reception near work site:

Identify any potential gaps in cell phone coverage:

Communication/response plan if cell phone coverage is lost or not available at work site:

Response Plan

List the steps taken in the event of an emergency. Include directions to the nearest hospital.
a. In a life-threatening situation:

b. In a "help needed, but non-emergency" situation:

What is the plan for the other volunteers while treatment/assistance is being rendered?
Note: Plans should not leave anyone stranded at the project site without a vehicle.

Volunteer Cell Phone Numbers

Name:	Cell #:
Name:	Cell #:
Name:	Cell #:
Name:	Cell #:

Injury, Near Miss, and Exposure Procedures for VIPs

North Country National Scenic Trail **October 2023**

When a Traumatic Injury Occurs & Medical Care is Needed

- Obtain medical care. Bring a copy of the Authorization for Examination and/or Treatment (CA-16) to the physician, as well as the Quick Guide for Federal Worker's Compensation Medical Providers. (Note: It's extremely difficult to get this form completed after you have left the medical facility, so this is an important step.)

    - Instructions for completing the CA-16:
        1. Please complete **only** boxes 2-3.
        2. All other boxes in Part A on page 1 will be completed by an NPS employee. Please do not change any of the information in the boxes that have been pre-populated.
        3. Give the CA-16 to the treating physician so they can complete Part B on page 2.
        4. Mail or fax the completed CA-16 to Volunteer Program Manager Nic Loiseau* **immediately**. Her contact information is on page 4 of this document. (The process is time sensitive.) *Do not mail the CA-16 directly to Department of Labor (DOL). If the attending physician tries to forward the CA-16 directly to DOL, it will be rejected for lack of an OWCP case file number.*

- Provide the doctor or medical facility with a copy of the Quick Guide for Federal Worker's Compensation Medical Providers, indicating that all medical bills should be sent directly to U.S. Department of Labor, DFEC Central Mailroom, P.O. Box 8300, London, KY 40742. (This address appears at the bottom of the quick guide.)

- Billing should go directly from the physician's office to DOL in London, KY. If problems arise with direct billing issues and you are required to make any direct payments, save all receipts for co-pays and out-of-pocket expenses from emergency rooms, clinics or physician's offices, and pharmacies to submit a reimbursement request. (Obtain a reimbursement form OWCP-915 from Nic.)

- If you do not have any CA-16s on hand, contact Nic* and she can initiate the form and fax/mail the form to the appropriate medical facility.

- Immediately following the incident or as soon as reasonably possible, if treatment is needed, please contact Nic* at 616-302-9842 and your regional trail coordinator (if you are member of a NCTA chapter.) Nic will ask the following:

- Personal info (name, address, phone, email, date of birth, SSN if needed)
- Do you want to file a workers' compensation claim?
- Was there property damage involved in this incident? If so, what was damaged?
- What is the date and time of the incident?
- What is the zip code of the location (nearest known)?
- What is the specific place of the incident?
- Describe the incident and how it happened, including what led up to the incident.
- What is the severity of the injury?
- What is the name and address of the medical facility where you received treatment?
- What is the name of the treating physician?
- Were any preventative/corrective actions taken? If so, what were they?

NOTE:

- All determinations for workers compensation entitlement are by the U.S. Department of Labor Office of Workers' Compensation Programs (OWCP).
- All providers MUST be enrolled with OWCP (https://owcpmed.dol.gov).

If you are filing a workers' compensation claim, please note the following:

- Request copies of your medical records from all medical providers you see to support your claim. These must be signed by a licensed MD or DO, not a physician's assistant or nurse practitioner.
- File at https://www.ecomp.dol.gov from any computer. If you don't have access to a computer, assistance is available.
- You have three years from the date of injury to file a claim, but benefits may be reduced if you don't file within seven days. If you choose not to file a claim, you will be responsible for all medical bills.
- To assist in creating an account and filing a claim, help videos are available at https://www.ecomp.dol.gov/#/help.
- While completing the online form, your "supervisor" is an NPS employee with the North Country NST (Please ask who the person is when you call to report the injury.) For volunteers, the "occupational code is 9999.

When an Injury Occurs & Medical Care is NOT Needed

- Immediately following the incident, please contact Volunteer Program Manager Nic Loiseau* at 616-302-9842 and your regional trail coordinator (if you are member of a chapter.) Nic will ask the following:

    - Personal info (name, address, phone, email, date of birth, SSN if needed)
    - Was there property damage involved in this incident? If so, what was damaged?
    - What is the date and time of the incident?
    - What is the zip code of the location (nearest known)?
    - What is the specific place of the incident?
    - Describe the incident and how it happened, including what led up to the incident.

    - What is the severity of the injury?
    - Were any preventative/corrective actions taken? If so, what were they?

- All significant work-related injuries (beyond blisters, slivers, etc.) should be reported to Nic, regardless of whether medical treatment or expenses occurred.

Reporting Occupational Diseases

An occupational "disease" is any condition that is produced in the work environment by such factors as infections, continued or repeated stress or strain, or exposure to hazardous elements. The period of development is longer than a single workday or shift—it develops over time. Carpal tunnel syndrome is a good example of an occupational disease brought about by repeated stress to a body part that cannot be pinpointed to a single date and time of injury.

If you are experiencing a possible occupational disease, notify Nic Loiseau* as soon as you realize your condition was either caused or aggravated by your volunteer work. Note: You are responsible for all medical costs related to an occupational disease, until the case is accepted by the Department of Labor.

Reporting a Near Miss / Hazardous Condition

A **hazardous condition** is an unsafe condition that can cause injury, illness, and death and that currently needs attention.

A **near miss** is an unplanned event that did not result in injury, illness, or damage, but had the potential to do so. It's something that makes you say, "Wow! That was close!" or "That could have been really bad." Reporting near misses is vitally important to prevent serious, fatal, and catastrophic injuries. By capturing data, trends can be identified, lessons can be learned, and safety systems can be improved.

If you experience a near miss or see a hazardous condition, please contact Volunteer Program Manager Nic Loiseau* at 616-302-9842. The following will be asked:

- What date and time did the near miss/hazard occur?
- What is the zip code of the location (nearest known)?
- What is the specific location of the near miss/hazard?
- What activity occurred prior to the near miss/hazard?
- Describe the near miss/hazard.
- Were any preventative/corrective actions taken? If so, what were they?

Reporting an Exposure (Including Tick Bites)

Please report all exposures, including tick bites, animal bites, copious rodent/bird/bat droppings, and unmitigated noise, to Volunteer Program Manager Nic Loiseau* at 616-302-9842 within 24-48 hours. The following will be asked:

- Personal info (name, address, phone, email, date of birth, SSN if needed)
- What is the date and time of the incident?
- What is the zip code of the location (nearest known)?
- What is the specific place of the incident?
- Describe the incident and how it happened, including what led up to the incident.
- What was the body part(s) exposed?
- Were any preventative/corrective actions taken? If so, what were they?

Contact Information

Nic Loiseau, Volunteer Program Manager
North Country National Scenic Trail
318 E. Main St. Suite K
Lowell, MI 49331

616-302-9842 (cell)
616-319-7913 (fax)
Email: nicole_loiseau@nps.gov

***If Nic is not available, please contact:**

Ken Hendrickson, Trail Manager
616-250-3160 (cell)
616-319-7913 (fax)
Email: kenneth_hendrickson@nps.gov

10/31/2023