

New York - New Jersey Trail Conference

Outdoor Activity Safety Guidelines

Approved by the Policy Council on February 6, 2017

Minor Update June 7, 2017

1 Intent and Overview

These guidelines are intended to reduce the occurrence of bodily injury during all outdoor activities conducted by the Trail Conference. The goal is to keep participants safe by reducing risk as much as reasonably practical.

The outdoor activities covered by these guidelines range from leading hikes to chain sawing and crew work and include all outdoor-based Trail U courses. The primary intent is to encourage a safety conscious culture without creating burdensome, unwieldy, or overly complex procedures and requirements.

The outdoor activities addressed by these guidelines have been divided into four levels based upon the risks associated with the activity. The activities included in each level are:

- Level 1 Activities on trails with no tools
- Level 2 Activities off trails or activities on or off trails with tools including clipping, general trail maintenance, and herbicide use
- Level 3 Trail rehabilitation and construction tasks typically done by trail crews
- Level 4 Chain sawing

Tables are provided below for each level showing the tasks typically included in that level. For each task, the table shows:

- Potential job hazards
- Safety gear (Personal Protective Equipment or PPE) recommendations and requirements. PPE (and tools) should always be inspected for wear and defects before every use. Items in red and underlined are required,
- Recommended safety practices and procedures
- First aid training recommendations and requirements. Items in red and underlined are required,

Note that the recommendations and requirements for leaders of formal activities may differ from those for participants, individuals, and leaders of small informal groups.

2 General recommendations

Prior to the start of any activity, leaders should identify and have directions to local hospitals. All leaders must have an appropriate first aid kit available during the activity and participants are encouraged to carry a first aid kit. Suggested first aid kit contents and sources are provided for each activity level. Group activities (e.g. hikes, TU classes, crews) should have an initial informal briefing session (often referred to as a "tailgate safety session") to review the planned activity and go over the potential hazards, safety procedures, and recommended or required PPE.

For larger group activities, it is good practice to designate a "safety officer" in addition to the "group leader". The safety officer serves as a group "sweep" who conducts counts, makes sure nobody falls behind the group, communicates with the leader when the group becomes spread out, and administers first aid (with appropriate current certifications) as needed so the leader is free to handle group logistics and management. This is particularly important in Level 1 group hikes with potentially inexperienced hikers, but has applications in crew work as well. It is important to note that the leader is usually in the front, but people having difficulties are often in the back.

New trail work participants should be instructed in the safe use of tools and receive guidance throughout the activity. It is suggested that there be an informal de-briefing session at the end of the activity to discuss the work performed (if applicable) and any safety concerns that may have arisen during or as a result of the activity. Any reported injuries and "near misses" should be documented and are often good learning tools. A safety readiness checklist is provided for each of the activity types.

All leaders and participants should maintain safety and situational awareness throughout the activity. Everyone is encouraged to look out for their own safety and that of others and is encouraged to speak up with any concerns. When it comes to safety, we are all responsible and we are all leaders.

We encourage everyone to read and help implement these guidelines. Remember, **common sense and awareness are the best safety tools for any task.** With your help, we can continue to keep our members safe as they perform the many important outdoor activities needed to fulfill the mission of the Trail Conference.

3 Implementation

We have developed these guidelines on an accelerated schedule in preparation for the 2017 outdoor work season and would like them to be implemented as fully as practical in 2017. Leaders and participants may not have an opportunity to receive first aid training immediately and training will be offered widely beginning in 2017. Leaders, both volunteer and paid staff, are encouraged to attend certification classes as early as possible in 2017 and are required to have appropriate current first aid certifications as shown in the charts beginning in 2018. Participants in outdoor activities are also encouraged to get first aid training.

Level 1 – All outdoor on-trail activities with no tools performed by:

- Hike Leaders
- Map or Guidebook Field Checkers
- Trail Inventory or Assessment Workers
- Invasive Species Surveyors
- Other Trail Workers engaged in similar on-trail activities that do not require the use of tools

OUTDOOR ACTIVITY	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
 Leading or participating in hikes. Field checking of maps, books, etc. Performing trail inventories or assessments Surveying for invasive species 	Basic hazards: Uneven terrain Slip/trip and fall hazards Loose footing Poison ivy/oak Insect bites and bee stings Snake bites Ticks Bears Snags Widow makers Heat/cold weather-related illnesses (e.g. heat exhaustion, dehydration, hyponatremia, hypothermia)	Leader or other designated person on formal group activities (e.g. hikes, invasives survey training): • Personal first aid kit required Individuals or informal groups (e.g. small group of maintainers, field checkers): • Personal first aid kit recommended	 Leaders should verify that all participants have appropriate footwear, clothing, and water. Group activities should have an initial informal briefing session to review the planned activity and go over the potential hazards and safety procedures. Leaders should ask who is allergic to bee stings and poison ivy/oak; if anyone carries an Epi-Pen, know its location and how to assist the individual in self-administering. Leaders should ask who carries an asthma inhaler, its location, and how to use it. 	Leader or other designated person on formal group activities (e.g. hikes, invasives survey training): • Current certifications required • Basic First Aid • CPR Formal group activity participants: No training expected Individuals or informal groups (e.g. small group of maintainers, field checkers): • Up to date training recommended. • Basic First Aid • CPR

This chart is intended as a guide and is not comprehensive. Common sense and awareness are the best tools for any task.

Level 1- Safety Readiness Checklists

Level 1 - Individual Activities:

- Identification of local hospitals recommended
- Personal first aid kit recommended
- First aid training recommended
- Applicable footwear and clothing
- Adequate food and water

Level 1 - Activity Participants:

- Applicable footwear and clothing
- Adequate food and water

Level 1 - Activity Leader:

- Identification of local hospitals required
- Personal first aid kit required
- Current first aid certification required
- Perform pre and post activity briefings
- · Verify that participants have applicable footwear and clothing
- Verify that participants have adequate food and water
- Identify users and locations of Epi-pens and inhalers

Level 1 - Suggested Personal First Aid Kit Inventory

Wound Prep

- BZK Wipes (4)
- Alcohol Prep Pads (4)

Gauze & Bandage

- Triangular Bandage (1)
- 4x4" Gauze Pad (2)
- 3x3" Gauze Pad (2)
- Telfa no stick gauze 3x6"(2)
- Bandage Roll 3.3" x 3.6 Yards (1)

Adhesive

- Moleskin (1)
- Knuckle Bandage (2)
- Fingertip Bandage (2)
- Large Bandage (2)
- Bandage (Band-Aid) (10)
- Adhesive Strips or Steri Strips (4)
- Athletic Tape or Vet wrap (1)
- Cloth or Waterproof Adhesive Medical Tape (1)

Loose Items

- Scissors (1)
- Tweezers (1)
- Exam Gloves (1 pair)
- Thermal Blanket (1)
- Eye Wash or 1/2 liter saline (1)
- Elastic (Ace) Bandage (1)
- Cold Compress (1) [Optional]

OTC Meds & Ointments

- Aspirin (4 tabs)
- Diphenhydramine (Benadryl®) (4 tabs)
- Antibiotic Ointment (2 packets)
- Acetaminophen (4 tabs)
- Pink-Bismuth (4 tabs)
- Powdered energy drink (1 packet)

Flora/Fauna

• Insect Repellent (1)

Paperwork

- Inventory Checklist (1)
- *SOAP Notes (1)
- *Incident Report (1)
- *Refusal of Care (1)
- Pencils (1)

This is the standard kit to start. Most items from this list are in the kit below for about \$20. http://www.rescue-essentials.com/rescue-essentials-wfa-kit/

*Recommended forms will be provided on the Trail Conference website.

Level 2 - All outdoor off-trail activities, on-trail activities with tools performed by:

- Trail Maintainers
- Boundary/Corridor Monitors
- Endangered or Invasive Species Surveyors
- Graffiti Removal
- Clipping/Invasive Species/Maintenance crews
- Trail U Instructors and Participants for courses with similar hazards (Trail Maintenance 101, Trail Design, etc.)

TRAIL TASKS	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
 Trail maintenance Boundary/corridor monitoring Endangered or invasive species surveying 	Basic hazards: Uneven terrain Slip/trip and fall hazards Loose footing Poison ivy/oak Insects bites and bee stings Snake bites Ticks Bears Snags Widow makers Heat/cold weather-related illnesses (e.g. heat exhaustion, dehydration, hyponatremia, hypothermia).	 General safety gear: Personal first aid kit required for those leading formal activities and is recommended for those performing individual activities such as field checking or surveying. Eye protection required (safety glasses or goggles preferred, ordinary eyeglasses are acceptable). Gloves recommended (especially when poison ivy or thorny plants are present). Blaze orange clothing recommended during hunting season (particularly for corridor/off-trail work). AEDs may be issued to Level 2 crew leaders and Trail U instructors on request if available. If issued, AED is required 	 General comments: Leaders should verify that all participants have appropriate footwear (closed toe shoes), clothing, and water. Group activities should have an initial informal briefing session to review the planned activity and go over the potential hazards, safety procedures, and recommended or required PPE. Leaders should ask who is allergic to bee stings and poison ivy/oak. If anyone carries an Epi-Pen, know its location and how to assist the individual in self-administering. Leaders should ask who carries an asthma inhaler, its location, and how to use it. 	Clipping/trail maintenance crew or other activity leaders, Trail U instructors: • Current certifications required: • Basic First Aid or (preferred) WFA • CPR/AED BBP awareness should be part of the First Aid/WFA training. Participants: • Up-to-date training recommended: • Basic First Aid • CPR

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Use of manual tools for cutting /trimming brush, cutting/ clearing small- blowdowns, clearing water bars, removing invasive species, etc.	Basic hazards above and: Sharp tools Spring poles Back strain Repetitive motion injury	General safety gear above and: • Gloves required • Long pants or gaiters recommended	General comments above and: Before beginning, check area for trash or other obstacles, including overhead hazards Avoid operating in slippery conditions.	General recommendations above and: • Up-to-date First Aid/CPR training for participants is strongly recommended
Use of power tools (e.g. weed whackers, brush cutters, drills) for cutting/trimming brush, drilling, sawing, etc. (For chain saws, see Level 4)	 Basic hazards above and: Sharp tools Thrown objects from power tools Back strain Hot tool exhaust Hearing damage from noise 	General safety gear above and: • Personal first aid kit required • Hearing protection required when using loud tools • Long pants required • Gaiters or chaps recommended	General comments above and: Before beginning, check area for trash or other obstacles, including overhead hazards. Avoid operating in slippery conditions. Do not operate near other people. Cool engine before refueling.	General recommendations above and: • Up-to-date First Aid/CPR training for participants is strongly recommended

Level 2 – Graffiti removal

TRAIL TASKS	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
Application and removal of graffiti-removing chemicals using manual pressure sprayer	Irritation of skin and/or eyes Slippery footing from remover and water on rocks - many locations with graffiti (e.g. rocky outcrops) have serious risk of falling from dangerous heights	Required: Long pants, long sleeved shirt Solvent/chemical resistant gloves Goggles or face mask Personal first aid kit recommended	General comments from table above and: • Have adequate rinse water available • Rinse or remove splash back off skin immediately • Flush eyes with water for 15 minutes	Activity leaders, Trail U instructors: • Current certifications required: • Basic First Aid or (preferred) WFA • CPR/AED BBP awareness should be part of the First Aid/WFA training. Participants: • Up-to-date training strongly recommended: • Basic First Aid • CPR
Application and removal of graffiti-removing chemicals using motorized sprayer	Basic hazards above and: Irritation of skin and/or eyes Slippery footing from remover and water on rocks - many locations with graffiti (e.g. rocky outcrops) have serious risk of falling from dangerous heights Noise from motor High pressure water jet	Required: Long pants, long sleeved shirt Solvent/chemical resistant gloves Goggles or face mask Hearing protection Personal first aid kit recommended	General comments from table above and: Have adequate rinse water available Rinse or remove splash back off skin immediately Flush eyes with water for 15 minutes Spray nozzle has been modified to increase pressure. Contact of water jet with skin can severely abrade	Same as above

Level 2 – Herbicide Application

TRAIL TASKS	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
Application of herbicides (pesticides) [Only licensed applicators with proper permits from park manager]	Basic hazards above and: Chemical exposure (inhalation, ingestion, contact) Contact)	 PPE as specified on the product label is required - typically long sleeves, long pants, closed shoes with socks, chemical-resistant gloves, and eye protection. At least one gallon of water for washing and soap required. Spill kit required (see list for required contents). Personal first aid kit recommended Air thermometer (to ensure temperature is not above volatilization level for the product being used) Bucket to hold pesticide container to catch spills should container leak. Pesticide warning signs. 	 General comments from table above and: Pesticides should not be applied in immediate area where volunteers are or will be working. All applications must be properly posted with signs warning of pesticide application. Pesticides must never be stored in containers that look like food or beverage containers and must be labeled as required by law. Follow pesticide label for restricted entry interval (time during which access to application area must be restricted). Follow state and federal reporting requirements for any spills. Follow state and federal requirements for transport of pesticides to/from site. When making a foliar application, check wind conditions prior to starting. Do not apply if there is risk of drift. Avoid walking through an area that has just been sprayed. 	Activity leaders, Trail U instructors: • Current certifications required: • Basic First Aid or (preferred) WFA • CPR/AED BBP awareness should be part of the First Aid/WFA training. Participants: • Up-to-date training strongly recommended: • Basic First Aid • CPR

This chart is intended as a guide and is not comprehensive. Common sense and awareness are the best tools for any task.

Level 2 - Safety Readiness Checklists

Level 2 - Individual Activities:

- Identification of local hospitals recommended
- Personal first aid kit recommended
- First aid training recommended
- Applicable footwear and clothing
- Adequate food and water
- Glasses or safety glasses required
- Other applicable PPE as shown in the Level 2 chart (e.g. gloves, safety glasses)

Level 2 - Activity Participants:

- Applicable footwear and clothing
- Adequate food and water
- Must wear supplied PPE at all times while work is being performed

Level 2 - Activity Leader:

- <u>Identification of local hospitals required</u>
- Crew first aid kit required
- First aid/CPR certification required
- AED required if issued to leader for this activity (and must have current AED certification)
- Perform pre- and post-activity briefings
- Verify that participants have applicable footwear and clothing
- Verify that participants have adequate food and water
- Identify users and locations of Epi-pens and inhalers
- Verify that participants and leaders wear applicable PPE (as shown in the Level 2 chart) at all times while work is being performed
- Adequate rinse water required (graffiti & herbicide applications)
- Herbicide spill kit required (herbicide applications only)

Level 2 - Suggested Personal First Aid Kit Inventory

Wound Prep

- BZK Wipes (4)
- Alcohol Prep Pads (4)

Gauze & Bandage

- Triangular Bandage (1)
- 4x4" Gauze Pad (2)
- 3x3" Gauze Pad (2)
- Telfa no stick gauze 3x6"(2)
- Bandage Roll 3.3" x 3.6 Yards (1)

Adhesive

- Moleskin (1)
- Knuckle Bandage (2)
- Fingertip Bandage (2)
- Large Bandage (2)
- Bandage (Band-Aid) (10)
- Adhesive Strips or Steri Strips (4)
- Athletic Tape or Vet wrap (1)
- Cloth or Waterproof Adhesive Medical Tape (1)

Loose Items

- Scissors (1)
- Tweezers (1)
- Exam Gloves (1 pair)
- Thermal Blanket (1)
- Eye Wash or 1/2 liter saline (1)
- Elastic (Ace) Bandage (1)
- Cold Compress (1) [Optional]

OTC Meds & Ointments

- Aspirin (4 tabs)
- Diphenhydramine (Benadryl®) (4 tabs)
- Antibiotic Ointment (2 packets)
- Acetaminophen (4 tabs)
- Pink-Bismuth (4 tabs)
- Powdered energy drink (1 packet)

Flora/Fauna

• Insect Repellent (1)

Paperwork

- Inventory Checklist (1)
- *SOAP Notes (1)
- *Incident Report (1)
- *Refusal of Care (1)
- Pencils (1)

This is the standard kit to start. Most items from this list are in the kit below for about \$20. http://www.rescue-essentials.com/rescue-essentials-wfa-kit/

*Recommended forms will be provided on the Trail Conference website.

Level 2 - Spill kit required contents for herbicide applicators

Required:

- Tyvek coverall
- Tyvek booties (or rubber boots)
- Chemical resistant rubber or nitrile gloves
- Eye protection
- Broom
- Dustpan
- Shovel
- Absorbent material (e.g. kitty litter, AbsorbAll)
- 2 heavy duty plastic garbage bags
- Eye wash (at least 15 oz.)
- Sealable container (for removed spill debris, e.g. Home Depot bucket with lid)
- Gallon of water
- Soap

Recommended:

Roll of paper towels

Level 3 - Trail rehabilitation/construction tasks performed by:

- Trail Crews
- Trail U Instructors and participants for trail rehabilitation/construction courses (moving heavy rocks, high lines, crib walls, de-berming, turnpiking, etc.)

TRAIL TASKS	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
 Moving heavy rocks Erecting and using high lines Constructing crib walls, stone steps De-berming Turnpiking Digging Making crush and treadway Other similar trail construction and rehabilitation activities 	Basic hazards: Uneven and/or steep terrain Slip, trip and fall hazards Loose footing Back or muscle strain Rock shrapnel or dust Broken tool handles Splinter, Flying nail chips or sawdust Smashed fingers or thumbs Slippery/rolling logs Sharp tools Spring poles Hot exhaust Hearing damage from loud noises Poison ivy/oak Thorny plants Insect bites and bee stings Snake bite Tick Bear Widow makers Heat/cold weather-related illnesses (e.g. heat exhaustion, dehydration, hyponatremia, hypothermia).	General safety gear: Required: Crew first aid kit Boots Work gloves Eye protection (safety glasses or goggles) Gouint suspension hard hats Recommended: Long sleeve shirt Long pants AED required if issued to crew leader or Trail U instructor. It is recommended that AEDs be issued to trail crews performing Level 3 work on a regular basis and Trail U courses doing similar work.	 Verify that all participants have appropriate footwear, clothing, and water. Group activities should have an initial informal briefing session to review the planned activity and go over the potential hazards, safety procedures, and recommended or required PPE. Leaders should ask who is allergic to bee stings and poison ivy/oak; If anyone carries an Epi-Pen, know its location and how to assist the individual in self-administering. Leaders should ask who carries an asthma inhaler, its location, and how to use it. Before working check area for trash or other obstacles, including overhead hazards. AVOID DANGER ZONES 	Crew leaders, Trail U instructors: Current certification required Basic First Aid or (preferred) WFA CPR/AED BBP awareness should be part of the first aid/WFA training. Core crew members: Current certification strongly recommended Basic first aid or (preferred) WFA CPR/AED BBP awareness should be part of the first aid/WFA training. Episodic volunteers or training class participants: No training expected
Hand tools: Cutting/trimming brush Cutting/clearing small blowdowns Clearing water bars Log peeling	Basic hazards above and:Sharp toolsSpring polesBack strain	General safety gear above	 General comments above and: Avoid operating in slippery conditions. Carry all tools in a safe manner. 	Same as above

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Power tools • Weed whackers, brush cutters, etc. for cutting/trimming brush (For chain saws, see Level 4)	 Basic hazards above and: Sharp tools Thrown objects from power tools Back strain Hot exhaust Hearing damage from noise 	General safety gear above and: • Hearing protection required when using loud tools. • Long pants, gaiters, or chaps recommended.	General comments above and: Do not operate near other people. Cool engine before refueling.	Same as above
Power tools: • Drilling, grinding, hammering, chiseling	Basic hazards above and: Hearing damage from loud noises Dust	General safety gear above and: • Hearing protection required when using loud tools • Dust mask required for rock work.	General comments above	Same as above
Climbing above 6 feet	Basic hazards above and: Falls Use of inadequate climbing hardware	General safety gear above and: • Safety harness required	General comments above	Same as above
Rigging/high line (winch work)	Basic hazards above and: Frayed cable Improper attachment of load or anchors Standing in the "bight" (loop or curved slack area of the cable) Overhead load Hard-to-see cable Overloading system & parts	General safety gear above and: • Leather gloves required	General comments above	Same as above

This chart is intended as a guide and is not comprehensive. Common sense and awareness are the best tools for any task.

Level 3 - Safety Readiness Checklists

Level 3 - Activity Episodic Volunteers or Training Class Participants:

- Applicable footwear and clothing
- Adequate food and water
- Must wear supplied PPE (gloves, hard hat, safety glasses and any other applicable protective equipment) at all times while work is being performed

Level 3 - Core Crew Members:

- Current first aid or WFA (preferred) and CPR certification strongly recommended
- Applicable footwear and clothing
- Adequate food and water
- Must wear PPE (gloves, hard hat, safety glasses, and any other applicable protective equipment) at all times while work is being performed

Level 3 - Activity Leader (Crew Chief, Crew Leader, Training Instructor):

- Identification of local hospitals required
- Crew first aid kit required
- First aid or WFA (preferred) and CPR certification required
- AED required if issued to leader for this activity (and must have current AED certification)
- Perform pre and post activity briefings
- Verify that participants have applicable footwear and clothing
- Verify that participants have adequate food and water
- Identify users and locations of Epi-pens and inhalers
- Verify that participants and leaders wear applicable PPE (as shown in the Level 3 chart) at all times while work is being performed

Level 3 - Suggested Crew First Aid Kit Inventory

Carry one kit per 10 participants

Wound Prep

- BZK Wipes (10)
- Alcohol Prep Pads (10)

Gauze & Bandage

- Triangular Bandage (1)
- 5x9" Gauze Pad (2)
- 4x4" Gauze Pad (4)
- 3x3" Gauze Pad (3)
- Telfa no stick gauze 3x6"(4)
- Bandage Roll 3.3" x 3.6 Yards (1)
- Abdominal Pad (1)
- Israeli Bandage (1) [Sawyer kit]

Adhesive

- Moleskin (1)
- Knuckle Bandage (2)
- Fingertip Bandage (2)
- Large Bandage (4)
- Bandage (Band-Aid) (10)
- Adhesive Strips or Steri Strips (4)
- Athletic Tape or Vet wrap (1)
- Cloth or Waterproof Adhesive Medical Tape (1)

Loose Items

- EMT Scissors (1)
- Tourniquet (1)
- Tweezers (1)
- CPR Mask (1)
- Exam Gloves (2 pair)

- SAM Splint (1)
- Thermal Blanket (1)
- Eye Wash or 1/2 liter saline (1)
- Elastic (Ace) Bandage (1)
- Cold Compress (1)
- Body Substance Isolation bag (1)
- Irrigation Syringe (1)
- Quick Clot combat gauze(1) [Sawyer]

OTC Meds & Ointments

- Diphenhydramine (4 tabs)
- Burn Cream (4 packs)
- Aspirin (4 tabs)
- Antibiotic Ointment (4 packs)
- Acetaminophen (4 tabs)
- Pink-Bismuth (4 tabs)
- Powdered energy drink (1 packet)

Flora/Fauna

- Poison Ivy Wash (2)
- Sting Relief (2)
- Insect Repellent (2)

Paperwork

- Inventory Checklist (1)
- *SOAP Notes (1)
- *Incident Report (1)
- *Refusal of Care (1)
- Pencils (1)

This is the standard kit to start and it fits in one EMS rescue bag such as: http://www.rescue-essentials.com/orange-ems-rescue-bag/

^{*}Recommended forms will be provided on the Trail Conference website.

Level 4 - Chain saw work performed by

- Sawyers
- Swampers

TRAIL TASKS	POTENTIAL JOB HAZARDS	SAFETY GEAR	RECOMMENDED SAFETY PRACTICES AND PROCEDURES	FIRST AID TRAINING
• Sawyers	Basic hazards: Uneven terrain Slip/trip and fall hazards Loose footing Thorny plants Poison ivy/oak Insects bites and bee stings Snake bites Ticks Bears Snags Widow makers Heat/cold weather-related illnesses (e.g. heat exhaustion, dehydration, hyponatremia, hypothermia). Chainsaw specific hazards: Severe, ragged cuts from the chainsaw Kickback Falling trees or limbs Rolling logs Fire caused by chainsaw especially during hot/dry or drought conditions.	Required: Sawyer first aid kit Gloves Leather or cut-proof boots Chainsaw chaps to overlap boot rim by 2-inches Hardhat with 6 point suspension Eye protection (and/or face shield) Hearing protection Long pants & long sleeve shirt. Whistle - the safest way to alert the sawyer when the saw is running. The Sawyers Committee provides a very loud Storm whistle to all sawyers.	Before working, LOOK UP! If dead limbs or leaner trees are evident, AVOID DANGER ZONES. Always check for spring poles and loaded trees or branches (similar to spring poles, common in blowdowns). Sawyer certification required, Two-person crew minimum (one as a spotter). An A Level sawyer must work with a B Level sawyer. B Level sawyer can work with a swamper of their choosing. Cool saw before fueling. Keep saw sharp and tuned.	Current certification required and is part of the sawyer certification requirements. Basic First Aid or (preferred) WFA CPR BBP awareness should be part of the First Aid/WFA training
Swampers	Basic hazards above	Required: Gloves Closed toe shoes Eye protection (and/or face shield) Hearing protection Whistle - the safest way to alert the sawyer when the saw is running. The Sawyers Committee provides a very loud Storm whistle to all	 Before working, LOOK UP! If dead limbs or leaner trees are evident, AVOID DANGER ZONES. Always check for spring poles and loaded trees or branches. Swampers maintain situational awareness of the worksite and keep bystanders out of harm's 	Current certification strongly recommended. Basic First Aid or (preferred) WFA CPR BBP awareness should be part of the First Aid/WFA training.

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	 <u>Sawyers.</u> <u>Personal or sawyer first aid kit required (only one kit required and may be part of sawyer's safety equipment).</u> 	way when working around power equipment.	
	Recommended Long sleeve shirt Long pants Hardhat with 6 point suspension		

This chart is intended as a guide and is not comprehensive. Common sense and awareness are the best tools for any task.

Level 4 - Safety Readiness Checklists

Level 4 - Sawyer:

- Identification of local hospitals required
- Sawyer first aid kit required
- Current first aid or WFA (preferred) and CPR certification required
- Current chainsaw certification required, A Level sawyer must work with B Level sawyer
- Review all cutting plans and escape routes with Swamper
- Wear all required sawyer PPE

Level 4 - Swamper:

- Identification of local hospitals recommended
- Sawyer first aid kit required (typically supplied by Sawyer)
- Warning whistle required (typically supplied by Sawyer for Swamper's use)
- Current first aid or WFA (preferred) and CPR certification strongly recommended
- Wear required PPE (gloves, safety glasses, hearing protection) and other PPE (long sleeve shirt, long pants, hard hat) as applicable and recommended by the Sawyers Committee
- Maintain "crowd control" and monitor sawing activity for any unexpected danger

Level 4 - Suggested Sawyer First Aid Kit Inventory

Carry one kit per sawyer/swamper team

Wound Prep:

- BZK Wipes (5)
- Alcohol Prep Pads (5)

Gauze & Bandage

- Triangular Bandage (1)
- 5x9" Gauze Pad (2)
- 4x4" Gauze Pad (2)
- 3x3" Gauze Pad (2)
- Telfa no stick gauze 3x6"(2)
- Bandage Roll 3.3" x 3.6 Yards (1)
- Abdominal Pad (1)
- Israeli Bandage (1) [or Quick clot]

Adhesive

- Moleskin (1)
- Knuckle Bandage (2)
- Fingertip Bandage (2)
- Large Bandage (4)
- Bandage (Band-Aid) (10)
- Adhesive Strips or Steri Strips (4)
- Athletic Tape or Vet wrap (1)
- Cloth or Waterproof Adhesive Medical Tape (1)

Loose Items

- EMT Scissors (1)
- Tourniquet (1)
- Tweezers (1)
- Exam Gloves (2 pair)
- SAM Splint (1)

- Thermal Blanket (1)
- Eye Wash or 1/2 liter saline (1)
- Elastic (Ace) Bandage (1)
- Cold Compress (1)[Optional]
- Body Substance Isolation bag (1)
- Irrigation Syringe (1)
- Quick Clot combat gauze(1) [or Israeli bandage]

OTC Meds & Ointments

- Burn Cream (4 packs)
- Aspirin (4 tabs)
- Antibiotic Ointment (4 packs)
- Acetaminophen (4 tabs)
- Diphenhydramine (Benadryl®) (4 tabs)
- Pink-Bismuth (4 tabs)
- Powdered energy drink (1 packet)

Flora/Fauna

- Poison Ivy Wash (2)
- Sting Relief (2)
- Insect Repellent (2)

Paperwork

- Inventory Checklist (1)
- *SOAP Notes (1)
- *Incident Report (1)
- *Refusal of Care (1)
- Pencils (1)

This is the standard kit to start and it fits in a tactical thigh pack or waist pack such as: http://www.rescue-essentials.com/drop-leg-first-responder-system-pouch-multicam/ http://www.rescue-essentials.com/rescue-essentials.com/rescue-essentials-first-responder-waist-pack-empty/

As an option, if an Adventure medical kits Trauma Pak with QuikClot® is used, the items in blue.may be eliminated.

*Recommended forms will be provided on the Trail Conference website.

Glossary

AED - Automated External Defibrillator - A portable electronic device that automatically diagnoses the life-threatening cardiac arrhythmias of ventricular fibrillation and ventricular tachycardia in a patient and is able to treat them through defibrillation.

BBP - Blood Borne Pathogens - A disease that can be spread through contamination by blood and other body fluids.

CPR - Cardiopulmonary Resuscitation - An emergency procedure that combines chest compression often with artificial ventilation in an effort to manually preserve intact brain function until further measures are taken to restore spontaneous blood circulation and breathing in a person who is in cardiac arrest. Useful in recovering a healthy individual from drowning, lightning strikes and blunt force trauma to the chest.

De-berming - Removing the ridge of material formed on the outer edge of the trail that projects higher than the center of the trail tread, allowing water to once again flow off the trail.

Dehydration - Water intake is insufficient to replace water lost due to normal physiologic processes. Symptoms include thirst and neurological changes such as headaches, general discomfort, loss of appetite, confusion, unexplained tiredness, purple fingernails and even seizures.

Heat exhaustion - Loss of water and electrolytes through sweating. Symptoms include nausea, dizziness, irritability, headache, thirst, weakness, high body temperature, excessive sweating, and decreased urine output.

Hyponatremia - Low sodium level in the blood typically caused by insufficient food consumption and/or an overconsumption of water. Symptoms include nausea and vomiting, headache, short-term memory loss, confusion, lethargy, fatigue, loss of appetite, irritability, muscle weakness, spasms or cramps, seizures, and decreased consciousness or coma.

Hypothermia - A body core temperature below 35.0 °C (95.0 °F). Symptoms include shivering, high blood pressure, fast heart rate, fast respiratory rate, and mental confusion. Movements are slow and labored, accompanied by a stumbling pace, and subject becomes pale. Lips, ears, fingers, and toes may become blue.

PPE - Personal Protective Equipment - Protective clothing, helmets, goggles, or other garments or equipment designed to protect the wearer's body from injury or infection.

SOAP notes - Subjective Objective Assessment Plan - Notes to use in reporting an accident/incident in a common format used by rescue personnel. S: Subjective—what you found, how the patient currently is, and what the patient has said to you (scene survey; initial assessment); O: Objective—what you have found (head to toe exam, vital signs; A: Assessment (problems & anticipated problems); P: Plan for treatment.

Spring poles - Small trees or saplings that are bent over under load and can spring back if cut improperly.

Turnpiking - Elevating trail tread through poorly drained areas by using rock, gravel, or earthen fill.

WFA - Wilderness First Aid the specific discipline of first aid which relates to care in remote areas.

Widow makers - Dead or unstable overhead or above-shoulder-height hazard trees, limbs, branches, and blowdowns ("uphill and/or overhead").