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|---|---|-------------------------------------|
| <b>Risk Assessment Worksheet</b>        | <b>1. Project/Incident/Work Activity</b>  | <b>2. Location</b>                  |
|   | Pacific Crest National Scenic Trail       | Pacific Crest National Scenic Trail |
| <b>3. Specific Objective</b>            | <b>4. Name and Title of Preparer</b>      | <b>5. Date</b>                      |
| General Chain & Crosscut Saw Operations | Peter Bonsall - PCT Operations Specilaist | 04/08/2025                          |

**6. Risk Decision Authority:** (Authority Signature Block) If block 15 is Moderate, High or Extremely High a higher level of authority needs to sign in this block.

Signature/Date:

| Assess Hazards                      |   |                         |                        |                | Identify Risk Mitigation Measures   | Residual Risk             |                        |          |                        |                                 |
|-------------------------------------|---|-------------------------|------------------------|----------------|---|---------------------------|------------------------|----------|------------------------|---------------------------------|
| 7. Task                             | 8. Hazard                                     | 9. Severity/Consequence | 10. Hazard Probability | 11. RAC        | 12. List all mitigation or abatement measures   | 13. Severity/Consequences | 14. Hazard Probability | 15. RAC  | 16. Necessary (Yes/No) | 17. Hazard Control Assigned to: |
| Vehicle travel                      | Driving conditions and traffic                | Critical                | Unlikely               | Moderate       | Complete defensive driving course. Wear seat belts; training (defensive driver, etc.); defensive driving techniques; follow traffic laws; vehicle PMCS; Use spotter when backing; Adjust speed limit based on conditions; Stop and rest if fatigued.  | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Communication                       | Lost contact with individuals or home station | Critical                | Unlikely               | Moderate       | Utilize cell phones, satellite phones or other communication devices. Be aware that cell phones do not work in many areas of travel. Know the location of the nearest working landline and the nearest location for cell phone service. Have agency compatible radio. Ensure radio has properly programmed frequencies and have an extra set of batteries before leaving on the trip. Know local repeaters and best locations to use radios during emergency. Know who is available on the radio, as agency staffing may be few or none after regular work hours and on weekends. Carry a map and compass. Identify safe routes and local conditions. Make sure visual contact is kept with others in your group at forks in the trail. Avoid hiking in the dark. Designate meeting spot should someone become separated. Check-in before project and check-out after project.        | Critical                  | Rare                   | Moderate | Yes                    | Every person on project         |
| Emergency Response                  | Incident occurs requiring emergency response  | Catastrophic            | Unlikely               | High           | Ensure plans are in place prior to beginning of project. Share Trailhead Communication Plan (TCP) with PCTA Regional Rep, agency staff, and tracker. If Emergency Action Plan (EAP) is activated due to incident, contact PCTA and federal agency staff immediately. First aid kit. Personal communication device. Map and compass. Matches/fire starter (waterproof container). Water or water purifier. Supply of food for 1-3 days. Flashlight (extra batteries and bulb). Lightweight shelter and appropriate clothing for rapidly changing climatic conditions.  | Critical                  | Unlikely               | Moderate | Yes                    | Every person on project         |
| Chain and/or crosscut saw equipment | Injury to personnel                           | Catastrophic            | Possible               | Extremely High | Carry tools safely as instructed by crew leader. Carry tools on the downhill side. Carry sharpened edge of tool downward away from your body. Be aware of others around you. Do not carry tools on your shoulder except pole saw or crosscut saw. Maintain a safe walking distance between people (10 feet minimum). Always have sheaths on tools and carry them on the downhill side of the trail. The person carrying the crosscut saw or pole saw should walk last. Properly maintain and care for tools. Carry tool with scabbard on. Look around for hazards before swinging tools. Have firm footing and be balanced when swinging. Never throw a tool. When not in use, shield any sharp edges. Limb and peel logs on the opposite side of you. Keep tools sharp. Wear gloves safety glasses, and a hard hat. Do not use tools with a loose handle. Avoid working in the dark. | Critical                  | Unlikely               | Moderate | Yes                    | Every person on project         |
| Opening fuel container / filler cap | Fuel geyser                                   | Moderate                | Possible               | Moderate       | Always assume fuel tanks and containers are pressurized, open cap slowly and direct potential spray away from you, cover the cap with a rag or glove to contain potential geyser spray, move at least 20 feet or more from any heat or open flame, and don not use fuel older than one month.   | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Working near trees & snags          | Struck by                                     | Critical                | Possible               | High           | Only when pre-approved by the hosting local unit and necessary, wear personal protective equipment (PPE), continually perform hazard size-up to identify conditions with potential to harm, when possible keep out from under the natural weighted lean of trees and branches, cut the snag down or mitigate with equipment or explosives and learn to identify hazard tree indicators and signs of compromised wood fiber.   | Critical                  | Unlikely               | Moderate | Yes                    | Every person on project         |

| Assess Hazards   |  |                         |                        |          | Identify Risk Mitigation Measures   | Residual Risk             |                        |          |                        |                                 |
|--|--|-------------------------|------------------------|----------|---|---------------------------|------------------------|----------|------------------------|---------------------------------|
| 7. Task  | 8. Hazard                              | 9. Severity/Consequence | 10. Hazard Probability | 11. RAC  | 12. List all mitigation or abatement measures   | 13. Severity/Consequences | 14. Hazard Probability | 15. RAC  | 16. Necessary (Yes/No) | 17. Hazard Control Assigned to: |
| Working in adverse conditions                              | Weather related illness or injury      | Moderate                | Possible               | Moderate | Disengage from work when environmental conditions push operational complexity above safe working limits. Come equipped with all the necessary personnel gear, food and supplies to aid in sustaining yourself as a viable member of the team. Take good care of your physical body and mind at all times, both on and off the clock.  | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Trail Maintenance (Encountering trail users and livestock) | Injury to personnel                    | Moderate                | Unlikely               | Low      | Inform crew members when you see trail users on the trail. Work stops until the trail users clear the work area. If a potential hazard exists, crew members can stand watch at safe distances and stop trail users until the hazard is cleared. Ensure trail users have a clear path. Communicate the clear path to trail user. Place tools off the trail in a centralized location. Keep sheath/shield on sharp edges when tool is not in use. Inform everyone when stock approaches. Talk to the rider to make contact and receive direction. Work stops until the stock has passed the work site. Stand off the trail on the downhill side. Place tools a safe distance away from the trail. Do not make sudden movements or loud noises. It may be helpful to take your hard hat off until animals pass. Listen and look for approaching stock. Remain calm and back away if animals become unruly. | Negligible                | Rare                   | Low      | Yes                    | Every person on project         |
| Working in steep terrain                                   | Rolling debris, slips, trips, or falls | Moderate                | Possible               | Moderate | Wear a hardhat and sturdy leather boots with lugged soles, maintain spacing and never position yourself above or below another work activity. When possible carry tools on the downhill side and utilize a sheath. Alert others of rolling debris. Move slowly and methodically.  | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Personal Protective Equipment                              | Bodily injury                          | Critical                | Possible               | High     | PPE requirements for saw operations include the following: Hard Hat, Safety Glasses, Hearing Protection, Gloves, Long sleeved Shirt & Long Pants, Leg Protection (Chaps), and Cut-resistant or Leather boots. Eye protection (compliant with ANSI Z-87.1), ear protection and work gloves must be worn as appropriate for the specific tool. Any prescription safety glasses must have side shields. Carry compliant first aid kit.   | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Saw handling   | Laceration or puncture                 | Moderate                | Possible               | Moderate | Wear all required PPE, be aware of reactive & kinetic forces. Be vigilantly aware of the cutter teeth and keep them sharp. Use a sheath to cover all sharp surfaces when not in use. Practice good body mechanics to avoid fatigue or muscular injury.  | Moderate                  | Unlikely               | Low      | Yes                    | Every person on project         |
| Bucking  | Struck by tree, snag, or branch        | Critical                | Possible               | High     | Use OHLEC (Objective, Hazards, Lean, Escape, and Cut) process to size-up bucking operation before engaging. Cut near contact points or other barrier for added safety to avoid being struck by a log in motion, especially when a high release of energy is anticipated. Secure all bucked sections of a log to prevent unanticipated movement and be aware remaining log lengths may roll after being severed. Maintain area control and walk away from any saw operation that is above your certification or comfort level.   | Critical                  | Unlikely               | Moderate | Yes                    | Every person on project         |
| Training   | Untrained sawyer                       | Negligible              | Rare                   | Low      | Only qualified sawyers may operate chain and/or crosscut saws within the scope of their current certification. Sawyers must follow safety and cutting techniques taught in a Forest Service-approved Nationally Recognized Sawyer Training Course. All sawyers must maintain all required certifications. Comply with PPE requirements found in the Forest Service Manual 2300 (FSM2300), Chapter 2358. All sawyers need to be certified in Basic First-aid and CPR. Trainees and A sawyers may saw only under the immediate supervision of a B or C sawyer qualified to supervise that work. When working in or near felling situations ensure an area 2 1/2 times the height of the tree to be felled is clear of personnel.  | Negligible                | Rare                   | Low      | Yes                    | Every person on project         |
|  |  |                         |                        |          |   |                           |                        |          |                        |                                 |
|  |  |                         |                        |          |   |                           |                        |          |                        |                                 |
|  |  |                         |                        |          |   |                           |                        |          |                        |                                 |
|  |  |                         |                        |          |   |                           |                        |          |                        |                                 |

The Risk Assessment Worksheet (RAW) will identify the hazards associated with a project, incident or work activity assessing initial risk, mitigations and post mitigation risk (residual risk).

|          |   |
|----------|---|
| Block 1  | Name of project, incident or work activity  |
| Block 2  | Location of project, incident or work activity  |
| Block 3  | Specific Objective  |
| Block 4  | Name and title of person preparing the Risk Assessment Worksheet  |
| Block 5  | Date that the preparer filled out the Risk Assessment Worksheet   |
| Block 6  | If block 16 is Moderate, Serious or Critical, Use the Risk Decision Authority matrix to determine the authorization required to sign in block 6. The intent is to brief the Risk Decision Authority on the Control Measures used to reduce risks. Note: if the person preparing the form signs this block, the risk in block 17 must be Minor or Negligible.<br>Asses Hazards: See instructions for blocks 7-11 |
| Block 7  | Task: task to be assessed (Driving, tree falling, stream assessment, mop up)  |
| Block 8  | Hazards: Identify hazards (low visibility, overhead hazard, swift current, stump holes)   |
| Block 9  | Hazard Probability: Probability a hazard will be encountered during task. Select from drop down box.  |
| Block 10 | Severity/Consequence: Consequences should an event occur. Select from drop down box.  |
| Block 11 | Risk Assessment Code (RAC): When blocks 09 and 10 are populated a Risk Assessment Code (RAC) will be automatically assigned.<br>Identify Risk Mitigation Measures: Identify mitigation and abatement measures in block 12   |
| Block 12 | List all mitigation or abatement measures: What mitigation or abatement strategies will eliminate or minimize residual risk (ex. engineering, administrative, PPE, Avoidance, education, etc.)<br>Residual Risk: See instructions for blocks 13-17.   |
| Block 13 | Severity/Consequence: Severity/consequence following mitigation or abatement actions. Select from drop down box.  |
| Block 14 | Hazard Probability: Probability following mitigation or abatement actions. Select from drop down box.   |
| Block 15 | Risk Assessment Code (RAC): When blocks 13 and 14 are populated a RAC in block 15 will be automatically assigned. Fill out the risk questionnaire pop up and this will give you block 16.   |
| Block 16 | Necessary: Is the risk necessary following mitigation or abatement actions. Yes/No This will be auto-populated based on the answers provided on the risk questionnaire. If the answer is No, either develop additional or alternate mitigations, modifications, or do not accept  |
| Block 17 | Person or operational area assigned the abatement actions. This can be left blank.  |

**Severity/Consequences**

|              |  |
|--------------|--|
| Catastrophic | Impact to objective (Imminent and immediate danger of death or permanent disability; major property or facility damage; loss of critical system or equipment). |
| Critical     | Impact to objective (Permanent partial disability, temporary total disability; moderate environmental damage; extensive damage to equipment).                  |
| Moderate     | Impact to objective (Hospitalized minor injury, reversable illness; minor damage to equipment, property or the environment).                                   |
| Negligible   | Impact to objective (First aid or minor medical treatment; little or no property or environmental damage).   |

**Probability**

|                |   |
|----------------|---|
| Almost Certain | Continuously experienced.                 |
| Likely         | Will occur frequently.                    |
| Possible       | Will occur several times.                 |
| Unlikely       | Remotely possible but not probable.       |
| Rare           | Improbable; but has occurred in the past. |

**Definitions**

|                       |   |
|-----------------------|---|
| Probability           | The likelihood or the chance of an event occurring.   |
| Severity              | The magnitude of impacts or consequences stemming from an event.  |
| Consequence           | The outcome or effect of an event or incident, usually evaluated with respect to objectives.  |
| Severity /Consequence | Both terms are used interchangeably, both refer to the impact that a hazard could have on the objective.  |
| Hazard                | Any real or potential condition that can cause damage, loss, or harm to people, infrastructure, equipment, natural resources, property or objective.        |
| Risk                  | Risk is "the effect of uncertainty on objectives" typically expressed as an estimate of the probability and severity/consequence of uncertain future events |

| Risk Assessment Matrix                                       |   | Probability<br><i>Likelihood of Mishap if Hazard is Present</i> |  |   |   |   |
|--|---|---|--|---|---|---|
|  |   | Almost Certain<br><small>(Continuously experienced)</small>     | Likely<br><small>(Will occur frequently)</small> | Possible<br><small>(Will occur several times)</small> | Unlikely<br><small>(Remotely possible but not probable)</small> | Rare<br><small>(Improbable; but has occurred in the past)</small> |
| Severity/Consequences<br><i>Consequence if Mishap Occurs</i> | <b>Catastrophic</b><br><small>(Imminent and immediate danger of death or permanent disability; major property or facility damage; loss of critical system or equipment)</small> | Extremely High  | Extremely High                                   | Extremely High  | High  | Moderate  |
|  | <b>Critical</b><br><small>(Permanent partial disability, temporary total disability; moderate environmental damage; extensive damage to equipment)</small>                      | Extremely High  | Extremely High                                   | High  | Moderate  | Moderate  |
|  | <b>Moderate</b><br><small>(Hospitalized minor injury, reversible illness; minor damage to equipment, property or the environment)</small>                                       | High  | High   | Moderate  | Low   | Low   |
|  | <b>Negligible</b><br><small>(First aid or minor medical treatment; little or no property or environmental damage)</small>   | Moderate  | Moderate   | Low   | Low   | Low   |

**Severity/Consequences:** Both terms are used interchangeably, both refer to the impact that a hazard could have on the objective. Should something go wrong, the results are likely to occur in one of these areas - Injury or Death, equipment damage, project/fire operations degradation, adverse publicity, environmental damage, property damage, etc.

|                     |  |
|---------------------|--|
| <b>Catastrophic</b> | Impact to objective (Imminent and immediate danger of death or permanent disability; major property or facility damage; loss of critical system or equipment). |
| <b>Critical</b>     | Impact to objective (Permanent partial disability, temporary total disability; moderate environmental damage; extensive damage to equipment).                  |
| <b>Moderate</b>     | Impact to objective (Hospitalized minor injury, reversible illness; minor damage to equipment, property or the environment).                                   |
| <b>Negligible</b>   | Impact to objective (First aid or minor medical treatment; little or no property or environmental damage).   |

**Probability:** The likelihood or the chance of an event occurring.

|                       |   |
|-----------------------|---|
| <b>Almost Certain</b> | Continuously experienced.                 |
| <b>Likely</b>         | Will occur frequently.                    |
| <b>Possible</b>       | Will occur several times.                 |
| <b>Unlikely</b>       | Remotely possible but not probable.       |
| <b>Rare</b>           | Improbable; but has occurred in the past. |