


Appalachian National Scenic Trail		1. WORK PROJECT/ACTIVITY Riding Mower Operation	2. LOCATION Trail Wide	Includes work performed on lands of National Park Service, and various states' park and lands
JOB HAZARD ANALYSIS (JHA) References-FSH 6709.11 and -12 OSHA (Instructions on Reverse)		3. NAME(S) OF ANALYST(S) Keith Stegall / Jessica Bundy	4. Work Supervisor Various	5. DATE PREPARED 2/11/2019
Required Standards and General Notes:	Operator must be trained on the specific type of riding mower to be used.			
Required Personal Protective Equipment	Safety glasses, hearing protection, sturdy boots, safety vest if working on or near roadways. Hard hat offers additional visibility and protection from overhead hazards, face shield and/or dust mask are optional, gloves are optional except when servicing equipment.			
Tools and Equipment	First aid kit			
Available Training Materials	Receive instruction from trained and experienced operator, or read and understand equipment manual, as well as APPA Mowing Manual and Reference Guide.			
7. TASKS/PROCEDURES		8. HAZARDS, POTENTIAL HAZARDS / INJURY SOURCE	9. ABATEMENT ACTIONS OR PROCEDURES Engineering Controls * Substitution * Administrative Controls * PPE	
Review Manufacturer's Operating Manual		Lack of knowledge of equipment can lead to accidents	Review manufacturer's operating manual for each piece of equipment to be used. This is to be done at the beginning of each season, by any new operator, or sooner, if conditions change. Maintain and/or replace safety and instruction labels, as necessary.	
Transporting equipment		Fuel spillage	Secure mower and fuel can on vehicle to prevent overturning. Store and transport fuel only in approved containers. Fuel and fueled equipment must be transported outside of passenger compartment. If a spill occurs, observe proper disposal laws and regulations for gas, oil, etc. to protect the environment.	
		Damage to mower	Secure mower on vehicle to prevent overturning or damage to equipment or others.	
		Loading equipment	<ul style="list-style-type: none"> ● Get help in heavy or awkward situations. ● Ensure that transport equipment is appropriate for the mower. ● Loading ramps must be sized to support weight and wheelbase of mower. 	
Pre-Operation: Sharpening blades		Potential for bodily harm from falling equipment	<ul style="list-style-type: none"> ● Where practical, detach mower deck from machine to avoid being underneath equipment. ● Use proper jack stands and hoists. ● Secure mower so that it remains stable. ● Remove blades from equipment for sharpening. 	
		Electric shock; electrocution	If using electrical tools for sharpening or other repairs, inspect cord, use GFCI-protected outlet. Do not use if work area is wet.	
		Severe cuts and abrasions	Use caution and wear gloves when inspecting or changing blades.	

	Exposure to poisonous plants.	Blades may have residual sap or contaminants from poisonous vegetation; protect skin with appropriate PPE, gloves, and clothing.
	Burns from hot blades	Wear heavy gloves and block/lock the blade from moving.
	Injury from flying sparks and metal chips; debris embedded in eyes	Wear ANSI approved safety glasses. Verify that safety side shields are in place.
Pre-Operation: Greasing fittings	Grease or debris on skin or in eyes	Wear rubber or nitrile gloves and ANSI approved safety glasses.
Pre-Operation: Blowing off mower	Debris, dust, and grass clippings in eyes	Wear ANSI approved safety glasses. Stand back from blower while using.
Pre-Operation: Safety check of mower	Lacerations from blades	Wear heavy gloves and use caution when inspecting blades.
	Under inflated or damaged tires or wheels	Check tires and wheel hardware
	Unable to shut off engine	Ensure throttle and stop and/or kill switch are working.
	General condition	<ul style="list-style-type: none"> ● Walk around to identify any missing, broken, damaged parts or pieces to assess general condition, and that all safety equipment is present, including safety guards and deflectors.
Pre-Operation: Check area to be mowed	Damage to self, mower, or others through slips, trips, impact.	<ul style="list-style-type: none"> ● Check for and remove from area, any large rocks, glass, metal, or other debris that could be thrown by mower. ● Assess route for moving between mowing sites if needed ● Ensure the public/visitors are not in immediate cutting area. ● Examine area to identify areas of low overhead clearance
	Severe Slope	<ul style="list-style-type: none"> ● Develop mowing plan that identified steep slopes and what approach will be taken to accomplish task. Refer to mower user manual for max slope specifications.
Mount and start mower	Slip/trip/fall	<ul style="list-style-type: none"> ● Always ensure 3-point contact when mounting and dismounting.
	Bodily injury from lurching equipment	<ul style="list-style-type: none"> ● Ensure seatbelt engaged. ● Ensure safety features (i.e., neutral switch) operating properly. If applicable, ensure the rollover bar is in proper position.
Operating Mower	Accidents caused by improper or unsafe operation	<ul style="list-style-type: none"> ● Operator shall be familiar with all safety procedures and have documented training on all aspects of operation. ● Never attempt to make adjustments or repairs to the mower while the engine is running. ● Only allow the operator on the machine while the engine is running; never allow passengers to ride on the mower.

	Loss of control	<ul style="list-style-type: none"> ● Mow in accordance with manufacturer's recommendations. Stay within maximum slope allowed for each machine to minimize rollover risk. ● Mow no closer than one mower width from drop offs, water, or hills that exceed the slope limit. Use a walk behind mower or string cutter in this danger zone.
	Struck by thrown debris, obstacles	<ul style="list-style-type: none"> ● Wear ANSI approved PPE, including: safety glasses or goggles, and hearing protection. Reflective vests are required when mowing near moving traffic. ● Periodically ensure that the blade is securely fastened in place and check retaining bolt for tightness. ● Use caution when mowing and be on constant lookout for objects or debris in the path of mower. ● Continually check overhead clearances carefully before driving under low hanging tree branches, wires, openings, etc., where the operator may be struck or pulled from the machine. ● Maintain a safe distance of at least 50 feet from bystanders or other co-workers and use caution when mowing near buildings and vehicles. Always discharge away from bystanders and traffic. ● Shut off mower when encountering visitors on treadway.
Refueling engine	Fuel spillage, fire, an explosion	<ul style="list-style-type: none"> ● Shut off engine and allow to cool before fueling. ● Fuel mower only in well-ventilated area. ● Remove fuel caps from mower and fuel container slowly. ● Do not smoke or bring any ignition source close to fuel. ● Do not overfill fuel tank. Wipe off any spilled or excess fuel from tank and/or mower. ● Tighten fuel cap securely and check fuel cap and fuel lines for leaks after fueling and periodically during operation. ● Immediately shut off engine if fuel leaks are observed. ● Use approved fuel cans, store and transport fuel safely.
Performing field maintenance of equipment	Struck by cutting attachments	<ul style="list-style-type: none"> ● Always stop the engine and make sure that the cutting tool has stopped rotating before performing any maintenance or repair work. ● Remove key or disconnect coil.
	Malfunctions and/or injuries caused by faulty equipment	<ul style="list-style-type: none"> ● Follow the maintenance and repair instructions in the owner's manual. ● Use only approved replacement parts and cutting attachments.
10. OFFICIAL SIGNATURE 	11. TITLE Achag Chief Ranger - Safety Officer	12. DATE 6/28/19