U.S. Department of Agriculture Forest Service	WORK PROJECT/ACTIVITY Boat Use (Rx Fire & Wildfires)	LOCATION Superior NF East Zone	UNIT 09 – 02/07
JOB HAZAD ANALYSIS (JHA)	NAME OF ANALYST	JOB TITLE	DATE PREPARED
Refrences – FSH 6709.11 and -12	Kurt Schierenbeck	District FMO	1/29/2004

7. TASKS/PROCEDURES	8. HAZARDS	9. ABATEMENT ACTIONS Engineering Controls * Substitution * Administrative Controls * PPE
Hauling to a location	Injury to FS employee or public during travel, Damage to equipment,	Use a hauling vehicle of adequately rated capacity and capability. Preform a pre- trip inspection on the trailer. Make sure it is road worthy, if not, DO NOT USE! Make sure all lights are working and you have the correct size trailer hitch ball and it is correctly and securely attached to the vehicle. The driver must be proficient in driving with a trailer on a roadway and backing of a trailer. Make sure all items are secure and will not fall off or blow out of the trailer during travel. When hauling a motor boat make sure the motor is secure.
PPE	Injury, Illness, Exposure, Drowning	Personnel Flotation Device is "required" to be worn at all times while in a watercraft on the water. It should be of proper size and US Coast Guard Approved. Communication equipment of some type, either a FS radio, Cell phone, SAT phone or Marine radio must be on the water craft while in use. Warm clothing and rain gear is a good idea to carry along to help prevent hypothermia while on the water. If involved in Rx burns or wildfires an Approved Hard Hat must be wore as soon as you exit the watercraft. Use non skid boots while traveling in the watercraft to prevent slips and falls. Make sure all fire tools are properly protected while on board the watercraft and are clear of passengers and the fuel supply. Balance of equipment and on the watercraft is extremely important to ensure a safe water experience.
Loading and Unloading and Fueling the Boat	Injury, Fire from fueling	Use non-skid surface, if available, while loading and unloading watercraft. Enter slowly and keep a good low center of gravity while entering the watercraft. Enter watercraft on operators command. No smoking is allowed while in watercraft if gas or any type of fuel in on board. No smoking while refueling the watercraft.
Underway	Capsizing, Person overboard, Rough water, Collision, Fire	Be observant of other boat traffic and rocks while on the water. If needed, have a map of the lake or destination of trip on board. All personnel must wear approved PFD while underway on the water at all times. Use proper speed for the conditions, make sure all cargo is secured in a fashion that it will not blow out of the watercraft. Have look outs posted for rocks if needed, carry extra safety equipment such as: Radio, Tools, Kicker Motor, Oaks, Paddles, Extra Fuel and Extra food and Clothing.

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Tieing up to shore, Dock Use	Damage to Boat or Motor, Lost Boat	Keep lines and anchors properly stowed. Inspect prior to use and make sure they are properly attached to the watercraft. Make sure the the watercraft is securely anchored to shore and pulled up in a fashion that the watercraft will not sustain damage from waves, wind or adverse weather. If docked on a dock make sure the watercraft in secured on the bow and stern of the watercraft. Raise motor to prevent damage to the prop while anchored to the shore.
Maintence	Condition of equipment	Boat motors must be maintained yearly. The lower unit grease should be changed each year. Prop should be inspected for cracks. If damage apeared the prop should be replaced prior to use. Four Stroke motors should have the oil and oild filter changed. Gas should be drained from the gas line for winter storage. Spark plugs and gas filter should be replaced yearly if needed. Make sure the drainplug is in the watercraft and properly attached prior to putting to watercraft in the water. Do a visual inspection of the watercraft prior to use.
Transportation of Fuel in Watercraft	Fuel spills, Fire	No Smoking while fuel of any kind is in the watercraft. All fuel "must" be transported in a approved and proper container. (See Health and Safety Code book and OSHA regulations) for more details. This includes: Chainsaws, Drip Torch Fuel, Portable Pump Gas, etc. Make sure all containers are transported in an upright position and are secure for travel in the watercraft. Keep fuel away from personnel clothing and fire line gear to prevent contact.
Emergency Procedures	Illness or Injury	 Notify Superior Dispatch of an emergency via radio or cell phone (218.327.4175) or SAT phone. Treat the Injury as qualified to do so. Be prepared to give the following Patient Assessment information to dispatch: Location in which injuried party is: (Lake name, etc.) Type of Injury Severity of Injury Plan of extraction Closest boat landing or portage The Incident Response Pocket Guide (Pink Pages) has more Health and Safety information that could be useful. Notify your Supervisor as soon as possible about the Incident and fill out the proper paper work.

10. LINE OFFICER SIGANTURE	11. TITLE	12. DATE

JHA Instructions (References-FSH 6709.11 and .12)	Emergency Evacuation Instructions (Reference FSH 6709.11)
The JHA shall identify the location of the work project or activity, the name of employee(s) involved in the process, the date(s) of acknowledgment, and the name of the appropriate line officer approving the JHA. The line officer acknowledges that employees have read and understand the contents, have received the required training, and are qualified to perform the work project or activity.	Work supervisors and crew members are responsible for developing and discussing field emergency evacuation procedures (EEP) and alternatives in the event a person(s) becomes seriously ill or injured at the worksite. Be prepared to provide the following information:
Blocks 1, 2, 3, 4, 5, and 6: Self-explanatory.	a. Nature of the accident or injury (avoid using victim's name).
 Block 7: Identify all tasks and procedures associated with the work project or activity that have potential to cause injury or illness to personnel and damage to property or material. Include emergency evacuation procedures (EEP). Block 8: Identify all known or suspect hazards associated with each respective task/procedure listed in block 7. For example: a. Research past accidents/incidents. b. Research the Health and Safety Code, FSH 6709.11 or other appropriate literature. c. Discuss the work project/activity with participants. d. Observe the work project/activity. 	 a. Nature of the accident of highly (avoid using victims hane). b. Type of assistance needed, if any (ground, air, or water evacuation). c. Location of accident or injury, best access route into the worksite (road name/number), identifiable ground/air landmarks. d. Radio frequencies. e. Contact person. f. Local hazards to ground vehicles or aviation. g. Weather conditions (wind speed & direction, visibility, temperature). h. Topography. i. Number of individuals to be transported. j. Estimated weight of individuals for air/water evacuation.
e. A combination of the above.	
 Block 9: Identify appropriate actions to reduce or eliminate the hazards identified in block 8. Abatement measures listed below are in the order of the preferred abatement method: a. Engineering Controls (the most desirable method of abatement). For example, ergonomically designed tools, equipment, and furniture. 	JHA and Emergency Evacuation Procedures Acknowledgment We, the undersigned work leader and crew members, acknowledge participation in the development of this JHA (as applicable) and accompanying emergency evacuation procedures. We have thoroughly discussed and understand the provisions of each of these documents: SIGNATURE DATE SIGNATURE DATE
 b. Substitution. For example, switching to high flash point, non-toxic solvents. 	
c. Administrative Controls. For example, limiting exposure by reducing the work schedule; establishing appropriate procedures and practices.	
d. PPE (least desirable method of abatement). For example, using hearing protection when working with or close to portable machines (chain saws, rock drills, and portable water pumps).	
e. A combination of the above.	
Block 10: The JHA must be reviewed and approved by a line officer. Attach a copy of the JHA as justification for purchase orders when procuring PPE.	
Blocks 11 and 12: Self-explanatory.	