
INCIDENT ACTION PLAN

MUCKAMUCK FIRE

Monday, September 13, 2021
0700-1900 Operational Period

PERCENT OF EFFORT



<i>Ground</i>	Daily	Approval
DNR	%	
USFS	%	
BLM	%	

<i>Air</i>	Daily	Approval
DNR	%	
USFS	%	
BLM	%	



WA-COF-2290
221-KTR
P6 N75D - 0621



Incident Objectives	1. Incident Name Muckamuck	2. Date Prepared 9/12/2021	3. Time Prepared 1800
4. Operational Period (Date and Time) 9/13/2021 0700-1900			
5. General Control Objectives for the Incident (include Alternatives)			
<ul style="list-style-type: none"> • Implement risk management practices that provide for the safety of firefighters, other responders, and the public • Establish control line in areas where there is a high probability of success and ensure that firefighters exposures are commensurate with expected benefits. • Conduct suppression repair activities in conjunction with resource advisors to prevent long term damage to resources. • Foster good relationships with local cooperators, stakeholders and the public by providing coordinated, accurate and timely information. • Keep cost commensurate with values at risk by working with local unit and coordinating with the Agency Administrators and Incident Business Advisor. • Manage the human resources assigned to the fire in a manner that promotes a positive and harassment free work environment to strengthen relationships and team work. • Utilize the Best Management Practices to reduce the spread of COVID-19 to the community and fire fighters. 			
6. Weather Forecast for Operational Period			
See attached weather forecast.			
7. General Safety Message			
<ul style="list-style-type: none"> • Provide for firefighter and public safety at all times. • Monitor compliance of 10 and 18 by all incident personnel. • Adhere to 2:1 work/rest ratio for all fire line personnel. • Aviation safety is high priority. Assess the risk against the benefit of the mission. • Ensure all assigned personnel understand emergency medical reporting & transport 			
8. Attachments (check if attached)			
<input checked="" type="checkbox"/> Organization List (ICS 203) <input checked="" type="checkbox"/> Assignment List (ICS 204) <input checked="" type="checkbox"/> Air Operations (ICS 220) <input checked="" type="checkbox"/> Weather <input checked="" type="checkbox"/> Communication Plan (ICS 205) <input checked="" type="checkbox"/> HR Message <input checked="" type="checkbox"/> Safety Message <input checked="" type="checkbox"/> Medical Plan (ICS 206) <input checked="" type="checkbox"/> Incident Maps			
ICS-202	9. Prepared by (PSC) 	10. Approved by (IC) 	

ORGANIZATION ASSIGNMENT LIST					
1. Incident Name		Muckamuck		9. OPERATIONS SECTION	
2. Date	9/12/2021	3. Time	1800	Field	Josh Tellessen
4. Operational Period		9/13/2021 0700-1900		Planning	Jimmy Corvino
5. INCIDENT COMMANDER & STAFF				b. Division C	
Incident Commander	Bill Dennstaedt		Division Supervisor	Tim Love	
Deputy Incident Commander	Shane Robson		Deputy		
Safety Officer	Bob Schwiesow		d. Division X		
Safety Officer	Don Fortier		Division Supervisor	Max Leyva	
Information Officer	Don Malone		Deputy		
6. AGENCY REPRESENTATIVE				d. Roads/Repair Group	
Agency	Name		Division Supervisor	Brian Pratt	
USFS AA	Kathy Johnson		Deputy	Dylan Chester (T)	
DNR AA	Pat Ryan		10. FINANCE SECTION		
BLM AREP	Chris Sheridan		Chief	Cari Richardson	
BOR AREP	Kendra Fallon		Deputy	Michelle Leonard	
Okanogan FD 9	Tim Tugaw		Time Unit	Marcy Johnson	
Okanogan DEM	Maurice Goodall		11. CONTACTS / OTHER INFORMATION		
REAF	Melissa Pingree		NEWICC 509.685.6900 Fax 509.685.6918		
REAF	Matt Quinn		ICP Security: Janell Bissonette 845.926.0578		
7. PLANNING SECTION				Spike Camp/Roads Security: Jace Baxter 360.255.1444	
Chief	Debbie Plummer				
GISS (T)	Willa Zyskowski				
ITSS	Bradley Dilg		Prepared by (Resource Unit Leader)		
8. LOGISTICS SECTION				Debbie Plummer, PSC3	
Chief	Matt Lougy				
Deputy	Mike Bucy				
Basecamp Manager	Mark Williams				
Spike Camp Manager	Paul Footen				
Communications	Todd Bellfueille				

DIVISION ASSIGNMENT LIST			1. Branch	2. Division / Group C		
3. Incident Name Muckamuck			4. Operational Period Date: 9/13/2021 Time: 0700-1900			
5. Operations Personnel						
Field Operations		<i>Josh Tellessen</i>		Planning Operations		<i>Jimmy Corvino</i>
Safety Officer		<i>Bob Schwiesow</i>		Division/Group Supervisor		<i>Tim Love</i>
6. Resources Assigned this Period						
RO #	Strike Team/Task Force/Resource	Leader	# People	Contact (phone, radio freq, etc.)	EMT	Remarks
C-3002	Franco Reforestation HC2	Esequiel Tapia	20		<input type="checkbox"/>	LWD 9/16
C-3003	North Columbia HC2IA	Mike Stralser	16		<input type="checkbox"/>	LWD 9/24
E-151	Chewack Wildfire T4	Greg Issac	3		<input type="checkbox"/>	LWD 9/23
E-157	Methow River Wildfire T4	Clayton Bell	3		<input type="checkbox"/>	LWD 9/14
E-158	S&L Services WT2	Clayton Moran	1		<input type="checkbox"/>	LWD 9/24
E-77	Torch Fire T6	Andrew Gruzin	3		<input type="checkbox"/>	LWD 9/15
					<input type="checkbox"/>	
S-2	REMS Team	Colin Stenhouse	4		<input checked="" type="checkbox"/>	LWD 9/20
					<input type="checkbox"/>	
			50		<input type="checkbox"/>	
7. Work Assignments						
<p>1) Patrol and mop-up, as needed. 2) Coordinate and support suppression repair.</p>						
8. Special Instructions						
1) READ's will rove all divisions. READ's will check in and out with Division Supervisors.						
9. Communication Summary						
Function	Name	Mode	Frequency			
COMMAND	COMMAND 3 or 4	N	See Communication Plan ICS205 for Details			
TACTICAL	TAC 5	N				
AIR	PRIMARY A/G	N				
Prepared by (RESL)		Approved by (PSC) Debbie Plummer		Date: 9/12/2021	Time: 1800	

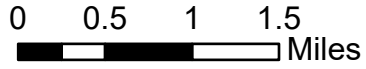
DIVISION ASSIGNMENT LIST			1. Branch		2. Division / Group X	
3. Incident Name Muckamuck			4. Operational Period Date: 9/13/2021 Time: 0700-1900			
5. Operations Personnel						
Field Operations		<i>Josh Tellessen</i>		Planning Operations		<i>Jimmy Corvino</i>
Safety Officer		<i>Bob Schwiesow</i>		Division/Group Supervisor		<i>Max Leyva</i>
6. Resources Assigned this Period						
RO #	Strike Team/Task Force/Resource	Leader	# People	Contact (phone, radio freq, etc.)	EMT	Remarks
C-39	ASI Arden Inc. HC2	Ignacio Sartana	20		<input type="checkbox"/>	LWD 9/15
E-150	Methow River Wildfire T4	Jordi Hernandez	3		<input type="checkbox"/>	LWD 9/17
E-153	Liberty Wildfire T6	Cliff Middleton	3		<input type="checkbox"/>	LWD 9/16
E-3039	H&H Enterprises WT2	Marc Anderson	1		<input type="checkbox"/>	LWD 9/23
					<input type="checkbox"/>	
					<input type="checkbox"/>	
					<input type="checkbox"/>	
			27		<input type="checkbox"/>	
7. Work Assignments						
<p>1) Patrol and mop-up, as needed. 2) Coordinate and support suppression repair.</p>						
8. Special Instructions						
1) READ's will rove all divisions. READ's will check in and out with Division Supervisors.						
9. Communication Summary						
Function	Name	Mode	Frequency			
COMMAND	COMMAND 3 or 4	N	See Communication Plan ICS205 for Details			
TACTICAL	TAC 7	N				
AIR	PRIMARY A/G	N				
Prepared by (RESL)		Approved by (PSC) Debbie Plummer			Date: 9/12/2021	Time: 1800

DIVISION ASSIGNMENT LIST		1. Branch	2. Division / Group			
3. Incident Name Muckamuck		4. Operational Period Date: 9/13/2021 Time: 0700-1900				
5. Operations Personnel						
Field Operations	<i>Josh Tellesen</i>		Planning Operations	<i>Jimmy Corvino</i>		
Safety Officer	<i>Bob Schwiesow</i>		Division/Group Supervisor	<i>Brian Pratt/Dylan Chester (T)</i>		
6. Resources Assigned this Period						
RO #	Strike Team/Task Force/Resource	Leader	# People	Contact (phone, radio freq, etc.)	EMT	Remarks
O-123	HEQB (T)	Eric Weinke	1		<input type="checkbox"/>	LWD 9/15
O-3009	REAF	Mike Quinn	1		<input type="checkbox"/>	LWD 9/15
O-3035	HEQB (T)	Craig Heinemann	1		<input type="checkbox"/>	LWD 9/24
O-3039	HEQB (T)	Jesse Connor	1		<input type="checkbox"/>	LWD 9/24
C-3004	GFP Enterprises HC2	Roger Lemieus	20		<input type="checkbox"/>	LWD 9/24
E-131	Anderson Excavation EXCA2	Chris Anthrop	2		<input type="checkbox"/>	LWD 9/23
E-3030	TJ's Mech Cutting EXCA3	Courtney Kamy	2		<input type="checkbox"/>	LWD 9/22
E-3033	Rude Logging SKD1	Keith Dougharty	2		<input type="checkbox"/>	LWD 9/22
E-3034	McCuen Enterprise FEL2	Richard Elder	2		<input type="checkbox"/>	LWD 9/21
E-3043	JB Contractors LLC EXCA3		2		<input type="checkbox"/>	LWD 9/25
					<input type="checkbox"/>	
					<input type="checkbox"/>	
			34			
7. Work Assignments						
<p>1) Prioritize repair work to be completed with current resources available. 2) Coordinate work across all divisions.</p>						
8. Special Instructions						
<p>1) READ's will rove all divisions. READ's will check in and out with Division Supervisors.</p>						
9. Communication Summary						
Function	Name	Mode	Frequency			
COMMAND	COMMAND 3 or 4	N	See Communication Plan ICS205 for Details			
TACTICAL	TAC 8	N				
AIR	PRIMARY A/G	N				
Prepared by (RESL)		Approved by (PSC)		Date:	Time:	
		Debbie Plummer		9/12/2021	1800	

IAP Map

Muckamuck Fire
WA-COF-2290
09/13/2021

13,297 acres at 09/12/2021

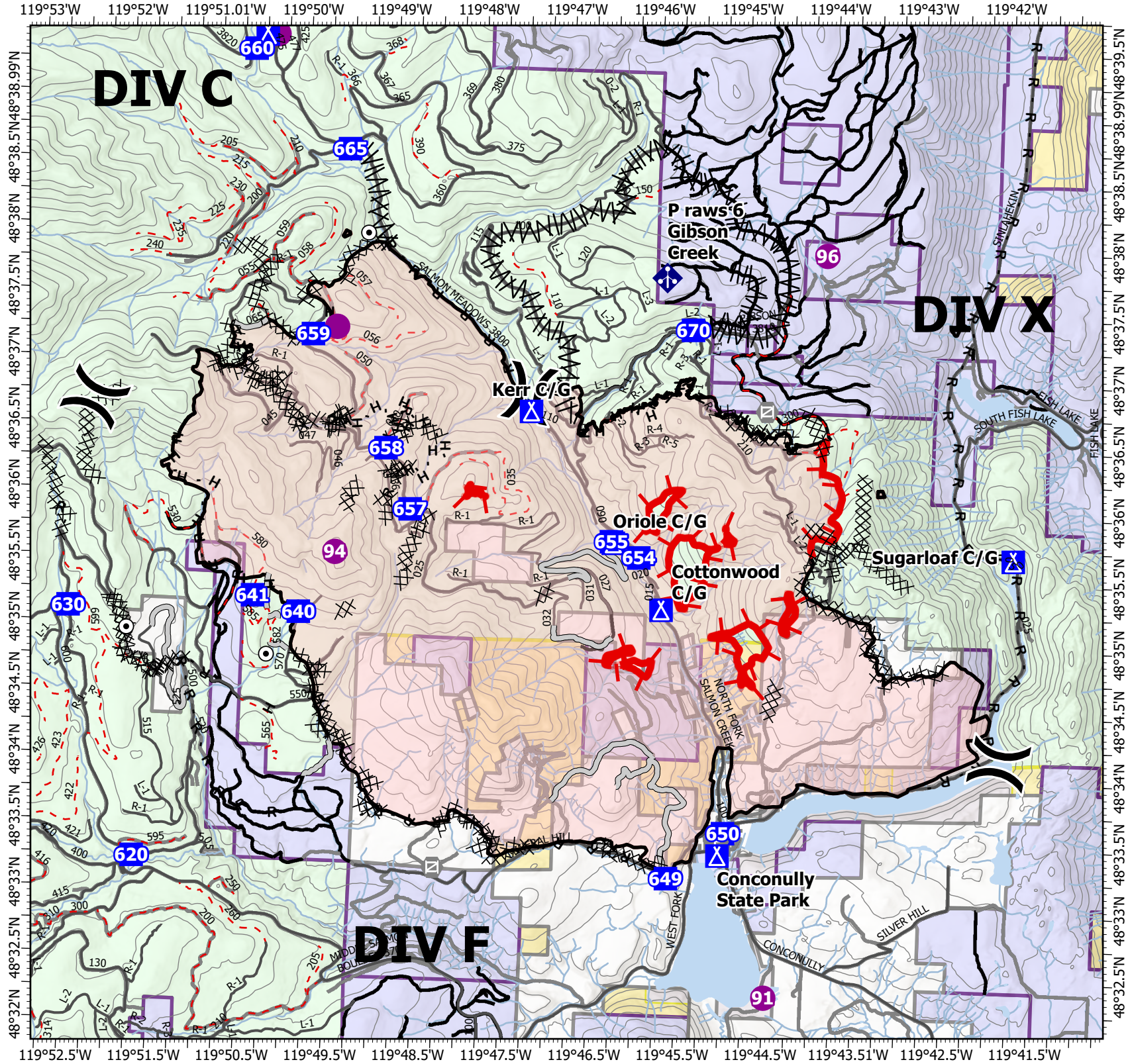


Legend

- Helispot
- ⌘ Division Break
- Drop Point
- ▲ Camp
- ⊙ Hot Spot - Spot Fire
- ⊙ Gate
- ⊙ Fire Station
- ⊙ Mobile Weather Unit
- ⊗ Completed Dozer Line
- ⊗ Completed Fuel Break
- ⊗ Completed Hand Line
- ⊗ Completed Road as Line
- Access or Improved Road
- Other
- ▬ Fire Edge
- ▬ Contained Line
- ▬ Wildfire Daily Fire Perimeter



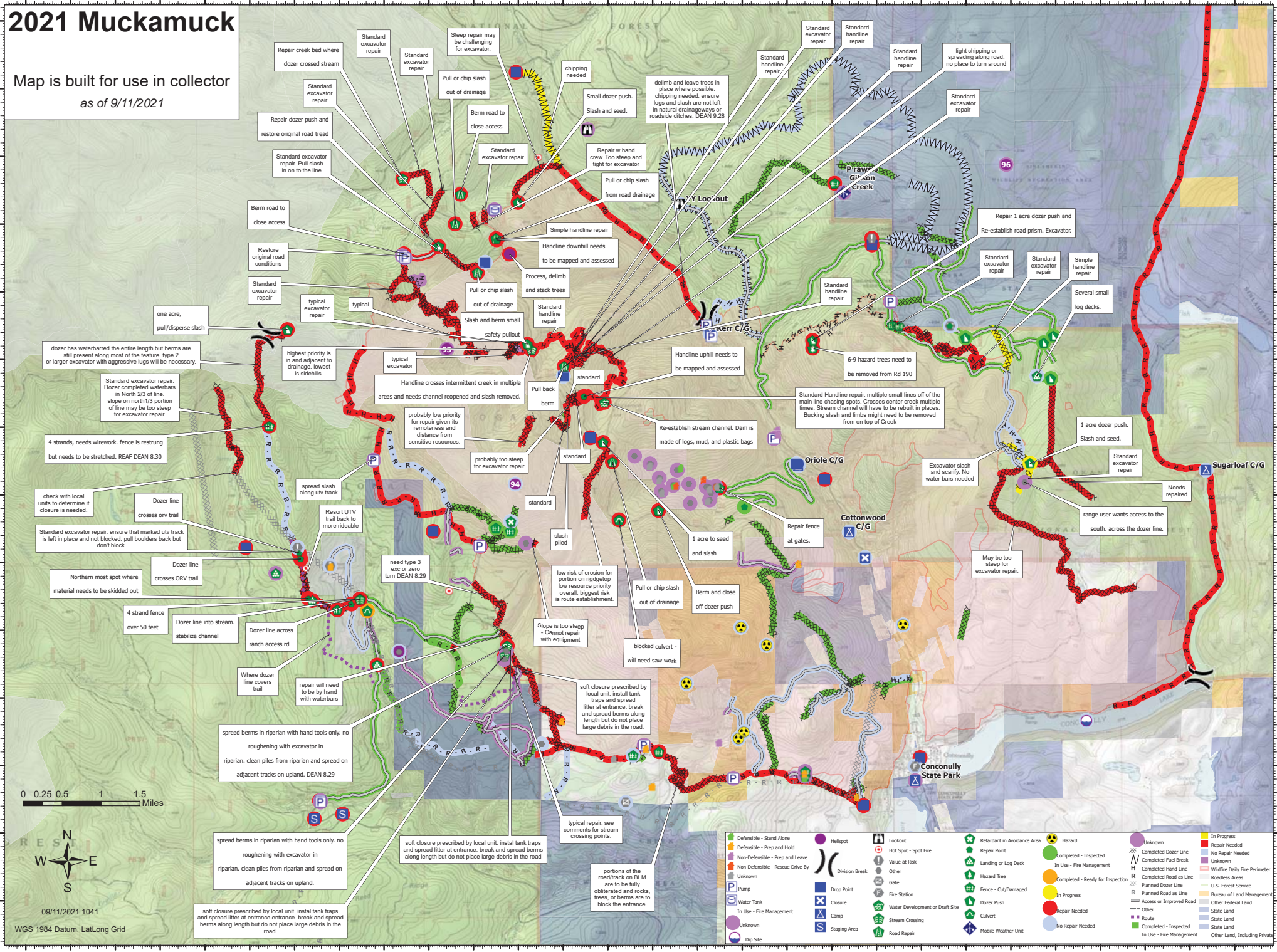
WSZ
9/12/2021 1607
IR Flight
North American 1983 Datum.



119°55'W 119°54'W 119°53'W 119°52'W 119°51.01'W 119°50'W 119°49'W 119°48'W 119°47'W 119°46'W 119°45'W 119°44'W 119°43'W 119°42'W

2021 Muckamuck

Map is built for use in collector
as of 9/11/2021



09/11/2021 1041

WGS 1984 Datum, Lat/Long Grid

119°55'W 119°54'W 119°53'W 119°52'W 119°51.01'W 119°50'W 119°49'W 119°48'W 119°47'W 119°46'W 119°45'W 119°44'W 119°43'W 119°42'W

48°33.5'N 48°33'N 48°32.5'N 48°33.5'N 48°34'N 48°34.5'N 48°35'N 48°35.5'N 48°36'N 48°36.5'N 48°37'N 48°37.5'N 48°38'N 48°38.5'N 48°38.99'N

- Defensible - Stand Alone
- Defensible - Prep and Hold
- Non-Defensible - Prep and Leave
- Non-Defensible - Rescue Drive-By
- Unknown
- Pump
- Water Tank
- In Use - Fire Management
- Unknown
- Dip Site
- Helispot
- Lookout
- Hot Spot - Spot Fire
- Value at Risk
- Other
- Gate
- Fire Station
- Water Development or Draft Site
- Stream Crossing
- Road Repair
- Retardant in Avoidance Area
- Repair Point
- In Use - Fire Management
- Landing or Log Deck
- Hazard Tree
- Fence - Cut/Damaged
- Dozer Push
- Culvert
- Mobile Weather Unit
- Hazard
- Completed - Inspected
- In Use - Fire Management
- Completed - Ready for Inspection
- In Progress
- No Repair Needed
- In Progress
- Repair Needed
- No Repair Needed
- Completed Dozer Line
- Completed Fuel Break
- Completed Hand Line
- Completed Road as Line
- Planned Dozer Line
- Planned Road as Line
- Access or Improved Road
- Other Federal Land
- State Land
- State Land
- State Land
- Other Land, Including Private
- In Progress
- Repair Needed
- No Repair Needed
- Unknown
- Wildfire Daily Fire Perimeter
- Roadless Area
- U.S. Forest Service
- Bureau of Land Management
- Other Federal Land
- State Land
- State Land
- Other Land, Including Private

WEATHER	1. Incident Name Muckamuck	2. Date Prepared 9/12/2021	3. Time Prepared 1800
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DISCUSSION

General winds will be shifting through the day. Sheltered valleys will be light up/slope and valley. Cloud buildup in the afternoon is not expected to generate any showers but will shade the area. A late morning inversion break is expected and minimum relative humidity will be above 30 percent overall. Tuesday will cloudier ahead of the next cold front so expect additional shading with a little stronger south wind on the ridges.

MONDAY

Sky/weather.....Sunny in the morning turning partly cloudy in the afternoon.
 CWR.....0 percent.
 LAL.....1.
 Max temperature.....Around 62.
 Min humidity.....35 percent.
 Wind (20 ft).....East winds 5 to 6 mph becoming southeast in the afternoon.
 Mixing height.....6500 ft AGL.
 Transport winds.....South around 5 mph.
 Haines Index.....2 or very low potential for large plume dominated fire growth.

MONDAY NIGHT

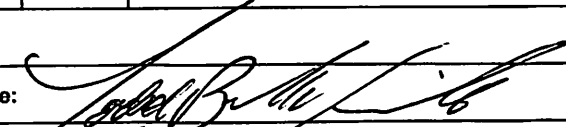
Sky/weather.....Partly cloudy.
 CWR.....0 percent.
 LAL.....1.
 Min temperature.....Around 45.
 Max humidity.....65 percent.
 Wind (20 ft).....Northwest winds 5 to 7 mph.
 Mixing height.....4000 ft AGL in the evening decreasing to near the surface overnight.
 Transport winds.....West around 6 mph.
 Haines Index.....2 or very low potential for large plume dominated fire growth.

TUESDAY

Sky/weather.....Sunny then becoming partly sunny.
 CWR.....0 percent.
 LAL.....1.
 Max temperature.....Around 59.
 Min humidity.....47 percent.
 Wind (20 ft).....Northwest winds 3 to 4 mph in the morning shifting to the south around 6 mph in the afternoon.
 Mixing height.....0 ft AGL in the morning increasing to 4500 ft AGL in the afternoon.
 Transport winds.....South around 8 mph.
 Haines Index.....2 or very low potential for large plume dominated fire growth.

9. Prepared by (Name and Position)

Debbie Plummer, PSC3

INCIDENT RADIO COMMUNICATIONS PLAN I-205				1. INCIDENT NAME			2. DATE/TIME PREPARED			3. OPERATIONAL PERIOD DATE/TIME		
				Muckamuck Fire			09/12/2021			09/13/2021 DAYS		
4. BASIC RADIO CHANNEL UTILIZATION												
Ch #	Function	Channel Name	Assignment	RX Freq	N/W	RX Tone/NAC	TX Freq	N/W	TX Tone/NAC	Mode Analog (A) Digital (D) Mixed (M)	Remarks	
1	COMMAND	FOREST ROCK	CMD	170.4750	N	146.2	164.9625	N	110.9	A	FS RPTR ROCK	
2	COMMAND	FOREST TUNK	CMD	170.4750	N	146.2	164.9625	N	141.3	A	FS RPTR TUNK	
3	MUCK COMMAND	CMD 3	CMD	151.1375	N	136.5	159.4725	N	136.5	A	CMD 3 ON BUCK MNTN (LINKED)	
4	MUCK COMMAND	CMD 4	CMD	154.4525	N	136.5	158.7375	N	136.5	A	CMD 4 ON FUNK MNTN (LINKED)	
5	TAC	TAC 5	DIV C	154.2800	N	156.7	154.2800	N	156.7	A	DIVISION C *****	
6	TAC	TAC 6	DIV F	154.2650	N	156.7	154.2650	N	156.7	A	DIVISION F *****	
7	TAC	TAC 7	DIV X	154.2950	N	156.7	154.2950	N	156.7	A	DIVISION X *****	
8	TAC	TAC 8	R/R GRP	154.2725	N	156.7	154.2725	N	156.7	A	ROADS AND REPAIR GROUP	
9	TAC	TAC 9		154.2875	N	156.7	154.2875	N	156.7	A		
10	TAC	FS TAC	FS TAC	168.2000	N	0.0	168.2000	N	146.2	A	FS TAC	
11	TAC	DNR COMM		151.4150	N	103.5	151.4150	N	103.5	A	DNR COMMON	
12	TAC	DNR TAC1	TAC	151.3100	N	103.5	151.3100	N	103.5	A	DNR TAC 1	
13	TAC	RED NET	TAC	153.8300	N	0.0	153.8300	N	156.7	A	REDNET	
14	A/G	PRIMARY A/G	A/G	168.0125	N	0.0	168.0125	N	0.0	A	Muckamuck Primary A/G	
15	A/G	A/G 3	A/G	166.6125	N	0.0	166.6125	N	0.0	A	A/G 3	
16	AIRGUARD	AIRGUARD	EMERGENCY	168.6250	N	0.0	168.6250	N	110.9	A	EMERGENCY USE	
5. Special Instructions:												
6. I-205 Prepared By: Communications Unit Leader				Name: Todd Bellefeuille COML					Signature: 			

Muckamuck USFS Fire Suppression Repair Standards

Objectives

The intent of the Suppression Repair Plan is to mitigate adverse effects to resources resulting from fire suppression activities on the Muckamuck Fire. Surface water/erosion control, maintenance of site productivity and the repair of high valued recreational sites are the focus of this work. Completion of this repair work is critical to reducing the impacts of erosion and sedimentation to minimize continued resource impacts.

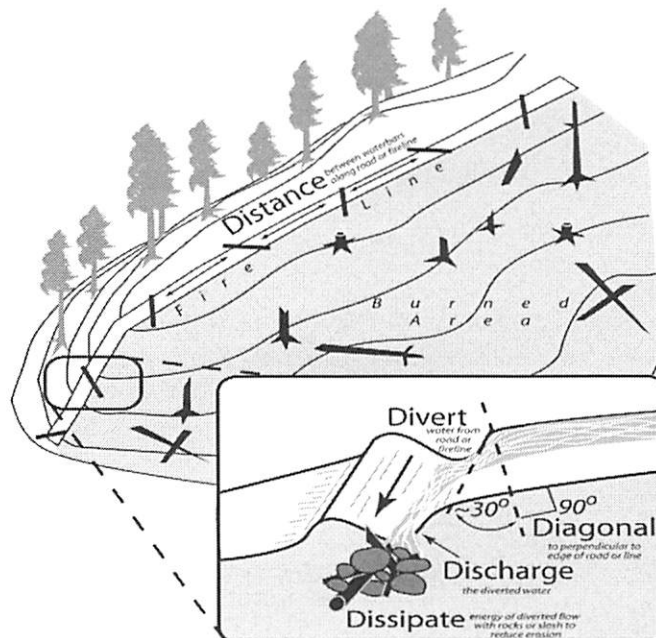
Fire line repair – Hand line

- Hand crews will be used to implement water bars. No equipment will be used to install water bars.
- Pull berms and blend disturbed areas to fit the natural contours.
- Height of hand constructed water bars should average 12 inches. Use natural dips and rolls where possible.
- Place water bars on hand lines with the following general spacing guidelines, modify as needed to minimize soil erosion.
 - < 15% - 150' spacing (distance apart)
 - 15 to 30% slope - 75' spacing
 - 30% to 45% - 50' spacing
 - > 45% slope - 25' spacing
- Construct water bars at a 30 to 45-degree angle from the fire line, directing water away from the fire or other parts of the fire line. When feasible alternate directions of outlet.
- Pull soil, litter, duff and debris removed from the fire line back onto the line, to obliterate evidence of the line as much as possible. Strive for 65% to 85% ground cover. In grassy areas replace soil and sod and scatter rocks to naturalize the line location.
- Trenching should be filled in and the line restored to blend with the undisturbed soil contours.
- Block road access to hand lines to discourage recreational use, i.e. attempt to visually obscure junction of line and road and make travel on first section very inconvenient.

Water bars: the 5 Ds:

“When locating and building water bars for all hand line and heavy equipment line, place them the right **Distance** apart, at a **Diagonal** to the fire line, so that they **Divert**, then **Discharge**, then **Dissipate** the energy of the flowing water. Be sure to make them deep enough so that they will be durable”.

***See diagram**



Fire line repair – Dozer line

- Pull berms and blend disturbed areas to fit the natural contours – i.e. fully obliterate all dozer lines. Accomplishment of this specification is with use of an excavator (Type II or Type III preferred) with a 2 to 3 cubic yard bucket with an opposable thumb (rake is preferred), with capabilities of working on steep slopes (50 to 60%) and capable of having a 30 to 35 ft. reach. Do not use dozers for rehabbing fire lines.

- Compacted soils associated with suppression staging areas, helipads, and “intensively used” areas from suppression equipment should be de-compacted with an excavator bucket/rake to a depth of 12 to 18 inches (or less in the presence of underlying rock).
- Scatter branches, wood, rock, sod or other material to naturalize the fire line and prevent soil erosion. Hand crews may be used to augment scattering of wood debris/slash to naturalize the dozer line and prevent soil erosion.
- Hand crews may be used to construct water bars on slopes greater than 50% or in areas too hazardous for safe excavator operation, or in areas where excavator use may create additional surface disturbance.
- In areas designated for road or access re-closure, re-contour road prisms to original slope contours and/or construct closure structures (berms and/or boulders) to eliminate undesired vehicle access. Re-establish original road widths to no greater than 12 feet as approved or otherwise specified.
- Place water bars on dozer lines with the following general spacing guidelines, modify as needed to minimize soil erosion.
 - 5 to 20% slope – 120 to 150’ spacing (distance apart)
 - 21 to 34% slope - 90’ spacing
 - > 35% slope - 80’ spacing.
- Construct water bars at a 30 to 45-degree angle from the fire line. Directing water away from the fire or other parts of the fire line. When feasible alternate directions of outlet (see diagram on bottom of page 3).
- Water bars should be 12” to 18” high
- Water bars should be cut into the fire line – do not simply push up loose soil.
- Provide an outlet for water on the downslope end of the water bar.
- Slash can be placed at the outlet of the water bar to disperse runoff
- Block access to dozer lines that leave from existing open roads using boulders or natural large woody material, to eliminate motorized access.
- Block road access to dozer lines to discourage vehicle and recreational use, i.e. attempt to visually obscure junction of line and road and make travel on first section very inconvenient.
- Fire lines through damp or wet areas/riparian zones need to be rehabbed by hand if possible, or by the lightest equipment possible, with the least number of stream crossings. If damage is minimal, consider the possibility of not doing additional work. Consult READ if needed for area specifics.

Fire line repair-Machine line using a Feller Buncher

- Trees cut of merchantable size along roads for suppression and/or contingency lines will be processed and decked. Non merchantable trees cut will be consolidated for disposal.
- Stumps will be cut to a height less than 1’. Stumps with a diameter less than 4” will be cut to a 6” height.
- Machine tracks will be blended to fit natural contours. Bare soil will be scattered with slash and/or seed.
- Ditches and culvert openings will be cleared of debris to ensure hydraulic capacity.
- Machine fuel breaks using a road will follow the appropriate road maintenance specifications.
- Machine fuel breaks using a dozer line will follow the appropriate dozer line repair specifications.

Roads

- Repair road damage incurred during incident suppression. Grade damaged roads.
- Pull berm on outside edge of road including side cast material back onto the grade surface. Clean drain ditches to restore rolling dip functions.
- Harden or restore existing drainage surfaces and structures (water bars, rolling grade dips, and natural drains) with dips or raised berms capable of facilitating existing traffic flows and vehicle types.
- Construct rolling grade dips or water bars as necessary to accelerate stabilization of road surfaces from suppression impacts of increased traffic levels.
- Clean culverts inlets/outlets with backhoe and/or hand crews as needed to maintain hydraulic capacity.
- In extreme dry climates or soil conditions, compaction of rolling grade dips may be difficult or impossible without the addition of water. Soil moisture conditions should be conducive toward compaction. Auxiliary

equipment such as a water truck (with spray nozzle) may be needed to facilitate re-establishment of road conditions, which were degraded by suppression activities.

- Pile, chip, or end haul slash to designated disposal areas where determined necessary along roadside areas prepared as fuel breaks. Leave firewood material (logs too big to be chipped) stacked along roadsides for future use and removal.
- Re-close roads opened for fire suppression to current hydrologically stable as designated in site specific repair standards that follow.

Maintenance Level One Roads

- Start work at back end of road and proceed toward entrance.
- Block access to dozer line to prevent future vehicle use.
- Do not construct water-bars within cultural resource boundaries if such are present.
- Ensure stream crossings are open to allow water flow down the channel. Streams should match natural upstream and downstream gradient.
- Water bars – ensure end is open and clear of obstructions.
- Water bar Angle – 30-45°. Angle so water is carried from road cut bank to road shoulder. Ensure water bars intercept ditchlines.
- Water bar Height – minimum 18" compacted berm.
- Depth – Construct water bars so the bottom of the ditch is a minimum 6" into solid soil. Do not construct any water bars completely from loose soil.
- Construct Earthen Barrier at entrance of road. Construct 4-8' feet high. Incorporate slash with the soil when available. Generate barrier from material removed from the road prism behind the berm and from surrounding bank material as available. Material excavated from the road prism behind the barrier shall not exceed 2 feet in depth.
- Construct water bars every 100 feet on steeper road segments (8% grade or steeper), 200 feet on 4 to 6% grade, and every 300' on flatter ground (0 to 4% grade).
- Where there are drainages crossing the roads such as culverts, build water bars immediately downhill from these features. Connect water bars to road ditchline when ditchlines are present.
- Apply dry seed mix to road prisms being reclosed or decommissioned to provide competition with noxious weeds.

Maintenance Level 2 and above Roads

- Remove berms that exist on outside shoulder of roads to ensure road surface drainage.
- Clean drainage ditches when such have been impacted by fire suppression activities. Restore rolling dips if present.
- Harden or restore existing drainage surfaces and structures (water bars, rolling grade dips, natural drains, ditchlines and culvert catch basins) consistent with their pre-fire suppression construction and character.
- Construction of features such as drain dips may require watering to allow soil compaction.
- Some roads may require additional work and materials to repair suppression related use. Typical examples are-- but not limited to—surface gravel replacement and asphalt patching. Resource Advisors will identify roads that need such additional repair.

General

- Chip, pile or disperse large concentrations of unburned fuels created during suppression efforts, or pile as requested by the unit.
- Identify and inventory fences, signs, and other improvements damaged by the incident.
- Remove garbage, litter, etc. (including cigarette butts) from control lines, roads, drop points, and staging areas and dispose off-site.
- Signs/flagging removal: All signs and flagging will be removed from fire lines, roads, drop points, staging areas, camps, and water chances. Leave only flagging in place which marks hazards, resource concerns, etc.

- Avoid unnecessary felling. In particular, avoid cutting trees and snags >21" dbh. Do not cut or damage any green **non-hazardous trees** anywhere within the fire area unless the tree has been specifically marked for felling by the repair team.
- Approved certified weed-free, local grass seed mix will be applied in the fall to all areas disturbed by suppression activities by the unit.
- All suppression features will be GPS'd and GIS files given to the home unit.
- Stock ponds used for drafting water will be brought back to pre-fire levels. These locations will be provided by the home unit.
- All drainages (intermittent and perennial), meadows, and springs – remove all soil, slash, and other debris that has been pushed into these areas. Streams should match natural upstream and downstream conditions.
- All water drafting sites (streams and lakes) – return area to pre-fire condition.
- Remove all supplies, equipment and trash not needed for contingency.
- Remove all shelter wrap and staples.

MUCKAMUCK MOP UP SPECIFICATIONS FOR DNR PROTECTED LANDS

Always consider over-head hazards prior to putting fire fighters in harm's way for mop up. Mitigate hazards and exposure as needed.

Achieve 100% mop-up along and inside the fire perimeter to a distance that is adequate to ensure the perimeter is secure to prevent the fire from escaping across existing containment lines.

To reduce hazards to firefighters during final mop-up, fall snags that pose "imminent" danger along all open roads within the fire perimeter.

Known spot fires outside the control lines will be 100% mopped up where appropriate to do so, a route to them will be flagged, and the perimeter of spots mapped in GIS.

Mop-up of partially burned areas further inside the lines will be determined on a case-by-case basis.

For structures and sensitive resources within the interior of the fire line, mop-up to a level to ensure that there will be no future effects from the fire.

As mop-up specifications are met on a Division, Operations will develop a plan for the resources and equipment to be left in place that may be required for future contingency actions.

Mop-up will be verified by aerial infrared equipment and/or gridded prior to fire turn back to Land Manager or Protecting Agency.

Notify Agency Representative if a cultural site is found during mop-up.

SUPPRESSION REHABILITATION STANDARDS FOR DNR PROTECTED LANDS

All Tractor and Hand Lines

- Place water bars on tractor and hand lines with the following spacing guidelines:
 - 6-9% slope - maximum of 300' apart
 - 10-15% slope - maximum of 200' apart
 - 15-25% slope - maximum of 100' apart
 - 25% to 45% slope - maximum of 50' apart
 - Greater than 45% slope - every 25-50'
- **Spacing distances above should only be used as a guide. Use judgment in locating water bars to minimize soil erosion potential.
- Pull soil, litter, duff, and debris removed from the fire line back onto the line to cover non fire perimeter hand lines.
- Flatten large berms on all fire lines.
- Leave all freshly fallen trees as they lay. Do not limb or buck.
- Fire lines through damp or wet areas/riparian zones need to be rehabbed by hand if possible, or by the lightest equipment possible, with the least number of stream crossings. If damage is minimal, consider the possibility of not doing additional work.

- Block road access to hand and dozer lines to discourage recreational use. Attempt to visually obscure junction of line and road and make travel on first section very inconvenient (i.e. it will be too much trouble to access the line to be worth it, especially for motorcycles).
- Disperse large concentrations of unburned fuels created during suppression efforts.

Tractor Lines

- **Tractor lines on slopes less than 40%:**
 - Water bars may be installed by tractor or track mounted excavator. Use of excavator is preferred where berms need to be pulled in. Pile smaller debris and slash at the outlet of water bars.
 - Use only D-6 class or smaller tractors, 4 or 6 way blade preferred
 - Install tractor or excavator water bars at a 20 to 30 degree angle to the fire line
 - Height of bars on machines constructed water bars not to exceed 24".
 - Rip areas of compacted soil.
- **Tractor lines on slopes greater than 40%**
 - Install water bars by hand or with an excavator
 - Install water bars at a 30 to 45 degree angle to the fire line.

Hand Lines

- Height of hand constructed water bars should average 12 inches. Soils in most of the burned areas are light and loose (pumice derived), making bars less than 12 inches much less effective. In heavier soils, bar heights of 8-12" are acceptable.
- For hand line rehab, construct water bars at a 45-degree angle from the line, directing water away from the fire or other parts of the fire line.

Trees and Felling Operations

- Leave all freshly fallen trees as they lay. Do not limb or buck.
- Avoid cutting trees and snags >20" dbh. Do not cut or damage any green non-hazardous trees anywhere within the fire area unless the tree has been specifically marked for felling by the rehab team. Large Trees are in short supply in the local area due to past fires.

General Rehabilitation Concerns

- Identify and inventory fences, signs, and other improvements damaged by the incident
- Repair road damage incurred during incident suppression.
- Remove garbage, litter, etc., from control lines, roads, drop points, and staging areas and dispose off-site.
- Signs/flagging removal: All signs and flagging will be removed from fire lines, roads, drop points, staging areas, camps, and water chances.

Incident Risk Assessment Worksheet					1. Incident Name/Number Muckamuck		2. Location Conconully, WA			
Identification of Hazards and Risk Assessment					3. Name and Title of Analyst Robert Schwiesow SOFR		4. Date Monday, September 13, 2021			
5. Pre-Control					6. Control or Abatement Action (Engineering, Administrative, PPE, Avoidance, Education, etc) <i>Actions</i> (double-click in cell then click alt + enter to add a line)		7. Post-Control			
8. Location	9. Hazard	10. Hazard Probability	11. Severity Code	12. RAC		13. Hazard Probability	14. Severity Code	15. RAC	16. Acceptable (Yes/No)	
On Incident	Heavy Equipment Operations	Likely B	Catastrophic I	Critical	<ul style="list-style-type: none"> ~ Ensure communications are established with operators. ~ Use hand signals if other communications are unavailable. ~ Maintain a 50'-100' exclusion area around equipment and increase it to 1 1/2 times tree height when in timber. ~ Use a spotter when backing. ~ Avoid working below heavy equipment 	Occasional C	Catastrophic I	Serious	Yes	
On Incident	Driving & Traffic	Likely B	Critical II	Serious	<ul style="list-style-type: none"> ~ Practice "Defensive Driving" techniques traveling on all roads and city streets. ~ Use spotters when backing. ~ Honk horn to alert personnel when backing. ~ Keep clutter off dash and inside cab. ~ Follow Driving LCES (Lights, Chock blocks, Emergency brake, Seat belts. ~ Always use headlights. ~ Yield to pedestrians and bicycles. ~ Observe posted speed limits. ~ Use the 3 second rule for following distance when driving. ~ Use chock blocks, turn wheels into hill. ~ Avoid distractions (eating, cell phones, radio). ~ Ensure that windshields are kept clean of dust and bugs. 	Occasional C	Critical II	Moderate	Yes	
On Incident	Unplanned Public Interaction	Likely B	Significant III	Moderate	<ul style="list-style-type: none"> ~ Be alert to non-fire personnel in areas with suppression personnel. ~ All non-fire personnel will be escorted while on fireline. ~ Post lookouts to in areas with public to avoid conflicts with mission tasks. ~ Ensure sufficient security to restrict access to exclusion area 	Rarely D	Catastrophic I	Moderate	Yes	
On Incident	Hazard Trees	Likely B	Catastrophic I	Critical	<ul style="list-style-type: none"> ~ Follow "Hazard Tree Safety" guidelines, IRPG page 22. ~ Post lookouts, or use a spotter in mop-up areas with personnel. ~ Don't park vehicles or take breaks in high concentrations of hazard trees. ~ Establish trigger points for disengagement during high wind events. ~ Remember that the hazard zone extends a minimum of 2 1/2 tree heights 	Occasional C	Catastrophic I	Serious	Yes	

Preparer's Signature





SAFETY MESSAGE

SAFETY IS OUR FIRST PRIORITY



Fire fighter safety comes first on every fire, every time

PPE **FIRE FIGHTERS CODE OF CONDUCT** **ATTITUDE** **WORK-REST**

Lookouts Communications Escape Routes Safety Zones

Make Sure LCES Is In Place

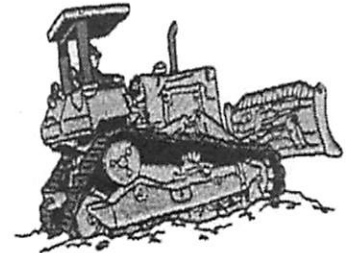
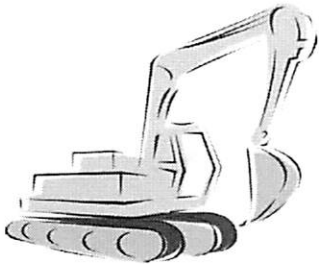
Each firefighter must know the interconnection of LCES - lookouts, communications, escape routes, and safety zones. LCES should be established before fighting the fire: Select lookouts, set up a communications plan, choose escape routes, and select safety zones.

Safety Thought

HOW'S YOUR PASSION FOR SAFETY?

Think About it!

LET'S DO SOME REHAB



WORKING AROUND HEAVY EQUIPMENT DURING REHAB

REHAB

Be aware of Heavy Equipment working on rehab of Dozer Lines, Access Roads or any other issues in your assigned work area make sure everyone is aware of the equipment and location.

MAJOR CONCERNES WORKING WITH HEAVY EQUIPMENT

- Is the operator aware your in the area
- Keep a distance of (2&1/2) times tree length away from trees that may come down during rehab
- Keep 100 feet of distance when in front of working equipment and 50 feet when behind
- Make sure to make eye contact with operator before approaching equipment
- Drive slow in rehab areas to avoid equipment working on roads
- Stay alert don't become complacent and lose focus

Safety Officers: Robert Schwiesow and Don Fortier

Muckamuck Fire

LOGISTICS INFORMATION

ICP: 0600-2200

SHOWERS: Conconully Camp: 0600 to 2200
ICP: 0600 to 2200
Showers are closed 1200-1400 at both camps.

MEALS: Conconully Camp: 0600 to 0800 and 1915 to 2115
ICP: 0600-0900 and 1800-2100

LAUNDRY: Conconully Camp: Drop off by 1300; 24 hour turnaround
All hours are subject to change at both locations.

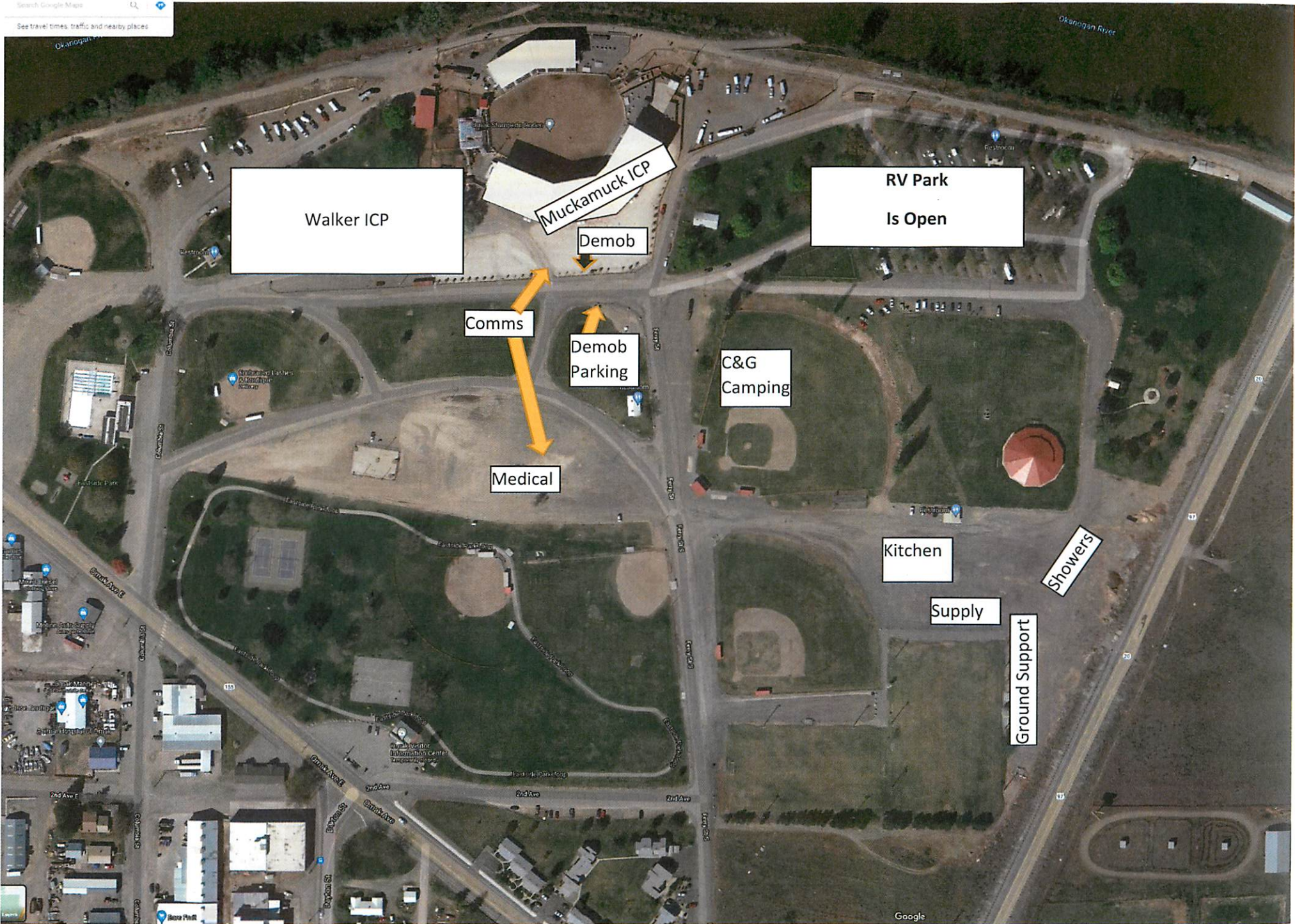
SUPPLY ORDERING: Please get those to C&G staff during briefing. Also, they can be turned in to Division Supervisors and Operations.

- There is a map for added information.
- ***Please keep vehicle speeds down through fire camp, ICP, and local roads.***
- If you need assistance after hours, please contact Mike Bucy from Logistics: 509-953-3189.
- Masks must be worn inside & outside at camp and in vehicles with others.
- All lunches will be at the reefer. Camp crew will assist you in handing out ice and lunches. Water and sports drinks will be at the reefer as well. Try and send as few people as possible to pick up supplies.
- Cell service is set up for Verizon and AT&T. T-Mobile has Wi-Fi. If your phone has Wi-fi calling enabled, it will work with any system. Each cellular system has a limited amount of users at one time. Please be patient and courteous.

Network: DNR2021Guest

Password: Emergency2@

- The RV park at each site is still active with visitors. Please be cognizant of their actions and yours.







Public Information Office

Fire Information Resources

Resource Logo	Weblink	QR Code
	<p>https://www.facebook.com/colvillenf</p>	
	<p>https://www.facebook.com/newimt3</p>	
	<p>https://inciweb.nwcg.gov/incident/7786/</p>	

Muckamuck Finance Information

WA-COF-2290

P6N75D-0621

221-KTR

NEIMT Team 2 Finance Contact Information:

Cari Richardson, FSC3, 509-936-3563

Michelle Leonard, FSC3(T), 509-640-8716

Please continue to submit all documents electronically to incident finance email:

2021.muckamuck.finance@firenet.gov

All email transmissions shall include in the subject line:

- Resource Number
- Resource Name
- Type of document being emailed (example: CTR, ST – Shift Ticket, Agreement, etc.)

*****CTRs and Shift Tickets MUST be signed by your incident supervisor*****

There will be a collection box available for shift tickets and CTRs at Conconully State Park after briefing each morning.

Starting 9/7/2021, all resources assigned to the Muckamuck incident will demob in person at Muckamuck ICP at the Omak Stampede Grounds. Please be sure you have all time submitted (CTRs and shift tickets MUST be signed by incident supervisor).

MUCKAMUCK DEMOB SCHEDULE

MONDAY, SEPTEMBER 13

O-106	MARK DEAN (REAF)	0700
O-810	ROB MULROONEY (EMTF)	0730
E-14	HI COUNTRY (T6)	0800
E-75	FIRE CONTROL (T6)	0830

WEDNESDAY, SEPTEMBER 15

E-157	METHOW RIVER WILDFIRE (T4)	0700
O-3009	MIKE QUINN (REAF)	0730

THURSDAY, SEPTEMBER 16

C-39	ASI ARDEN INC (HC2)	0700
E-77	TORCH FIRE (T6)	0730

FRIDAY, SEPTEMBER 17

C-3002	FRANCO REFORESTATION (HC2)	0700
E-75	FIRE CONTROL (T6)	0730
E-153	LIBERTY WILDFIRE (T6)	0800

SATURDAY, SEPTEMBER 18

E-150	METHOW RIVER WILDFIRE (T4)	0700
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COVID-19 Exposure Risk

COVID-19 is spread mainly from person to person. Spread occurs more commonly between people who are in close contact (within about 6 feet for a total of 15 minutes or more over a 24-hour period) with one another through respiratory droplets that come from the mouth or nose when an infected person coughs, sneezes, sings, or speaks. COVID-19 can be spread by people who are not showing symptoms or before their symptoms begin.

COVID-19 is spread in three main ways:

1. Breathing in air when close to an infected person exhaling small droplets and particles containing the virus. Spread that occurs by breathing in air that contains the virus when you are not in close contact is uncommon but occurs more often in enclosed spaces with poor ventilation (airflow) and when you are exposed for a longer period of time.
2. Having small droplets and particles containing the virus land in the eyes, nose, or mouth, especially through splashes and sprays like a cough or sneeze.
3. Touching the eyes, nose, or mouth with hands that have the virus on them. It is also uncommon for COVID-19 to spread through contact with contaminated surfaces. This means that you are unlikely to get COVID-19 by touching your eyes, nose, or mouth after touching a contaminated item

Close contact means:

- Being within 6 feet of a person who has COVID-19 for a total of 15 minutes or more over a 24-hour period, or
- Having direct exposure to respiratory secretions (e.g., being coughed or sneezed on, sharing a drinking glass or utensils, kissing), or
- Caring for a person who has COVID-19, or
- Living with a person who has COVID-19

For more information visit www.cdc.gov

WILDLAND FIRE COVID-19 SCREENING TOOL

Today or in the past 24 hours, have you had any of the following symptoms¹?

Symptom
Cough more than expected?
Shortness of breath or difficulty breathing?
Fever? Chills?
Muscle pain, outside your normal for firefighting?
Sore throat?
New loss of taste or smell?
Fatigue, outside your normal for firefighting?
Headache, outside your normal for firefighting?
Congestion or runny nose, outside your normal for firefighting?
Nausea or vomiting
Diarrhea
<i>* Take temperature with no-touch thermometer, if available *</i>

Instructions for Screening

Item	What to Do
If resource has a cough that is more than expected, shortness of breath or difficulty breathing, or any other symptoms listed.	DO NOT MOBILIZE
At Entries: Consider adequate number of personnel needed for screening. Although medical personnel are ideal, screeners do not have to be medically trained. If resource has cough, shortness of breath or difficulty breathing, or any other listed symptoms including fever (over 100.4) at entry.	DO NOT ANNOUNCE Ask individual to step aside and follow the steps below.

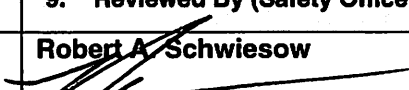
Steps to follow

Escort symptomatic individual to isolation area.
Isolation support personnel should begin documentation.
Have symptomatic individual contact Supervisor for further direction.
Notify public health officials.
Have individual transported as appropriate.
Protect and secure any collected Personal Identifiable Information (PII) or Personal Health Information (PHI).

¹ Symptoms of Coronavirus

<https://www.cdc.gov/coronavirus/2019-ncov/symptoms-testing/symptoms.html>

MEDICAL PLAN (ICS 206 WF)

1. Incident/Project Name			2. Operational Period				
Muckamuck			Date/Time 09/13/2021 0700-1900				
3. Ambulance Services							
Name	Complete Address	Phone & EMS Frequency	Advanced Life Support (ALS)				
			Yes	No			
Lifeline	Omak, WA	Command 911 (secondary)	X				
4. Air Ambulance Services							
Name	Phone	Type of Aircraft & Capability					
Life Flight: Brewster, WA (30 min)	Command 911 (secondary)	Critical Air Transport					
Airlift NW: Wenatchee, WA (45 min)	Command 911 (secondary)	Critical Air Transport					
5. Hospitals							
Name Complete Address	GPS Datum – WGS 84 Coordinate Standard Degrees Decimal Minutes DD° MM.MMM' N - Lat DD° MM.MMM' W - Long	Travel Time	Air	Gnd	Phone	Helipad Yes No	Level of Care Facility
Three Rivers Hospital 507 Hospital Way Brewster, WA	Lat: 48° 06.37 N	25 min	50 min	509-645-3300	X	Level 4 Trauma	
	Long : 119° 46.97 W						
	VHF: 155.340						
Mid Valley Hospital 810 Jasmine St Omak, WA	Lat: 48° 23.79 N	15 min	25 min	509-429-0922	X	Level 4 Trauma	
	Long : 119° 32.79 W						
	VHF: 155.340						
Central Washington Hospital 1201 Miller St Wenatchee, WA	Lat: 47° 24.43 N	30 min	150 min	509-662-1511	X	Level 2/3 Trauma	
	Long : 120° 19.27 W						
	VHF: 155.340						
Harborview Medical Center 325 9 th Ave Seattle, WA	Lat: 47° 36.10 N	60 min	320 min	206-744-4074	X	Level 1 Trauma and burn center	
	Long : 121° 19.30 W						
	VHF: 155.340						
6. Division Branch Group		Capability		Personnel			
Division C		REMS Team Wilderness Medics		Colin Stenhouse			
Division C, X, Repair		SOFR (Line)		Don Fortier			
<ul style="list-style-type: none"> • Field Incident Within an Incident will be communicated on the incident command channel. • See COVID plan for COVID related incidents. • ICP Incident Within an Incident can be communicated by going to Communications. 							
7. Prepared By (Medical Unit Leader)		8. Date/Time		9. Reviewed By (Safety Officer)		10. Date/Time	
				 Robert A. Schwiesow		09/12/21 1800	

MEDICAL PLAN (ICS 206 WF)

Controlled Unclassified Information//Basic

Medical Incident Report					
FOR A NON-EMERGENCY INCIDENT, WORK THROUGH CHAIN OF COMMAND TO REPORT AND TRANSPORT INJURED PERSONNEL AS NECESSARY.					
FOR A MEDICAL EMERGENCY: IDENTIFY ON SCENE INCIDENT COMMANDER BY NAME AND POSITION AND ANNOUNCE "MEDICAL EMERGENCY" TO INITIATE RESPONSE FROM IMT COMMUNICATIONS/DISPATCH.					
Use the following items to communicate situation to communications/dispatch.					
1. CONTACT COMMUNICATIONS / DISPATCH (Verify correct frequency prior to starting report) <i>Ex: "Communications, Div. Alpha. Stand-by for Emergency Traffic."</i>					
2. INCIDENT STATUS: Provide incident summary (including number of patients) and command structure. <i>Ex: "Communications, I have a Red priority patient, unconscious, struck by a falling tree. Requesting air ambulance to Forest Road 1 at (Lat./Long.) This will be the Trout Meadow Medical, IC is TFLD Jones. EMT Smith is providing medical care."</i>					
Severity of Emergency / Transport Priority	<input type="checkbox"/> RED / PRIORITY 1 Life or limb threatening injury or illness. Evacuation need is IMMEDIATE <i>Ex: Unconscious, difficulty breathing, bleeding severely, 2^o – 3^o burns more than 4 palm sizes, heat stroke, disoriented.</i> <input type="checkbox"/> YELLOW / PRIORITY 2 Serious Injury or illness. Evacuation may be DELAYED if necessary. <i>Ex: Significant trauma, unable to walk, 2^o – 3^o burns not more than 1-3 palm sizes.</i> <input type="checkbox"/> GREEN / PRIORITY 3 Minor Injury or illness. Non-Emergency transport <i>Ex: Sprains, strains, minor heat-related illness.</i>				
Nature of Injury or Illness & Mechanism of Injury			<i>Brief Summary of Injury or Illness (Ex: Unconscious, Struck by Falling Tree)</i>		
Transport Request			<i>Air Ambulance / Short Haul/Hoist Ground Ambulance / Other</i>		
Patient Location			<i>Descriptive Location & Lat. / Long. (WGS84)</i>		
Incident Name			<i>Geographic Name + "Medical" (Ex: Trout Meadow Medical)</i>		
On-Scene Incident Commander			<i>Name of on-scene IC of Incident within an Incident (Ex: TFLD Jones)</i>		
Patient Care			<i>Name of Care Provider (Ex: EMT Smith)</i>		
3. INITIAL PATIENT ASSESSMENT: Complete this section for each patient as applicable (start with the most severe patient)					
Patient Assessment: See IRPG page 106					
Treatment:					
4. TRANSPORT PLAN:					
Evacuation Location (if different): (Descriptive Location (drop point, intersection, etc.) or Lat. / Long.) Patient's ETA to Evacuation Location:					
Helispot / Extraction Site Size and Hazards:					
5. ADDITIONAL RESOURCES / EQUIPMENT NEEDS:					
<i>Example: Paramedic/EMT, Crews, Immobilization Devices, AED, Oxygen, Trauma Bag, IV/Fluid(s), Splints, Rope rescue, Wheeled litter, HAZMAT, Extrication</i>					
6. COMMUNICATIONS: Identify State Air/Ground EMS Frequencies and Hospital Contacts as applicable					
Function	Channel Name/Number	Receive (RX)	Tone/NAC *	Transmit (TX)	Tone/NAC *
COMMAND					
AIR-TO-GRND					
TACTICAL					
7. CONTINGENCY: Considerations: If primary options fail, what actions can be implemented in conjunction with primary evacuation method? Be thinking ahead.					
8. ADDITIONAL INFORMATION: Updates/Changes, etc.					
REMEMBER: Confirm ETA's of resources ordered. Act according to your level of training. Be Alert. Keep Calm. Think Clearly. Act Decisively.					