Date 9/6/20

OLD FAITHFUL FIRING/HOLDING PLAN

Old Faithful infrastructure will be protected with a combination of firing and hose lays. When a fire is threatening Management Action Point 1 a combination of these techniques will be used to protect the area. The plan is broken into multiple parts so the resources on scene can determine priority areas based on current and expected fire behavior. Resources for each firing zone will be responsible for the setup and operation of the hose lays. Each zone has a list of resources needed for firing and holding operations, but these resources can be shared by zones depending on fire behavior and needs in each location.

Refer to the Firing Zone Maps and Point Protection Maps on the ftp.nifc.gov website via QR Code.

1. FIRING

The Old Faithful Firing Plan is broken up into 5 Fire Zones (FZ1-FZ5).

A. Fire Zone 1 (FZ1)

i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding) and a Type 3 helicopter with a PSD (Plastic Sphere Dispensing) machine, PSD carded pilot, and PSD operator or a PSD capable drone with pilot are needed to carry out the Firing Operation for FZ1. Anchor points for FZ1 are the intersection of the water treatment road and Grand Loop Road (N 44 27.203' x W 110 48.792'). The fire line should just follow the gravel road north while firing on the eastside of the road. Then once around the water treatment plant just keep following the fence line around and tie back into the gravel road and fire off the westside of the road and tie back into the Grand Loop Road. See attached FZ1 map for specific locations via QR code.

ii. Supplies needed to carry out this operation is as follows but not limited to 6 drip torches, 15 gallons of drip torch mix, and veri pistol w/.22 cal blanks and 50 quick fire rounds or equivalent device. (i.e. Plastic Sphere Dispensing gun).

B. Fire Zone 2 (FZ2)

i. The following resources are needed but not limited to One type 2 IA or better handcrew (for firing and holding) and a Type 3 helicopter with a PSD (Plastic Sphere Dispensing) machine, PSD carded pilot, and PSD operator or a PSD capable drone with pilot are needed to carry out the Firing Operation for FZ2. The Firing Team should follow the Fire Hole River staying on the east side of the river. Good anchor points for this Firing Operation are: N 44 27.730' x W 110 49.682' (which is located just east of the Old Faithful geyser) and N 44 27.240' x 110 49.173' (which is located where the Fire Hole River crosses Grand Loop Road). See attached FZ2 map for specific locations via QR code. Areal ignitions will be utilized to help gain depth interior of the FZ2.

ii. Supplies needed to carry out this operation are as follows but not limited to 6 drip torches, 15 gallons of drip torch mix, and veri pistol w/.22 cal blanks and 50 quick fire rounds or equivalent device. (i.e. Plastic Sphere Dispensing gun).

C. Fire Zone 3 (FZ3)

i. The following resources are needed but not limited to one type 2 IA handcrew or better (for firing and holding) and a Type 3 helicopter with a PSD (Plastic Sphere Dispensing) machine, PSD carded pilot, and PSD operator or a PSD capable drone with pilot are needed to carry out the Firing Operation for FZ3. The east anchor point for FZ3 is on the south side of the Grand Loop Road and on the west side of the Fire Hole River (N 44 27.230' x W 110 49.172'). And the west anchor point is at the intersection where the Howard Eaton trailhead ties into the Grand Loop Road (N 44 27.243' x W 110 49.778'). The firing line is the south side of the Grand Loop Road and following the two-track up towards the radio tower. See attached FZ3 map for specific locations via QR code.

ii. Supplies needed to carry out this operation is as follows but not limited to 6 drip torches, 15 gallons of drip torch mix, and veri pistol w/.22 cal blanks and 50 quick fire rounds or equivalent device. (i.e. Plastic Sphere Dispensing gun).

D. Fire Zone 4 (FZ4)

i. The following resources are needed but not limited to one Type 2 IA handcrew or better (for firing and holding) and a Type 3 helicopter with a PSD (Plastic Sphere Dispensing) machine, PSD carded pilot, and PSD operator or a PSD capable drone with pilot are needed to carry out the Firing Operation for FZ4. The east anchor point for FZ4 is from the Howard Eaton Trailhead and Grand

Loop Road on the Eastside of the intersection (N 44 27.243' x W 110 49.778'). The west anchor point for FZ4 is where the two-track road that travels north from the radio tower and ties into the powerline easement (N 44 27.238' x W 110 50.012'). The firing line is following the two-track from the Howard Eaton Trailhead and Grand Loop Road intersection up to the radio tower and back around to where the powerlines intersect the two-track coming back into the Government housing area. Firing operations should occur on the southside of the two-track. See attached FZ4 map for specific locations via QR code.

ii. Supplies needed to carry out this operation is as follows but not limited to 6 drip torches, 15 gallons of drip torch mix, and veri pistol w/.22 cal blanks and 50 quick fire rounds or equivalent device. (i.e. Plastic Sphere Dispensing gun).

E. Fire Zone 5 (FZ5)

i. The following resources are needed but not limited to one type 2 IA handcrew or better (for firing and holding) and a Type 3 helicopter with a PSD (Plastic Sphere Dispensing) machine, PSD carded pilot, and PSD operator or a PSD capable drone with pilot are needed to carry out the Firing Operation for FZ5. The east anchor point for FZ5 is where the two-track from the radio tower intersects with the powerline easement (N 44 27.238' x W 110 50.012'). The west anchor point for FZ5 is at the end of the sewer treatment plant on the far westside of the Government housing area (N 44 27.453 x W110 50.890'). The firing line should follow the powerline easement which parallels the blacktop road. Roughly 0.13 miles from the sewer treatment plant the powerline crosses the blacktop road. Firing operations should utilize the blacktop road to continuing firing. Once at the sewer treatment plant the firing operations should follow the southside of the treatment plant along the fence line. See attached FZ5 map for specific locations via QR code.

ii. Supplies needed to carry out this operation is as follows but not limited to 6 drip torches, 15 gallons of drip torch mix, and veri pistol w/.22 cal blanks and 50 quick fire rounds or equivalent device. (i.e. Plastic Sphere Dispensing gun).

2. HOLDING

The Old Faithful Holding Plan is broken up into the same Fire Zones (FZ) as the firing plan.

A. Fire Zone 1 (FZ1)

i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding), and 1 type 6 or better engine. Those

resources are responsible for setting up and staffing the hose lay and pump operations for FZ1.

B. Fire Zone 2 (FZ2)

   i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding), two type 4 or better engines, and one type 1 structure engine. Those resources are responsible for setting up and staffing the hose lay and pump operations for FZ2.

C. Fire Zone (FZ3)

   i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding), and two type 6 or better engines. Those resources are responsible for setting up and staffing the hose lay and pump operations for FZ3.

D. Fire Zone 4 (FZ4)

   i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding), and two type 6 or better engines. Those resources are responsible for setting up and staffing the hose lay and pump operations for FZ4.

E. Fire Zone 5 (FZ5)

   i. The following resources are needed but not limited to one type 2 IA or better handcrew (for firing and holding), and two type 6 or better engines and 2 type 1 structure engines. Those resources are responsible for setting up and staffing the hose lay and pump operations for FZ5.

3. HOSE LAY

Multiple hose lays will be used to assist in holding and protecting structures. There will be five hose lays. Each hose lay will have two gated wye's every 100' with a sprinkler and 100' of 1" hose with a nozzle and each hose junction.

A. Hose Lay 1- Mark III pump set up on the Firehole River (N 44 27.690' x W 110 49.497') with hose running approximately 600' behind the cabins. Supplies will be delivered and stored at drop point 1.

Hose Lay 1			Drop Point 1 Total Needs		
# Needed	Supply Need		36	1.5" 100' Hose	
6	1.5" 100' Hose		36	1" 100' Hose	
6	1" 100' Hose		36	1" Nozzle	
6	1" Nozzle		36	Sprinklers	
6	Sprinklers		72	1.5" Gated Wye	
12	1.5" Gated Wye		72	1.5"-1" Reducer	
12	1.5"-1" Reducer		42	1"-3/4" Reducer	
12	1"-3/4" Reducer		3	2.5" Gate Valve	
2	Mark III Pump Kit		4	Mark III Pump Kit	

B. Hose Lay 2- Three-mark III pumps set along the Firehole River (N 44 27.688' x W 110 49.492', N 44 27.575' x W 110 49.337', N 44 27.483 x W 110 49.320). The end of the hose lay will be tied into a hydrant (N 44 27.508 x W 110 49.530'). Supplies will be delivered and stored at drop point 1.

Hose Lay 2		
# Needed	Supply Need	
30	1.5" 100' Hose	
30	1" 100' Hose	
30	1" Nozzle	
30	Sprinklers	
60	1.5" Gated Wye	
60	1.5"-1" Reducer	
30	1"-3/4" Reducer	
1	2.5" Gate Valve	
4	Mark III Pump Kit	

C. Hose Lay 3- The hose lay runs from the Howard Eaton Trailhead on the Grand Loop Rd. (N 44 27.247' x W 110 49.777') to the West under the powerline. It will be supplied by 3-mark III pumps and two water hydrants. The first mark III pump (N 44 27.247' x W 110 49.777') is supplied by a 3000-gallon fold-a-tank. The second mark III pump will be located near a storage shed just below the powerline on the west side of the road to the communication tower (N 44 27.252' x W 110 50.047') and will have a 3000-gallon fold-a-tank supplying water. The third mark III pump will be along the powerline (N 44 27.238' x W 110 50.255') and supplied by a 3000-gallon fold-a-tank. The fourth and fifth water sources will be at hydrants (N 44 27.232' x W 110 50.392' and N 44 27.225' x W 110 50.517). The hose lay is approximately 3600' long. The hose lay will end where the powerline crosses the road. Supplies will be delivered and stored at drop point 2. Yellowstone National Park has said the powerline will be charged throughout any fire activity, so this hose lay is crucial for reducing fire behavior.

Hose Lay 3			Drop Point 2 Total Needs		
# Needed	Supply Need		# Needed	Supply Need	
40	1.5" 100' Hose		59	1.5" 100' Hose	
40	1" 100' Hose		47	1" 100' Hose	
40	1" Nozzle		47	1" Nozzle	
40	Sprinklers		47	Sprinklers	
80	1.5" Gated Wye		94	1.5" Gated Wye	
80	1.5"-1" Reducer		94	1.5"-1" Reducer	
40	1"-3/4" Reducer		47	1"-3/4" Reducer	
2	2.5" Gate Valve		5	2.5" Gate Valve	
4	Mark III Pump Kit		8	Mark III Pump Kit	
4	3000 Gallon Fold-a-Tank		4	3000 Gallon Fold-a-Tank	

D. Hose Lay 4- Hose lay four begins at the storage cabin below the powerline and to the west of the road to the communication tower (N 44 27.252' x W 110 50.047'). The first section is approximately 1100' and will fill a 3000-gallon fold-a-tank near the communication tower storage shed (N 44 27.112' x W 110 49.9915'). A second mark III pump will be supplied by the upper fold-a-tank and will surround the storage shed and communication tower with sprinklers spanning approximately 600'. Supplies will be delivered and stored at drop point 2.

Hose Lay 4		
# Needed	Supply Need	
19	1.5" 100' Hose	
7	1" 100' Hose	
7	1" Nozzle	
7	Sprinklers	
14	1.5" Gated Wye	
14	1.5"-1" Reducer	
7	1"-3/4" Reducer	
3	Mark III Pump Kit	
4	3000 Gallon Fold-a-Tank	

E. Hose Lay 5- Hose lay five will by hydrant fed and will be on the green edge of the septic system building on the far west side of the employee area (N 44 27.280' x W 110 50.763'). The hose lay is approximately 700'. Supplies for the hose lay will be delivered and stored at drop point 3.

Hose Lay 5		Drop Point 3 Total Needs	
# Needed	Supply Need	# Needed	Supply Need
8	1.5" 100' Hose	8	1.5" 100' Hose
8	1" 100' Hose	8	1" 100' Hose
8	1" Nozzle	8	1" Nozzle
8	Sprinklers	8	Sprinklers
16	1.5" Gated Wye	16	1.5" Gated Wye
16	1.5"-1" Reducer	16	1.5"-1" Reducer
8	1"-3/4" Reducer	8	1"-3/4" Reducer
1	2.5" Gate Valve	1	2.5" Gate Valve